INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 23, 2008

RE: Knauf Insulation GmbH / 145-26896-00001

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

Notice of Decision: Approval - Effective Immediately

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

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

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

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

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

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

Enclosures
FNPER-MOD.dot 12/3/07

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Indianapolis, Indiana 46204-2251
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Toll Free (800) 451-6027
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Mr. Stephen R. Aldridge
Manager, Corp. Environmental Health and Safety
Knauf Insulation GmbH
One Knauf Drive
Shelbyville, IN 46176

December 23, 2008

Re: 145-26896-00001
Minor Source Modification to:
Part 70 permit No.: T 145-6038-00001

Dear Mr. Aldridge:

Knauf Insulation GmbH was issued Part 70 operating permit T 145-6038-00001 on September 14, 1999 for a stationary wool fiberglass insulation manufacturing source. An application to modify the source was received on August 21, 2008. Pursuant to 326 IAC 2-7-10.5 the following emission units are approved for construction at the source:

(1) One (1) pipe insulation production line, identified as line 3010, including the following emission units:

(a) One (1) tack adhesive application process, to be constructed in 2009, identified as emission unit 17-1, exhausting to stack no. 17-1.

(b) One (1) curing oven, to be constructed in 2009, identified as emission unit 1702, exhausting to stack no. 17-2.

(c) One (1) trimming operation, to be constructed in 2009, using a dust collector identified as 15-1 (with a back-up dust collector identified as 15-2), exhausting to stack no. 15-1 or 15-2, respectively.

The following construction conditions are applicable to the proposed project:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

3. Effective Date of the Permit
Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(i), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

The source may begin construction when the minor source modification has been issued. Operating conditions shall be incorporated into the Part 70 operating permit as a Significant permit modification in accordance with 326 IAC 2-7-10.5(l)(2) and 326 IAC 2-7-12. Operation is not approved until the significant permit modification has been issued.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Madhurima Moulik of my staff at the Indiana Department Environmental Management, Office of Air Quality, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-0868 or toll free at 1-800-451-6027 extension 3-0868.

Sincerely,

Chrystal Wagner, Section Chief
Permits Branch
Office of Air Quality

Attachments
mdm
cc: File – Shelby County
Shelby Health Department
U.S. EPA, Region V
Air Compliance Inspector – David Harrison
Compliance Data Section
Permits Administration and Development

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PART 70 OPERATING PERMIT
OFFICE OF AIR QUALITY

Knauf Insulation GmbH
400 East Walker Street
Shelbyville, Indiana 46176

(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.

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 and 326 IAC 2-1-3.2 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.

Minor Source Modification No.: 145-26896-00001	
Issued by: Chrystal Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 23,2008

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Certification

Emergency/Deviation Occurrence Report

Annual Molten Glass Production Reports

Quarterly Deviation and Compliance Monitoring Report

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary wool fiberglass insulation manufacturer.

Source Address:	400 East Walker Street, Shelbyville, IN 46176
Mailing Address:	400 East Walker Street, Shelbyville, IN 46176
SIC Code:	3296
County Location:	Shelby
County Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD Rules Major Source under Section 112 of the CAA 1 of 28 Listed Source Categories Clean Unit Source

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

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

SECTION D.1

(a) 602B FURNACE – Stack 6-30
One (1) electric glass melting furnace, identified as Unit ID # 602B FURNACE,
- installed in 2007,
- operating at a nominal processing capacity of 300 tons of glass per day,
- operating with two (2) emergency use natural gas direct fired burners each with a rated heat input capacity of 15 MMBtu per hour (Unit ID # 602B FURNACE),
- utilizing one (1) baghouse for particulate control (Unit ID # 602B FURNACE), and
- exhausting through one (1) stack ID # 6-30.
- 602B FURNACE is common to MFG 602 and 602 LF MFG.
- 602B FURNACE is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(b) MFG 602 – Stack 2-2
One (1) rotary spin wool fiberglass manufacturing line consisting of forming, curing, and cooling sections, identified as Unit ID # MFG 602,
- installed in 1983,
- operating at a nominal processing capacity of 130 tons of glass per day,
- utilizing one (1) wet electrostatic precipitator for particulate control, one (1) natural gas fired RTO with a rated maximum capacity of 2.1 MMBtu per hour, and
- exhausting through one (1) stack ID #2-2.
- MFG 602 produces a bonded wool fiberglass insulation building product. MFG 602 an existing affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40CFR 63, Subpart NNN.

(c) 602 LF MFG – Stack 6-22
One (1) rotary spin wool fiberglass manufacturing line consisting of a forming section, identified as Unit ID # 602 LF MFG,
- installed in 2007,
- operating at a nominal processing capacity of 170 tons of glass per day,
- operating with one (1) natural gas direct fired fiberizing section with a rated heat input capacity of 60 MMBtu per hour (Unit ID # 602 LF MFG),
- utilizing one (1) wet electrostatic precipitator for particulate control (Unit ID # 602 LF MFG), and
- exhausting through one (1) stack ID # 6-22.
- 602 LF MFG is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).
- 602 LF MFG produces an unbonded wool fiberglass insulation product.

(d) 602 LF SEPARATOR
Two (2) fiberglass manufacturing separator lines, identified as Unit ID # 602 LF SEPARATOR 1 and 602 LF SEPARATOR 2,
- installed in 2007,
- operating at a nominal processing capacity of 170 tons of glass per day,
- utilizing two (2) baghouses for particulate control (Unit ID # 602 LF SEPARATOR A & B), and
- exhausting internally through two (2) vents ID# 6-31 & 6-32.

(e) 602 LF PACKAGING
Two (2) fiberglass manufacturing packaging lines, identified as Unit ID # 602 LF PACKAGING 1&2 and 602 LF PACKAGING 3&4,
- installed in 2007,
- operating at a nominal processing capacity of 170 tons of glass per day,
- utilizing two (2) baghouses for particulate control (Unit ID # 602 LF SEPARATOR A & B), and
- exhausting to 602 LF SEPARATOR.

SECTION D.2

(f) Ten (10) rotary spin wool fiberglass pipe insulation production lines consisting of ten (10) natural gas fired curing ovens, identified as Unit ID # LINE 3001 – 3010, respectively,
- each with a maximum heat input capacity of 5 MMBtu per hour, each exhausting through two (2) stacks ID # 7-2 and 7-3, 8-2 and 8-3, 9-2 and 9-3, 10-2 and 10-3, 11-2 and 11-3, 12-2 and 12-3, 13-2 and 13-3, 14-2 and 14-3, 16-2 and 16-3, and 17-2 and 17-3, respectively,
- each with a trimming process utilizing a dust collector for particulate control, each exhausting through stack ID # 7-4, 8-4, 9-4, 10-4, 11-4, 12-4, 13-4, 14-4, and 16-4, respectively,
- LINE 3001 – 3005 and 3008 each constructed in April 1996, LINE 3006-3007 each constructed in December 1994, LINE 3009 constructed October 1997, and LINE 3010 permitted in 2008.
- LINE 3001 – 3010 are affected facilities subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

SECTION D.3

(g) Raw Material and Handling Systems

(1) The nominal capacities of these units have been classified as confidential information.

Raw Material and Handling Systems				
Emission Unit	**Emission Unit ID**	**Installation / Modification Date**	**Internal Vent ID**	**Control Device ***
Silica Sand Storage Silos	Silo61	2006	6-1 a & b	Baghouse SILO061BIN16, SILO061BIN2
Nepheline Syenite Storage Silos	Silo62	2006	6-2	Baghouse SILO062BIN15
Soda Ash Storage Silos	Silo63	2006	6-3 a & b	Baghouse SILO063BIN4, SILO063BIN5
Limestone Storage Silo	Silo64	2006	6-4	Baghouse SILO064BIN9
Dolomite Storage Silo	Silo65	2006	6-5	Baghouse SILO065BIN3
Minor Ingredient Storage Silo	Silo66	2006	6-6	Baghouse SILO066BIN11
Spare Storage Silo	Silo67	2006	6-7	Baghouse SILO067BIN14
602 Furnace Day Bins	DB602	2006	6-8 a & b	Baghouse DB602A, DB602B
Borax Storage Silo	Silo69	2006	6-9 a & b	Baghouse SILO069BIN8, SILO069BIN10
CNSMR Cullet Storage Silo	Silo612	2006	6-12 a & b	Baghouse SILO612BIN1
Knauf Cullet Storage Silo	Silo613	2006	6-13 a & b	Baghouse SILO613BIN13, SILO613BIN7
Gallery Conveyor Systems	GLCONVEY / BUCKETELV	2006	6-15 a, b, c, & d	Baghouse GLCONVEY / BUCKETELV A, GLCONVEY / BUCKETELV B, GLCONVEY 611A, GLCONVEY611B, GLCONVEY602A, GLCONVEY602B
Raw Material Unloader	RMUNLDR616	2006	6-16 a & b	Baghouse RMUNLDR616A, RMUNLDR616B
Gathering Belt/Weigh Scales	GTHRNGBLT617	2006	6-17	Baghouse GTHRNGBL617
Batch Mixer/Check Scale	BMXR618	2006	6-18 a & b	Baghouse BMXR618

Raw Material and Handling Systems				
Emission Unit	**Emission Unit ID**	**Installation / Modification Date**	**Internal Vent ID**	**Control Device ***
611 Furnace Day Bins	DB619	2006	6-19	Baghouse DB611A, DB611B
Knauf Cullet Handling	KCHNDLNG620	2006	6-20 a & b	Baghouse KCHNDLNG620A, KCHNDLNG620B
Resin Unloading	RUNLDNG626	2006	6-26	–
Binder Storage	BSTG627	2006	6-27	–
Binder Mixing	BMXG	2006	6-28	–

* Controlled emissions exhaust inside the building.

(2) Thirty eight (38) binder mixing and miscellaneous storage tanks, ranging from 50 gallons to 15,000 gallons.

Volatile organic compound (VOC) emissions from these storage tanks vent inside the binder building and are then ducted to the inlet of the wet electrostatic precipitator (ESP) (Stack 6-22).

SECTION D.4

(h) FURNACE 611 – Stack 6-21
One (1) electrically heated glass melting furnace, identified as FURN 611, installed in 2007.

– The nominal capacity of FURN 611 is 300 tons of molten glass per day.
– The particulate emissions from FURN 611 are controlled by a baghouse, identified as FURN 611 Baghouse.
– Controlled emissions from FURN 611 exhaust through a stack identified as Stack 6-21.
– FURNACE 611 is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

This furnace is common to:
(1) 611 FORMING,
(2) 612 FORMING,
(3) 613 FORMING,
(4) 613 CURING/COOLING,
(5) 614 FORMING, and
(6) 614 CURING/COOLING.

SECTION D.5

(i) Stack 6-22

(1) 611 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 611 FORMING, utilizing natural gas for fiberization. Products formed in 611 FORMING are ready for packaging.
- The nominal capacity of 611 FORMING has been classified as confidential information.
- The particulate emissions from 611 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
- Controlled emissions from 611 FORMING exhaust through a stack identified as Stack 6-22.
- 611 FORMING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(2) 612 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 612 FORMING, utilizing natural gas for fiberization. Products formed in 612 FORMING are ready for packaging.
- The nominal capacity of 612 FORMING has been classified as confidential information.
- The particulate emissions from 612 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
- Controlled emissions from 612 FORMING exhaust through a stack identified as Stack 6-22.
- 612 FORMING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(3) 613 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 613 FORMING, utilizing natural gas for fiberization. Products formed in 613 FORMING are routed to the 613 CURING/COOLING.
- The nominal capacity of 613 FORMING has been classified as confidential information.
- The particulate emissions from 613 FORMING are controlled by a wet electrostatic precipitator (ESP) This wet ESP is common to all the forming sections.
- Controlled emissions from 613 FORMING exhaust through a stack identified as Stack 6-22.
- 613 FORMING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).
- 613 FORMING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(4) 614 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 614 FORMING, utilizing natural gas for fiberization. Products formed in 614 FORMING are routed to the 614 CURING/COOLING.

- The nominal capacity of 614 FORMING has been classified as confidential information.
- The particulate emissions from 614 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
- Controlled emissions from 614 FORMING exhaust through a stack identified as Stack 6-22.
- 614 FORMING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).
- 614 FORMING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(j) Stack 6-29

(1) 613 CURING/COOLING
One (1) rotary spin wool fiberglass curing/cooling section, identified as 613 CURING/COOLING, consisting of natural gas fired curing oven(s), duct burners, and edge coat dryer burner.

- The nominal capacity of 613 CURING/COOLING has been classified as confidential information.
- The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 613 CURING/COOLING are controlled by two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour.
- The NOx emissions from each curing oven, duct burner and edge coat dryer of 613 CURING/COOLING are reduced by low NOx burners.
- Controlled emissions from 613 CURING/COOLING exhaust through a stack identified as Stack 6-29.
- 613 CURING/COOLING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).
- 613 CURING/COOLING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(2) 614 CURING/COOLING
One (1) rotary spin wool fiberglass curing/cooling section, identified as 614 CURING/COOLING, consisting of natural gas fired curing oven(s) and duct burners.

- The nominal capacity of 614 CURING/COOLING has been classified as confidential information.
- The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 614 CURING/COOLING are controlled by the same two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour, that control VOC emissions from 613 CURING/COOLING.
- The NOx emissions from each curing oven and duct burner of 614 CURING/COOLING are reduced by low NOx burners.
- Controlled emissions from 614 CURING/COOLING exhaust through a stack identified as Stack 6-29.
- 614 CURING/COOLING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

– 614 CURING/COOLING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

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

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

(a) Other categories with emissions below insignificant thresholds:

(1) Fiberglass trimming with dust collector with PM emission less than twenty-five (25) pounds per day

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

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T 145-6038-00001, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of the Part 70 Operating Permit, 145-6038-00001, for existing emission units that are not being modified or upon startup for the new and modified emission units, including the following information on each facility:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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) Operations may continue during an emergency only if the following conditions are met:

(1) 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.

(2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:

(A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and

(B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

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

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

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

Request for renewal shall be submitted to:

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

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

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

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

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

B.18 Permit Amendment or Modification [326 IAC 2-7-11] [326 IAC 2-7-12] [40 CFR 72]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

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

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

(3) Any change in emissions; and

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

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

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

(d) Alternative Operating Scenarios [326 IAC 2-7-20(c)]
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]

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C **SOURCE OPERATION CONDITIONS**

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

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

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

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

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

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

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

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

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

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

(a) 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 2-7-5(1)] [326 IAC 2-7-6(1)]

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

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

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

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

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days after issuance of the Part 70 Operating Permit, 145-6038-00001, for existing emission units that are not being modified or upon startup for the new and modified emission units. 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 units, compliance monitoring for new emission units or emission units added through a source modification shall be implemented when operation begins.

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

(a) In the event that a breakdown of the monitoring equipment occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem. To the extent practicable, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less frequent than required in Section D of this permit until such time as the monitoring equipment is back in operation. In the case of continuous monitoring, supplemental or intermittent monitoring of the parameter should be implemented at intervals no less than one (1) hour until such time as the continuous monitor is back in operation.

(b) The Permittee shall install, calibrate, quality assure, maintain, and operate all necessary monitors and related equipment. In addition, prompt corrective action shall be initiated whenever indicated.

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

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

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

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall 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.14 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

(a) The Permittee prepared and submitted written emergency reduction plans (ERPs) consistent with safe operating procedures on March 19, 1999.

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

C.15 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68.215]

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

C.16 Response to Excursions or Exceedances [326 IAC 1-6] [326 IAC 2-7-5] [326 IAC 2-7-6]

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

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

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

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

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

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

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

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

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

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

(a) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2008 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.19 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

(a) Records of 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 reasonable possibility that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(ll)) at an existing emissions unit, other than projects at a Clean Unit, 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)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

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

(A) A description of the project.

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

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

(i) Baseline actual emissions;

(ii) Projected actual emissions;

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

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

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

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

C.20 General Reporting Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2] [326 IAC 2-3]

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

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

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

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

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

(e) Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

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

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

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

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

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

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

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

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

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

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

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

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

Retirement of Existing Operations

C.22 Retirement of Existing Operations [326 IAC 2-3]

Pursuant to 326 IAC 2-3, the Permittee shall permanently discontinue the operation of the following operations within ninety (90) days of startup of the new emission units:

(a) MFG 601 – Stack 1-1 and Stack 1-2

(1) One (1) electrically heated glass melting furnace, identified as Unit ID # FURN 601, installed in 1978, exhausting through ID # 1-1.

(2) One (1) fiberglass manufacturing line consisting of forming, curing, and cooling sections, identified as Unit ID # MFG 601, installed in 1978, operating at a rated heat input capacity of 30 million (MM) British thermal units (Btu) per hour, combusting natural gas, utilizing one (1) wet electrostatic precipitator for particulate control, and two (2) natural gas fired thermal oxidizers with a rated combined heat input capacity of 36 MMBtu per hour, exhausting through one (1) stack ID #1-2.

(b) MFG 603 – Stack 3-1 and Stack 3-2

(1) One (1) electrically heated glass melting furnace, identified as Unit ID # FURN 603, installed in 1978, exhausting through one (1) stack ID #3-1.

(2) One (1) fiberglass manufacturing line consisting of forming section, identified as Unit ID # MFG 603, installed in 1978, operating at a rated heat input capacity of 15 million (MM) British thermal units (Btu) per hour, combusting natural gas, utilizing two (2) wet scrubbers for particulate control, exhausting through one (1) stack ID #-3-2.

(c) MFG 605 – Stack 5-1, Stack 5-2, Stack 5-3, Stack 5-4, and Stack 5-5

(1) One (1) natural gas-fired glass melting furnace, identified as Unit ID # FURN 605, installed in 1983, operating at a rated heat input capacity of 10 MMBtu per hour, utilizing a baghouse for particulate control and exhausting through one (1) stack ID #5-1.

(2) One (1) fiberglass manufacturing line consisting of forming, curing, and cooling sections, identified as Unit ID # MFG 605, installed in 1983, operating at a rated heat input capacity of 20 MMBtu per hour, combusting natural gas, exhausting through four (4) stacks ID #5-2, 5-3, 5-4, and 5-5.

