

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence Governor

Thomas W. Easterly

Commissioner

To: Interested Parties

Date: September 26, 2014

From: Matthew Stuckey, Chief

Permits Branch Office of Air Quality

Source Name: FXI, Inc.

Permit Level: Title V - Renewal

Permit Number: 033 - 33749 - 00047

Source Location: 2211 South Wayne Street, Auburn, Indiana

Type of Action Taken: Permit Renewal

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 matter referenced above.

The final decision is available on the IDEM website at: http://www.in.gov/apps/idem/caats/ To view the document, select Search option 3, then enter permit 33749.

If you would like to request a paper copy of the permit document, please contact IDEM's central file room:

Indiana Government Center North, Room 1201 100 North Senate Avenue, MC 50-07 Indianapolis, IN 46204 Phone: 1-800-451-6027 (ext. 4-0965)

Fax (317) 232-8659

Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

(continues on next page)





If you wish to challenge this decision, IC 4-21.5-3-7 and IC 13-15-6-1(b) or IC 13-15-6-1(a) require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204.

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

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

The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

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

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

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



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Thomas W. Easterly

Commissioner

Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

FXI, Inc. 2211 South Wayne Street Auburn, Indiana 46706

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

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

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

Operation Permit No.: T033-33749-00047

Issued by:

Iryn Calilung, Section Chief

Permits Branch

Office of Air Quality

Issuance Date:

September 26, 2014

Expiration Date:

September 26, 2019



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Permit Reviewer: Mehul Sura

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SECTION A

SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary stationary flexible polyurethane foam production and foam processing plant.

Source Address: 2211 South Wayne Street, Auburn, Indiana 46706

General Source Phone Number: 260-925-1073

SIC Code: 3086 (Plastics Foam Products)

County Location: DeKalb

Source Location Status: Attainment for all criteria pollutants
Source Status: Part 70 Operating Permit Program

Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act

Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

- (a) Four (4) rebond mold lines, consisting of the following:
 - (1) One (1) rebond mold unit, identified as EU-R1, producing Flat Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 28a.

This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 28b.

(2) One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 29a.

This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 29b.

(3) One (1) rebond mold unit, identified as EU-R3, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 35a.

This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 35b.

(4) One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 36a.

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This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 36b.

Note: Boiler, identified as EU-B1, provides heat to each dryer associated to each rebond mold unit.

Under 40 CFR 63, Subpart III, these emission units are considered existing affected source.

(b) One (1) coating booth for adhesive application, used to apply adhesive to glue buns, constructed in 1996, with maximum adhesive usage of 0.11 gal/hr, using spray application method, equipped with dry filters, and emissions venting inside the plant.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

(c) One (1) source-wide chemical cleaning solvent usage operation, used to clean equipment, constructed in 1996, with maximum solvent usage 0.23 gal/hr, using dip and spray methods of application, with no control, and emissions venting inside the plant.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

(d) One (1) Variable Pressure Foaming (VPF) line, constructed in 2001 and modified in 2005, with a maximum production rate of 1.2 billion board feet of foam per twelve (12) consecutive month period, using carbon adsorber as control, and exhausting to Stacks 39 and 40.

The flexible foam is produced by the mix of TDI and/or MDI with polyol and/or resin and other chemicals, including amines, tins, silicones, and fillers.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

- (e) Eight (8) bun cutters listed below, constructed in 2009, venting inside and without control:
 - (i) Pourline saw #1, with a maximum throughput rate of 14.75 tons/hr,
 - (ii) Pourline saw #2, with a maximum throughput rate of 14.75 tons/hr,
 - (iii) Bun room saw #1, with a maximum throughput rate of 5.35 tons/hr,
 - (iv) Bun room saw #2, with a maximum throughput rate of 5.35 tons/hr,
 - (v) V-21 saw, with a maximum throughput rate of 0.75 tons/hr,
 - (vi) V-31 saw, with a maximum throughput rate of 0.75 tons/hr,
 - (vii) Baumer Loop saw, with a maximum throughput rate of 1.5 tons/hr, and
 - (viii) Visco line saw, with a maximum throughput rate of 2.95 tons/hr.
- (f) Six (6) BSV slitters listed below, constructed in 2009, venting inside and without control:
 - (i) BSL -204 slitter, with a maximum throughput rate of 0.75 tons/hr,
 - (ii) Contour slitter saw, with a maximum throughput rate of 1.25 tons/hr,
 - (iii) Baumer loop slitter, with a maximum throughput rate of 1.5 tons/hr,
 - (iv) Carousel slitter #1, with a maximum throughput rate of 0.75 tons/hr,
 - (v) Carousel slitter #2, with a maximum throughput rate of 0.75 tons/hr,
 - (vi) West line slitter, with a maximum throughput rate of 0.3 tons/hr, and
 - (vii) Visco line slitter, with a maximum throughput rate of 1.5 tons/hr.
- (g) Three (3) natural gas-fired industrial boilers:

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(1) One (1) natural gas fired boiler, identified as EU-B1, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1978, without control and exhausting through stack ID 31.

- One (1) natural gas fired boiler, identified as EU-B2, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1978, without control and exhausting through stack ID 32.
- One (1) natural gas fired boiler, identified as EU-B3, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1986, without control and exhausting through stack ID 33.

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

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

- (a) Propane or liquefied petroleum gas, or butane fired combustion sources (space heaters or process heaters) with heat input equal to or less than six million (6,000,000) Btu per hour.
- (b) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (c) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6:
 - (1) One (1) 100% petroleum distillate Safety-Kleen parts washer, with no remote solvent reservoir.
- (d) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees Celsius (100°F), or
 - (2) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20 degrees Celsius (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per twelve (12) months,
- (e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (f) Closed loop heating and cooling systems:
 - (1) One (1) glycol chiller system
- (g) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

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(h) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.

- (i) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (j) Heat exchanger cleaning and repair.
- (k) Process vessel degassing and cleaning to prepare for internal repairs.
- (I) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (m) Blowdown of any of the following: sight glass; boiler; compressors; pumps cooling tower.
- (n) One (1) diesel fuel-fired compression ignition emergency engine for fire pump, rated at 250 HP, installed in 1979.

This unit is considered an existing emergency stationary reciprocating internal combustion engine at an area source of hazardous air pollutants under NESHAP, Subpart ZZZZ.

- (o) Purge double block and bleed valves.
- (p) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kPa measured at 38 degrees Celsius (100 degrees F).
- (q) The following units emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP:
 - (1) Hot wire seamers
 - (2) One (1) hot roll laminator
- (r) The following activities with emissions equal to or less than insignificant thresholds:
 - (1) Ink handling and applications,
 - (2) one (1) hot roll (drum) laminator, and
 - (3) Gen 2 gel process.

Note: the detailed description for the Gen 2 gel process is not specified in the permit due to confidentiality claim by the source .

- (s) Storage tanks:
 - (1) Three (3) TDI Storage Tanks, with vapor pressure of TDI less than 3 kilopascal, and equipped with carbon drums.
 - Under 40 CFR 63 (NESHAP), Subpart III, these MDI storage tanks are considered affected facilities.
 - (2) Three (3) MDI Storage Tanks, with vapor pressure MDI less than 3 kilopascal, and equipped with carbon drums.

- Under 40 CFR 63 (NESHAP), Subpart III, these MDI storage tanks are considered affected facilities.
- (3) Twelve (12) Polyol storage tanks, with vapor pressure of Polyol less than 3 kilopascal.
- (4) Twenty five (25) Amines storage tanks, constructed prior 1984, with vapor pressure of Amines less than 3 kilopascal.
- (5) Fire retardant storage tanks.
- (6) Three (3) Process oil storage tanks, with capacity of less than 75 cubic meters (19,813 gallons).
- (8) Three (3) Binder storage tanks, each with capacity of less than 75 cubic meters (19,813 gallons).
- (9) Four (4) Binder blend tanks, each with capacity of less than 75 cubic meters (19,813 gallons).
- (10) Filter handling and storage.
- (t) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.
- (u) One (1) rebond granulation area, constructed in 1996 with a maximum capacity of 3.42 tons/hr, equipped with a cyclone and a baghouse in series for particulate control.
- (v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.
- (w) Laboratory emissions:
 - (1) Product test burning
- (x) One (1) quick cool unit, identified as QC-01, constructed in 2009, with a maximum production capacity of twenty (20) batches of foam buns per hour, and exhausting to stack 37 (S/V ID 37).

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).

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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, T033-33749-00047, 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] [IC 13-17-12]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

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

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(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

- (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
- (c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

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The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

- (a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

The Permittee shall implement the PMPs.

- (b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

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

Compliance and Enforcement Branch), or

Telephone Number: 317-233-0178 (ask for Office of Air Quality,

Compliance and Enforcement Branch) Facsimile Number: 317-233-6865

Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

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

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

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> (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (6)The Permittee immediately took all reasonable steps to correct the emergency.
- In any enforcement proceeding, the Permittee seeking to establish the occurrence of an (c) emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.
- If the emergency situation causes a deviation from a technology-based limit, the (g) Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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.

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(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;
 - 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 T033-33749-00047 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 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

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anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:
 - (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
 - (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes

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final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

- (a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-7-20(b) or (c) without a prior permit revision, if each of the following conditions is met:
 - (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
 - (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
 - (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
 - (4) The Permittee notifies the:

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Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
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and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

- (b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:
 - (1) A brief description of the change within the source;
 - (2) The date on which the change will occur;
 - (3) Any change in emissions; and
 - (4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (c) Emission Trades [326 IAC 2-7-20(c)]
 The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
 The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.

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

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

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(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)]

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B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

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

- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314] [326 IAC 1-1-6]

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

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SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

C.6 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.
- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

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

- (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date:
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

 The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) Indiana Licensed Asbestos Inspector The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

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no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.8 Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

(a) For new units:

Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:

Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by

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326 IAC 2-7-1(35).

C.10 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. The analog instrument shall be capable of measuring values outside of the normal range.
- (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.11 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

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

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

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

C.13 Response to Excursions or Exceedances [326 IAC 2-7-5] [326 IAC 2-7-6]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

- (a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or
 - (3) any necessary follow-up actions to return operation to normal or usual manner of operation.
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

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(1) monitoring results;

- (2) review of operation and maintenance procedures and records; and/or
- (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall record the reasonable response steps taken.

C.14 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

- When the results of a stack test performed in conformance with Section C Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.
- (b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

- C.15 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]
 In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 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(33) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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C.16 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. Support information includes the following, where applicable:

- (AA) All calibration and maintenance records.
- (BB) All original strip chart recordings for continuous monitoring instrumentation.
- (CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

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

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.17 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

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

(c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or

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before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.

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

Stratospheric Ozone Protection

C.18 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

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

- (a) Four (4) rebond mold lines, consisting of the following:
 - (1) One (1) rebond mold unit, identified as EU-R1, producing Flat Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 28a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 28b.
 - One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 29a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 29b.
 - One (1) rebond mold unit, identified as EU-R3, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 35a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 35b.
 - (4) One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 36a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 36b.
 - Note: Boiler, identified as EU-B1, provides heat to each dryer associated to each rebond mold unit.
 - Under 40 CFR 63, Subpart III, these emission units are considered existing affected source.
- (b) One (1) coating booth for adhesive application, used to apply adhesive to glue buns, constructed in 1996, with maximum adhesive usage of 0.11 gal/hr, using spray application method, equipped with dry filters, and emissions venting inside the plant.
 - Under 40 CFR 63, Subpart III, it is considered an existing affected source.
- (c) One (1) source-wide chemical cleaning solvent usage operation, used to clean equipment, constructed in 1996, with maximum solvent usage 0.23 gal/hr, using dip and spray methods of application, with no control, and emissions venting inside the plant.
 - Under 40 CFR 63, Subpart III, it is considered an existing affected source.
- (d) One (1) Variable Pressure Foaming (VPF) Line, constructed in 2001 and modified in 2005, with a maximum production rate of 1.2 billion board feet of foam per twelve (12) consecutive month period, using carbon adsorber as control, and exhausting to Stacks 39 and 40.

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The flexible foam is produced by the mix of TDI and/or MDI with polyol and/or resin and other chemicals, including amines, tins, silicones, and fillers.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

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

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

D.1.1 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to Significant Source Modification 033-20970-00047, issued October 25, 2005, Significant Permit Modification 033-21341-00047, issued November 8, 2005, and 326 IAC 8-1-6 (BACT), the VOC BACT for the Variable Pressure Foaming (VPF) Line shall be the following:

- (a) The Permittee shall operate the carbon adsorber to control total VOC emissions from the Variable Pressure Foaming (VPF) Line at all times that the VPF Line is in operation.
- (b) The carbon adsorber shall operate at a minimum overall control efficiency of 51% for total VOC (including TDI, MDI, and tertiary amine VOC).
- (c) VOC emissions from the carbon adsorber shall not exceed 38.5 lbs/hr.
- (d) The production of polyurethane foam in the Variable Pressure Foaming (VPF) Line shall be limited to a maximum of 1.2 billion board feet per twelve (12) consecutive month period, with compliance determined at the end of each month.

D.1.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4) shall not exceed a total of 7.37 pounds per hour when operating at a process weight rate of 2.4 tons per hour.

The pounds per hour limitation was calculated with the following equation:

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

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

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the following emission units and control devices:

- (a) Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4), and
- (b) Variable Pressure Foaming (VPF) Line and its control

Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.1.1(b) and (c), the Permittee shall perform VOC testing on the carbon adsorber controlling VOC emissions from Variable Pressure Foaming (VPF) Line utilizing methods as approved by the Commissioner at least once every five (5) years

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from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

D.1.5 Record Keeping Requirement

- (a) To document the compliance status with Condition D.1.1(d), the Permittee shall maintain records of the amount of polyurethane foam produced in Variable Pressure Foaming (VPF) Line.
- (b) Section C General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.6 Reporting Requirement

A quarterly summary of the information to document the compliance status with Condition D.1.1(d) shall be submitted using the reporting form located at the end of this permit, or its equivalent not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee's obligation with regard to the reporting required by this condition. The report submitted by a Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

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

- (e) Eight (8) bun cutters listed below, constructed in 2009, venting inside and without control:
 - (i) Pourline saw #1, with a maximum throughput rate of 14.75 tons/hr,
 - (ii) Pourline saw #2, with a maximum throughput rate of 14.75 tons/hr,
 - (iii) Bun room saw #1, with a maximum throughput rate of 5.35 tons/hr,
 - (iv) Bun room saw #2, with a maximum throughput rate of 5.35 tons/hr,
 - (v) V-21 saw, with a maximum throughput rate of 0.75 tons/hr,
 - (vi) V-31 saw, with a maximum throughput rate of 0.75 tons/hr,
 - (vii) Baumer Loop saw, with a maximum throughput rate of 1.5 tons/hr, and
 - (viii) Visco line saw, with a maximum throughput rate of 2.95 tons/hr.
- (f) Six (6) BSV slitters listed below, constructed in 2009, venting inside and without control:
 - (i) BSL -204 slitter, with a maximum throughput rate of 0.75 tons/hr,
 - (ii) Contour slitter saw, with a maximum throughput rate of 1.25 tons/hr,
 - (iii) Baumer loop slitter, with a maximum throughput rate of 1.5 tons/hr,
 - (iv) Carousel slitter #1, with a maximum throughput rate of 0.75 tons/hr.
 - (viii) Carousel slitter #1, with a maximum throughput rate of 0.75 tons/hr,
 - (v) West line slitter, with a maximum throughput rate of 0.3 tons/hr, and
 - (vi) Visco line slitter, with a maximum throughput rate of 1.5 tons/hr.

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

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

D.2.1 Particulate [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 not applicable, the Permittee shall comply with the following limits:

| | PSD Minor limit (lb/hr) | | |
|---------------------|-------------------------|------|-------|
| Emission Units | PM | PM10 | PM2.5 |
| Bun cutters | | | |
| Pourline saw #1 | 1.93 | 1.93 | 1.93 |
| Pourline saw #2 | 1.93 | 1.93 | 1.93 |
| Bun room saw #1 | 1.93 | 1.93 | 1.93 |
| Bun room saw #2 | 1.93 | 1.93 | 1.93 |
| V-21 saw | 1.93 | 1.93 | 1.93 |
| V-31 saw | 1.93 | 1.93 | 1.93 |
| Baumer Loop saw | 1.93 | 1.93 | 1.93 |
| Visco line saw | 1.93 | 1.93 | 1.93 |
| BSV slitters | | | |
| BSL -204 slitter | 0.93 | 0.93 | 0.93 |
| Contour slitter saw | 0.93 | 0.93 | 0.93 |
| Baumer loop slitter | 0.93 | 0.93 | 0.93 |
| Carousel slitter #1 | 0.93 | 0.93 | 0.93 |
| Carousel slitter #2 | 0.93 | 0.93 | 0.93 |
| West line slitter | 0.93 | 0.93 | 0.93 |

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| Visco line slitter | 0.93 | 0.93 | 0.93 |
|--------------------|------|------|------|

Compliance with these limits in conjunction with the PM, PM10 and PM2.5 PTE of other emission units at this source will limit source-wide total PM, PM10 and PM2.5 PTE, each, to less than 250 tons per 12 consecutive month period and therefore, render the requirements of 326 IAC 2-2 (PSD) not applicable.

D.2.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emissions from each of following operations shall not exceed the pound per hour limit listed in the table below:

| Emission Unit ID | Process Weight Rate (tons/hr) | Allowable Particulate Emission Rate (lb/hr) |
|---------------------|-------------------------------------|---|
| Bun cutters | | |
| Pourline saw #1 | 14.75 | 24.88 |
| Pourline saw #2 | 14.75 | 24.88 |
| Bun room saw #1 | 5.35 | 12.61 |
| Bun room saw #2 | 5.35 | 12.61 |
| V-21 saw | 0.75 | 3.38 |
| V-31 saw | 0.75 | 3.38 |
| Baumer Loop saw | 1.5 | 5.38 |
| Visco line saw | 2.95 | 8.46 |
| BSV slitters | | |
| BSL -204 slitter | 0.75 | 3.38 |
| Contour slitter saw | 1.25 | 4.76 |
| Baumer loop slitter | 1.5 | 5.38 |
| Carousel slitter #1 | 0.75 | 3.38 |
| Carousel slitter #2 | 0.75 | 3.38 |
| West line slitter | 0.3 | 1.83 |
| Visco line slitter | 1.5 | 5.38 |

The pounds per hour limitation was calculated with the following equation:

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

$$E = 4.10 P^{0.67}$$

Where E = rate of emission in pounds per hour; and

P = process weight rate in tons per hour

D.2.3 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these emission units. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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Compliance Determination Requirements

D.2.4 Testing Requirement [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

In order to demonstrate compliance with Conditions D.2.1 and D.2.2, the Permittee shall perform a one-time PM, PM10 and PM2.5 testing on the the following:

- (a) Pourline saw #1 and
- (b) Contour slitter saw,

no later than one hundred eighty (180) days after the issuance of renewal T033-33749-00047 using methods as approved by the Commissioner.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C – Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM shall include filterable PM only.

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SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

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

- (g) Three (3) natural gas-fired industrial boilers:
 - (1) One (1) natural gas fired boiler, identified as EU-B1, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1978, without control and exhausting through stack ID 31.
 - (2) One (1) natural gas fired boiler, identified as EU-B2, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1978, without control and exhausting through stack ID 32.
 - One (1) natural gas fired boiler, identified as EU-B3, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1986, without control and exhausting through stack ID 33.

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

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

D.3.1 Particulate Matter [326 IAC 6-2-3] [326 IAC 6-2-4]

- (a) Pursuant to 326 IAC 6-2-3(e) (Particulate Matter Emissions Limitations for Sources of Indirect Heating), the particulate emissions from each of Boiler (EU-B1) and Boiler (EU-B2), (each rated at 10.5 MMBtu per hour), which began operation after June 8, 1972, shall not exceed 0.6 pounds per MMBtu heat input each.
- (b) Pursuant to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating) the particulate emissions from the 10.5 MMBtu per hour heat input Boiler (EU-B3) (installed in 1986) shall not exceed 0.44 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = Pounds of particulate matter emitted per MMBtu heat input.

Q = Total source maximum operating capacity rating of indirect heating facilities in MMBtu per hour = 31.5 MMBtu per hour

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SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) One (1) source-wide chemical cleaning solvent usage operation, used to clean equipment, constructed in 1996, with maximum solvent usage 0.23 gal/hr, using dip and spray methods of application, with no control, and emissions venting inside the plant.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

Insignificant Activities

- (c) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6:
 - (1) One (1) 100% petroleum distillate Safety-Kleen parts washer with no remote solvent reservoir.

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

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

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

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control and Equipment Operating Requirements), the Permittee shall:

- (a) Ensure the following control equipment and operating requirements are met for the source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer):
 - (1) Equip the degreaser with a cover.
 - (2) Equip the degreaser with a device for draining cleaned parts.
 - (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
 - (5) Provide a permanent, conspicuous label that lists the operating requirements in items (3), (4), (6), and (7).
 - (6) Store waste solvent only in closed containers.
 - (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.
- (b) Ensure the following additional control equipment and operating requirements are met for the one (1) source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer):
 - (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.

- (D) Carbon adsorption.
- (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department.

An alternative system shall be submitted to the U.S. EPA as a SIP revision.

- (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
- (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

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

- (a) Pursuant to 326 IAC 8-3-8(b)(2), on and after January 1, 2015, the Permittee shall not operate the source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer) with a solvent that has a VOC composite partial vapor pressure than exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the Permittee shall maintain each of the following records for each solvent purchase for the source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer):
 - (A) The name and address of the solvent supplier.
 - (B) The date of purchase (or invoice/bill date of contract servicer indicating service date).
 - (C) The type of solvent purchased.
 - (D) The total volume of the solvent purchased.
 - (E) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixtyeight (68) degrees Fahrenheit).
- (c) Pursuant to 326 IAC 8-3-8(d), all the records specified in Condition D.4.2(b) above shall be retained on-site or accessible electronically from the site for the most recent three (3) year period, and reasonably accessible for an additional two (2) year period.