(d) Eight (8) storage silos, identified as Unit ID # SILO 01, SILO 02, SILO 03, SILO 04, SILO 05, SILO 06, SILO 07, and SILO 08, used to store limestone, dolomite, feldspar, borax, sand, soda ash, post consumer cullet, and a spare, respectively, each utilizing a baghouse for particulate control, each exhausting through stacks S/V ID #0-1 through 0-8, respectively.

(e) One (1) batch raw material receiving bin, identified as Unit ID # RMH 02, three (3) day bins, identified as Unit ID # DB 01, DB 03, and DB 05, used to store raw materials for FURN 601, FURN 603, and FURN 605, respectively, and one (1) intermediate batch bin, identified as Unit ID #DB 02A, each utilizing a baghouse for particulate control, exhausting through stacks S/V ID # 0-10 through 0-15.

(f) FURN 602A – Stack 2-1
One (1) gas-fired (with electric boost) glass melting furnace, identified as Unit ID # FURN 602A, installed in 1983, operating at a rated heat input capacity of 30 MMBtu per hour, combusting natural gas, utilizing one (1) dry electrostatic precipitator for particulate control, exhausting through one (1) stack ID #2-1.

SECTION D.1 FACILITY OPERATION CONDITIONS

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

(a) 602B FURNACE – Stack 6-30
One (1) electric glass melting furnace, identified as Unit ID # 602B FURNACE,
- installed in 2007,
- operating at a nominal processing capacity of 300 tons of glass per day,
- operating with two (2) emergency use natural gas direct fired burners each with a rated heat input capacity of 15 MMBtu per hour (Unit ID # 602B FURNACE),
- utilizing one (1) baghouse for particulate control (Unit ID # 602B FURNACE), and
- exhausting through one (1) stack ID # 6-30.
- 602B FURNACE is common to MFG 602 and 602 LF MFG.

(b) MFG 602 – Stack 2-2
One (1) rotary spin wool fiberglass manufacturing line consisting of forming, curing, and cooling sections, identified as Unit ID # MFG 602,

- installed in 1983,
- operating at a nominal processing capacity of 130 tons of glass per day,
- utilizing one (1) wet electrostatic precipitator for particulate control, and one (1) natural gas fired RTO with a rated maximum capacity of 2.1 MMBtu per hour, and
- exhausting through one (1) stack ID #2-2.
- MFG 602 produces a bonded wool fiberglass insulation building product. MFG 602 an existing affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40CFR 63, Subpart NNN.
-

(c) 602 LF MFG – Stack 6-22
One (1) rotary spin wool fiberglass manufacturing line consisting of a forming section, identified as Unit ID # 602 LF MFG,
- installed in 2007,
- operating at a nominal processing capacity of 170 tons of glass per day,
- operating with one (1) natural gas direct fired fiberizing section with a rated heat input capacity of 60 MMBtu per hour (Unit ID # 602 LF MFG),
- utilizing one (1) wet electrostatic precipitator for particulate control (Unit ID # 602 LF MFG), and
- exhausting through one (1) stack ID # 6-22.
- 602 LF MFG produces an unbonded wool fiberglass insulation product.

(d) 602 LF SEPARATOR
Two (2) fiberglass manufacturing separator lines, identified as Unit ID # 602 LF SEPARATOR 1 and 602 LF SEPARATOR 2,
- installed in 2007,
- operating at a nominal processing capacity of 170 tons of glass per day,
- utilizing two (2) baghouses for particulate control (Unit ID # 602 LF SEPARATOR A & B), and
- exhausting internally through two (2) vents ID# 6-31 & 6-32.

(e) 602 LF PACKAGING
Two (2) fiberglass manufacturing packaging lines, identified as Unit ID # 602 LF PACKAGING 1&2 and 602 LF PACKAGING 3&4,
- installed in 2007,
- operating at a nominal processing capacity of 170 tons of glass per day,
- utilizing two (2) baghouses for particulate control (Unit ID # 602 LF SEPARATOR A & B), and
- exhausting to 602 LF SEPARATOR.

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

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

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

(a) In order to render the 326 IAC 2-2 (PSD) requirements not applicable, the following conditions shall apply to the loose fill manufacturing line (602 LF MFG):

(1) The NO_X emissions shall not exceed 9.13 pounds per hour.

(2) The SO_2 emissions shall not exceed 0.04 pounds per hour.

(3) The VOC emissions shall not exceed 0.33 pounds per hour.

(4) The molten glass to be formed by 602 LF MFG shall not exceed 62,050 tons of molten glass per 12-consecutive month period, with compliance determined at the end of each month.

Therefore, the requirements of 326 IAC 2-2 shall not apply to 602 LF MFG for NO_X, SO_2, and VOC.

(b) In order to render the 326 IAC 2-2 (PSD) requirements not applicable, the following conditions shall apply to the electric glass melting furnace (602B FURNACE):

(1) The NO_X emissions shall not exceed 1.50 pounds per hour.

(2) The SO_2 emissions shall not exceed 0.02 pounds per hour.

(3) The VOC emissions shall not exceed 0.17 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 shall not apply to 602B FURNACE for NO_X, SO_2, and VOC.

D.1.2 Emission Offset Minor Limits [326 IAC 2-3]

(a) In order to render the 326 IAC 2-3 (Emission Offset) requirements not applicable, the following conditions shall apply to the loose fill manufacturing line (602 LF MFG):

(1) The NO_X emissions shall not exceed 9.13 pounds per hour.

(2) The VOC emissions shall not exceed 0.33 pounds per hour.

(3) The molten glass to be formed by 602 LF MFG shall not exceed 62,050 tons of molten glass per 12-consecutive month period, with compliance determined at the end of each month.

Therefore, the requirements of 326 IAC 2-3 shall not apply to 602 LF MFG for NO_X and VOC.

(b) In order to render the 326 IAC 2-3 (Emission Offset) requirements not applicable, the following conditions shall apply to the electric glass melting furnace (602B FURNACE):

(1) The NO_X emissions shall not exceed 1.50 pounds per hour.

(2) The VOC emissions shall not exceed 0.17 pounds per hour.

Therefore, the requirements of 326 IAC 2-3 shall not apply to 602B FURNACE for NO_X and VOC.

D.1.3 Particulate Matter (PM / PM_{10}) PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Permittee shall comply with the following requirements for particulate matter (PM / PM_{10}):

(a) 602B FURNACE – Stack 6-30:

(1) A baghouse shall be installed to control the PM/PM_{10} emissions from the glass melting furnace, 602B FURNACE, and shall operate at a minimum control efficiency of ninety-nine percent (99%).

(2) The PM/PM_{10} emissions after the baghouse from the 602B FURNACE shall not exceed:

(A) 0.45 pound per ton of glass pulled;

(B) 5.63 pounds per hour based on a 3-hour rolling average.

(b) 602 LF MFG – Stack 6-22:

(1) A wet electrostatic precipitator (WESP) shall be installed to control the PM/PM_{10} emissions from the loose fill manufacturing process, 602 LF MFG, and shall operate at a minimum control efficiency of sixty percent (60%).

(2) The PM/PM_{10} emissions after the WESP from operation of the 602 LF MFG shall not exceed:

(A) 2.8 pounds per ton of glass pulled;

(B) 19.94 pounds per hour based on a 3-hour rolling average.

(c) 602 LF SEPARATOR and 602 LF PACKAGING:

(1) Two (2) baghouses shall be installed to control the PM/PM_{10} emissions from the 602 LF SEPARATOR, and each shall operate at a minimum control efficiency of ninety-nine percent (99%).

(2) The PM/PM_{10} emissions after the baghouses from the 602 LF SEPARATOR shall not exceed 1.20 pounds per hour based on a 3-hour rolling average.

602 LF PACKAGING exhausts to the 602 LF SEPARATOR.

These emission rates include filterable and condensible particulate matter.

D.1.4 Carbon Monoxide (CO) PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Permittee shall comply with the following requirements for carbon monoxide (CO):

(a) 602B FURNACE – Stack 6-30:
The CO emissions from the 602B FURNACE shall not exceed:

(1) 2.65 pounds per ton of glass pulled; and

(2) 33.1 pounds per hour based on a 3-hour rolling average.

(b) 602 LF MFG – Stack 6-22:
The CO emissions from the 602 LF MFG shall not exceed:

(1) 8.74 pounds per ton of glass pulled; and

(2) 61.91 pounds per hour based on a 3-hour rolling average.

D.1.5 Particulate Matter Emission Limitation [326 IAC 11-4]

Pursuant to 326 IAC 11-4-4 (Fiberglass Insulation Manufacturing – Emission Limitation), emission limitations for particulate matter have been set forth in Indiana's State Implementation Plan (SIP) as follows:

Process / Facility	**Max. Hourly Emissions** (lbs/hour)	**Max. Yearly Emissions** (tons/yr)
MFG 602 (forming)	33.27	145.7

D.1.6 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 control devices described in Section D.1.

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-6(6)]

(a) Within sixty (60) days after achieving maximum capacity of the proposed modification, but no later than one hundred and eighty (180) days after initial startup of the proposed expansion, the Permittee shall perform compliance testing on the following:

(1) 602B FURNACE – Stack 6-30:

(A) PM / PM_{10} – to verify compliance with the limitations in Condition D.1.3(a)(2) – PM / PM_{10} PSD BACT Requirements;

(B) CO – to verify compliance with the limitations in Condition D.1.4(a) – CO PSD BACT Requirements;

(2) 602 LF MFG – Stack 6-22:

(A) PM / PM_{10} – to verify compliance with the limitations in Condition D.1.3(b)(2) – PM / PM_{10} PSD BACT Requirements;

(B) CO – to verify compliance with the limitations in Condition D.1.4(b) – CO PSD BACT Requirements;

(3) 602 LF SEPARATOR and 602 LF PACKAGING:
PM / PM_{10} – to verify compliance with the limitations in Condition D.1.3(c)(2) – PM / PM_{10} PSD BACT Requirements; and

utilizing methods as approved by the Commissioner.

(b) The PM/PM_{10} testing on 602B FURNACE, MFG 602, 602 LF MFG, and 602 LF SEPARATOR shall be repeated at least once every two (2) years from the date of the most recent valid compliance demonstration, utilizing test methods as approved by the Commissioner. PM_{10} includes filterable and condensible PM_{10}.

(c) The CO testing on 602B FURNACE and 602 LF MFG shall be repeated at least once every two (2) years from the date of the last valid compliance demonstration.

(d) Testing shall be conducted in accordance with Section C – Performance Testing.

D.1.8 Particulate Matter (PM) Control

(a) The three (3) baghouses (for 602B FURNACE and 602 LF SEPARATOR) for PM control shall be in operation at all times when any of the following: 602B FURNACE, 602 LF SEPARATOR, and 602 LF PACKAGING are in operation and exhausting to the outside atmosphere.

(b) The two (2) wet electrostatic precipitators (for MFG 602 and 602 LF MFG) for PM control shall be in operation at all times when either of the manufacturing lines, MFG 602 and 602 LF MFG, are in operation and exhausting to the outside atmosphere.

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

D.1.9 Visible Emissions Notations

(a) Visible emission notations of stack exhaust from

(1) 602B FURNACE (Stack 6-30),

(2) MFG 602 (Stack 2-2), and

(3) 602 LF MFG (Stack 6-22),

shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.10 Bag Leak Detection Systems (BLDS) [326 IAC 2-2]

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD), the Permittee shall comply with the following requirements:

(a) Compliance with §63.1383(b) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR Part 63, Subpart NNN) shall satisfy all bag leak detection system (BLDS) requirements for the 602B FURNACE.

(b) The Permittee shall install and operate continuous bag leak detection systems (BLDS) for the 602 LF SEPARATOR baghouses. The bag leak detection systems shall meet the following requirements:

(i) The bag leak detection systems must be certified by the manufacturer to be capable of detecting particulate matter emissions.

(ii) The bag leak detection system sensor must provide output of relative particulate matter loading.

(iii) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level.

(iv) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(v) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.

(vi) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection, which demonstrates the baghouse is in good operating condition.

(vii) The bag detector must be installed downstream of the baghouses.

(c) In the event of a bag leak detection system alarm:

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

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

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

(d) If operations continue after bag failure is observed and it will be 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.

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

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.1 – PSD Minor Limits and Condition D.1.2 – Emission Offset Minor Limits, the Permittee shall maintain records of the actual amount of glass produced.

(b) To document compliance with Condition D.1.9 – Visible Emissions Notations, the Permittee shall maintain records of visible emission notations of the manufacturing lines (602B FURNACE, MFG 602, and 602 LF MFG) stack exhausts.

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

D.1.12 Reporting Requirements

To document compliance with Condition D.1.1 – PSD Minor Limits and Condition D.1.2 – Emission Offset Minor Limits, the Permittee shall submit a quarterly summary of the actual amount of glass produced, using the Annual Molten Glass Production Report or its equivalent, located at the end of this permit. These reports shall be submitted not later than thirty (30) calendar days following the end of each calendar quarter and in accordance with Condition C – General Reporting Requirements of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

(f) Ten (10) rotary spin wool fiberglass pipe insulation production lines consisting of ten (10) natural gas fired curing ovens, identified as Unit ID # LINE 3001 – 3010, respectively,
- each with a maximum heat input capacity of 5 MMBtu per hour, each exhausting through two (2) stacks ID # 7-2 and 7-3, 8-2 and 8-3, 9-2 and 9-3, 10-2 and 10-3, 11-2 and 11-3, 12-2 and 12-3, 13-2 and 13-3, 14-2 and 14-3, 16-2 and 16-3, and 17-2 and 17-3, respectively,
- each with a trimming process utilizing a dust collector for particulate control, each exhausting through stack ID # 7-4, 8-4, 9-4, 10-4, 11-4, 12-4, 13-4, 14-4, and 16-4, respectively;
- LINE 3001-3005 and 3008 each constructed in April 1996, LINE 3006-3007 each constructed in December 1994, LINE 3009 constructed October 1997, and LINE 3010 permitted in 2008.

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

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

D.2.2 Prevention of Significant Deterioration (PSD) Minor Limitations [326 IAC 2-2]

The potential to emit of Line 3010 shall be limited as follows:

(a) The PM emission rate from the Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) to 3.4 pounds per hour.

(b) The PM_{10} emission rate from the Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) to 3.4 pounds per hour.

Compliance with these emission limits will ensure that the potential to emit from the installation of Line 3010 are less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM_{10} per year, rendering the requirements of 326 IAC 2-2 not applicable.

Compliance Determination Requirements

D.2.3 Testing Requirements [326 IAC 2-7-6(1),(6)]

(a) The PM test required in the NSPS Subpart PPP shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration, utilizing 40 CFR Part 60 Appendix A, Method 5E (Determination of Particulate Emissions from the Wool Fiberglass Insulation Manufacturing Industry) or other test methods as approved by the Commissioner.

(b) Within 60 days of achieving the maximum capacity, but no later than 180 days after start-up, in order to demonstrate compliance with Condition D.2.2(a), the Permittee shall perform PM testing on Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) utilizing methods as approved by the Commissioner.

(c) In order to demonstrate compliance with Condition D.2.2(b), the Permittee shall perform PM10 testing on Line 3010 within 180 days of publication of the new or revised condensible PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM.

D.2.4 Particulate Matter (PM) Control

Each dust collector for PM control on the fiberglass trimming process shall be in operation at all times when the fiberglass pipe insulation production line is in operation.

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

D.2.5 Visible Emissions Notations

(a) Visible emission notations of the ten (10) fiberglass pipe insulation production lines 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.

D.2.6 Parametric Monitoring

The Permittee shall record the leak detector picoampere (pA) display reading for each dust collector on the fiberglass trimming operation used in conjunction with the ten (10) fiberglass pipe insulation production lines, at least once daily when the ten (10) fiberglass production lines are in operation. When any one display reading exceeds the maximum set point of 11 pA or is outside the 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 display 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.

D.2.7 Broken or Failed Bag Detection

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

(b) For a single compartment baghouses controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material. 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.2.8 Record Keeping Requirements

(a) To document compliance with Condition D.2.5 – Visible Emissions Notations, the Permittee shall maintain records of visible emission notations of the ten (10) fiberglass pipe insulation production lines.

(b) To document compliance with Condition D.2.6 – Parametric Monitoring, the Permittee shall maintain the following:

(1) Daily records of picoampere (pA) display readings.

(2) Documentation of all response steps implemented, per event.

(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)]

Raw Material and Handling Systems

(1) The nominal capacities of these units have been classified as confidential information.

Raw Material and Handling Systems				
Emission Unit	**Emission Unit ID**	**Installation / Modification Date**	**Internal Vent ID**	**Control Device ***
Silica Sand Storage Silos	Silo61	2006	6-1 a & b	Baghouse SILO061BIN16, SILO061BIN2
Nepheline Syenite Storage Silos	Silo62	2006	6-2	Baghouse SILO062BIN15
Soda Ash Storage Silos	Silo63	2006	6-3 a & b	Baghouse SILO063BIN4, SILO063BIN5
Limestone Storage Silo	Silo64	2006	6-4	Baghouse SILO064BIN9
Dolomite Storage Silo	Silo65	2006	6-5	Baghouse SILO065BIN3
Minor Ingredient Storage Silo	Silo66	2006	6-6	Baghouse SILO066BIN11
Spare Storage Silo	Silo67	2006	6-7	Baghouse SILO067BIN14
602 Furnace Day Bins	DB602	2006	6-8 a & b	Baghouse DB602A, DB602B
Borax Storage Silo	Silo69	2006	6-9 a & b	Baghouse SILO069BIN8, SILO069BIN10
CNSMR Cullet Storage Silo	Silo612	2006	6-12 a & b	Baghouse SILO612BIN1
Knauf Cullet Storage Silo	Silo613	2006	6-13 a & b	Baghouse SILO613BIN13, SILO613BIN7

Raw Material and Handling Systems				
Emission Unit	**Emission Unit ID**	**Installation / Modification Date**	**Internal Vent ID**	**Control Device ***
Gallery Conveyor Systems	GLCONVEY / BUCKETELV	2006	6-15 a, b, c, & d	Baghouse GLCONVEY / BUCKETELV A, GLCONVEY / BUCKETELV B, GLCONVEY 611A, GLCONVEY611B, GLCONVEY602A, GLCONVEY602B
Raw Material Unloader	RMUNLDR616	2006	6-16 a & b	Baghouse RMUNLDR616A, RMUNLDR616B
Gathering Belt/Weigh Scales	GTHRNGBLT617	2006	6-17	Baghouse GTHRNGBL617
Batch Mixer/Check Scale	BMXR618	2006	6-18 a & b	Baghouse BMXR618
611 Furnace Day Bins	DB619	2006	6-19	Baghouse DB611A, DB611B
Knauf Cullet Handling	KCHNDLNG620	2006	6-20 a & b	Baghouse KCHNDLNG620A, KCHNDLNG620B
Resin Unloading	RUNLDNG626	2006	6-26	–
Binder Storage	BSTG627	2006	6-27	–
Binder Mixing	BMXG	2006	6-28	–

* Controlled emissions exhaust inside the building.