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SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

- (e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (r) Following activities with emissions equal to or less than insignificant thresholds:
 - (3) Gen 2 gel process.

Note: The detailed description for the Gen 2 gel process is not specified in the permit due to confidentiality claim by the source .

- (t) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.
- (v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.

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

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

D.5.1 Particulate Matter [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate from the insignificant activities listed in this section, each with a maximum process weight rate less than 100 pounds per hour, shall not exceed 0.551 pounds per hour.

ECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

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

- (a) Four (4) rebond mold lines, consisting of the following:
 - (1) One (1) rebond mold unit, identified as EU-R1, producing Flat Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 28a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 28b.
 - One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 29a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 29b.
 - One (1) rebond mold unit, identified as EU-R3, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 35a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 35b.
 - (4) One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 36a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 36b.
 - Note: Boiler, identified as EU-B1, provides heat to each dryer associated to each rebond mold unit.
 - Under 40 CFR 63, Subpart III, these emission units are considered existing affected source.
- (b) One (1) coating booth for adhesive application, used to apply adhesive to glue buns, constructed in 1996, with maximum adhesive usage of 0.11 gal/hr, using spray application method, equipped with dry filters, and emissions venting inside the plant.
 - Under 40 CFR 63, Subpart III, it is considered an existing affected source.
- (c) One (1) source-wide chemical cleaning solvent usage operation, used to clean equipment, constructed in 1996, with maximum solvent usage 0.23 gal/hr, using dip and spray methods of application, with no control, and emissions venting inside the plant.
 - Under 40 CFR 63, Subpart III, it is considered an existing affected source.
- (d) One (1) Variable Pressure Foaming (VPF) line, constructed in 2001 and modified in 2005, with a maximum production rate of 1.2 billion board feet of foam per twelve (12) consecutive month period, using carbon adsorber as control, and exhausting to Stacks 39 and 40.

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The flexible foam is produced by the mix of TDI and/or MDI with polyol and/or resin and other chemicals, including amines, tins, silicones, and fillers.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

Insignficiant Activity:

- (s) Storage tanks:
 - (1) Three (3) TDI Storage Tanks, with vapor pressure of TDI less than 3 kilopascal, and equipped with carbon drums.
 - Under 40 CFR 63 (NESHAP), Subpart III, these MDI storage tanks are considered affected facilities.
 - (2) Three (3) MDI Storage Tanks, with vapor pressure MDI less than 3 kilopascal, and equipped with carbon drums.

Under 40 CFR 63 (NESHAP), Subpart III, these MDI storage tanks are considered affected facilities.

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

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

Pursuant to 40 CFR 63.1302, 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, except when otherwise specified in 40 CFR 63, Subpart III.

- E.1.2 Flexible Polyurethane Foam Production NESHAP [326 IAC 20-22] [40 CFR Part 63, Subpart III]

 Pursuant to CFR Part 63, Subpart III, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart III (included as 'Attachment A'), which are incorporated by reference as 326 IAC 20-22 for the emission units listed in this section.
 - (1) 40 CFR 63.1290
 - (2) 40 CFR 63.1291
 - (3) 40 CFR 63.1292
 - (4) 40 CFR 63.1293
 - (5) 40 CFR 63.1294
 - (6) 40 CFR 63.1299
 - (7) 40 CFR 63.1301
 - (8) 40 CFR 63.1302
 - (9) 40 CFR 63.1303
 - (10) 40 CFR 63.1304
 - (11) 40 CFR 63.1306
 - (12) 40 CFR 63.1307
 - (13) 40 CFR 63.1308; and
 - (14) Table 2 to Subpart III

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SECTION E.2 EMISSIONS UNIT OPERATION CONDITIONS

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

(n) One (1) diesel fuel-fired compression ignition emergency engine for fire pump, rated at 250 HP, installed in 1979.

This unit is considered an existing emergency stationary reciprocating internal combustion engine at an area source of hazardous air pollutants under NESHAP, Subpart ZZZZ.

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

National Emission Standards Hazardous Air Pollutants [326 IAC 20-1][40 CFR 63]

E.2.1 General Provisions Relating to NESHAP [326 IAC 20-1][40 CFR Part 63, Subpart A]

The provisions of 40 CFR Part 63 Subpart A - General Provisions, which are incorporated as 326 IAC 20-1-1, apply to Fire Pump Diesel Engine (250 hp), except when otherwise specified in 40 CFR Part 63 Subpart ZZZZ.

E.2.2 National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63, Subpart ZZZZ] [326 IAC 20-82]

Pursuant to CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as 'Attachment B'), which are incorporated by reference as 326 IAC 20-82 for the fire pump diesel engine (250 hp):

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(iii) and (iv)
- (4) 40 CFR 63.6595(a)(1), (b), and (c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625(e),(f),(h),(i)
- (8) 40 CFR 63.6640(a),(e),(f)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6650(f)
- (11) 40 CFR 63.6655(except 40 CFR 63.6655(b) and (c))
- (12) 40 CFR 63.6660
- (13) 40 CFR 63.6665
- (14) 40 CFR 63.6670
- (15) 40 CFR 63.6675

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Permit Reviewer: Mehul Sura

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

Source Name: FXI, Inc.

Source Address: 2211 South Wayne Street, Auburn, Indiana 46706

Part 70 Permit No.: T033-33749-00047

| 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: | | | | | |

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Permit Reviewer: Mehul Sura

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003

Indianapolis, Indiana 46204-2251 Phone: (317) 233-0178 Fax: (317) 233-6865

PART 70 OPERATING PERMIT EMERGENCY OCCURRENCE REPORT

Source Name: FXI, Inc.

Source Address: 2211 South Wayne Street, Auburn, Indiana 46706

Part 70 Permit No.: T033-33749-00047

This form consists of 2 pages

Page 1 of 2

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

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

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

If any of the following are not applicable, mark N/A Page 2 of 2 Date/Time Emergency started: Date/Time Emergency was corrected: Was the facility being properly operated at the time of the emergency? Ν Type of Pollutants Emitted: TSP, PM-10, SO₂, 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:

Phone:

Date:___

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Permit Reviewer: Mehul Sura

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY COMPLIANCE AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Address: 2211 South Wayne Street, Auburn, Indiana 46706

Part 70 Permit No.: T033-33749-00047

Facility: Variable Pressure Foaming (VPF) Line

Parameter: Polyurethane foam production

Limit: Less than 1.2 billion board feet per twelve (12) consecutive month period with

compliance determined at the end of each month.

QUARTER: YEAR:

| Month | Column 1 | Column 2 | Column 1 + Column 2 |
|-------|------------|--------------------|---------------------|
| | This Month | Previous 11 Months | 12 Month Total |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

| □ No deviation of | curred in this quarter. | |
|-------------------|---|--|
| | urred in this quarter. been reported on: | |
| Submitted by: | | |
| Title / Position: | | |
| Signature: | | |
| Date: | | |
| Phone: | | |

FXI, Inc. Auburn, Indiana Permit Reviewer: Mehul Sura

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

| Source Name: Source Address: Part 70 Permit No.: | FXI, Inc. 2211 South \ T033-33749 | | Auburn, Indiana 46706 | |
|--|---|---|--|--|
| M | onths: | to | Year: | |
| | | | Page 1 of 2 | |
| Section B –Emerger General Reporting. the probable cause required to be reported actions and the second actions and the second actions are second as the second action and the second actions are second as the second action and the second actions are second as the second action and the second actions are second as the second action and the second action actions are second as the second action as the second action | ncy Provisions Any deviation for the deviation red pursuant to ecording to the seport. Addition | satisfies the reprint the required and the responsible an applicable schedule stated all pages may be | a calendar year. Proper notice submittal under porting requirements of paragraph (a) of Section Coments of this permit, the date(s) of each deviation, conse steps taken must be reported. A deviation requirement that exists independent of the permit, d in the applicable requirement and does not need to be attached if necessary. If no deviations occurred, 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 Deviation | ons: | _ | | |
| 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 T | aken: | | | |

Page 2 of 2

| | Page 2 01 2 | | | |
|---|------------------------|--|--|--|
| Permit Requirement (specify permit condition #) | | | | |
| Date of Deviation: | Duration of Deviation: | | | |
| Number of Deviations: | | | | |
| Probable Cause of Deviation: | | | | |
| Response Steps Taken: | | | | |
| Permit Requirement (specify permit condition #) | | | | |
| Date of Deviation: | Duration of Deviation: | | | |
| Number of Deviations: | | | | |
| Probable Cause of Deviation: | | | | |
| Response Steps Taken: | | | | |
| Permit Requirement (specify permit condition #) | | | | |
| Date of Deviation: | Duration of Deviation: | | | |
| Number of Deviations: | | | | |
| Probable Cause of Deviation: | | | | |
| Response Steps Taken: | | | | |
| Form Completed by: | | | | |
| Title / Position: | | | | |
| Date: | | | | |
| Phone: | | | | |

Attachment A for a Part 70 Operating Permit Renewal

Permit Renewal No. T033-33749-00047

National Emission Standards for Hazardous Air Pollutants

Subpart III—National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production

Source: 63 FR 53996, Oct. 7, 1998, unless otherwise noted.

§ 63.1290 Applicability.

- (a) The provisions of this subpart apply to each new and existing flexible polyurethane foam or rebond foam process that meets the criteria listed in paragraphs (a)(1) through (3) of this section.
- (1) Produces flexible polyurethane or rebond foam;
- (2) Emits a HAP, except as provided in paragraph (c)(2) of this section; and
- (3) Is located at a plant site that is a major source, as defined in §63.2 of subpart A.
- (b) For the purpose of this subpart, an affected source includes all processes meeting the criteria in paragraphs (a)(1) through (a)(3) of this section that are located at a contiguous plant site, with the exception of those processes listed in paragraph (c) of this section.
- (c) A process meeting one of the following criteria listed in paragraphs (c)(1) through (3) of this section shall not be subject to the provisions of this subpart:
- (1) A process exclusively dedicated to the fabrication of flexible polyurethane foam;
- (2) A research and development process; or
- (3) A slabstock flexible polyurethane foam process at a plant site where the total amount of HAP, excluding diisocyanate reactants, used for slabstock foam production and foam fabrication is less than or equal to five tons per year, provided that slabstock foam production and foam fabrication processes are the only processes at the plant site that emit HAP. The amount of non-diisocyanate HAP used, HAP_{used}, shall be calculated using Equation 1. Owners or operators of slabstock foam processes exempt from the regulation in accordance with this paragraph shall maintain records to verify that total non-diisocyanate HAP use at the plant site is less than 5 tons per year (4.5 megagrams per year).

$$HAP_{used} = \left[\sum_{i=1}^{m} (VOL_{ABA, i})(D_{ABA, i}) + \sum_{j=1}^{n} (VOL_{clean, j})(D_{clean, j})(WT_{HAPclean, j}) + \sum_{k=1}^{o} (VOL_{adh, k})(D_{adh, k})(WT_{HAPadh, k}) \right] \div 2000$$
 (Equation 1)

Where,

HAP_{used}= amount of HAP, excluding diisocyanate reactants, used at the plant site for slabstock foam production and foam fabrication, tons per year

VOLABA, = volume of HAP ABA i used at the facility, gallons per year

D_{ABA,i}= density of HAP ABA i, pounds per gallon

m = number of HAP ABAs used

VOLclean,j= volume of HAP used as an equipment cleaner, gallons per year

D_{clean,j}= density of HAP equipment cleaner j, pounds per gallon

WT_{HAPclean,k}= HAP content of equipment cleaner j, weight percent

n = number of HAP equipment cleaners used

VOL_{adh.k}= volume of adhesive k, gallons per year

D_{adh,k}= density of adhesive k, pounds per gallon

WT_{HAPadh.k}= HAP content of adhesive k, weight percent

o = number of adhesives used

§ 63.1291 Compliance schedule.