(2) Thirty eight (38) binder mixing and miscellaneous storage tanks, ranging from 50 gallons to 15,000 gallons.

Volatile organic compound (VOC) emissions from these storage tanks vent inside the binder building and are then ducted to the inlet of the wet electrostatic precipitator (ESP) (Stack 6-22).

(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 Particulate Matter (PM) PSD Minor Limits [326 IAC 2-2]

In order to render the 326 IAC 2-2 (PSD) requirements not applicable, the Permittee shall not exceed the following emission rates:

Emission Unit ID	**Internal Vent ID**	**Emission Limit** (lb/hr)
DB619	6-19	0.031

Therefore, the requirements of 326 IAC 2-2 shall not apply to DB619.

Compliance with these PM and PM_{10} limits satisfies the allowable particulate emission rates specified in 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes).

D.3.2 Particulate Matter (PM / PM_{10}) PSD BACT Requirements [326 IAC 2-2-3]

Pursuant to 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD)),

(a) Baghouses shall be installed to control the PM/PM_{10} emissions from the raw material handling operations, and each shall operate at a minimum control efficiency of ninety-nine percent (99%).

(b) The Permittee shall comply with the following grain loading and emission rate requirements for particulate matter (PM / PM_{10}):

Emission Unit ID	**Internal Vent ID**	**Grain Loading** (gr/dscf)	**Emission Limit** (lb/hr)
Silo61	6-1 a & b	0.003	0.0154
Silo62	6-2	0.001	0.0031
Silo63	6-3 a & b	0.001	0.0051
Silo64	6-4	0.0003	0.0015
Silo65	6-5	0.001	0.0031
Silo66	6-6	0.0009	0.0046
DB602	6-8 a & b	0.01	0.0513
Silo69	6-9 a & b	0.002	0.0062
Silo612	6-12 a & b	0.006	0.0185
Silo613	6-13 a & b	0.0009	0.0024
GLCONVEY / BUCKETELV	6-15 a, b, c, & d	0.036	0.0948
RMUNLDR616	6-16 a & b	0.021	0.0553
GTHRNGBLT617	6-17	0.021	0.0553
BMXR618	6-18 a & b	0.021	0.0553
KCHNDLNG620	6-20 a & b	0.0009	0.0024

All pounds per hour limits specified in the table above are based on a 3-hour rolling average, and these emission rates include filterable and condensible particulate matter.

(c) Opacity shall not exceed an average of ten percent (10%) in any one (1) six (6) minute averaging period.

Compliance with these PM and PM_{10} limits satisfies the allowable particulate emission rates specified in 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes).

D.3.3 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 each baghouse, used to control the particulate emissions from the following emission units:

(a) Silo61;
(b) Silo62;
(c) Silo63;
(d) Silo64;

(e) Silo65;
(f) Silo66;
(g) Silo67;
(h) DB602;
(i) Silo69;
(j) Silo612;
(k) Silo613;
(l) GLCONVEY / BUCKETELV;
(m) RMUNLDR616;
(n) GTHRNGBLT617;
(o) BMXR618;
(p) DB619; and
(q) KCHNDLNG620.

Compliance Determination Requirements

D.3.4 Baghouse Operation

The baghouses for PM control shall be in operation at all times when the following emission units are in operation:

(a) Silo61;
(b) Silo62;
(c) Silo63;
(d) Silo64;
(e) Silo65;
(f) Silo66;
(g) Silo67;
(h) DB602;
(i) Silo69;
(j) Silo612;
(k) Silo613;
(l) GLCONVEY / BUCKETELV;
(m) RMUNLDR616;
(n) GTHRNGBLT617;
(o) BMXR618;
(p) DB619; and
(q) KCHNDLNG620.

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

D.3.5 Bag Leak Detection System (BLDS) [326 IAC 2-2]

Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD), the Permittee shall comply with the following requirements:

(a) The Permittee shall install and operate continuous bag leak detection systems (BLDS) for the following:

Emission Unit ID	Internal Vent ID	Control Device *
Silo61	6-1 a & b	Baghouse SILO061BIN16, SILO061BIN2
Silo62	6-2	Baghouse SILO062BIN15
Silo63	6-3 a & b	Baghouse SILO063BIN4, SILO063BIN5
Silo64	6-4	Baghouse SILO064BIN9

Emission Unit ID	Internal Vent ID	Control Device *
Silo65	6-5	Baghouse SILO065BIN3
Silo66	6-6	Baghouse SILO066BIN11
Silo67	6-7	Baghouse SILO067BIN14
DB602	6-8 a & b	Baghouse DB602A, DB602B
Silo69	6-9 a & b	Baghouse SILO069BIN8, SILO069BIN10
Silo612	6-12 a & b	Baghouse SILO612BIN1
Silo613	6-13 a & b	Baghouse SILO613BIN13, SILO613BIN7
GLCONVEY / BUCKETELV	6-15 a, b, c, & d	Baghouse GLCONVEY / BUCKETELV A, GLCONVEY / BUCKETELV B, GLCONVEY 611A, GLCONVEY611B, GLCONVEY602A, GLCONVEY602B
RMUNLDR616	6-16 a & b	Baghouse RMUNLDR616A, RMUNLDR616B
GTHRNGBLT617	6-17	Baghouse GTHRNGBL617
BMXR618	6-18 a & b	Baghouse BMXR618
DB619	6-19	Baghouse DB611A, DB611B
KCHNDLNG620	6-20 a & b	Baghouse KCHNDLNG620A, KCHNDLNG620B

The bag leak detection systems shall meet the following requirements:

(i) The bag leak detection systems must be certified by the manufacturer to be capable of detecting particulate matter emissions.

(ii) The bag leak detection system sensor must provide output of relative particulate matter loading.

(iii) The bag leak detection system must be equipped with an alarm system that will alarm when an increase in relative particulate loading is detected over a preset level.

(iv) The bag leak detection system shall be installed and operated in a manner consistent with available written guidance from the U.S. Environmental Protection Agency or, in the absence of such written guidance, the manufacturer's written specifications and recommendations for installation, operation, and adjustment of the system.

(v) The initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the sensitivity (range) and the averaging period of the device, and establishing the alarm set points and the alarm delay time.

(vi) In no event shall the sensitivity be increased by more than 100 percent or decreased by more than 50 percent over a 365 day period unless such adjustment follows a complete baghouse inspection, which demonstrates the baghouse is in good operating condition.

(vii) The bag detector must be installed downstream of the baghouses.

(b) In the event of a bag leak detection system alarm:

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

(ii) For a single compartment baghouse~~s~~ controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material. 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.

(c) If operations continue after bag failure is observed and it will be 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.

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

D.3.6 Record Keeping Requirements

(a) To document compliance with Condition D.3.5 – Bag Leak Detection System (BLDS), the Permittee shall maintain records of explanation of the corrective actions taken, when the cause of the exceedance was corrected, and make such records available upon request to IDEM, OAQ, and the US EPA.

(b) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

SECTION D.4 FACILITY OPERATION CONDITIONS

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

FURNACE 611 – Stack 6-21

One (1) electrically heated glass melting furnace, identified as FURN 611, installed in 2007.
– The nominal capacity of FURN 611 is 300 tons of molten glass per day.
– The particulate emissions from FURN 611 are controlled by a baghouse, identified as FURN 611 Baghouse.
– Controlled emissions from FURN 611 exhaust through a stack identified as Stack 6-21.

This furnace is common to:
(1) 611 FORMING,
(2) 612 FORMING,
(3) 613 FORMING,
(4) 613 CURING/COOLING,
(5) 614 FORMING, and
(6) 614 CURING/COOLING.

(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 Limits [326 IAC 2-2]

In order to render the 326 IAC 2-2 (PSD) requirements not applicable, the following conditions shall apply:

(a) The PM and PM_{10} emissions from FURN 611 (Stack 6-21) shall not exceed 2.02 pounds per hour. PM_{10} includes filterable and condensible PM_{10}.

(b) The total CO emissions from FURN 611 (Stack 6-21), forming sections (Stack 6-22) and curing/cooling sections (Stack 6-29) shall not exceed 54.8 pounds per hour.

Therefore, the requirements of 326 IAC 2-2 shall not apply to FURN 611 (Stack 6-21).

D.4.2 NO_x LAER and NO_2 PSD BACT Requirements [326 IAC 2-3] [326 IAC 2-2]

Pursuant to 326 IAC 2-3 (Emission Offset) and 326 IAC 2-2 (Prevention of Significant Deterioration), the Permittee shall comply with the following requirements:

(a) FURN 611 shall be powered by electricity only.

(b) FURN 611 shall not produce greater than 300 tons per day of molten glass.

D.4.3 NO_X Emission Offset [326 IAC 2-3]

Pursuant to 326 IAC 2-3 (Emission Offset), the Permittee shall permanently acquire and offset 90.97 tons of NO_X emissions from PSI Energy, Noblesville Generating Station.

These NO_X emissions credits fulfilled the requirements of Emission Offset under 326 IAC 2-3.

D.4.4 Particulate Matter Emission Limitations [326 IAC 11-4-2]

Pursuant to 326 IAC 11-4-2(a)(2), the particulate matter content from FURN 611 (Stack 6-21) shall not exceed 0.25 grain per dry standard cubic feet.

D.4.5 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 FURN 611 Baghouse.

Compliance Determination Requirements

D.4.6 Baghouse Operation [326 IAC 2-7-6(6)]

Except as otherwise provided by statute or rule or in this permit, the FURN 611 Baghouse for particulate control shall be in operation and control emissions at all times when FURN 611 is in operation and exhausting to the outside atmosphere.

D.4.7 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-6(6)] [326 IAC 2-1.1-11] [40 CFR Part 63, Subpart NNN]

(a) The Permittee shall conduct performance tests on Stack 6-21 for the following:

(1) Within sixty (60) days from achieving maximum capacity of the proposed expansion, but no later than one hundred eighty (180) days after initial startup of the FURN 611, for PM/PM_{10} – to verify compliance with the PM /PM_{10} limitations in Condition D.4.1 – PSD Minor Limits, Condition D.4.4 – Particulate Matter Emission Limitations, Condition D.4.8 – Bag Leak Detection System (BLDS), and 40 CFR Part 63, Subpart NNN;

(2) No later than one hundred eighty (180) days after the issuance of SPM No. 145-26651-00001, for CO – to verify compliance with the CO PSD Minor Limits in Condition D.4.1 – PSD Minor Limits;

utilizing methods as approved by the Commissioner.

(b) The PM/PM_{10} test shall be repeated at least once every two (2) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensible PM_{10}.

(c) The CO test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration.

(d) 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.4.8 Bag Leak Detection System (BLDS)

Compliance with §63.1383(b) of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR Part 63, Subpart NNN) shall satisfy all bag leak detection system (BLDS) requirements for FURN 611.

D.4.9 Visible Emissions Notations

(a) Visible emission notations of FURN 611 (Stack 6-21) 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.

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

D.4.10 Record Keeping Requirements

(a) To document compliance with Condition D.4.3 – NOx LAER Requirements, the Permittee shall maintain records of the actual molten glass produced and make such records available upon request to IDEM, OAQ, and the US EPA.

(b) To document compliance with Condition D.4.9 – Visible Emissions Notations, the Permittee shall maintain records of visible emission notations of the baghouse exhaust and make such records available upon request to IDEM, OAQ, and the US EPA.

(c) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

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

SECTION D.5 FACILITY OPERATION CONDITIONS

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

FORMING – Stack 6-22

(1) 611 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 611 FORMING, utilizing natural gas for fiberization. Products formed in 611 FORMING are ready for packaging.
– The nominal capacity of 611 FORMING has been classified as confidential information.
– The particulate emissions from 611 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
– Controlled emissions from 611 FORMING exhaust through a stack identified as Stack 6-22.

(2) 612 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 612 FORMING, utilizing natural gas for fiberization. Products formed in 612 FORMING are ready for packaging.
– The nominal capacity of 612 FORMING has been classified as confidential information.
– The particulate emissions from 612 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
– Controlled emissions from 612 FORMING exhaust through a stack identified as Stack 6-22.

(3) 613 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 613 FORMING, utilizing natural gas for fiberization. Products formed in 613 FORMING are routed to the 613 CURING/COOLING.
– The nominal capacity of 613 FORMING has been classified as confidential information.
– The particulate emissions from 613 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
– Controlled emissions from 613 FORMING exhaust through a stack identified as Stack 6-22.

(4) 614 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 614 FORMING, utilizing natural gas for fiberization. Products formed in 614 FORMING are routed to the 614 CURING/COOLING.
– The nominal capacity of 614 FORMING has been classified as confidential information.
– The particulate emissions from 614 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
– Controlled emissions from 614 FORMING exhaust through a stack identified as Stack 6-22.

CURING/COOLING – Stack 6-29

(5) 613 CURING/COOLING
One (1) rotary spin wool fiberglass curing/cooling section, identified as 613 CURING/COOLING, consisting of natural gas fired curing oven(s), duct burners, and edge coat dryer burner.
– The nominal capacity of 613 CURING/COOLING has been classified as confidential information.
– The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 613 CURING/COOLING are controlled by two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour.
– The NOx emissions from each curing oven, duct burner and edge coat dryer of 613 CURING/COOLING are reduced by low NOx burners.
– Controlled emissions from 613 CURING/COOLING exhaust through a stack identified as Stack 6-29.

(6) 614 CURING/COOLING
One (1) rotary spin wool fiberglass curing/cooling section, identified as 614 CURING/COOLING, consisting of natural gas fired curing oven(s) and duct burners.
– The nominal capacity of 614 CURING/COOLING has been classified as confidential

information.

- The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 614 CURING/COOLING are controlled by the same two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour, that control VOC emissions from 613 CURING/COOLING.
- The NOx emissions from each curing oven and duct burner of 614 CURING/COOLING are reduced by low NOx burners.
- Controlled emissions from 614 CURING/COOLING exhaust through a stack identified as Stack 6-29.

(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 Minor Limits [326 IAC 2-2]

In order to render the 326 IAC 2-2 (PSD) requirements not applicable, the following conditions shall apply:

(a) The PM and PM_{10} emissions from the forming sections (Stack 6-22) and curing/cooling sections (Stack 6-29) combined after control shall not exceed 4.4 pounds per ton of glass pulled and 55.0 pounds per hour.

PM_{10} includes filterable and condensible PM_{10}.

Compliance with these PM and PM_{10} limits satisfies the allowable particulate emission rates specified in 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes).

(b) The CO emissions from FURN 611 (Stack 6-21), the forming sections (Stack 6-22) and curing/cooling sections (Stack 6-29) combined shall not exceed 54.8 pounds per hour.

(c) The SO_2 emissions from the forming sections (Stack 6-22) and curing/cooling sections (Stack 6-29) combined shall not exceed 2.5 pounds per hour.

(d) The molten glass to be formed, cured and cooled by MFG 611 shall not exceed 107,310 tons of molten glass per 12-consecutive month period, with compliance determined at the end of each month.

Therefore, the requirements of 326 IAC 2-2 shall not apply to the expansion.

D.5.2 VOC Emission Offset Minor Limits [326 IAC 2-3]

In order to render the 326 IAC 2-3 (Emission Offset) requirements not applicable, the VOC emissions after control from the forming sections (Stack 6-22) and curing/cooling sections (Stack 6-29) combined shall not exceed 28.13 pounds per hour.

Therefore, the requirements of 326 IAC 2-3 shall not apply to the expansion.

D.5.3 NO_x LAER and NO_2 PSD BACT Requirements [326 IAC 2-3] [326 IAC 2-2]

Pursuant to 326 IAC 2-3 (Emission Offset) and 326 IAC 2-2-3 (Prevention of Significant Deterioration (PSD), the Permittee shall comply with the following requirements:

(a) Low NOx burners shall be installed and utilized to reduce the NOx emissions from the following operations:

- 613 CURING/COOLING; and
- 614 CURING/COOLING.

(b) The NO_x emissions after control from the forming sections (Stack 6-22) and curing/cooling sections (Stack 6-29) combined shall not exceed 2.66 pounds of NO_x per ton of glass pulled and 33.25 pounds per hour.

(c) The loss on ignition (LOI) of the binders used by the 611 FORMING, 612 FORMING, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING combined shall not exceed 18%.

D.5.4 Clean Units [326 IAC 2-3.2] [326 IAC 2-2.2]

(a) 613 CURING/COOLING

(1) Pursuant to 326 IAC 2-3.2 (Clean Unit) and 326 IAC 2-2.2 (Clean Unit), the 613 CURING/COOLING is classified as Clean Unit for NOx.

(2) The Clean Unit designation for 613 CURING/COOLING is in effect for ten (10) years from its initial start up.

(3) In order to maintain the clean unit designation for 613 CURING/COOLING, the Permittee shall comply with the NOx limits specified in Conditions D.5.3 and D.4.2 of this permit.

(b) 614 CURING/COOLING

(1) Pursuant to 326 IAC 2-3.2 (Clean Unit) and 326 IAC 2-2.2 (Clean Unit), the 614 CURING/COOLING is classified as Clean Unit for NOx.

(2) The Clean Unit designation for 614 CURING/COOLING is in effect for ten (10) years from its initial start up.

(3) In order to maintain the clean unit designation for 614 CURING/COOLING, the Permittee shall comply with the NOx limits specified in Conditions D.5.3 and D.4.2 of this permit.

D.5.5 Volatile Organic Compound (VOC) BACT Requirements [326 IAC 8-1-6]

(a) 611 FORMING
The VOC emissions before control from 611 FORMING shall not exceed 4.7 pounds per hour. Therefore, the requirements of 326 IAC 8-1-6 are not applicable.

(b) 612 FORMING
Pursuant to 326 IAC 8-1-6, the following BACT requirements apply:

(1) The VOC emissions before control from 612 FORMING shall not exceed 6.1 pounds per hour of VOC emissions.

(2) The loss on ignition (LOI) of the binders used by 612 FORMING shall not exceed 18%.

(c) 613 FORMING and 613 CURING/COOLING
Pursuant to 326 IAC 8-1-6, the following BACT requirements apply:

(1) A Regenerative Thermal Oxidizer (RTO) shall be installed and utilized to control the VOC and HAPs emissions from the 613 CURING/COOLING.

(2) The overall control efficiency of each RTO shall be at least 95% when controlling the VOC emissions from the 613 CURING/COOLING.

(3) The combined VOC emissions after control from 613 FORMING and 613 CURING/COOLING shall not exceed 9.0 pounds per hour of VOC emissions.

(4) The loss on ignition (LOI) of the binders used by 613 FORMING and 613 CURING/COOLING combined shall not exceed 18%.

(d) 614 FORMING and 614 CURING/COOLING
Pursuant to 326 IAC 8-1-6, the following BACT requirements apply:

(1) A Regenerative Thermal Oxidizer (RTO) shall be installed and utilized to control the VOC and HAPs emissions from the 614 CURING/COOLING.

(2) The overall control efficiency of each RTO shall be at least 95% when controlling the VOC emissions from the 614 CURING/COOLING.

(3) The combined VOC emissions after control from the 614 FORMING and 614 CURING/COOLING shall not exceed 8.4 pounds per hour of VOC emissions.

(4) The loss on ignition (LOI) of the binders used by 614 FORMING and 614 CURING/COOLING combined shall not exceed 18%.

(e) Stack 6-22 and Stack 6-29
Pursuant to 326 IAC 8-1-6, the combined VOC emissions from Stack 6-22 and Stack 6-29 shall not exceed 2.25 pounds per ton of molten glass and 28.13 pounds per hour.

D.5.6 Particulate Matter Emission Limitations [326 IAC 11-4-2]

Pursuant to 326 IAC 11-4-2(a), the particulate matter content from Stack 6-22 shall not exceed 0.025 grain per dry standard cubic feet.

Stack 6-22 is the stack exhaust of the following forming sections:

– 611 FORMING,

– 612 FORMING,

– 613 FORMING, and

– 614 FORMING.

D.5.7 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 wet electrostatic precipitator (ESP), and RTOs.

Compliance Determination Requirements

D.5.8 Low NO_x Burners Operation [326 IAC 2-3] [326 IAC 2-7-6(6)] [326 IAC 2-2]

Except as otherwise provided by statute or rule or in this permit, the low NOx burners for NOx control shall be in operation and control emissions from the:

– 613 CURING/COOLING and

– 614 CURING/COOLING

at all times when any of these forming and curing/cooling sections are in operation.

D.5.9 Wet Electrostatic Precipitator (ESP) Operation [326 IAC 2-7-6(6)] [326 IAC 2-3] [326 IAC 11-4-2]

Except as otherwise provided by statute or rule or in this permit, the wet electrostatic precipitator (ESP) for particulate control shall be in operation and control emissions from the:

– 611 FORMING,

– 612 FORMING,

– 613 FORMING, and

– 614 FORMING

at all times when any of these forming sections are in operation.

D.5.10 Regenerative Thermal Oxidizers (RTOs) Operation [326 IAC 2-7-6(6)] [326 IAC 2-2] [326 IAC 2-3] [326 IAC 8-1-6]

Except as otherwise provided by statute or rule or in this permit, the RTOs for volatile organic compound (VOC), hazardous air pollutants and condensible particulates control shall be in operation and control emissions from the:

– 613 CURING/COOLING and/or

– 614 CURING/COOLING

at all times when any of these curing/cooling sections are in operation.

D.5.11 Testing Requirements [326 IAC 2-7-6(1)] [326 IAC 2-7-6(6)]

(a) Within sixty (60) days after achieving maximum capacity of the proposed modification, but no later than one hundred and eighty (180) days after initial startup of the proposed expansion, the Permittee shall perform compliance testing on Stack 6-22 and Stack 6-29 for the following:

(1) NO_x – to verify compliance with the NO_x limitations in Condition D.5.3 – NO_x LAER and NO_2 PSD BACT Requirements;

(2) VOC – to verify compliance with the VOC limitations in Condition D.5.2 – VOC Emission Offset Minor Limits, and Condition D.5.5 – Volatile Organic Compound (VOC) BACT Requirements;

(3) RTO's overall control efficiency – to verify compliance with the overall control efficiency requirement in Condition D.5.5 – Volatile Organic Compound (VOC) BACT Requirements;

(4) PM/ PM_{10} – to verify compliance with the PM/PM_{10} limitations in Condition D.5.1 – PSD Minor Limits, and Condition D.5.6 – Particulate Matter Emission Limitations;

utilizing methods as approved by the Commissioner.

(b) No later than one hundred eighty (180) days after the issuance of SPM No. 145-26651-00001, the Permittee shall perform compliance testing on Stack 6-22 and Stack 6-29 for CO – to verify compliance with the CO limitation in Condition D.5.1 – PSD Minor Limits utilizing methods as approved by the Commissioner.

Stack 6-22 is the stack exhaust of the following forming sections:

– 611 FORMING,

– 612 FORMING,

– 613 FORMING, and

– 614 FORMING.

Stack 6-29 is the stack exhaust of the following:

– 613 CURING/COOLING,

– 614 CURING/COOLING, and

– two (2) RTOs.

(c) The NO_x tests shall be repeated at least once every year from the date of the last valid compliance demonstrations.

(d) The VOC tests shall be repeated at least once every two (2) years from the date of the last valid compliance demonstrations.

(e) The PM/PM_{10} tests shall be repeated at least once every two (2) years from the date of the last valid compliance demonstration.

PM_{10} includes filterable and condensible PM_{10}.

(f) The CO test shall be repeated at least once every two (2) years from the date of the last valid compliance demonstration.

(g) In addition to these requirements, IDEM may require compliance testing when necessary to determine if the facility is in compliance.

(h) Testing shall be conducted in accordance with Section C – Performance Testing.

D.5.12 Thermal Oxidizer Operating Temperature [326 IAC 8-1-6] [326 IAC 2-3]

(a) A continuous monitoring system shall be calibrated, maintained, and operated on the thermal oxidizer for measuring operating temperature. For the purposes of this condition, continuous shall mean no less than once per minute.

The output of this system shall be recorded as a 3-hour average. From the initial operation of the thermal oxidizer until the approved stack test results are available, the Permittee shall operate the thermal oxidizer at or above the 3-hour average temperature of 1,475^{o}F.

(b) The Permittee shall determine the 3-hour average temperature from the most recent valid stack test that demonstrates compliance with VOC limits in Condition D.5.2 – VOC Emission Offset Minor Limits and Condition D.5.5 – Volatile Organic Compound (VOC) BACT Requirements, as approved by IDEM.

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

D.5.13 Thermal Oxidizer Parametric Monitoring [326 IAC 8-1-6] [326 IAC 2-3]

(a) The Permittee shall determine the appropriate duct pressure or fan amperage from the most recent valid stack test that demonstrates compliance with VOC limits in Condition D.5.2 VOC Emission Offset Minor Limits and Condition D.5.5 – Volatile Organic Compound (VOC) BACT Requirements, as approved by IDEM.

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

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

D.5.14 Visible Emissions Notations [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)]

(a) Visible emission notations of Stack 6-22 exhaust and Stack 6-29 exhaust 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.

Stack 6-22 is the stack exhaust of the following forming sections:

– 611 FORMING,

– 612 FORMING,

– 613 FORMING, and

– 614 FORMING.

Stack 6-29 is the stack exhaust of the following:

– 613 CURING/COOLING,

– 614 CURING/COOLING, and

– two (2) RTOs.

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

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

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

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

D.5.15 Wet Electrostatic Precipitator (ESP) Parametric Monitoring

(a) The Permittee shall determine the appropriate primary and secondary current (amperes) and voltage in each electrical field and the inlet water flow rate of the wet electrostatic precipitator (ESP) from the most recent valid stack test that demonstrates compliance with particulate limits in Conditions D.5.1 – PSD Minor limits, and Condition D.5.6 – Particulate Matter Emission Limitations, as approved by IDEM.

(b) The primary and secondary current (amperes) and voltage in each electrical field and the inlet water flow rate of the wet electrostatic precipitator (ESP) shall be observed at least once per day when the wet electrostatic precipitator (ESP) is in operation. On and after the date the approved stack test results are available, the appropriate primary and secondary current (amperes) and voltage in each electrical field and the inlet water flow rate shall be maintained within the normal range as established in most recent compliant stack test.

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

D.5.16 Record Keeping Requirements

(a) To document compliance with Condition D.5.1 – PSD Minor Limits, Condition D.5.2 – VOC Emission Offset Minor Limits, and Condition D.5.5 – Volatile Organic Compound (VOC) BACT Requirements, the Permittee shall maintain records that are complete and sufficient to establish compliance. Records maintained shall be taken monthly and make such records available upon request to IDEM, OAQ, and the US EPA.

Examples of such records include but are not limited to:

(1) Records shall include purchase orders, invoices, and material safety data sheets (MSDS), manufacturer's certified product data sheets, and calculations necessary to verify the type and amount of binder used; and

(2) A log of the dates of use.

(b) To document compliance with Condition D.5.12 – Thermal Oxidizer Operating Temperature, the Permittee shall maintain the records of the 3-hour average operating temperature of the thermal oxidizer and make such records available upon request to IDEM, OAQ, and the US EPA.

(c) To document compliance with Condition D.5.13 – Thermal Oxidizer Parametric Monitoring, the Permittee shall maintain the records of the once per day readings of the duct pressure or fan amperage of the thermal oxidizer and make such records available upon request to IDEM, OAQ, and the US EPA.

(d) To document compliance with Condition D.5.14 – Visible Emissions Notations, the Permittee shall maintain the records of visible emission notations of Stack 6-22 exhaust and Stack 6-29 exhaust and make such records available upon request to IDEM, OAQ, and the US EPA.

(e) To document compliance with Condition D.5.15 – Wet Electrostatic Precipitator (ESP) Parametric Monitoring, the Permittee shall maintain the records of the primary and secondary current (amperes) and voltage in each electrical field and the inlet water flow rate of the wet electrostatic precipitator (ESP) and make such records available upon request to IDEM, OAQ, and the US EPA.

(f) Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.

(g) All records shall be maintained in accordance with Section C – General Record Keeping Requirements, of this permit and make such records available upon request to IDEM, OAQ, and the US EPA.

D.5.17 Reporting Requirements

To document compliance with Condition D.5.1 – PSD Minor Limits, the Permittee shall submit a quarterly summary of the actual amount of glass produced, using the Annual Molten Glass Production Report or its equivalent, located at the end of this permit. These reports shall be submitted not later than thirty (30) calendar days following the end of each calendar quarter and in accordance with Condition C – General Reporting Requirements of this permit.

SECTION E.1 NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS (NESHAP) REQUIREMENTS [326 IAC 2-7-5(1)]

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

(a) 602B FURNACE – Stack 6-30
One (1) electric glass melting furnace, identified as Unit ID # 602B FURNACE,
- installed in 2007,
- operating at a nominal processing capacity of 300 tons of glass per day,
- operating with two (2) emergency use natural gas direct fired burners each with a rated heat input capacity of 15 MMBtu per hour (Unit ID # 602B FURNACE),
- utilizing one (1) baghouse for particulate control (Unit ID # 602B FURNACE), and
- exhausting through one (1) stack ID # 6-30.
- 602B FURNACE is common to MFG 602 and 602 LF MFG.
- 602B FURNACE is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(b) MFG 602 – Stack 2-2
One (1) rotary spin wool fiberglass manufacturing line consisting of forming, curing, and cooling sections, identified as Unit ID # MFG 602,
- installed in 1983,
- operating at a nominal processing capacity of 130 tons of glass per day,
- utilizing one (1) wet electrostatic precipitator for particulate control, and one (1) natural gas fired RTO with a rated maximum capacity of 2.1 MMBtu per hour, and
- exhausting through one (1) stack ID #2-2.
- MFG 602 produces a bonded wool fiberglass insulation building product. MFG 602 an existing affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40CFR 63, Subpart NNN.
-

(h) FURNACE 611 – Stack 6-21
One (1) electrically heated glass melting furnace, identified as FURN 611, installed in 2007.
- The nominal capacity of FURN 611 is 300 tons of molten glass per day.
- The particulate emissions from FURN 611 are controlled by a baghouse, identified as FURN 611 Baghouse.
- Controlled emissions from FURN 611 exhaust through a stack identified as Stack 6-21.
- FURNACE 611 is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

This furnace is common to:
(1) 611 FORMING,
(2) 612 FORMING,
(3) 613 FORMING,
(4) 613 CURING/COOLING,
(5) 614 FORMING, and
(6) 614 CURING/COOLING.

(i) Stack 6-22

(3) 613 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 613 FORMING, utilizing natural gas for fiberization. Products formed in 613 FORMING are routed to the 613 CURING/COOLING.
- The nominal capacity of 613 FORMING has been classified as confidential information.

– The particulate emissions from 613 FORMING are controlled by a wet electrostatic precipitator (ESP) This wet ESP is common to all the forming sections.
– Controlled emissions from 613 FORMING exhaust through a stack identified as Stack 6-22.
– 613 FORMING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(4) 614 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 614 FORMING, utilizing natural gas for fiberization. Products formed in 614 FORMING are routed to the 614 CURING/COOLING.
– The nominal capacity of 614 FORMING has been classified as confidential information.
– The particulate emissions from 614 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
– Controlled emissions from 614 FORMING exhaust through a stack identified as Stack 6-22.
– 614 FORMING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(j) Stack 6-29

(1) 613 CURING/COOLING
One (1) rotary spin wool fiberglass curing/cooling section, identified as 613 CURING/COOLING, consisting of natural gas fired curing oven(s), duct burners, and edge coat dryer burner.
– The nominal capacity of 613 CURING/COOLING has been classified as confidential information.
– The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 613 CURING/COOLING are controlled by two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour.
– The NOx emissions from each curing oven, duct burner and edge coat dryer of 613 CURING/COOLING are reduced by low NOx burners.
– Controlled emissions from 613 CURING/COOLING exhaust through a stack identified as Stack 6-29.
– 613 CURING/COOLING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

(2) 614 CURING/COOLING
One (1) rotary spin wool fiberglass curing/cooling section, identified as 614 CURING/COOLING, consisting of natural gas fired curing oven(s) and duct burners.
– The nominal capacity of 614 CURING/COOLING has been classified as confidential information.
– The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 614 CURING/COOLING are controlled by the same two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour, that control VOC emissions from 613 CURING/COOLING.
– The NOx emissions from each curing oven and duct burner of 614 CURING/COOLING are reduced by low NOx burners.
–

– Controlled emissions from 614 CURING/COOLING exhaust through a stack identified as Stack 6-29.
– 614 CURING/COOLING produces a bonded wool fiberglass building insulation product and is a new affected source under the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing (40 CFR 63, Subpart NNN).

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

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under 40 CFR Part 63 [326 IAC 20-1] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.3901, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20-1-1 for the glass melting furnaces and rotary spin wool fiberglass manufacturing lines identified as 602B FURNACE, MFG 602, FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING, as specified in Table 1 of 40 CFR 63, Subpart NNN in accordance with schedule in 40 CFR 63 Subpart NNN.

(b) Pursuant to 40 CFR 63.10, 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

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

E.1.2 Applicability of Wool Fiberglass Manufacturing NESHAP Requirements [40 CFR Part 63, Subpart NNN]

The provisions of 40 CFR Part 63, Subpart NNN (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing) apply to the glass melting furnaces and rotary spin wool fiberglass manufacturing lines identified as 602B FURNACE, MFG 602, FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING. A copy of this rule is available on the US EPA Air Toxics Website at www.epa.gov/ttn/atw/woolfib/woolfipg.html.

E.1.3 Wool Fiberglass Manufacturing Requirements [40 CFR Part 63, Subpart NNN]

Pursuant to CFR Part 63, Subpart NNN, the Permittee shall comply with the provisions of National Emission Standards for Hazardous Air Pollutants (NESHAP) for Wool Fiberglass Manufacturing for the glass melting furnaces and rotary spin wool fiberglass manufacturing lines identified as 602B FURNACE, MFG 602, FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING, as specified as follows upon startup.

§63.1380 Applicability.

(a) Except as provided in paragraphs (b) and (c) of this section, the requirements of this subpart apply to the owner or operator of each wool fiberglass manufacturing facility that is a major source or is located at a facility that is a major source.

(b) The requirements of this subpart apply to emissions of hazardous air pollutants (HAPs), as measured according to the methods and procedures in this subpart, emitted from the following new and existing sources at a wool fiberglass manufacturing facility subject to this subpart:

(1) Each new and existing glass-melting furnace located at a wool fiberglass manufacturing facility;

(2) Each new and existing rotary spin wool fiberglass manufacturing line producing a bonded wool fiberglass building insulation product; and

(d) The provisions of this part 63, subpart A that apply and those that do not apply to this subpart are specified in Table 1 of this subpart.

§63.1381 Definitions.

Terms used in this subpart are defined in the Clean Air Act, in §63.2, or in this section as follows:

Bag leak detection system means systems that include, but are not limited to, devices using triboelectric, light scattering, and other effects to monitor relative or absolute particulate matter (PM) emissions.

Bonded means wool fiberglass to which a phenol-formaldehyde binder has been applied.