- (a) Existing affected sources shall be in compliance with all provisions of this subpart no later than October 8, 2001.
- (b) New or reconstructed affected sources shall be in compliance with all provisions of this subpart upon initial startup.

§ 63.1292 Definitions.

All terms used in this subpart shall have the meaning given them in the Act, in subpart A of this part, and in this section. If a term is defined in subpart A and in this section, it shall have the meaning given in this section for purposes of this subpart.

Auxiliary blowing agent, or ABA, means a low-boiling point liquid added to assist foaming by generating gas beyond that resulting from the isocyanate-water reaction.

Breakthrough means that point in the adsorption step when the mass transfer zone (i.e., the section of the carbon bed where the HAP is removed from the carrier gas stream) first reaches the carbon bed outlet as the mass transfer zone moves down the bed in the direction of flow. The breakthrough point is characterized by the beginning of a sharp increase in the outlet HAP or organic compound concentration.

Calibrate means to verify the accuracy of a measurement device against a known standard. For the purpose of this subpart, there are two levels of calibration. The initial calibration includes the verification of the accuracy of the device over the entire operating range of the device. Subsequent calibrations can be conducted for a point or several points in a limited range of operation that represents the most common operation of the device.

Canned motor pump means a pump with interconnected cavity housings, motor rotors, and pump casing. In a canned motor pump, the motor bearings run in the process liquid and all seals are eliminated.

Carbon adsorption system means a system consisting of a tank or container that contains a specific quantity of activated carbon. For the purposes of this subaprt, a carbon adsorption system is used as a control device for storage vessels. Typically, the spent carbon bed does not undergo regeneration, but is replaced.

Connector means flanged, screwed, or other joined fittings used to connect two pipe lines or a pipe line and a piece of equipment. A common connector is a flange. Joined fittings welded completely around the circumference of the interface are not considered to be connectors for the purposes of this subpart.

Cured foam means flexible polyurethane foam with fully developed physical properties. A period of 12 to 24 hours from pour is typically required to completely cure foam, although mechanical or other devices are sometimes used to accelerate the curing process.

Curing area means the area in a slabstock foam production facility where foam buns are allowed to fully develop physical properties.

Diaphragm pump means a pump where the driving member is a flexible diaphragm made of metal, rubber, or plastic. In a diaphragm pump, there is no packing or seals that are exposed to the process liquid.

Diisocyanate means a compound containing two isocyanate groups per molecule. The most common diisocyanate compounds used in the flexible polyurethane foam industry are toluene diisocyanate (TDI) and methylene diphenyl diisocyanate (MDI).

Flexible polyurethane foam means a flexible cellular polymer containing urea and carbamate linkages in the chain backbone produced by reacting a diisocyanate, polyol, and water. Flexible polyurethane foams are open-celled, permit the passage of air through the foam, and possess the strength and flexibility to allow repeated distortion or compression under stress with essentially complete recovery upon removal of the stress.

Flexible polyurethane foam process means the equipment used to produce a flexible polyurethane foam product. For the purpose of this subpart, the flexible polyurethane foam process includes raw material storage; production equipment and associated piping, ductwork, etc.; and curing and storage areas.

Foam fabrication process means an operation for cutting or bonding flexible polyurethane foam pieces together or to other substrates.

Grade of foam means foam with a distinct combination of indentation force deflection (IFD) and density values.

HAP ABA means methylene chloride, or any other HAP compound used as an auxiliary blowing agent.

HAP-based means to contain 5 percent (by weight) or more of HAP. This applies to equipment cleaners (and mixhead flushes) and mold release agents. The concentration of HAP may be determined using EPA test method 18, material safety data sheets, or engineering calculations.

High-pressure mixhead means a mixhead where mixing is achieved by impingement of the high pressure streams within the mixhead.

Indentation Force Deflection (IFD) means a measure of the load bearing capacity of flexible polyurethane foam. IFD is generally measured as the force (in pounds) required to compress a 50 square inch circular indentor foot into a four inch thick sample, typically 15 inches square or larger, to 25 percent of the sample's initial height.

In diisocyanate service means a piece of equipment that contains or contacts a diisocyanate.

In HAP ABA service means a piece of equipment that contains or contacts a HAP ABA.

Initial startup means the first time a new or reconstructed affected source begins production of flexible polyurethane foam.

Isocyanate means a reactive chemical grouping composed of a nitrogen atom bonded to a carbon atom bonded to an oxygen atom; or a chemical compound, usually organic, containing one or more isocyanate groups.

Magnetic drive pump means a pump where an externally-mounted magnet coupled to the pump motor drives the impeller in the pump casing. In a magnetic drive pump, no seals contact the process fluid.

Metering pump means a pump used to deliver reactants, ABA, or additives to the mixhead.

Mixhead means a device that mixes two or more component streams before dispensing foam producing mixture to the desired container.

Molded flexible polyurethane foam means a flexible polyurethane foam that is produced by shooting the foam mixture into a mold of the desired shape and size.

Mold release agent means any material which, when applied to the mold surface, serves to prevent sticking of the foam part to the mold.

Plant site means all contiguous or adjoining property that is under common control, including properties that are separated only by a road or other public right-of-way. Common control includes properties that are owned, leased, or otherwise operated by the same entity, parent entity, subsidiary, or any combination thereof.

Polyol, for the purpose of this subpart, means a polyether or polyester polymer with more than one reactive hydroxyl group attached to the molecule.

Rebond foam means the foam resulting from a process of adhering small particles of foam (usually scrap or recycled foam) together to make a usable cushioning product. Various adhesives and bonding processes are used. A typical application for rebond foam is for carpet underlay.

Rebond foam process means the equipment used to produce a rebond foam product. For the purpose of this subpart, the rebond foam process includes raw material storage; production equipment and associated piping, ductwork, etc.; and curing and storage areas.

Reconstructed source means an affected source undergoing reconstruction, as defined in subpart A. For the purposes of this subpart, process modifications made to reduce HAP ABA emissions to meet the existing source requirements of this subpart shall not be counted in determining whether or not a change or replacement meets the definition of reconstruction.

Recovery device means an individual unit of equipment capable of and used for the purpose of recovering chemicals for use, reuse, or sale. Recovery devices include, but are not limited to, carbon adsorbers, absorbers, and condensers.

Research and development process means a laboratory or pilot plant operation whose primary purpose is to conduct research and development into new processes and products, where the operations are under the close supervision of technically trained personnel, and which is not engaged in the manufacture of products for commercial sale except in a de minimis manner.

Run of foam means a continuous production of foam, which may consist of several grades of foam.

Sealless pump means a canned-motor pump, diaphragm pump, or magnetic drive pump, as defined in this section.

Slabstock flexible polyurethane foam means flexible polyurethane foam that is produced in large continuous buns that are then cut into the desired size and shape.

Slabstock flexible polyurethane foam production line includes all portions of the flexible polyurethane foam process from the mixhead to the point in the process where the foam is completely cured.

Storage vessel means a tank or other vessel that is used to store diisocyanate or HAP ABA for use in the production of flexible polyurethane foam. Storage vessels do not include vessels with capacities smaller than 38 cubic meters (or 10,000 gallons).

Transfer pump means all pumps used to transport diisocyanate or HAP ABA that are not metering pumps.

Transfer vehicle means a railcar, tank truck, or other vehicle used to transport HAP ABA to the flexible polyurethane foam facility.

§ 63.1293 Standards for slabstock flexible polyurethane foam production.

Each owner or operator of a new or existing slabstock affected source shall comply with §63.1294 and either paragraph (a) or (b) of this section:

- (a) The emission point specific limitations in §§63.1295 through 63.1298; or
- (b) For sources that use no more than one HAP as an ABA and an equipment cleaner, the source-wide emission limitation in §63.1299.

§ 63.1294 Standards for slabstock flexible polyurethane foam production—diisocyanate emissions.

Each new and existing slabstock affected source shall comply with the provisions of this section.

- (a) Diisocyanate storage vessels. Diisocyanate storage vessels shall be equipped with either a system meeting the requirements in paragraph (a)(1) of this section, or a carbon adsorption system meeting the requirements of paragraph (a)(2) of this section.
- (1) The storage vessel shall be equipped with a vapor return line from the storage vessel to the tank truck or rail car that is connected during unloading.
- (i) During each unloading event, the vapor return line shall be inspected for leaks by visual, audible, or any other detection method.
- (ii) When a leak is detected, it shall be repaired as soon as practicable, but not later than the subsequent unloading event.

- (2) The storage vessel shall be equipped with a carbon adsorption system, meeting the monitoring requirements of §63.1303(a), that routes displaced vapors through activated carbon before being discharged to the atmosphere. The owner or operator shall replace the existing carbon with fresh carbon upon indication of breakthrough before the next unloading event.
- (b) Transfer pumps in diisocyanate service. Each transfer pump in diisocyanate service shall meet the requirements of paragraph (b)(1) or (b)(2) of this section.
- (1) The pump shall be a sealless pump; or
- (2) The pump shall be a submerged pump system meeting the requirements in paragraphs (b)(2)(i) through (iii) of this section.
- (i) The pump shall be completely immersed in bis(2-ethylhexyl)phthalate (DEHP, CAS #118–81–7), 2(methyloctyl)phthalate (DINP, CAS #68515–48–0), or another neutral oil.
- (ii) The pump shall be visually monitored weekly to detect leaks,
- (iii) When a leak is detected, it shall be repaired in accordance with the procedures in paragraphs (b)(2)(iii)(A) and (B) of this section, except as provided in paragraph (d) of this section.
- (A) The leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
- (B) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:
- (1) Tightening of packing gland nuts.
- (2) Ensuring that the seal flush is operating at design pressure and temperature.
- (c) Other components in diisocyanate service. If evidence of a leak is found by visual, audible, or any other detection method, it shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in paragraph (d) of this section. The first attempt at repair shall be made no later than 5 calendar days after each leak is detected.
- (d) *Delay of repair.* (1) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in diisocyanate service.
- (2) Delay of repair for valves and connectors is also allowed if:
- (i) The owner or operator determines that diisocyanate emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and
- (ii) The purged material is collected and destroyed or recovered in a control device when repair procedures are effected.
- (3) Delay of repair for pumps is also allowed if repair requires replacing the existing seal design with a sealless pump, and repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

§ 63.1295 Standards for slabstock flexible polyurethane foam production—HAP ABA storage vessels.