Building insulation means bonded wool fiberglass insulation, having a loss on ignition of less than 8 percent and a density of less than 32 kilograms per cubic meter (kg/m^3) (2 pounds per cubic foot [lb/ft^3]).

Cold top electric furnace means an all-electric glass-melting furnace that operates with a temperature of 120 °C (250 °F) or less as measured at a location 46 to 61 centimeters (18 to 24 inches) above the molten glass surface.

Flame attenuation means a process used to produce wool fiberglass where molten glass flows by gravity from melting furnaces, or pots, to form filaments that are drawn down and attenuated by passing in front of a high-velocity gas burner flame.

Glass-melting furnace means a unit comprising a refractory vessel in which raw materials are charged, melted at high temperature, refined, and conditioned to produce molten glass. The unit includes foundations, superstructure and retaining walls, raw material charger systems, heat exchangers, melter cooling system, exhaust system, refractory brick work, fuel supply and electrical boosting equipment, integral control systems and instrumentation, and appendages for conditioning and distributing molten glass to forming processes. The forming apparatus, including flow channels, is not considered part of the glass-melting furnace.

Glass pull rate means the mass of molten glass that is produced by a single glass-melting furnace or that is used in the manufacture of wool fiberglass at a single manufacturing line in a specified time period.

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

Heavy-density product means bonded wool fiberglass insulation manufactured on a flame attenuation manufacturing line and having a loss on ignition of 11 to 25 percent and a density of 8 to 48 kg/m^3 (0.5 to 3 lb/ft^3).

Incinerator means an enclosed air pollution control device that uses controlled flame combustion to convert combustible materials to noncombustible gases.

Loss on ignition (LOI) means the percent decrease in weight of wool fiberglass after it has been ignited. The LOI is used to monitor the weight percent of binder in wool fiberglass.

Manufacturing line means the manufacturing equipment for the production of wool fiberglass that consists of a forming section where molten glass is fiberized and a fiberglass mat is formed and which may include a curing section where binder resin in the mat is thermally set and a cooling section where the mat is cooled.

New source means any affected source the construction or reconstruction of which is commenced after March 31, 1997.

Pipe product means bonded wool fiberglass insulation manufactured on a flame attenuation manufacturing line and having a loss on ignition of 8 to 14 percent and a density of 48 to 96 kg/m^3 (3 to 6 lb/ft^3).

Rotary spin means a process used to produce wool fiberglass building 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. Any process used to produce bonded wool fiberglass building insulation by a process other than flame attenuation is considered rotary spin.

Wool fiberglass means insulation materials composed of glass fibers made from glass produced or melted at the same facility where the manufacturing line is located.

Wool fiberglass manufacturing facility means any facility manufacturing wool fiberglass on a rotary spin manufacturing line or on a flame attenuation manufacturing line.

§63.1382 Emission standards

(a) *Emission limits* – (1) *Glass-melting furnaces*. On and after the date the initial performance test is completed or required to be completed under §63.7 of this part, whichever date is earlier, the owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of 0.25 kilogram (kg) of particulate matter (PM) per megagram (Mg) (0.5 pound [lb] of PM per ton) of glass pulled for each new or existing glass-melting furnace.

(2) *Rotary spin manufacturing lines*. On and after the date the initial performance test is completed or required to be completed under §63.7 of this part, whichever date is earlier, the owner or operator shall not discharge or cause to be discharged into the atmosphere in excess of:

(i) 0.6 kg of formaldehyde per megagram (1.2 lb of formaldehyde per ton) of glass pulled for each existing rotary spin manufacturing line; and

(ii) 0.4 kg of formaldehyde per megagram (0.8 lb of formaldehyde per ton) of glass pulled for each new rotary spin manufacturing line.

(b) *Operating limits*. On and after the date on which the performance test required to be conducted by §§63.7 and 63.1384 is completed, the owner or operator must operate all affected control equipment and processes according to the following requirements.

(1)(i) The owner or operator must initiate corrective action within 1 hour of an alarm from a bag leak detection system and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a Quality Improvement Plan (QIP) consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the bag leak detection system alarm is sounded for more than 5 percent of the total operating time in a 6-month block reporting period.

(2)(i) The owner or operator must initiate corrective action within 1 hour when any 3-hour block average of the monitored electrostatic precipitator (ESP) parameter is outside the limit(s) established during the performance test as specified in §63.1384 and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64 subpart D when the monitored ESP parameter is outside the limit(s) established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate the ESP such that the monitored ESP parameter is not outside the limit(s) established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(5)(i) The owner or operator must initiate corrective action within 1 hour when the average glass pull rate of any 4-hour block period for glass melting furnaces equipped with continuous glass pull rate monitors, or daily glass pull rate for glass melting furnaces not so equipped, exceeds the average glass pull rate established during the performance test as specified in §63.1384, by greater than 20 percent and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the glass pull rate exceeds, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate each glass-melting furnace such that the glass pull rate does not exceed, by more than 20 percent, the average glass pull rate established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(8)(i) The owner or operator must initiate corrective action within 1 hour when the monitored process parameter level(s) is outside the limit(s) established during the performance test as specified in §63.1384 for the process modification(s) used to control formaldehyde emissions and complete corrective actions in a timely manner according to the procedures in the operations, maintenance, and monitoring plan.

(ii) The owner or operator must implement a QIP consistent with the compliance assurance monitoring provisions of 40 CFR part 64, subpart D when the process parameter(s) is outside the limit(s) established during the performance test as specified in §63.1384 for more than 5 percent of the total operating time in a 6-month block reporting period.

(iii) The owner or operator must operate the process modifications such that the monitored process parameter(s) is not outside the limit(s) established during the performance test as specified in §63.1384 for more than 10 percent of the total operating time in a 6-month block reporting period.

(9) The owner or operator must use a resin in the formulation of binder such that the free-formaldehyde content of the resin used does not exceed the free-formaldehyde range contained in the specification for the resin used during the performance test as specified in §63.1384.

(10) The owner or operator must use a binder formulation that does not vary from the specification and operating range established and used during the performance test as specified in §63.1384. For the purposes of this standard, adding or increasing the quantity of urea and/or lignin in the binder formulation does not constitute a change in the binder formulation.

§63.1383 Monitoring requirements.

On and after the date on which the performance test required to be conducted by §§63.7 and 63.1384 is completed, the owner or operator must monitor all affected control equipment and processes according to the following requirements.

(a) The owner or operator of each wool fiberglass manufacturing facility must prepare for each glass-melting furnace, rotary spin manufacturing line, and flame attenuation manufacturing line subject to the provisions of this subpart, a written operations, maintenance, and monitoring plan. The plan must be submitted to the Administrator for review and approval as part of the application for a part 70 permit. The plan must include the following information:

(1) Procedures for the proper operation and maintenance of process modifications and add-on control devices used to meet the emission limits in §63.1382;

(2) Procedures for the proper operation and maintenance of monitoring devices used to determine compliance, including quarterly calibration and certification of accuracy of each monitoring device according to the manufacturer's instructions; and

(3) Corrective actions to be taken when process parameters or add-on control device parameters deviate from the limit(s) established during initial performance tests.

(b)(1) Where a baghouse is used to control PM emissions from a glass-melting furnace, the owner or operator shall install, calibrate, maintain, and continuously operate a bag leak detection system.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 10 milligrams per actual cubic meter (0.0044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must produce output of relative PM emissions.

(iii) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative PM emissions over a preset level is detected and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) For positive pressure fabric filter systems, a bag leak detection system must be installed in each baghouse compartment or cell. If a negative pressure or induced air baghouse is used, the bag leak detection system must be installed downstream of the baghouse. Where multiple bag leak detection systems are required (for either type of baghouse), the system instrumentation and alarm may be shared among the monitors.

(v) A triboelectric bag leak detection system shall be installed, operated, adjusted, and maintained in a manner consistent with the U.S. Environmental Protection Agency guidance, "Fabric Filter Bag Leak Detection Guidance" (EPA–454/R–98–015, September 1997). Other bag leak detection systems shall be installed, operated, adjusted, and maintained in a manner consistent with the manufacturer's written specifications and recommendations.

(vi) Initial adjustment of the system shall, at a minimum, consist of establishing the baseline output by adjusting the range and the averaging period of the device and establishing the alarm set points and the alarm delay time.

(vii) Following the initial adjustment, the owner or operator shall not adjust the range, averaging period, alarm setpoints, or alarm delay time except as detailed in the approved operations, maintenance, and monitoring plan required under paragraph (a) of this section. In no event shall the range be increased by more than 100 percent or decreased more than 50 percent over a 365-day period unless a responsible official as defined in §63.2 of the general provisions in subpart A of this part certifies that the baghouse has been inspected and found to be in good operating condition.

(2) The operations, maintenance, and monitoring plan required by paragraph (a) of this section must specify corrective actions to be followed in the event of a bag leak detection system alarm. Example corrective actions that may be included in the plan include the following:

(i) Inspecting the baghouse for air leaks, torn or broken bags or filter media, or any other conditions that may cause an increase in emissions.

(ii) Sealing off defective bags or filter media.

(iii) Replacing defective bags or filter media, or otherwise repairing the control device.

(iv) Sealing off a defective baghouse compartment.

(v) Cleaning the bag leak detection system probe, or otherwise repairing the bag leak detection system.

(vi) Shutting down the process producing the particulate emissions.

(f)(1) The owner or operator of an existing glass-melting furnace equipped with continuous glass pull rate monitors must monitor and record the glass pull rate on an hourly basis. For glass-melting furnaces that are not equipped with continuous glass pull rate monitors, the glass pull rate must be monitored and recorded once per day.

(2) On any new glass-melting furnace, the owner or operator must install, calibrate, and maintain a continuous glass pull rate monitor that monitors and records on an hourly basis the glass pull rate.

(j) The owner or operator must monitor and record the free-formaldehyde content of each resin shipment received and used in the formulation of binder.

(k) The owner or operator must monitor and record the formulation of each batch of binder used.

(l) The owner or operator must monitor and record at least once every 8 hours, the product LOI and product density of each bonded wool fiberglass product manufactured.

(m) For all control device and process operating parameters measured during the initial performance tests, the owners or operators of glass-melting furnaces, rotary spin manufacturing lines or flame attenuation manufacturing lines subject to this subpart may change the limits established during the initial performance tests if additional performance testing is conducted to verify that, at the new control device or process parameter levels, they comply with the applicable emission limits in §63.1382. The owner or operator shall conduct all additional performance tests according to the procedures in this part 63, subpart A and in §63.1384.

§63.1384 Performance test requirements.

(a) The owner or operator subject to the provisions of this subpart shall conduct a performance test to demonstrate compliance with the applicable emission limits in §63.1382. Compliance is demonstrated when the emission rate of the pollutant is equal to or less than each of the applicable emission limits in §63.1382. The owner or operator shall conduct the performance test according to the procedures in 40 CFR part 63, subpart A and in this section.

(1) All monitoring systems and equipment must be installed, operational, and calibrated prior to the performance test.

(2) Unless a different frequency is specified in this section, the owner or operator must monitor and record process and/or add-on control device parameters at least every 15 minutes during the performance tests. The arithmetic average for each parameter must be calculated using all of the recorded measurements for the parameter.

(3) During each performance test, the owner or operator must monitor and record the glass pull rate for each glass-melting furnace and, if different, the glass pull rate for each rotary spin manufacturing line and flame attenuation manufacturing line. Record the glass pull rate every 15 minutes during any performance test required by this subpart and determine the arithmetic average of the recorded measurements for each test run and calculate the average of the three test runs.

(4) The owner or operator shall conduct a performance test for each existing and new glass-melting furnace.

(8) The owner or operator must conduct a performance test for each rotary spin manufacturing line, subject to this subpart, while producing the building insulation with the highest LOI expected to be produced on that line; and for each flame attenuation manufacturing line, subject to this subpart, while producing the heavy-density product or pipe product with the highest LOI expected to be produced on the affected line.

(9) The owner or operator of each rotary spin manufacturing line and flame attenuation manufacturing line regulated by this subpart must conduct performance tests using the resin with the highest free-formaldehyde content. During the performance test of each rotary spin manufacturing line and flame attenuation manufacturing line regulated by this subpart, the owner or operator shall monitor and record the free-formaldehyde content of the resin, the binder formulation used, and the product LOI and density.

(12) During the performance test, the owner or operator of a rotary spin manufacturing line or affected flame attenuation manufacturing line shall continuously record the operating temperature of each incinerator and record the average during each 1-hour test; the average operating temperature of the three 1-hour tests shall be used to monitor compliance.

(13) Unless disapproved by the Administrator, an owner or operator of a rotary spin or flame attenuation manufacturing line regulated by this subpart may conduct short-term experimental production runs using binder formulations or other process modifications where the process parameter values would be outside those established during performance tests without first conducting performance tests. Such runs must not exceed 1 week in duration unless the Administrator approves a longer period. The owner or operator must notify the Administrator and postmark or deliver the notification at least 15 days prior to commencement of the short-term experimental production runs. The Administrator must inform the owner or operator of a decision to disapprove or must request additional information prior to the date of the short-term experimental production runs. Notification of intent to perform an experimental short-term production run shall include the following information:

(i) The purpose of the experimental production run;

(ii) The affected line;

(iii) How the established process parameters will deviate from previously approved levels;

(iv) The duration of the experimental production run;

(v) The date and time of the experimental production run; and

(vi) A description of any emission testing to be performed during the experimental production run.

(b) To determine compliance with the PM emission limit for glass-melting furnaces, use the following equation:

$$E = \frac{C \times Q \times K_1}{P} \qquad \text{(Eq. 1)}$$

[View or download PDF:
http://a257.g.akamaitech.net/7/257/2422/04mar20050800/www.access.gpo.gov/ecfr/graphics/pdfs/er14jn99.040.pdf]

Where:

E = Emission rate of PM, kg/Mg (lb/ton) of glass pulled;

C = Concentration of PM, g/dscm (gr/dscf);

Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h);

K_1 = Conversion factor, 1 kg/1,000 g (1 lb/7,000 gr); and

P = Average glass pull rate, Mg/h (tons/h).

(c) To determine compliance with the emission limit for formaldehyde for rotary spin manufacturing lines and flame attenuation forming processes, use the following equation:

$$E = \frac{C \times MW \times Q \times K_1 \times K_2}{K_3 \times P \times 10^6} \quad \text{(Eq. 2)}$$

[View or download PDF:
http://a257.g.akamaitech.net/7/257/2422/04mar20050800/www.access.gpo.gov/ecfr/graphics/pdfs/er14jn99.041.pdf]

Where:

E = Emission rate of formaldehyde, kg/Mg (lb/ton) of glass pulled;

C = Measured volume fraction of formaldehyde, ppm;

MW = Molecular weight of formaldehyde, 30.03 g/g-mol;

Q = Volumetric flow rate of exhaust gases, dscm/h (dscf/h);

K1 = Conversion factor, 1 kg/1,000 g (1 lb/453.6 g);

K2 = Conversion factor, 1,000 L/m^3 (28.3 L/ft^3);

K3 = Conversion factor, 24.45 L/g-mol; and

P = Average glass pull rate, Mg/h (tons/h).

§63.1385 Test methods and procedures.

(a) The owner or operator shall use the following methods to determine compliance with the applicable emission limits:

(1) Method 1 (40 CFR part 60, appendix A) for the selection of the sampling port location and number of sampling ports;

(2) Method 2 (40 CFR part 60, appendix A) for volumetric flow rate;

(3) Method 3 or 3A (40 CFR part 60, appendix A) for O2 and CO2 for diluent measurements needed to correct the concentration measurements to a standard basis;

(4) Method 4 (40 CFR part 60, appendix A) for moisture content of the stack gas;

(5) Method 5 (40 CFR part 60, appendix A) for the concentration of PM. Each run shall consist of a minimum run time of 2 hours and a minimum sample volume of 60 dry standard cubic feet (dscf). The probe and filter holder heating system may be set to provide a gas temperature no greater than 177 ±14 °C (350 ±25 °F);

(6) Method 316 or Method 318 (appendix A of this part) for the concentration of formaldehyde. Each run shall consist of a minimum run time of 1 hour;

(7) Method contained in appendix A of this subpart for the determination of product LOI;

(8) Method contained in appendix B of this subpart for the determination of the free-formaldehyde content of resin;

(9) Method contained in appendix C of this subpart for the determination of product density;

(10) An alternative method, subject to approval by the Administrator.

(b) Each performance test shall consist of 3 runs. The owner or operator shall use the average of the three runs in the applicable equation for determining compliance.

§63.1386 Notification, recordkeeping, and reporting requirements.

(a) *Notifications*. As required by §63.9(b) through (h) of this part, the owner or operator shall submit the following written initial notifications to the Administrator:

(2) Notification that a source is subject to the standard, where the initial startup is before June 14, 2002.

(3) Notification that a source is subject to the standard, where the source is new or has been reconstructed, the initial startup is after June 14, 2002, and for which an application for approval of construction or reconstruction is not required;

(5) Notification of special compliance obligations;

(6) Notification of performance test; and

(7) Notification of compliance status.

(b) *Performance test report*. As required by §63.10(d)(2) of the general provisions, the owner or operator shall report the results of the initial performance test as part of the notification of compliance status required in paragraph (a)(7) of this section.

(c) *Startup, shutdown, and malfunction plan and reports*. (1) The owner or operator shall develop a written plan as described in §63.6(e)(3) that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standards. In addition to the information required in §63.6(e)(3), the plan shall include:

(i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;

(ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and

(iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and long-term maintenance.

(2) The owner or operator shall also keep records of each event as required by §63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in §63.10(e)(3)(iv) of this part.

(d) *Recordkeeping*. (1) As required by §63.10(b) of this part, the owner or operator shall maintain files of all information (including all reports and notifications) required by the general provisions and this subpart:

(i) The owner or operator must retain each record for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. The most recent 2 years of records must be retained at the facility. The remaining 3 years of records may be retained off site;

(ii) The owner or operator may retain records on microfilm, on a computer, on computer disks, on magnetic tape, or on microfiche; and

(iii) The owner or operator may report required information on paper or on a labeled computer disk using commonly available and EPA-compatible computer software.

(2) In addition to the general records required by §63.10(b)(2) of this part, the owner or operator shall maintain records of the following information:

(i) Any bag leak detection system alarms, including the date and time of the alarm, when corrective actions were initiated, the cause of the alarm, an explanation of the corrective actions taken, and when the cause of the alarm was corrected;

(ii) ESP parameter value(s) used to monitor ESP performance, including any period when the value(s) deviated from the established limit(s), the date and time of the deviation, when corrective actions were initiated, the cause of the deviation, an explanation of the corrective actions taken, and when the cause of the deviation was corrected;

(v) The formulation of each binder batch and the LOI and density for each product manufactured on a rotary spin manufacturing line or flame attenuation manufacturing line subject to the provisions of this subpart, and the free formaldehyde content of each resin shipment received and used in the binder formulation;

(ix) Glass pull rate, including any period when the pull rate exceeded the average pull rate established during the performance test by more than 20 percent, the date and time of the exceedance, when corrective actions were initiated, the cause of the exceedance, an explanation of the corrective actions taken, and when the cause of the exceedance was corrected.

(e) *Excess emissions report*. As required by §63.10(e)(3)(v) of this part, the owner or operator shall report semiannually if measured emissions are in excess of the applicable standard or a monitored parameter deviates from the levels established during the performance test. The report shall contain the information specified in §63.10(c) of this part as well as the additional records required by the recordkeeping requirements of paragraph (d) of this section. When no deviations have occurred, the owner or operator shall submit a report stating that no excess emissions occurred during the reporting period.

§63.1387 Compliance dates.

(a) *Compliance dates*. The owner or operator subject to the provisions of this subpart shall demonstrate compliance with the requirements of this subpart by no later than:

(1) June 14, 2002, for an existing glass-melting furnace, rotary spin manufacturing line, or flame attenuation manufacturing line; or

(2) Upon startup for a new glass-melting furnace, rotary spin manufacturing line, or flame attenuation manufacturing line.

(b) *Compliance extension*. The owner or operator of an existing source subject to this subpart may request from the Administrator an extension of the compliance date for the emission standards for one additional year if such additional period is necessary for the installation of controls. The owner or operator shall submit a request for an extension according to the procedures in §63.6(i)(3) of this part.

§63.1388 Implementation and enforcement.

(a) This subpart can be implemented and enforced by the U.S. EPA, or a delegated authority such as the applicable State, local, or Tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or Tribal agency, then that agency, in addition to the U.S. EPA, has the authority to implement and enforce this subpart. Contact the applicable U.S. EPA Regional Office to find out if implementation and enforcement of this subpart is delegated to a State, local, or Tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or Tribal agency under subpart E of this part, the authorities contained in paragraph (c) of this section are retained by the Administrator of U.S. EPA and cannot be transferred to the State, local, or Tribal agency.

(c) The authorities that cannot be delegated to State, local, or Tribal agencies are as specified in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the requirements in §§63.1380, 63., and 63.1387.

(2) Approval of major alternatives to test methods under §63.7(e)(2)(ii) and (f), as defined in §63.90, and as required in this subpart.

(3) Approval of major alternatives to monitoring under §63.8(f), as defined in §63.90, and as required in this subpart.

(4) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

§§63.1389-63.1399 [Reserved]

Table 1 to Subpart NNN of Part 63 – Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart NNN

General Provisions Citation	Requirement	Applies to Subpart NNN	Explanation
63.1(a)(1)-(a)(4)	Applicability	Yes	
63.1(a)(5)		No	[Reserved].
63.1(a)(6)-(a)(8)		Yes	
63.1(a)(9)		No	[Reserved].
63.1(a)(10)-(a)(14)		Yes	
63.1(b)(1)-(b)(3)	Initial Applicability Determination.	Yes	
63.1(c)(1)-(c)(2)	Applicability After Standard Established.	Yes	
63.1(c)(3)		No	[Reserved].
63.1(c)(4)-(c)(5)		Yes	
63.1(d)		No	[Reserved].
63.1(e)	Applicability of Permit Program.	Yes	
63.2	Definitions	Yes	Additional definitions in §63.1381.
63.3(a)-(c)	Units and Abbreviations	Yes	
63.4(a)(1)-(a)(3)	Prohibited Activities.	Yes	
63.4(a)(4)		No	[Reserved].
63.4(a)(5)		Yes	
63.4(b)-(c)		Yes	
63.5(a)(1)-(a)(2)	Construction/ Reconstruction.	Yes	
63.5(b)(1)	Existing, New, Reconstructed.	Yes	
63.5(b)(2)		No	[Reserved]

Table 1 to Subpart NNN of Part 63 – Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart NNN

General Provisions Citation	Requirement	Applies to Subpart NNN	Explanation
63.5(b)(3)-(b)(6)		Yes	
63.5(c)		No	[Reserved]
63.5(d)	Approval of Construction/ Reconstruction.	Yes	
63.5(e)		Yes	
63.5(f)		Yes	
63.6(a)	Compliance with Standards and Maintenance Requirements.	Yes	
63.6(b)(1)-(b)(5)		Yes	
63.6(b)(6)		No	[Reserved]
63.6(b)(7)		Yes	
63.6(c)(1)	Compliance Date for Existing Sources.	Yes	§63.1387 specifies compliance dates.
63.6(c)(2)		Yes	
63.6(c)(3)-(c)(4)		No	[Reserved]
63.6(c)(5)		Yes	
63.6(d)		No	[Reserved]
63.6(e)(1)-(e)(2)	Operation & Maintenance.	Yes	§63.1383 specifies operations/ maintenance plan.
63.6(e)(3)	Startup, Shutdown Malfunction Plan.	Yes	
63.6(f)(1)-(f)(3)	Compliance with Nonopacity Emission Standards.	Yes	
63.6(g)(1)-(g)(3)	Alternative Nonopacity Standard.	Yes	
63.6(h)	Opacity/VE Standards.	No	Subpart NNN-no COMS, VE or opacity standards.
63.6(i)(1)-(i)(14)	Extension of Compliance	Yes	
63.6(i)(15)		No	[Reserved]
63.6(i)(16)		Yes	
63.6(j)	Exemption from Compliance.	Yes	
63.7(a)	Performance Testing Requirements.	Yes	§63.1384 has specific requirements.
63.7(b)	Notification.	Yes	
63.7(c)	Quality Assurance Program/Test Plan.	Yes	
63.7(d)	Performance Testing Facilities.	Yes	
63.7(e)(1)-(e)(4)	Conduct of Performance Tests.	Yes	
63.7(f)	Alternative Test Method	Yes	
63.7(g)	Data Analysis	Yes	
63.7(h)	Waiver of Performance Tests.	Yes	
63.8(a)(1)-(a)(2)	Monitoring Requirements	Yes	
63.8(a)(3)		No	[Reserved]
63.8(a)(4)		Yes	
63.8(b)	Conduct of Monitoring	Yes	
63.8(c)	CMS Operation/ Maintenance.	Yes	
63.8(d)	Quality Control Program	Yes	
63.8(e)	Performance Evaluation for CMS.	Yes	

Table 1 to Subpart NNN of Part 63 – Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart NNN

General Provisions Citation	Requirement	Applies to Subpart NNN	Explanation
63.8(f)	Alternative Monitoring Method.	Yes	
63.8(g)	Reduction of Monitoring Data.	Yes	
63.9(a)	Notification Requirements.	Yes	
63.9(b)	Initial Notifications.	Yes	
63.9(c)	Request for Compliance Extension.	Yes	
63.9(d)	New Source Notification for Special Compliance Requirements.	Yes	
63.9(e)	Notification of Performance Test.	Yes	
63.9(f)	Notification of VE/ Opacity Test.	No	Opacity/VE tests not required.
63.9(g)	Additional CMS Notifications.	Yes	
63.9(h)(1)-(h)(3)	Notification of Compliance Status.	Yes	
63.9(h)(4)		No	[Reserved]
63.9(h)(5)-(h)(6)		Yes	
63.9(i)	Adjustment of Deadlines	Yes	
63.9(j)	Change in Previous Information.	Yes	
63.10(a)	Recordkeeping/Reporting	Yes	
63.10(b)	General Requirements	Yes	
63.10(c)(1)	Additional CMS Recordkeeping.	Yes	
63.10(c)(2)-(c)(4)..		No	[Reserved]
63.10(c)(5)-(c)(8)..		Yes	
63.10(c)(9)		No	[Reserved]
63.10(c)(10)-(15)		Yes	
63.10(d)(1)	General Reporting Requirements.	Yes	
63.10(d)(2)	Performance Test Results.	Yes	
63.10(d)(3)	Opacity or VE Observations.	No	No limits for VE/ opacity.
63.10(d)(4)	Progress Reports	Yes	
63.10(d)(5)	Startup, Shutdown, Malfunction Reports.	Yes	
63.10(e)(1)-(e)(3)	Additional CMS Reports.	Yes	
63.10(e)(4)	Reporting COM Data	No	COM not required.
63.10(f)	Waiver of Recordkeeping/ Reporting.	Yes	
63.11(a)	Control Device Requirements.	Yes	
63.11(b)	Flares	No	Flares not applicable.
63.12	State Authority and Delegations.	Yes	
63.13	State/Regional Addresses.	Yes	
63.14	Incorporation by Reference.	No	
63.15	Availability of Information.	Yes	

Appendix A to Subpart NNN of Part 63 – Method for the Determination of LOI

1. Purpose

The purpose of this test is to determine the LOI of cured blanket insulation. The method is applicable to all cured board and blanket products.

2. Equipment

2.1 Scale sensitive to 0.1 gram.

2.2 Furnace designed to heat to at least 540 °C (1,000 °F) and controllable to ±10 °C (50 °F).

2.3 Wire tray for holding specimen while in furnace.

3. Procedure

3.1 Cut a strip along the entire width of the product that will weigh at least 10.0 grams. Sample should be free of dirt or foreign matter.

Note: Remove all facing from sample.

3.2 Cut the sample into pieces approximately 12 inches long, weigh to the nearest 0.1 gram and record. Place in wire tray. Sample should not be compressed or overhang on tray edges.

Note: On air duct products, remove shiplaps and overspray.

3.3 Place specimen in furnace at 540 °C (1,000 °F), ±10 °C (50 °F) for 15 to 20 minutes to insure complete oxidation. After ignition, fibers should be white and should not be fused together.

3.4 Remove specimen from the furnace and cool to room temperature.

3.5 Weigh cooled specimen and wire tray to the nearest 0.1 gram. Deduct the weight of the wire tray and then calculate the loss in weight as a percent of the original specimen weight.

Appendix B to Subpart NNN of Part 63 – Free Formaldehyde Analysis of Insulation Resins by Hydroxylamine Hydrochloride

1. Scope

This method was specifically developed for water-soluble phenolic resins that have a relatively high free-formaldehyde (FF) content such as insulation resins. It may also be suitable for other phenolic resins, especially those with a high FF content.

2. Principle

2.1 a. The basis for this method is the titration of the hydrochloric acid that is liberated when hydroxylamine hydrochloride reacts with formaldehyde to form formaldoxine:

$$HCHO + NH_2OH{:}HCl \rightarrow CH_2{:}NOH + H_2O + HCl$$

b. Free formaldehyde in phenolic resins is present as monomeric formaldehyde, hemiformals, polyoxymethylene hemiformals, and polyoxymethylene glycols. Monomeric formaldehyde and hemiformals react rapidly with hydroxylamine hydrochloride, but the polymeric forms of formaldehyde must hydrolyze to the monomeric state before they can react. The greater the concentration of free formaldehyde in a resin, the more of that formaldehyde will be in the polymeric form. The hydrolysis of these polymers is catalyzed by hydrogen ions.

2.2 The resin sample being analyzed must contain enough free formaldehyde so that the initial reaction with hydroxylamine hydrochloride will produce sufficient hydrogen ions to catalyze the depolymerization of the polymeric formaldehyde within the time limits of the test method. The sample should contain approximately 0.3 grams free formaldehyde to ensure complete reaction within 5 minutes.

3. Apparatus

3.1 Balance, readable to 0.01 g or better.

3.2 pH meter, standardized to pH 4.0 with pH 4.0 buffer and pH 7 with pH 7.0 buffer.

3.3 50-mL burette for 1.0 N sodium hydroxide.

3.4 Magnetic stirrer and stir bars.

3.5 250-mL beaker.

3.6 50-mL graduated cylinder.

3.7 100-mL graduated cylinder.

3.8 Timer.

4. Reagents

4.1 Standardized 1.0 N sodium hydroxide solution.

4.2 Hydroxylamine hydrochloride solution, 100 grams per liter, pH adjusted to 4.00.

4.3 Hydrochloric acid solution, 1.0 N and 0.1 N.

4.4 Sodium hydroxide solution, 0.1 N.

4.5 50/50 v/v mixture of distilled water and methyl alcohol.

5. Procedure

5.1 Determine the sample size as follows:

a. If the expected FF is greater than 2 percent, go to Part A to determine sample size.

b. If the expected FF is less than 2 percent, go to Part B to determine sample size.

c. Part A: Expected FF ≥ 2 percent.

Grams resin = 60/expected percent FF

i. The following table shows example levels:

Expected % free formaldehyde	Sample size, grams
2	30.0
5	12.0
8	7.5
10	6.0
12	5.0
15	4.0

ii. It is very important to the accuracy of the results that the sample size be chosen correctly. If the milliliters of titrant are less than 15 mL or greater than 30 mL, reestimate the needed sample size and repeat the tests.

d. Part B: Expected FF < 2 percent

Grams resin = 30/expected percent FF

i. The following table shows example levels:

Expected % free formaldehyde	Sample size, grams
2	15
1	30
0.5	60

ii. If the milliliters of titrant are less than 5 mL or greater than 30 mL, reestimate the needed sample size and repeat the tests.

5.2 Weigh the resin sample to the nearest 0.01 grams into a 250-mL beaker. Record sample weight.

5.3 Add 100 mL of the methanol/water mixture and stir on a magnetic stirrer. Confirm that the resin has dissolved.

5.4 Adjust the resin/solvent solution to pH 4.0, using the prestandardized pH meter, 1.0 N hydrochloric acid, 0.1 N hydrochloric acid, and 0.1 N sodium hydroxide.

5.5 Add 50 mL of the hydroxylamine hydrochloride solution, measured with a graduated cylinder. Start the timer.

5.6 Stir for 5 minutes. Titrate to pH 4.0 with standardized 1.0 N sodium hydroxide. Record the milliliters of titrant and the normality.

6. Calculations

$$\% FF = \frac{\text{mL sodium hydroxide x 3.003}}{\text{grams of sample}}$$

[View or download PDF:
http://a257.g.akamaitech.net/7/257/2422/04mar20050800/www.access.gpo.gov/ecfr/graphics/pdfs/er14jn99.042.pdf]

7. Method Precision and Accuracy

Test values should conform to the following statistical precision:

Variance = 0.005

Standard deviation = 0.07

95% Confidence Interval, for a single determination = 0.2

8. Author

This method was prepared by K. K. Tutin and M. L. Foster, Tacoma R&D Laboratory, Georgia-Pacific Resins, Inc. (Principle written by R. R. Conner.)

9. References

9.1 GPAM 2221.2.

9.2 PR&C TM 2.035.

9.3 Project Report, Comparison of Free Formaldehyde Procedures, January 1990, K. K. Tutin.

Appendix C to Subpart NNN of Part 63 – Method for the Determination of Product Density

1. Purpose

The purpose of this test is to determine the product density of cured blanket insulation. The method is applicable to all cured board and blanket products.

2. Equipment

One square foot (12 in. by 12 in.) template, or templates that are multiples of one square foot, for use in cutting insulation samples.

3. Procedure

3.1 Obtain a sample at least 30 in. long across the machine width. Sample should be free of dirt or foreign matter.

3.2 Lay out the cutting pattern according to the plant's written procedure for the designated product.

3.2 Cut samples using one square foot (or multiples of one square foot) template.

3.3 Weigh product and obtain area weight (lb/ft^2).

3.4 Measure sample thickness.

3.5 Calculate the product density:

Density (lb/ft^3) = area weight (lb/ft^2)/thickness (ft)

E.1.4 State Only Wool Fiberglass Manufacturing NESHAP Requirements [326 IAC 20-47]

Pursuant to 326 IAC 20-47, the Permittee shall comply with the provisions of the June 14, 1999 version of 40 CFR Part 63, Subpart NNN, which are incorporated by reference as 326 IAC 20-47, for the glass melting furnaces and rotary spin wool fiberglass manufacturing lines identified as 602B FURNACE, MFG 602, FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING. The Permittee shall comply with the provisions of 40 CFR Part 63, Subpart NNN, as listed in condition E.1.3, except the Permittee shall follow the requirements of the June 14, 1999 version of 40 CFR Part 63, Subpart NNN, as incorporated into 326 IAC 20-47, as follows.

§63.1386 Notification, recordkeeping, and reporting requirements.

(c) *Startup, shutdown, and malfunction plan and reports*. (1) The owner or operator shall develop and implement a written plan as described in § 63.6(e)(3) of this part that contains specific procedures to be followed for operating the source and maintaining the source during periods of startup, shutdown, and malfunction and a program of corrective action for malfunctioning process modifications and control systems used to comply with the standard. In addition to the information required in § 63.6(e)(3), the plan shall include:

(i) Procedures to determine and record the cause of the malfunction and the time the malfunction began and ended;

(ii) Corrective actions to be taken in the event of a malfunction of a control device or process modification, including procedures for recording the actions taken to correct the malfunction or minimize emissions; and

(iii) A maintenance schedule for each control device and process modification that is consistent with the manufacturer's instructions and recommendations for routine and longterm maintenance.

(2) The owner or operator shall also keep records of each event as required by § 63.10(b) of this part and record and report if an action taken during a startup, shutdown, or malfunction is not consistent with the procedures in the plan as described in § 63.10(e)(3)(iv) of this part.

The requirements of 326 IAC 20-47 listed in this condition are not federally enforceable.