Each owner or operator of a new or existing slabstock affected source complying with the emission point specific limitation option provided in §63.1293(a) shall control HAP ABA storage vessels in accordance with the provisions of this section.

- (a) Each HAP ABA storage vessel shall be equipped with either a vapor balance system meeting the requirements in paragraph (b) of this section, or a carbon adsorption system meeting the requirements of paragraph (c) of this section.
- (b) The storage vessel shall be equipped with a vapor balance system. The owner or operator shall ensure that the vapor return line from the storage vessel to the tank truck or rail car is connected during unloading.
- (1) During each unloading event, the vapor return line shall be inspected for leaks by visual, audible, olfactory, or any other detection method.
- (2) When a leak is detected, it shall be repaired as soon as practicable, but not later than the subsequent unloading event.
- (c) The storage vessel shall be equipped with a carbon adsorption system, meeting the monitoring requirements of §63.1303(a), that routes displaced vapors through activated carbon before discharging to the atmosphere. The owner or operator shall replace the existing carbon with fresh carbon upon indication of breakthrough before the next unloading event.

§ 63.1296 Standards for slabstock flexible polyurethane foam production—HAP ABA equipment leaks.

Each owner or operator of a new or existing slabstock affected source complying with the emission point specific limitation option provided in §63.1293(a) shall control HAP ABA emissions from leaks from transfer pumps, valves, connectors, pressure-relief valves, and open-ended lines in accordance with the provisions in this section.

- (a) *Pumps*. Each pump in HAP ABA service shall be controlled in accordance with either paragraph (a)(1) or (a)(2) of this section.
- (1) The pump shall be a sealless pump, or
- (2) Each pump shall be monitored for leaks in accordance with paragraphs (a)(2)(i) and (ii) of this section. Leaks shall be repaired in accordance with paragraph (a)(2)(iii) of this section.
- (i) Each pump shall be monitored quarterly to detect leaks by the method specified in §63.1304(a). If an instrument reading of 10,000 parts per million (ppm) or greater is measured, a leak is detected.
- (ii) Each pump shall be checked by visual inspection each calendar week for indications of liquids dripping from the pump seal. If there are indications of liquids dripping from the pump seal, a leak is detected.
- (iii) When a leak is detected, it shall be repaired in accordance with the procedures in paragraphs (a)(2)(iii)(A) and (B) of this section, except as provided in paragraph (f) of this section.

- (A) The leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
- (B) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices, where practicable:
- (1) Tightening of packing gland nuts.
- (2) Ensuring that the seal flush is operating at design pressure and temperature.
- (b) *Valves*. Each valve in HAP ABA service shall be monitored for leaks in accordance with paragraph (b)(1) of this section, except as provided in paragraphs (b)(3) and (4) of this section. Leaks shall be repaired in accordance with paragraph (b)(2) of this section.
- (1) Each valve shall be monitored quarterly to detect leaks by the method specified in §63.1304(a). If an instrument reading of 10,000 parts per million or greater is measured, a leak is detected.
- (2) When a leak is detected, the owner or operator shall repair the leak in accordance with the procedures in paragraphs (b)(2)(i) and (ii) of this section, except as provided in paragraph (f) of this section.
- (i) The leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected.
- (ii) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected. First attempts at repair include, but are not limited to, the following practices where practicable:
- (A) Tightening of bonnet bolts;
- (B) Replacement of bonnet bolts;
- (C) Tightening of packing gland nuts; and
- (D) Injection of lubricant into lubricated packing.
- (3) Any valve that is designated as an unsafe-to-monitor valve is exempt from the requirements of paragraphs (b)(1) and (2) of this section if:
- (i) The owner or operator of the valve determines that the valve is unsafe to monitor because monitoring personnel would be exposed to an immediate danger as a consequence of complying with paragraphs (b)(1) and (2) of this section; and
- (ii) The owner or operator of the valve has a written plan that requires monitoring of the valve as frequently as practicable during safe-to-monitor times. The plan shall also include requirements for repairing leaks as soon as possible after detection.
- (iii) The owner or operator shall monitor the unsafe-to-monitor valve in accordance with the written plan, and
- (iv) The owner or operator shall repair leaks in accordance with the written plan.

- (4) Any valve that is designated as a difficult-to-monitor valve is exempt from the requirements of paragraphs (b)(1) and (2) of this section if:
- (i) The owner or operator of the valve determines that the valve cannot be monitored without elevating the monitoring personnel more than 2 meters above a support surface or it is not accessible at any time in a safe manner;
- (ii) The process within which the valve is located is an existing source, or the process within which the valve is located is a new source that has less than 3 percent of the total number of valves designated as difficult to monitor; and
- (iii) The owner or operator of the valve develops a written plan that requires monitoring of the valve at least once per calendar year. The plan shall also include requirements for repairing leaks as soon as possible after detection.
- (iv) The owner or operator shall monitor the difficult-to-monitor valve in accordance with the written plan, and
- (v) The owner or operator shall repair leaks in accordance with the written plan.
- (c) Connectors. Each connector in HAP ABA service shall be monitored for leaks in accordance with paragraph (c)(1) of this section, except as provided in paragraph (c)(3) of this section. Leaks shall be repaired in accordance with (c)(2) of this section, except as provided in paragraph (c)(4) of this section.
- (1) Connectors shall be monitored at the times specified in paragraphs (c)(1)(i) through (iii) of this section to detect leaks by the method specified in §63.1304(a). If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- (i) Each connector shall be monitored annually, and
- (ii) Each connector that has been opened or has otherwise had the seal broken shall be monitored for leaks within the first 3 months after being returned to HAP ABA service.
- (iii) If a leak is detected, the connector shall be monitored for leaks in accordance with paragraph (c)(1) of this section within the first 3 months after its repair.
- (2) When a leak is detected, it shall be repaired in accordance with the procedures in paragraphs (c)(2)(i) and (ii) of this section, except as provided in paragraph (c)(4) and paragraph (f) of this section.
- (i) The leak shall be repaired as soon as practicable, but no later than 15 calendar days after the leak is detected.
- (ii) A first attempt at repair shall be made no later than 5 calendar days after the leak is detected.
- (3) Any connector that is designated as an unsafe-to-monitor connector is exempt from the requirements of paragraph (c)(1) of this section if:
- (i) The owner or operator determines that the connector is unsafe to monitor because personnel would be exposed to an immediate danger as a result of complying with paragraph (c)(1) of this section; and

- (ii) The owner or operator has a written plan that requires monitoring of the connector as frequently as practicable during safe-to-monitor periods.
- (4) Any connector that is designated as an unsafe-to-repair connector is exempt from the requirements of paragraph (c)(2) of this section if:
- (i) The owner or operator determines that repair personnel would be exposed to an immediate danger as a consequence of complying with paragraph (c)(2) of this section; and
- (ii) The connector will be repaired as soon as practicable, but not later than 6 months after the leak was detected.
- (d) *Pressure-relief devices*. Each pressure-relief device in HAP ABA service shall be monitored for leaks in accordance with paragraph (d)(1) of this section. Leaks shall be repaired in accordance with paragraph (d)(2) of this section.
- (1) Each pressure-relief device in HAP ABA service shall be monitored within 5 calendar days by the method specified in §63.1304(a) if evidence of a potential leak is found by visual, audible, olfactory, or any other detection method. If an instrument reading of 10,000 ppm or greater is measured, a leak is detected.
- (2) When a leak is detected, the leak shall be repaired as soon as practicable, but not later than 15 calendar days after it is detected, except as provided in paragraph (f) of this section. The owner or operator shall make a first attempt at repair no later than 5 calendar days after the leak is detected.
- (e) Open-ended valves or lines. (1)(i) Each open-ended valve or line in HAP ABA service shall be equipped with a cap, blind flange, plug, or a second valve, except as provided in paragraph (e)(4) of this section.
- (ii) The cap, blind flange, plug, or second valve shall seal the open end at all times except during operations requiring process fluid flow through the open-ended valve or line, or during maintenance or repair.
- (2) Each open-ended valve or line equipped with a second valve shall be operated in a manner such that the valve on the process fluid end is closed before the second valve is closed.
- (3) When a double block and bleed system is being used, the bleed valve or line may remain open during operations that require venting the line between the block valves but shall comply with paragraph (e)(1) of this section at all other times.
- (4) Open-ended valves or lines in an emergency shutdown system which are designed to open automatically in the event of a process upset are exempt from the requirements of paragraphs (e)(1), (2), and (3) of this section.
- (f) Delay of repair. (1) Delay of repair of equipment for which leaks have been detected is allowed for equipment that is isolated from the process and that does not remain in HAP ABA service.
- (2) Delay of repair for valves and connectors is also allowed if:
- (i) The owner or operator determines that emissions of purged material resulting from immediate repair are greater than the fugitive emissions likely to result from delay of repair, and

- (ii) The purged material is collected and destroyed or recovered in a control device when repair procedures are effected.
- (3) Delay of repair for pumps is also allowed if repair requires replacing the existing seal design with a sealless pump, and repair is completed as soon as practicable, but not later than 6 months after the leak was detected.

§ 63.1297 Standards for slabstock flexible polyurethane foam production—HAP ABA emissions from the production line.

- (a) Each owner or operator of a new or existing slabstock affected source complying with the emission point specific limitation option provided in §63.1293(a)(1) shall control HAP ABA emissions from the slabstock polyurethane foam production line in accordance with the provisions in this section. Compliance shall be determined on a rolling annual basis as described in paragraph (a)(1) of this section. As an alternative, the owner or operator can determine compliance on a monthly basis, as described in paragraph (a)(2) of this section.
- (1) Rolling annual compliance. In determining compliance on a rolling annual basis, actual HAP ABA emissions shall be compared to allowable HAP ABA emissions for each consecutive 12-month period. The allowable HAP ABA emission level shall be calculated based on the production for the 12-month period, resulting in a potentially different allowable level for each 12-month period. Compliance shall be determined each month for the previous 12-month period. The compliance requirements are provided in paragraph (b) of this section.
- (2) Monthly compliance alternative. As an alternative to determining compliance on a rolling annual basis, an owner or operator can determine compliance by comparing actual HAP ABA emissions to allowable HAP ABA emissions for each month. The allowable HAP ABA emission level shall be calculated based on the production for the month, resulting in a potentially different allowable level each month. The requirements for this monthly compliance alternative are provided in paragraph (c) of this section.
- (3) Each owner or operator electing to change between the compliance methods described under paragraphs (a)(1) and (a)(2) of this section shall notify the Administrator no later than 180 calendar days prior to the change.
- (b) Rolling annual compliance. At each slabstock foam production source complying with the rolling annual compliance provisions described in paragraph (a)(1) of this section, actual HAP ABA emissions shall not exceed the allowable HAP ABA emission level for a consecutive 12-month period. The actual HAP ABA emission level for a consecutive 12-month period shall be determined using the procedures in paragraph (b)(1) of this section, and the allowable HAP ABA emission level for the corresponding 12-month period shall be calculated in accordance with paragraph (b)(2) of this section.
- (1) The actual HAP ABA emissions for a 12-month period shall be calculated as the sum of actual monthly HAP ABA emissions for each of the individual 12 months in the period. Actual monthly HAP ABA emissions shall be equal to the amount of HAP ABA added to the slabstock foam production line at the mixhead, determined in accordance with §63.1303(b), unless a recovery device is used. Slabstock foam production sources using recovery devices to reduce HAP ABA emissions shall determine actual monthly HAP ABA emissions using the procedures in paragraph (e) of this section.
- (2) The allowable HAP ABA emissions for a consecutive 12-month period shall be calculated as the sum of allowable monthly HAP ABA emissions for each of the individual 12 months in the period. Allowable HAP ABA emissions for each individual month shall be calculated using Equation 2.

$$emiss_{allow, month} = \sum_{j=1}^{m} \left(\sum_{i=1}^{n} \frac{(\text{lim}it_i) (\text{polyol}_i)}{100} \right) j \qquad \text{(Equation 2)}$$

Where:

emiss_{allow,month}= Allowable HAP ABA emissions from the slabstock foam production source for the month, pounds.

m = Number of slabstock foam production lines.

polyol_i= Amount of polyol used in the month in the production of foam grade i on foam production line j, determined in accordance with paragraph (b)(3) of this section, pounds.

n = Number of foam grades produced in the month on foam production line j.

limit_i= HAP ABA formulation limit for foam grade i, parts HAP ABA per 100 parts polyol. The HAP ABA formulation limits are determined in accordance with paragraph (d) of this section.