E.1.5 One-Time Deadlines Relating to Wool Fiberglass Manufacturing Notifications [40 CFR Part 63, Subpart NNN]

The Permittee shall comply with the following notification requirements by the dates listed:

Requirement	Rule Cite	Affected Facility	Deadline
General Notifications: • Notification of Performance Test • Notification: source is subject to special compliance requirements	40 CFR 63.1386(a); 40 CFR 63.7(b) and 40 CFR 63.9(e); 40 CFR 63.1386(a)(5); 40 CFR 63.9(d)	602B FURNACE, MFG 602, FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING	60 days before test same date as Initial Notification
Initial Notification *	40 CFR 63.1386(a) and 40 CFR 63.9(b)	MFG 602	October 12, 1999
Initial Notification *	40 CFR 63.1386(a) and 40 CFR 63.9(b)	602B FURNACE	within 120 calendar days after startup
Initial Notification *	40 CFR 63.1386(a) and 40 CFR 63.9(b)	FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING	within 120 calendar days after startup
Initial Compliance Date	40 CFR 63.1387(a)	MFG 602	June 14, 2002
Initial Compliance Date	40 CFR 63.1387(a)	602B FURNACE	Startup
Initial Compliance Date	40 CFR 63.1387(a)	FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING	Startup
Conduct Initial Compliance Demonstration (Initial Performance Test)	40 CFR 63.1384(a)	MFG 602	180 days after June 14, 2002
Conduct Initial Compliance Demonstration (Initial Performance Test)	40 CFR 63.1384(a)	602B FURNACE	180 days after startup

Requirement	Rule Cite	Affected Facility	Deadline
Conduct Initial Compliance Demonstration (Initial Performance Test)	40 CFR 63.1384(a)	FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING	180 days after startup
Notification of Compliance Status	40 CFR 63.1386(a)(7); 40 CFR 63.9(h)	602B FURNACE, MFG 602, FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING	within 60 days after compliance demonstration
Excess Emissions Report	40 CFR 63.1386(e); 40 CFR 63.10(e)(3)	602B FURNACE, MFG 602, FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING	semi-annually

The Permittee submitted the Initial Notification for FURNACE 611, 613 FORMING, 614 FORMING, 613 CURING/COOLING, and 614 CURING/COOLING with the permit application for the expansion on February 28, 2005.

The Permittee submitted the Initial Notification for 602B FURNACE with the permit application for the expansion on May 24, 2006.

SECTION E.2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) REQUIREMENTS [326 IAC 2-7-5(1)]

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

(c) 602 LF MFG – Stack 6-22
One (1) rotary spin wool fiberglass manufacturing line consisting of a forming section, identified as Unit ID # 602 LF MFG,
- installed in 2007,
- operating at a nominal processing capacity of 170 tons of glass per day,
- operating with one (1) natural gas direct fired fiberizing section with a rated heat input capacity of 60 MMBtu per hour (Unit ID # 602 LF MFG),
- utilizing one (1) wet electrostatic precipitator for particulate control (Unit ID # 602 LF MFG), and
- exhausting through one (1) stack ID # 6-22.
- 602 LF MFG is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(f) Ten (10) rotary spin wool fiberglass pipe insulation production lines consisting of ten (10) natural gas fired curing ovens, identified as Unit ID # LINE 3001 – 3010, respectively,
- each with a maximum heat input capacity of 5 MMBtu per hour, each exhausting through two (2) stacks ID # 7-2 and 7-3, 8-2 and 8-3, 9-2 and 9-3, 10-2 and 10-3, 11-2 and 11-3, 12-2 and 12-3, 13-2 and 13-3, 14-2 and 14-3, 16-2 and 16-3, and 17-2 and 17-3, respectively,
- each with a trimming process utilizing a dust collector for particulate control, each exhausting through stack ID # 7-4, 8-4, 9-4, 10-4, 11-4, 12-4, 13-4, 14-4, and 16-4, respectively,
- LINE 3001 – 3005 and 3008 each constructed in April 1996, LINE 3006-3007 each constructed in December 1994, LINE 3009 constructed October 1997, and LINE 3010 permitted in 2008.
- LINE 3001 – 3010 are affected facilities subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(i) Stack 6-22

(1) 611 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 611 FORMING, utilizing natural gas for fiberization. Products formed in 611 FORMING are ready for packaging.
- The nominal capacity of 611 FORMING has been classified as confidential information.
- The particulate emissions from 611 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
- Controlled emissions from 611 FORMING exhaust through a stack identified as Stack 6-22.
- 611 FORMING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(2) 612 FORMING
One (1) rotary spin wool fiberglass forming section, identified as 612 FORMING, utilizing natural gas for fiberization. Products formed in 612 FORMING are ready for packaging.
- The nominal capacity of 612 FORMING has been classified as confidential information.
- The particulate emissions from 612 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
- Controlled emissions from 612 FORMING exhaust through a stack identified as Stack 6-22.
- 612 FORMING is an affected facility subject to the Standards of Performance for

Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(3) 613 FORMING

One (1) rotary spin wool fiberglass forming section, identified as 613 FORMING, utilizing natural gas for fiberization. Products formed in 613 FORMING are routed to the 613 CURING/COOLING.

- The nominal capacity of 613 FORMING has been classified as confidential information.
- The particulate emissions from 613 FORMING are controlled by a wet electrostatic precipitator (ESP) This wet ESP is common to all the forming sections.
- Controlled emissions from 613 FORMING exhaust through a stack identified as Stack 6-22.
- 613 FORMING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(4) 614 FORMING

One (1) rotary spin wool fiberglass forming section, identified as 614 FORMING, utilizing natural gas for fiberization. Products formed in 614 FORMING are routed to the 614 CURING/COOLING.

- The nominal capacity of 614 FORMING has been classified as confidential information.
- The particulate emissions from 614 FORMING are controlled by a wet electrostatic precipitator (ESP). This wet ESP is common to all the forming sections.
- Controlled emissions from 614 FORMING exhaust through a stack identified as Stack 6-22.
- 614 FORMING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(j) Stack 6-29

(1) 613 CURING/COOLING

One (1) rotary spin wool fiberglass curing/cooling section, identified as 613 CURING/COOLING, consisting of natural gas fired curing oven(s), duct burners, and edge coat dryer burner.

- The nominal capacity of 613 CURING/COOLING has been classified as confidential information.
- The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 613 CURING/COOLING are controlled by two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour.
- The NOx emissions from each curing oven, duct burner and edge coat dryer of 613 CURING/COOLING are reduced by low NOx burners.
- Controlled emissions from 613 CURING/COOLING exhaust through a stack identified as Stack 6-29.
- 613 CURING/COOLING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

(2) 614 CURING/COOLING

One (1) rotary spin wool fiberglass curing/cooling section, identified as 614 CURING/COOLING, consisting of natural gas fired curing oven(s) and duct burners.

- The nominal capacity of 614 CURING/COOLING has been classified as confidential information.
- The volatile organic compound (VOC), hazardous air pollutants (HAPs), and condensible particulate emissions from 614 CURING/COOLING are controlled by the same two (2) regenerative thermal oxidizers (RTOs), each rated at 2 million Btu per hour, that control VOC emissions from 613 CURING/COOLING.

– The NOx emissions from each curing oven and duct burner of 614 CURING/COOLING are reduced by low NOx burners.
– Controlled emissions from 614 CURING/COOLING exhaust through a stack identified as Stack 6-29.
– 614 CURING/COOLING is an affected facility subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

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

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

(a) The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for:

(1) 602 LF MFG;

(2) LINE 3001 – 3010

(3) 613 FORMING and 613 CURING/COOLING; and

(4) 614 FORMING and 614 CURING/COOLING.

(b) 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

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

E.2.2 Applicability of Wool Fiberglass Manufacturing NSPS Requirements [40 CFR Part 60, Subpart PPP]

The provisions of 40 CFR Part 60, Subpart PPP (Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants) apply to:

(1) 602 LF MFG;

(2) LINE 3001 – 3010

(3) 613 FORMING and 613 CURING/COOLING; and

(4) 614 FORMING and 614 CURING/COOLING.

A copy of this rule is available on the US EPA Website.

E.2.3 Wool Fiberglass Manufacturing Requirements [40 CFR Part 60, Subpart PPP]

(a) Pursuant to CFR Part 60, Subpart PPP, the Permittee shall comply with the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants for LINE 3001 – 3010.

(b) Pursuant to CFR Part 60, Subpart PPP, the Permittee shall comply upon startup with the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants for:

(1) 602 LF MFG;

(2) 613 FORMING and 613 CURING/COOLING; and

(3) 614 FORMING and 614 CURING/COOLING.

§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 1b/ton) of glass pulled.

§60.683 Monitoring of operations.

(b) An owner or operator subject to the provisions of this subpart who uses a wet electrostatic precipitator control device to comply with the mass emission standard shall install, calibrate, maintain, and operate monitoring devices that measure the primary and secondary current (amperes) and voltage in each electrical field and the inlet water flow rate. In addition, the owner or operator shall determine the total residue (total solids) content of the water entering the control device once per day using Method 209A, "Total Residue Dried at 103 – 105 °C," in *Standard Methods for the Examination of Water and Wastewater,* 15th Edition, 1980 (incorporated by reference – see §60.17). Total residue shall be reported as percent by weight. All monitoring devices required under this paragraph are to be certified by their manufacturers to be accurate within ±5 percent over their operating range.

(c) All monitoring devices required under this section are to be recalibrated quarterly in accordance with procedures under §60.13(b).

§60.684 Recordkeeping and reporting requirements.

(b) At 30-minute intervals during each 2-hour test run of each performance test of a wet electrostatic precipitator control device and at least once every 4 hours thereafter, the owner or operator shall record the measurements required by §60.683(b), except that the concentration of total residue in the water shall be recorded once during each performance test and once per day thereafter.

(c) Records of the measurements required in paragraphs (a) and (b) of this section must be retained for at least 2 years.

(d) Each owner or operator shall submit written semiannual reports of exceedances of control device operating parameters required to be monitored by paragraphs (a) and (b) of this section and written documentation of, and a report of corrective maintenance required as a result of, quarterly calibrations of the monitoring devices required in §60.683(c). For the purpose of these reports, exceedances are defined as any monitoring data that are less than 70 percent of the lowest value or greater than 130 percent of the highest value of each operating parameter recorded during the most recent performance test.

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

§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).

Pursuant to the letter from U.S. EPA dated May 15, 2006, the Permittee shall use continuous glass pull rate monitoring through the use of continuous glass flow cameras in lieu of the monitoring requirements specified in 40 CFR 63.685(c)(3).

(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.

E.2.4 Notification Dates Relating to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants [40 CFR Part 60, Subpart PPP]

The Permittee shall comply with the notification requirements by the dates listed in the following table:

Requirement	Rule Cite	Affected Facility	Deadline
Notification of the Date Construction (or Reconstruction) is Commenced	40 CFR 60.7(a)(1)	602 LF MFG; 613 FORMING and 613 CURING/COOLING; and; 614 FORMING and 614 CURING/COOLING.	30 days after construction commences
Notification of the Actual Date of Initial Startup	40 CFR 60.7(a)(3)	602 LF MFG; 613 FORMING and 613 CURING/COOLING; and; 614 FORMING and 614 CURING/COOLING.	15 days after date of initial startup
Notification of any Physical or Operational Change	40 CFR 60.7(a)(4)	602 LF MFG; LINE 3001–3009; 613 FORMING and 613 CURING/COOLING; and; 614 FORMING and 614 CURING/COOLING.	60 days before change commences
Notification of Demonstration of the Continuous Monitoring System Performance	40 CFR 60.7(a)(5)	602 LF MFG; LINE 3001–3009; 613 FORMING and 613 CURING/COOLING; and; 614 FORMING and 614 CURING/COOLING.	30 days prior to demonstration
Notification of the Anticipated Date for Conducting the Opacity Observations	40 CFR 60.7(a)(6)	602 LF MFG; LINE 3001–3009; 613 FORMING and 613 CURING/COOLING; and; 614 FORMING and 614 CURING/COOLING.	30 days prior to opacity observations
Conduct Performance Test	40 CFR 60.8(a)	602 LF MFG; 613 FORMING and 613 CURING/COOLING; and; 614 FORMING and 614 CURING/COOLING.	60-180 after initial startup
Notification of Performance Test	40 CFR 60.8(d)	602 LF MFG; LINE 3001–3009; 613 FORMING and 613 CURING/COOLING; and; 614 FORMING and 614 CURING/COOLING.	30 days before test

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Knauf Insulation GmbH
Source Address: 400 East Walker Street, Shelbyville, Indiana 46176
Mailing Address: 400 East Walker Street, Shelbyville, Indiana 46176
Part 70 Permit No.: T 145-6038-00001

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify): _____

☐ Report (specify): _____

☐ Notification (specify): _____

☐ Affidavit (specify): _____

☐ Other (specify): _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Knauf Insulation GmbH
Source Address: 400 East Walker Street, Shelbyville, Indiana 46176
Mailing Address: 400 East Walker Street, Shelbyville, Indiana 46176
Part 70 Permit No.: T 145-6038-00001

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**) 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 Describe: Type of Pollutants Emitted: ☐ TSP ☐ PM-10 ☐ SO_2 ☐ VOC ☐ NO_X ☐ CO ☐ Pb ☐ other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch
100 North Senate Avenue, MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

ANNUAL MOLTEN GLASS PRODUCTION REPORT

Source Name: Knauf Insulation GmbH
Source Address: 400 East Walker Street, Shelbyville, Indiana 46176
Mailing Address: 400 East Walker Street, Shelbyville, Indiana 46176
Part 70 Permit No.: T 145-6038-00001
Facility: 602 LF MFG
Parameter: Molten Glass
Limit: 60,050 tons of molten glass per 12-consecutive month period, with compliance determined at the end of each month.

REPORTING YEAR: _____

Month	**Glass Production**		
	Column 1	Column 2	Column 1 + Column 2
	This Month (tons/month)	**Previous 11 Months** (tons)	**12 Month Total** (tons/year)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance Branch

100 North Senate Avenue, MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

ANNUAL MOLTEN GLASS PRODUCTION REPORT

Source Name: Knauf Insulation GmbH
Source Address: 400 East Walker Street, Shelbyville, Indiana 46176
Mailing Address: 400 East Walker Street, Shelbyville, Indiana 46176
Part 70 Permit No.: T 145-6038-00001
Facility: MFG 611
Parameter: Molten Glass
Limit: 107,310 tons of molten glass per 12-consecutive month period, with compliance determined at the end of each month.

REPORTING YEAR: _____

Month	**Glass Production**		
	Column 1	Column 2	Column 1 + Column 2
	This Month (tons/month)	**Previous 11 Months** (tons)	**12 Month Total** (tons/year)

☐ No deviation occurred in this quarter.

☐ Deviations occurred in this quarter.
Deviation has been reported on: _____

Submitted By: _____

Title/Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Knauf Insulation GmbH
Source Address: 400 East Walker Street, Shelbyville, Indiana 46176
Mailing Address: 400 East Walker Street, Shelbyville, Indiana 46176
Part 70 Permit No.: T 145-6038-00001

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

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Description and Location

Source Name:	Knauf Insulation GmbH
Source Location:	One Knauf Drive, Shelbyville, Indiana 46176
County:	Shelby
SIC Code:	3296
Operation Permit No.:	T 145-6038-00001
Operation Permit Issuance Date:	September 14, 1999
Minor Source Modification No.:	145-26896-00001
Significant Permit Modification No.:	145-26929-00001
Permit Reviewer:	Madhurima D. Moulik

Existing Approvals

The source was issued Part 70 Operating Permit No. T145-6038-00001 on September 14, 1999. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
First Significant Permit Modification	145-11969-00001	July 6, 2000
Second Significant Permit Modification	145-14586-00001	November 20, 2001
First Reopening	145-13486-00001	January 7, 2002
First Administrative Amendment	145-15521-00001	July 15, 2002
Second Administrative Amendment	145-18469-00001	December 17, 2003
First Significant Source Modification	145-20887-00001	November 9, 2005
Third Significant Permit Modification	145-21234-00001	December 27, 2005
Second Significant Source Modification	145-23127-00001	September 1, 2006
Fourth Significant Permit Modification	145-23151-00001	October 19, 2006
Third Administrative Amendment	145-24620-00001	June 14, 2007
PSD/Third Significant Source Modification	145-26214-00001	October 23, 2008
Fifth Significant Permit Modification	145-26651-00001	November 7, 2008

County Attainment Status

The source is located in Shelby County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective October 19, 2007, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards

(1) 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.

(2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, and St. Joseph counties as attainment for the 8-hour ozone standard.

(3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby and St. Joseph counties as attainment for the 8-hour ozone standard.

(4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Shelby County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM2.5
Shelby County has been classified as attainment for PM2.5. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM2.5 emissions, and the effective date of these rules is July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM10 emissions as a surrogate for PM2.5 emissions until 326 IAC 2-2 is revised.

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

(d) Since this source is classified as a glass fiber processing plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(e) Fugitive Emissions
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

	Potential to Emit (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Raw Material Handling (RMH) (2006)	1.64	1.64	0.00	0.00	0.00	0.00	0.00
MFG 602 forming and oven (1983)	99.02	99.77	1.88	20.92	48.75	36.49	0.2365
602 LF MFG (2007)	87.35	88.85	0.16	1.45	271.17	59.79	0.2365
602B FURNACE (2007)	24.89	25.64	0.08	0.72	145.0	13.14	0.4730
602 LF SEPARATOR (2007)	4.60	4.60	0.00	0.00	0.00	0.00	0.00
602 LF PACKAGING (2007)	0.66	0.66	0.00	0.00	0.00	0.00	0.00
611 FURNACE (2006)	8.85	8.85	0.00	0.00		0.00	0.00
611 FORMING (2006)							
612 FORMING (2006)							
613 FORMING (2006)	240.90	240.90	10.95	123.19	240.10	145.64	Single HAP > 10 Total HAPs > 25
613 CURING/ COOLING (2006)							
614 FORMING (2006)							
614 CURING/ COOLING (2006)							
Production Lines Curing Ovens 3001 through 3005 & 3008 (1996) 3006 & 3007 (1994) 3009 (1997)	28.07	28.07	0.00	55.23	68.94	15.78	Single HAP > 10 Total HAPs > 25
Total PTE	495.98	498.98	13.07	201.51	773.90	270.84	Single HAP > 10 Total HAPs > 25

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

(c) These emissions are based upon the Technical Support Documents for Part 70 Permit No. T145-6038-00001 issued on September 14, 1999 and PSD/SSM No. 145-26214-00001 issued on October 23, 2008.

(d) This existing source is a major source of HAPs, as defined in 40 CFR 63.41, because HAP emissions are greater than ten (10) tons per year for a single HAP and greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Knauf Insulation GmbH on April 21, 2008 requesting an approval for the construction and operation of a new pipe insulation production line including the following emission units:

(1) One (1) pipe insulation production line, identified as line 3010, including the following emission units:

(a) One (1) tack adhesive application process, to be constructed in 2009, identified as emission unit 17-1, exhausting to stack no. 17-1.

(b) One (1) curing oven, to be constructed in 2009, identified as emission unit 1702, exhausting to stack no. 17-2.

(c) One (1) trimming operation, to be constructed in 2009, using a dust collector identified as 15-1 (with a back-up dust collector identified as 15-2), exhausting to stack no. 15-1 or 15-2, respectively.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (^{0}F)
17-1	Tack Adhesive	Not Available	Not Available	Not Available	Not Available
17-2	Curing Oven	40.0	1.35	5000	500.0
17-3	Curing Oven	40.0	1.35	5000	500.0
15-1 or 15-2	Trimming	40.0	2.25	16000	100.0

Emission Calculations

Knauf Insulation GmbH has claimed confidentiality for information related to the details of the emissions calculations for the proposed pipe insulation line. IDEM has determined that the information submitted is confidential.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Potential To Emit (ton/yr)
PM	14.9
PM_{10}	14.9
SO_2	negligible
VOC	25.9
CO	9.1
NO_X	5.3

HAPs	**Potential To Emit** (ton/yr)
Single HAP	negligible
TOTAL	negligible

This source modification is subject to Minor Source Modification requirements because, pursuant to 326 IAC 2-7-10.5(d)(8), a minor source modification is appropriate for "a modification that has a potential to emit greater than the thresholds under subdivision (3) that adds an emissions unit or units of the same type that are already permitted and that will comply with the same applicable requirements and permit terms and conditions as the existing emission unit or units, except if the modification would result in a potential to emit greater than the thresholds in 326 IAC 2-2 or 326 IAC 2-3". The emission units associated with the proposed pipe insulation manufacturing line 3010 are of the same type as existing emission units at pipe insulation lines 3001 through 3009. Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12, because pursuant to 326 IAC 2-7-12(b)(1)(C)(i), a minor permit modification can only be processed for modifications that "do not require or change a case-by-case determination of an emission limitation or other standard". Since this modification includes PSD minor limitations for the proposed pipe insulation manufacturing line 3010, a significant permit modification will be issued.

PTE of Source after Modification

The table below summarizes the potential to emit of the entire source, after the proposed modification, after consideration of all enforceable limits established in the effective permits:

	Potential to Emit (tons/year)						
Process/emission unit	PM	PM-10	SO_2	VOC	CO	NO_X	HAPs
Raw Material Handling (RMH) (2006)	1.64	1.64	0.00	0.00	0.00	0.00	0.00
MFG 602 forming and oven (1983)	99.02	99.77	1.88	20.92	48.75	36.49	0.2365
602 LF MFG (2007)	87.35	88.85	0.16	1.45	271.17	59.79	0.2365
602B FURNACE (2007)	24.89	25.64	0.08	0.72	145.0	13.14	0.4730
602 LF SEPARATOR (2007)	4.60	4.60	0.00	0.00	0.00	0.00	0.00
602 LF PACKAGING (2007)	0.66	0.66	0.00	0.00	0.00	0.00	0.00
611 FURNACE (2006)	8.85	8.85	0.00	0.00		0.00	0.00
611 FORMING (2006)							
612 FORMING (2006)							
613 FORMING (2006)	240.90	240.90	10.95	123.19	240.10	145.64	Single HAP > 10 Total HAPs > 25
613 CURING/ COOLING (2006)							
614 FORMING (2006)							
614 CURING/ COOLING (2006)							

	Potential to Emit (tons/year)						
Production Lines Curing Ovens 3001 through 3005 & 3008 (1996) 3006 & 3007 (1994) 3009 (1997)	28.07	28.07	0.00	55.23	68.94	15.78	Single HAP > 10 Total HAPs > 25
Proposed Pipe Insulation Line 3010 (to be constructed in 2009)	14.9	14.9	--	24.9	9.1	5.3	
Total PTE	510.88	513.88	13.07	226.41	783.00	276.14	Single HAP > 10 Total HAPs > 25

Permit Level Determination – PSD or Emission Offset

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

	Potential to Emit (ton/yr)					
Process / Emission Unit	**PM***	**PM*$_{10}$**	**SO_2**	**VOC**	**CO**	**NO_X**
3010 Curing Oven	14.9	14.9	--	18.4	9.1	5.3
Tack adhesive Application			--	7.5	--	--
Trimming						
Total for Modification	14.9	14.9	--	25.9	9.1	6.3
Significant Level	25.0	15.0	40.0	40.0	100.0	40.0

*Limited potential to emit

Since this source is considered a major PSD source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM per year and fifteen (15) tons of PM_{10} per year, this source has elected to limit the potential to emit of this modification as follows:

(a) The PM emission rate from the Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) to 3.4 pounds per hour.

(b) The PM_{10} emission rate from the Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) to 3.4 pounds per hour.

Compliance with these emission limits will ensure that the potential to emit from this modification is less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM_{10} per year, and therefore will render the requirements of 326 IAC 2-2 not applicable.

Federal Rule Applicability Determination

The following federal rules are applicable to the proposed pipe insulation line 3010:

(a) The proposed pipe insulation line 3010 is subject to the New Source Performance Standards for Wool Fiberglass Insulation Manufacturing Plants (NSPS)(326 IAC 12 and 40 CFR Part 60 Subpart PPP).

The provisions of this NSPS applicable to the proposed pipe insulation line 3010 are identical to the rule applicability to the existing pipe insulation manufacturing lines 3001-3009 and are already included in Section E.2 of the existing permit.

(d) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Pursuant to 40 CFR 64.2(b)(i), CAM requirements do not apply to Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Clean Air Act. Since the PM emission limitation applicable to the proposed pipe insulation manufacturing line 3010 is a requirement under the NSPS for New Source Performance Standards for Wool. Therefore, CAM requirements do not apply to Emission unit 3010.

State Rule Applicability Determination

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

326 IAC 2-2 and 2-3 (PSD and Emission Offset)
PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
Pursuant to 326 IAC 2-4.1-1(b)(2), the requirements of 326 IAC 2-4.1-1 do not apply to a major source specifically regulated, or exempt from regulation, by a standard issued pursuant to Section 112(d), 112(h), or 112(j) of the CAA.

The proposed pipe insulation line 3010 is subject to New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP). Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(c)(5), an emission unit subject to PM limitations under an NSPS is not subject to emissions limitations under 326 IAC 6-3-2. Since the proposed pipe insulation manufacturing unit is subject to 40 CFR 60, Subpart PPP, 326 IAC 6-3-2 does not apply.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions; however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance determination requirements applicable to this modification are as follows:

(1) The proposed pipe insulation manufacturing line 3010 is subject to testing requirements under the NSPS for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

The PM test shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration, utilizing 40 CFR Part 60 Appendix A, Method 5E (Determination of Particulate Emissions from the Wool Fiberglass Insulation Manufacturing Industry) or other test methods as approved by the Commissioner.

(2) Each dust collector for PM control on the fiberglass trimming process shall be in operation at all times when the fiberglass pipe insulation production line is in operation.

(3) Testing Requirements

(a) Within 60 days of achieving the maximum capacity, but no later than 180 days after start-up, in order to demonstrate compliance with Condition D.2.2(a), the Permittee shall perform PM testing on Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) utilizing methods as approved by the Commissioner.

(b) In order to demonstrate compliance with Condition D.2.2(b), the Permittee shall perform PM10 testing on Line 3010 within 180 days of publication of the new or revised condensible PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM.

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

<u>Visible Emissions Notations</u>

(a) Visible emission notations of the ten (10) fiberglass pipe insulation production lines 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.

Parametric Monitoring

(a) The Permittee shall record the leak detector picoampere (pA) display reading for each dust collector on the fiberglass trimming operation used in conjunction with the ten (10) fiberglass pipe insulation production lines, at least once daily when the ten (10) fiberglass production lines are in operation. When any one display reading exceeds the maximum set point of 11 pA or is outside the 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 display 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.

Broken or Failed Bag Detection

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

(b) For a single compartment baghouses controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material. 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.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T145-6038-00001. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. The facility descriptions in sections A.2, D.2, and E.2 have been modified to add the new LINE 3010 pipe insulation production line.

2. New Condition D.2.2 - Prevention of Significant Deterioration (PSD) Minor Limitations [326 IAC 2-2] has been added for the new Line 3010, in order to ensure that this modification is minor under 326 IAC 2-2.

3. Condition D.2.2 (now D.2.3) - Testing Requirements has been modified to add PM and PM10 testing requirements for the new Line 3010. On July 15, 2008 the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5) was effective. Pursuant to this rule revision, IDEM will continue to evaluate condensable PM for NSR permits and set limits for filterable and condensable PM10. However, IDEM will not require compliance demonstration until after the publication of a new or revised condensable test method (consistent with the "transition period" established by the U. S. EPA in this rulemaking).

4. Conditions D.2.4 (now D.2.5) - Visible Emissions Notations and D.2.5 (now D.2.6) - Parametric Monitoring have been modified to include compliance monitoring requirements for Line 3010.

5. References to renumbered conditions have been corrected in the entire Section D.2.

6. Conditions E.2.1, E.2.2, and E.2.3 which include requirements under the NSPS, Subpart PPP, have been modified to include the new LINE 3010.

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

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

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SECTION D.2

(f) ~~Nine (9)~~ **Ten (10)** rotary spin wool fiberglass pipe insulation production lines consisting of ~~nine (9)~~ **ten (10)** natural gas fired curing ovens, identified as Unit ID # LINE 3001 – ~~3009~~ **3010**, respectively,

- each with a maximum heat input capacity of 5 MMBtu per hour, each exhausting through two (2) stacks ID # 7-2 and 7-3, 8-2 and 8-3, 9-2 and 9-3, 10-2 and 10-3, 11-2 and 11-3, 12-2 and 12-3, 13-2 and 13-3, 14-2 and 14-3, ~~and~~ 16-2 and 16-3, **and 17-2 and 17-3,** respectively,
- each with a trimming process utilizing a dust collector for particulate control, each exhausting through stack ID # 7-4, 8-4, 9-4, 10-4, 11-4, 12-4, 13-4, 14-4, ~~and~~ 16-4, **and 15-1 or 15-2,** respectively,
- LINE 3001 – 3005 and 3008 each constructed in April 1996, LINE 3006-3007 each constructed in December 1994, ~~and~~ LINE 3009 constructed October 1997, **and LINE 3010 permitted in 2008**.
- LINE 3001 – ~~3009~~ **3010** are affected facilities subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

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SECTION D.2 FACILITY OPERATION CONDITIONS

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

(f) ~~Nine (9)~~ **Ten (10)** rotary spin wool fiberglass pipe insulation production lines consisting of ~~nine (9)~~ **ten (10)** natural gas fired curing ovens, identified as Unit ID # LINE 3001 – ~~3009~~ **3010**, respectively, each with a maximum heat input capacity of 5 MMBtu per hour, each exhausting through two (2) stacks ID # 7-2 and 7-3, 8-2 and 8-3, 9-2 and 9-3, 10-2 and 10-3, 11-2 and 11-3, 12-2 and 12-3, 13-2 and 13-3, 14-2 and 14-3, 16-2 and 16-3, **and 17-2 and 17-3**, respectively,
- each with a trimming process utilizing a dust collector for particulate control, each exhausting through stack ID # 7-4, 8-4, 9-4, 10-4, 11-4, 12-4, 13-4, 14-4, and 16-4, respectively;
- LINE 3001-3005 and 3008 each constructed in April 1996, LINE 3006-3007 each constructed in December 1994, ~~and~~ LINE 3009 constructed October 1997, **and LINE 3010 permitted in 2008**.

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

D.2.2 Prevention of Significant Deterioration (PSD) Minor Limitations [326 IAC 2-2]

The potential to emit of Line 3010 shall be limited as follows:

(a) The PM emission rate from the Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) to 3.4 pounds per hour.

(b) The PM_{10} emission rate from the Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) to 3.4 pounds per hour.

Compliance with these emission limits will ensure that the potential to emit from the installation of Line 3010 are less than twenty-five (25) tons of PM per year and less than fifteen (15) tons of PM_{10} per year, rendering the requirements of 326 IAC 2-2 not applicable.

~~D.2.2~~ **D.2.3** Testing Requirements [326 IAC 2-7-6(1),(6)]

(a) The PM test **required in the NSPS Subpart PPP** shall be repeated at least once every five (5) years from the date of the most recent valid compliance demonstration, utilizing 40 CFR Part 60 Appendix A, Method 5E (Determination of Particulate Emissions from the Wool Fiberglass Insulation Manufacturing Industry) or other test methods as approved by the Commissioner.

(b) Within 60 days of achieving the maximum capacity, but no later than 180 days after start-up, in order to demonstrate compliance with Condition D.2.2(a), the Permittee shall perform PM testing on Line 3010 stacks 17-1, 17-2, 17-3, and 15-1 (or 15-2) utilizing methods as approved by the Commissioner.

(c) In order to demonstrate compliance with Condition D.2.2(b), the Permittee shall perform PM10 testing on Line 3010 within 180 days of publication of the new or revised condensible PM test method(s) referenced in the U. S. EPA's Final Rule for Implementation of the New Source Review (NSR) Program for Particulate Matter Less Than 2.5 Micrometers (PM2.5), signed on May 8, 2008. This testing shall be conducted utilizing methods as approved by the Commissioner. These tests shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing. PM10 includes filterable and condensible PM.

~~D.2.4~~**D.2.5** Visible Emissions Notations

(a) Visible emission notations of the **ten (10)** ~~nine (9)~~ fiberglass pipe insulation production lines 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.

~~D.2.5~~**D.2.6** Parametric Monitoring

The Permittee shall record the leak detector picoampere (pA) display reading for each dust collector on the fiberglass trimming operation used in conjunction with the **ten (10)** ~~nine (9)~~ fiberglass pipe insulation production lines, at least once daily when the **ten (10)** ~~nine (9)~~ fiberglass production lines are in operation. When any one display reading exceeds the maximum set point of 11 pA or is outside the 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 display 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.

~~D.2.7~~ **D.2.8** Record Keeping Requirements

(a) To document compliance with Condition ~~D.2.4~~ **D.2.5** – Visible Emissions Notations, the Permittee shall maintain records of visible emission notations of the **ten (10)** ~~nine (9)~~ fiberglass pipe insulation production lines.

(b) To document compliance with Condition ~~D.2.5~~ **D.2.6** – Parametric Monitoring, the Permittee shall maintain the following:

(1) Daily records of picoampere (pA) display readings.

(2) Documentation of all response steps implemented, per event.

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

SECTION E.2 NEW SOURCE PERFORMANCE STANDARDS (NSPS) REQUIREMENTS [326 IAC 2-7-5(1)]

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

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(f) ~~Nine (9)~~ **Ten (10)** rotary spin wool fiberglass pipe insulation production lines consisting of ~~nine (9)~~ **ten (10)** natural gas fired curing ovens, identified as Unit ID # LINE 3001 – ~~3009~~ **3010**, respectively,

– each with a maximum heat input capacity of 5 MMBtu per hour, each exhausting through two (2) stacks ID # 7-2 and 7-3, 8-2 and 8-3, 9-2 and 9-3, 10-2 and 10-3, 11-2 and 11-3, 12-2 and 12-3, 13-2 and 13-3, 14-2 and 14-3, ~~and~~ 16-2 and 16-3, **and 17-2 and 17-3**, respectively,

– each with a trimming process utilizing a dust collector for particulate control, each exhausting through stack ID # 7-4, 8-4, 9-4, 10-4, 11-4, 12-4, 13-4, 14-4, and 16-4, respectively,

– LINE 3001 – 3005 and 3008 each constructed in April 1996, LINE 3006-3007 each constructed in December 1994, ~~and~~ LINE 3009 constructed October 1997, **and LINE 3010 permitted in 2008.**

– LINE 3001 – ~~3009~~ **3010** are affected facilities subject to the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants (40 CFR 60, Subpart PPP).

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

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

(a) The Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1-1 for:

(1) 602 LF MFG;

(2) LINE 3001 – ~~3009~~ **3010**

(3) 613 FORMING and 613 CURING/COOLING; and

(4) 614 FORMING and 614 CURING/COOLING.

E.2.2 Applicability of Wool Fiberglass Manufacturing NSPS Requirements [40 CFR Part 60, Subpart PPP]

The provisions of 40 CFR Part 60, Subpart PPP (Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants) apply to:

(1) 602 LF MFG;

(2) LINE 3001 – ~~3009~~ **3010**

(3) 613 FORMING and 613 CURING/COOLING; and

(4) 614 FORMING and 614 CURING/COOLING.

A copy of this rule is available on the US EPA Website.

E.2.3 Wool Fiberglass Manufacturing Requirements [40 CFR Part 60, Subpart PPP]

(a) Pursuant to CFR Part 60, Subpart PPP, the Permittee shall comply with the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants for LINE 3001 – ~~3009~~ **3010**.

(b) Pursuant to CFR Part 60, Subpart PPP, the Permittee shall comply upon startup with the Standards of Performance for Wool Fiberglass Insulation Manufacturing Plants for:

(1) 602 LF MFG;

(2) 613 FORMING and 613 CURING/COOLING; and

(3) 614 FORMING and 614 CURING/COOLING.

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Minor Source Modification No. 145-26896-00001 and Significant Permit Modification No. 145-26929-00001. The staff recommends to the Commissioner that this Part 70 Minor Source and Significant Permit Modification be approved.