- (3) The amount of polyol used for specific foam grades shall be based on the amount of polyol added to the slabstock foam production line at the mixhead, determined in accordance with the provisions of §63.1303(b).
- (c) Monthly compliance alternative. At each slabstock foam production source complying with the monthly compliance alternative described in paragraph (a)(2) of this section, actual HAP ABA emissions shall not exceed the corresponding allowable HAP ABA emission level for the same month. The actual monthly HAP ABA emission level shall be determined using the procedures in paragraph (c)(1) of this section, and the allowable monthly HAP ABA emission level shall be calculated in accordance with paragraph (c)(2) of this section.
- (1) The actual monthly HAP ABA emissions shall be equal to the amount of HAP ABA added to the slabstock foam production line at the mixhead, determined in accordance with §63.1303(b), unless a recovery device is used. Slabstock foam production sources using recovery devices to reduce HAP ABA emissions shall determine actual monthly HAP ABA emissions using the procedures in paragraph (e) of this section.
- (2) The allowable HAP ABA emissions for the month shall be determined in accordance with Equation 2 of this section.
- (d) HAP ABA formulation limitations. For each grade, the HAP ABA formulation limitation shall be determined in accordance with paragraphs (d)(1) through (d)(3) of this section. For any grade, the owner or operator may designate zero as the HAP ABA formulation limitation and not determine the HAP ABA formulation limitation in accordance with paragraphs (d)(1) through (d)(3) of this section.
- (1) For existing sources, the HAP ABA formulation limitation for each grade of slabstock foam produced shall be determined using Equation 3 of this section. Zero shall be the formulation limitation for any grade of foam where the result of the formulation limitation equation (Equation 3) is negative (i.e., less than zero).

$$ABA_{\text{limit}} = -0.25(IFD) - 19.1 \left(\frac{1}{IFD}\right) - 16.2(DEN) - 7.56 \left(\frac{1}{DEN}\right) + 36.5$$
 (Equation 3)

Where:

ABA_{limit}= HAP ABA formulation limitation, parts HAP ABA allowed per hundred parts polyol (pph).

IFD = Indentation force deflection, pounds.

DEN = Density, pounds per cubic foot.

- (2) For new sources, the HAP ABA formulation limitation for each grade of slabstock foam produced shall be determined as described in paragraphs (d)(2)(i) through (d)(2)(iv) of this section and in Table 1 of this subpart.
- (i) For each foam grade with a density of 0.95 pounds per cubic foot or less, the HAP ABA formulation limitation shall be determined using Equation 3. Zero shall be the formulation limitation for any grade of foam where the result of the formulation limitation equation (Equation 3 of this section) is negative (i.e., less than zero).
- (ii) For each foam grade with a density of 1.4 pounds per cubic foot or less, and an IFD of 15 pounds or less, the HAP ABA formulation limitation shall be determined using Equation 3.
- (iii) For each foam grade with a density greater than 0.95 pounds per cubic foot and an IFD greater than 15 pounds, the HAP ABA formulation limitation shall be zero.
- (iv) For each foam grade with a density greater than 1.40 pounds per cubic foot, the HAP ABA formulation limitation shall be zero.
- (3) With the exception of those grades for which the owner or operator has designated zero as the HAP ABA formulation limitation, the IFD and density for each foam grade shall be determined in accordance with §63.1304(b) and recorded in accordance with §63.1307(c)(1)(i)(B) or §63.1307(c)(2)(i)(B) within 10 working days of the production of the foam.
- (e) Compliance using recovery devices. If a recovery device is used to comply with paragraphs (b) or (c) of this section, the owner or operator shall determine the allowable HAP ABA emissions for each month using Equation 2 in paragraph (b)(2) of this section, and the actual monthly HAP ABA emissions in accordance with paragraph (e)(1) of this section. The owner or operator shall also comply with the provisions of paragraph (e)(2) of this section.
- (1) The actual monthly HAP ABA emissions shall be determined using Equation 4:

$$E_{actual} = E_{unc} - HAPABA_{recovered}$$
 (Equation 4)

Where:

E_{actual}= Actual HAP ABA emissions after control, pounds/month.

E_{unc}= Uncontrolled HAP ABA emissions, pounds/month, determined in accordance with paragraph (b)(1) of this section.

HAPABA_{recovered}= HAP ABA recovered, pounds/month, determined in accordance with paragraph (e)(2) of this section.

(2) The amount of HAP ABA recovered shall be determined in accordance with §63.1303(c).

§ 63.1298 Standards for slabstock flexible polyurethane foam production—HAP emissions from equipment cleaning.

Each owner or operator of a new or existing slabstock affected source complying with the emission point specific limitation option provided in §63.1293(a)(1) shall not use a HAP or a HAP-based material as an equipment cleaner.

§ 63.1299 Standards for slabstock flexible polyurethane foam production—source-wide emission limitation.

Each owner or operator of a new or existing slabstock affected source complying with the source-wide emission limitation option provided in §63.1293(b) shall control HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions in accordance with the provisions in this section. Compliance shall be determined on a rolling annual basis in accordance with paragraph (a) of this section. As an alternative, the owner or operator can determine compliance monthly, as described in paragraph (b) of this section.

- (a) Rolling annual compliance. Under the rolling annual compliance provisions, actual sourcewide HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions are compared to allowable source-wide emissions for each consecutive 12-month period. The allowable source-wide HAP emission level is calculated based on the production for the 12-month period, resulting in a potentially different allowable level for each 12-month period. While compliance is on an annual basis, compliance shall be determined monthly for the preceding 12-month period. The actual source-wide HAP emission level for a consecutive 12-month period shall be determined using the procedures in paragraphs (c)(1) through (4) of this section, unless a recovery device is used. Slabstock foam production sources using recovery devices shall determine actual source-wide HAP emissions in accordance with paragraph (e) of this section. The allowable HAP emission level for a consecutive 12-month period shall be determined using the procedures in paragraph (d) of this section.
- (b) *Monthly compliance alternative*. As an alternative to determining compliance on a rolling annual basis, an owner or operator can determine compliance by comparing actual HAP emissions to allowable HAP emissions for each month. The allowable source-wide emission level is calculated based on the production for the month, resulting in a potentially different allowable level each month. The actual monthly emission level shall be determined using the procedures in paragraphs (c)(1) through (3) of this section, unless a recovery device is used. Slabstock foam production sources using recovery devices shall determine actual source-wide HAP emissions in accordance with paragraph (e) of this section. The allowable monthly HAP ABA emission level shall be determined in accordance with Equation 6.
- (c) Procedures for determining actual source-wide HAP emissions. The actual source-wide HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions shall be determined using the procedures in this section. Actual source-wide HAP emissions for each individual month shall be determined using the procedures specified in paragraphs (c)(1) through (3) of this section.
- (1) Actual source-wide HAP emissions for a month shall be determined using Equation 5 and the information determined in accordance with paragraphs (c)(2) and (3) of this section.

$$PWE_{actual} = \sum_{i}^{n} \left(ST_{i, begin} - ST_{i, end} + ADD_{i} \right)$$
 (Equation 5)

Where:

PWE_{actual}= Actual source-wide HAP ABA and equipment cleaning HAP emissions for a month, pounds/month.

n = Number of HAP ABA storage vessels.

 $ST_{i,begin}$ = Amount of HAP ABA in storage vessel i at the beginning of the month, pounds, determined in accordance with the procedures listed in paragraph (c)(2) of this section.

ST_{i,end}= Amount of HAP ABA in storage vessel i at the end of the month, pounds, determined in accordance with the procedures listed in paragraph (c)(2) of this section.

ADD_i= Amount of HAP ABA added to storage vessel i during the month, pounds, determined in accordance with the procedures listed in paragraph (c)(3) of this section.

- (2) The amount of HAP ABA in a storage vessel shall be determined by monitoring the HAP ABA level in the storage vessel in accordance with §63.1303(d).
- (3) The amount of HAP ABA added to a storage vessel for a given month shall be the sum of the amounts of all individual HAP ABA deliveries that occur during the month. The amount of each individual HAP ABA delivery shall be determined in accordance with §63.1303(e).
- (4) Actual source-wide HAP emissions for each consecutive 12-month period shall be calculated as the sum of actual monthly source-wide HAP emissions for each of the individual 12 months in the period, calculated in accordance with paragraphs (c) (1) through (3) of this section.
- (d) Allowable source-wide HAP emissions for a consecutive 12-month period shall be calculated as the sum of allowable monthly source-wide HAP emissions for each of the individual 12 months in the period. Allowable source-wide HAP emissions for each individual month shall be calculated using Equation 6.

$$emiss_{allow, month} = \sum_{i=1}^{m} \left(\sum_{i=1}^{n} \frac{(\text{limit}_{i}) (\text{polyol}_{i})}{100} \right) j$$
 (Equation 6)

Where:

emiss_{allow,month}= Allowable HAP ABA storage and equipment leak emissions, HAP ABA emissions from the production line, and equipment cleaning HAP emissions from the slabstock foam production source for the month, pounds.

m = Number of slabstock foam production lines.

polyol_i= Amount of polyol used in the month in the production of foam grade i on foam production line j, determined in accordance with §63.1303(b), pounds.

n = Number of foam grades produced in the month on foam production line j.

limit_i= HAP ABA formulation limit for foam grade i, parts HAP ABA per 100 parts polyol. The HAP ABA formulation limits are determined in accordance with §63.1297(d).

- (e) Compliance using recovery devices. If a recovery device is used to comply with paragraphs (a) or (b) of this section, the owner or operator shall determine the allowable source-wide HAP emissions for each month using Equation 6 in paragraph (d) of this section, and the actual monthly source-wide HAP emissions in accordance with paragraph (e)(1) of this section. The owner or operator shall also comply with the provisions of paragraph (e)(2) of this section.
- (1) Actual monthly source-wide HAP emissions shall be determined using Equation 7.

$$E_{actual} = E_{unc} - HAPABA_{recovered}$$
 (Equation 7)

Where:

E_{actual}= Actual source-wide HAP emissions after control, pounds/month.

E_{unc}= Uncontrolled source-wide HAP emissions, pounds/month, determined in accordance with paragraph (c) (1) through (3) of this section.

HAPABA_{recovered}= HAP ABA recovered, pounds/month, determined in accordance with paragraph (e)(2) of this section.

(2) The amount of HAP ABA recovered shall be determined in accordance with §63.1303(c).

§ 63.1300 Standards for molded flexible polyurethane foam production.

Each owner or operator of a new or existing molded affected source shall comply with the provisions in paragraphs (a) and (b) of this section.

- (a) A HAP or HAP-based material shall not be used as an equipment cleaner to flush the mixhead, nor shall it be used elsewhere as an equipment cleaner in a molded flexible polyurethane foam process, with the following exception. Diisocyanates may be used to flush the mixhead and associated piping during periods of startup or maintenance, provided that the diisocyanate compounds are contained in a closed-loop system and are re-used in production.
- (b) A HAP-based mold release agent shall not be used in a molded flexible polyurethane foam source process.

§ 63.1301 Standards for rebond foam production.

Each owner or operator of a new or existing rebond foam affected source shall comply with the provisions in paragraphs (a) and (b) of this section.

- (a) A HAP or HAP-based material shall not be used as an equipment cleaner at a rebond foam source.
- (b) A HAP-based mold release agent shall not be used in a rebond foam source.

§ 63.1302 Applicability of subpart A requirements.

The owner or operator of an affected source shall comply with the applicable requirements of subpart A of this part, as specified in Table 2 of this subpart.

§ 63.1303 Monitoring requirements.

Owners and operators of affected sources shall comply with each applicable monitoring provision in this section.

- (a) Monitoring requirements for storage vessel carbon adsorption systems. Each owner or operator using a carbon adsorption system to meet the requirements of §63.1294(a) or §63.1295 shall monitor the concentration level of the HAP or the organic compounds in the exhaust vent stream (or outlet stream exhaust) from the carbon adsorption system at the frequency specified in (a)(1) or (2) of this section in accordance with either (a)(3) or (4) of this section.
- (1) The concentration level of HAP or organic compounds shall be monitored during each unloading event, or once per month during an unloading event if multiple unloading events occur in a month.
- (2) As an alternative to monthly monitoring, the owner or operator can set the monitoring frequency at an interval no greater than 20 percent of the carbon replacement interval, which is established using a design analysis described below in paragraphs (a)(1)(i) through (iii) of this section.
- (i) The design analysis shall consider the vent stream composition, constituent concentration, flow rate, relative humidity, and temperature.
- (ii) The design analysis shall establish the outlet organic concentration level, the capacity of the carbon bed, and the working capacity of activated carbon used for the carbon bed, and
- (iii) The design analysis shall establish the carbon replacement interval based on the total carbon working capacity of the carbon adsorption system and the schedule for filling the storage vessel.
- (3) Measurements of HAP concentration shall be made using 40 CFR part 60, appendix A, Method 18. The measurement shall be conducted over at least one 5-minute interval during which the storage vessel is being filled.
- (4) Measurements of organic compounds shall be made using 40 CFR part 60, Appendix A, Method 25A. The measurement shall be conducted over at least one 5-minute interval during which the storage vessel is being filled.
- (b) Monitoring for HAP ABA and polyol added to the foam production line at the mixhead. (1) The owner or operator of each slabstock affected source shall comply with the provisions in paragraph (b)(1)(i) of this section, and, if applicable, the provisions of paragraph (b)(1)(ii) of this section. Alternatively, the owner or operator may comply with paragraph (b)(5) of this section.
- (i) Owners or operators of all slabstock affected sources shall continuously monitor the amount of polyol added at the mixhead when foam is being poured, in accordance with paragraphs (b)(2) through (4) of this section.
- (ii) Owners or operators of slabstock foam affected sources using the emission point specific limitation option provided in §63.1293(a)(1) shall continuously monitor the amount of HAP ABA added at the mixhead when foam is being poured, in accordance with paragraphs (b)(2)(ii), (b)(3), and (b)(4) of this section.

- (2) The owner or operator shall monitor either:
- (i) Pump revolutions; or
- (ii) Flow rate.
- (3) The device used to monitor the parameter from paragraph (b)(2) shall have an accuracy to within ±2.0 percent of the HAP ABA being measured, and shall be calibrated initially, and periodically, in accordance with paragraph (b)(3)(i) or (ii) of this section.
- (i) For polyol pumps, the device shall be calibrated at least once each 6 months.
- (ii) For HAP ABA pumps, the device shall be calibrated at least once each month.
- (4) Measurements must be recorded at the beginning and end of the production of each grade of foam within a run of foam.
- (5) As an alternative to the monitoring described in paragraphs (b)(2) through (4) of this section, the owner or operator may develop an alternative monitoring program. Alternative monitoring programs must be submitted to the Administrator for approval in the Precompliance Report as specified in §63.1306(c)(4) for existing sources or in the Application for approval of construction or reconstruction for new sources. If an owner or operator wishes to develop an alternative monitoring program after the compliance date, the program shall be submitted to the Administrator for approval before the owner or operator wishes to begin using the alternative program. If the Administrator does not notify the owner or operator of objections to the program, or any part of the program, within 45 days after its receipt, the program shall be deemed approved. Until the program is approved, the owner or operator of an affected source remains subject to the requirements of this subpart. The components of an alternative monitoring program shall include, at a minimum, the items listed in paragraphs (b)(5)(i) through (iv) of this section.
- (i) A description of the parameter to be continuously monitored when foam is being poured to measure the amount of HAP ABA or polyol added at the mixhead.
- (ii) A description of how the monitoring results will be recorded, and how the results will be converted into amount of HAP ABA or polyol delivered to the mixhead.
- (iii) Data demonstrating that the monitoring device is accurate to within ±2.0 percent.
- (iv) Procedures to ensure that the accuracy of the parameter monitoring results is maintained. These procedures shall, at a minimum, consist of periodic calibration of all monitoring devices.
- (c) Recovered HAP ABA monitoring. The owner or operator of each slabstock affected source using a recovery device to reduce HAP ABA emissions shall develop and comply with a recovered HAP ABA monitoring and recordkeeping program. The components of these plans shall include, at a minimum, the items listed in paragraphs (c)(1) through (5) of this section. These plans must be submitted for approval in accordance with paragraph (c)(6) of this section.
- (1) A device, installed, calibrated, maintained, and operated according to the manufacturer's specifications, that indicates the cumulative amount of HAP ABA recovered by the solvent recovery device over each 1-month period. The device shall be certified by the manufacturer to be accurate to within ±2.0 percent.

- (2) The location where the monitoring will occur shall ensure that the measurements are taken after HAP ABA has been fully recovered (i.e., after separation from water introduced into the HAP ABA during regeneration).
- (3) A description of the parameter to be monitored, and the times the parameter will be monitored.
- (4) Data demonstrating that the monitoring device is accurate to within ±2.0 percent.
- (5) Procedures to ensure that the accuracy of the parameter monitoring results is maintained. These procedures shall, at a minimum, consist of periodic calibration of all monitoring devices.
- (6) Recovered HAP ABA monitoring and recordkeeping programs must be submitted to the Administrator for approval in the Precompliance Report as specified in §63.1306(c)(6) for existing sources or in the Application for approval of construction or reconstruction for new sources. If an owner or operator wishes to develop a recovered HAP ABA monitoring program after the compliance date, the program shall be submitted to the Administrator for approval before the owner or operator wishes to begin using the program. If the Administrator does not notify the owner or operator of objections to the program within 45 days after its receipt, the program shall be deemed approved. Until the program is approved, the owner or operator of an affected source remains subject to the requirements of this subpart.
- (d) Monitoring of HAP ABA in a storage vessel. The amount of HAP ABA in a storage vessel shall be determined weekly by monitoring the HAP ABA level in the storage vessel using a level measurement device that meets the criteria described in paragraphs (d)(1) and either (d)(2) or (d)(3) of this section.
- (1) The level measurement device must be calibrated initially and at least once per year thereafter.
- (2) With the exception of visually-read level measurement devices (i.e., gauge glass), the device must have either a digital or printed output.
- (3) If the level measurement device is a visually-read device, the device must be equipped with permanent graduated markings to indicate HAP ABA level in the storage tank.
- (e) Monitoring of HAP ABA added to a storage vessel. The amount of HAP ABA added to a storage vessel during a delivery shall be determined in accordance with either paragraphs (e)(1), (2), (3), or (4) of this section.
- (1) The volume of HAP ABA added to the storage vessel shall be determined by recording the volume in the storage vessel prior to the delivery and the volume after the delivery, provided that the storage tank level measurement device used to determine the levels meets the criteria in (d) of this section.
- (2) The volume of HAP ABA added to the storage vessel shall be determined by monitoring the flow rate using a device with an accuracy of ±2.0 percent, and calibrated initially and at least once each six months thereafter.
- (3) The weight of HAP ABA added to the storage vessel shall be calculated as the difference of the full weight of the transfer vehicle prior to unloading into the storage vessel and the empty weight of the transfer vehicle after unloading into the storage vessel. The weight shall be determined using a scale meeting the requirements of either paragraph (e)(2)(i) or (ii) of this section.

- (i) A scale approved by the State or local agencies using the procedures contained in Handbook 44, Specifications, Tolerances, and Other Technical Requirements for Weighing and Measuring Devices 1998 (incorporation by reference—see §63.14).
- (ii) A scale determined to be in compliance with the requirements of the National Institute of Standards and Technology Handbook 44 at least once per year by a registered scale technician.
- (4) As an alternative to the monitoring options described in paragraphs (e)(1) through (e)(3) of this section, the owner or operator may develop an alternative monitoring program. Alternative monitoring programs must be submitted to the Administrator for approval in the Precompliance Report as specified in §63.1306(c)(4) for existing sources or in the Application for approval of construction or reconstruction for new sources. If an owner or operator wishes to develop an alternative monitoring program after the compliance date, the program shall be submitted to the Administrator for approval before the owner or operator wishes to begin using the alternative program. If the Administrator does not notify the owner or operator of objections to the program within 45 days after its receipt, the program shall be deemed approved. Until the program is approved, the owner or operator of an affected source remains subject to the requirements of this subpart. The components of an alternative monitoring program shall include, at a minimum, the items listed in paragraphs (e)(3)(i) through (iv) of this section.
- (i) A description of the parameter to be monitored to determine the amount of HAP ABA added to the storage vessel during a delivery,
- (ii) A description of how the results will be recorded, and how the results will be converted into the amount of HAP ABA added to the storage vessel during a delivery,
- (iii) Data demonstrating that the monitoring device is accurate to within ±2.0 percent, and
- (iv) Procedures to ensure that the accuracy of the monitoring measurements is maintained. These procedures shall, at a minimum, consist of periodic calibration of all monitoring devices.

§ 63.1304 Testing requirements.

Owners and operators of affected sources shall use the test methods listed in this section, as applicable, to demonstrate compliance with this subpart.

- (a) Test method and procedures to determine equipment leaks. Monitoring, as required under §63.1296, shall comply with the following requirements:
- (1) Monitoring shall comply with Method 21 of 40 CFR part 60, appendix A.
- (2) The detection instrument shall meet the performance criteria of Method 21 of 40 CFR part 60, appendix A, except that the instrument response factor criteria in section 3.1.2(a) of Method 21 shall be for the average composition of the source fluid, rather than for each individual VOC in the stream. For source streams that contain nitrogen, air, or other inerts which are not HAP or VOC, the average stream response factor shall be calculated on an inert-free basis. The response factor may be determined at any concentration for which monitoring for leaks will be conducted.
- (3) The instrument shall be calibrated before use on each day of its use by the procedures specified in Method 21 of 40 CFR part 60, appendix A.
- (4) Calibration gases shall be:
- (i) Zero air (less than 10 ppm of hydrocarbon in air); and

- (ii) A mixture of methane and air at a concentration of approximately, 1,000 ppm for all transfer pumps; and 500 ppm for all other equipment, except as provided in paragraph (a)(4)(iii) of this section.
- (iii) The instrument may be calibrated at a higher methane concentration (up to 2,000 ppm) than the leak definition concentration for a specific piece of equipment for monitoring that piece of equipment. If the monitoring instrument's design allows for multiple calibration gas concentrations, then the lower concentration calibration gas shall be no higher than 2,000 ppm methane and the higher concentration calibration gas shall be no higher than 10,000 ppm methane.
- (5) Monitoring shall be performed when the equipment is in HAP ABA service, in use with an acceptable surrogate volatile organic compound which is not a HAP ABA, or is in use with any other detectable gas or vapor.
- (6) If no instrument is available onsite that will meet the performance criteria specified in section 3.1.2(a) of Method 21 of 40 CFR Part 60, appendix A, the readings from an available instrument may be adjusted by multiplying by the average response factor for the stream.
- (b) Test method to determine foam properties. The IFD and density of each grade of foam produced during each run of foam shall be determined using ASTM D3574–91, Standard Test Methods for Flexible Cellular Materials—Slab, Bonded, and Molded (incorporation by reference—see §63.14), using a sample of foam cut from the center of the foam bun. The maximum sample size for which the IFD and density is determined shall not be larger than 24 inches by 24 inches by 4 inches. For grades of foam where the owner or operator has designated the HAP ABA formulation limitation as zero, the owner or operator is not required to determine the IFD and density in accordance with this paragraph.

§ 63.1305 Alternative means of emission limitation.

An owner or operator of an affected source may request approval to use an alternative means of emission limitation, following the procedures in this section.

- (a) The owner or operator can request approval to use an alternative means of emission limitation in the precompliance report for existing sources, the application for construction or reconstruction for new sources, or at any time.
- (b) This request shall include a complete description of the alternative means of emission limitation.
- (c) Each owner or operator applying for permission to use an alternative means of emission limitation under §63.6(g) shall be responsible for collecting and verifying data to demonstrate the emission reduction achieved by the alternative means of emission limitation.
- (d) Use of the alternative means of emission limitation shall not begin until approval is granted by the Administrator in accordance with §63.6(g).

§ 63.1306 Reporting requirements.

Owners and operators of affected sources shall comply with each applicable reporting provision in this section.

(a) *Initial notification*. Each affected source shall submit an initial notification in accordance with §63.9(b).

- (b) Application for approval of construction or reconstruction. Each owner or operator shall submit an application for approval of construction or reconstruction in accordance with the provisions of §63.5(d).
- (c) *Precompliance report*. Each slabstock affected source shall submit a precompliance report no later than 12 months before the compliance date. This report shall contain the information listed in paragraphs (c)(1) through (c)(8) of this section, as applicable.
- (1) Whether the source will comply with the emission point specific limitations described in §63.1293(a), or with the source-wide emission limitation described in §63.1293(b).
- (2) For a source complying with the emission point specific limitations, whether the source will comply on a rolling annual basis in accordance with §63.1297(b), or will comply with the monthly alternative for compliance contained in §63.1297(c).
- (3) For a source complying with the source-wide emission limitation, whether the source will comply on a rolling annual basis in accordance with §63.1299(a), or will comply with the monthly alternative for compliance contained in §63.1299(b).
- (4) A description of how HAP ABA and/or polyol added at the mixhead will be monitored. If the owner or operator is developing an alternative monitoring program, the alternative monitoring program containing the information in §63.1303(b)(5)(i) through (iv) shall be submitted.
- (5) Notification of the intent to use a recovery device to comply with the provisions of §63.1297 or §63.1299.
- (6) For slabstock affected sources complying with §63.1297 or §63.1299 using a recovery device, the continuous recovered HAP ABA monitoring and recordkeeping program, developed in accordance with §63.1303(c).
- (7) For sources complying with the source-wide emission limitation, a description of how the amount of HAP ABA in a storage vessel shall be determined.
- (8) For sources complying with the source-wide emission limitation, a description of how the amount of HAP ABA added to a storage vessel during a delivery will be monitored. If the owner or operator is developing an alternative monitoring program, the alternative monitoring program containing the information in §63.1303(e)(4)(i) through (iv) shall be submitted.
- (9) If the Administrator does not notify the owner or operator of objections to an alternative monitoring program submitted in accordance with (c)(4) or (c)(6) of this section, or a recovered HAP ABA monitoring and recordkeeping program submitted in accordance with (c)(7) of this section, the program shall be deemed approved 45 days after its receipt by the Administrator.
- (d) Notification of compliance status. Each affected source shall submit a notification of compliance status report no later than 180 days after the compliance date. For slabstock affected sources, this report shall contain the information listed in paragraphs (d)(1) through (3) of this section, as applicable. This report shall contain the information listed in paragraph (d)(4) of this section for molded foam processes and in paragraph (d)(5) for rebond foam processes.
- (1) A list of diisocyanate storage vessels, along with a record of the type of control utilized for each storage vessel.
- (2) For transfer pumps in diisocyanate service, a record of the type of control utilized for each transfer pump.

- (3) If the source is complying with the emission point specific limitations of §§63.1294 through 63.1298, the information listed in paragraphs (b)(3)(i) through (iii) of this section.
- (i) A list of HAP ABA storage vessels, along with a record of the type of control utilized for each storage vessel.
- (ii) A list of pumps, valves, connectors, pressure-relief devices, and open-ended valves or lines in HAP ABA service.
- (iii) A list of any modifications to equipment in HAP ABA service made to comply with the provisions of §63.1296.
- (4) A statement that the molded foam affected source is in compliance with §63.1300, or a statement that molded foam processes at an affected source are in compliance with §63.1300.
- (5) A statement that the rebond foam affected source is in compliance with §63.1301, or that rebond processes at an affected source are in compliance with §63.1301.
- (e) Semiannual reports. Each slabstock affected source shall submit a report containing the information specified in paragraphs (e)(1) through (5) of this section semiannually no later than 60 days after the end of each 180 day period. The first report shall be submitted no later than 240 days after the date that the Notification of Compliance Status is due and shall cover the 6-month period beginning on the date that the Notification of Compliance Status Report is due.
- (1) For slabstock affected sources complying with the rolling annual compliance provisions of either §63.1297 or §63.1299, the allowable and actual HAP ABA emissions (or allowable and actual source-wide HAP emissions) for each of the 12-month periods ending on each of the six months in the reporting period. This information is not required to be included in the initial semi-annual compliance report.
- (2) For sources complying with the monthly compliance alternative of either §63.1297 or §63.1299, the allowable and actual HAP ABA emissions (or allowable and actual source-wide HAP emissions) for each of the six months in the reporting period.
- (3) For sources complying with the storage vessel provisions of §63.1294(a) or §63.1295 using a carbon adsorption system, unloading events that occurred after breakthrough was detected and before the carbon was replaced.
- (4) Any equipment leaks that were not repaired in accordance with §63.1294(b)(2)(iii), §63.1294(c), §63.1296(a)(2)(iii), (b)(2), (b)(3)(iv), (b)(4)(v), (c)(2), (c)(4)(ii), and (d)(2).
- (5) Any leaks in vapor return lines that were not repaired in accordance with §63.1294(a)(1)(ii) or §63.1295(b)(2).
- (f) Other reports. (1) Change in selected emission limitation. An owner or operator electing to change their slabstock flexible polyurethane foam emission limitation (from emission point specific limitations to a source-wide emission limitation, or vice versa), selected in accordance with §63.1293, shall notify the Administrator no later than 180 days prior to the change.
- (2) Change in selected compliance method. An owner or operator changing the period of compliance for either §63.1297 or §63.1299 (between rolling annual and monthly) shall notify the Administrator no later than 180 days prior to the change.

- (g) Annual compliance certifications. Each affected source subject to the provisions in §§63.1293 through 63.1301 shall submit a compliance certification annually.
- (1) The compliance certification shall be based on information consistent with that contained in §63.1308 of this section, as applicable.
- (2) A compliance certification required pursuant to a State or local operating permit program may be used to satisfy the requirements of this section, provided that the compliance certification is based on information consistent with that contained in §63.1308 of this section, and provided that the Administrator has approved the State or local operating permit program under part 70 of this chapter.
- (3) Each compliance certification submitted pursuant to this section shall be signed by a responsible official of the company that owns or operates the affected source.

§ 63.1307 Recordkeeping requirements.

The applicable records designated in paragraphs (a) through (c) of this section shall be maintained by owners and operators of all affected sources.

- (a) Storage vessel records. (1) A list of diisocyanate storage vessels, along with a record of the type of control utilized for each storage vessel.
- (2) For each slabstock affected source complying with the emission point specific limitations of §§63.1294 through 63.1298, a list of HAP ABA storage vessels, along with a record of the type of control utilized for each storage vessel.
- (3) For storage vessels complying through the use of a carbon adsorption system, paragraph (a)(3)(i) or (ii), and paragraph (a)(3)(iii) of this section.
- (i) Records of dates and times when the carbon adsorption system is monitored for carbon breakthrough and the monitoring device reading, when the device is monitored in accordance with §63.1303(a); or
- (ii) For affected sources monitoring at an interval no greater than 20 percent of the carbon replacement interval, in accordance with §63.1303(a)(2), the records listed in paragraphs (a)(3)(ii)(A) and (B) of this section.
- (A) Records of the design analysis, including all the information listed in §63.1303(a)(2)(i) through (iii), and
- (B) Records of dates and times when the carbon adsorption system is monitored for carbon breakthrough and the monitoring device reading.
- (iii) Date when the existing carbon in the carbon adsorption system is replaced with fresh carbon.
- (4) For storage vessels complying through the use of a vapor return line, paragraphs (a)(4)(i) through (iii) of this section.
- (i) Dates and times when each unloading event occurs and each inspection of the vapor return line for leaks occurs.
- (ii) Records of dates and times when a leak is detected in the vapor return line.

- (iii) Records of dates and times when a leak is repaired.
- (b) Equipment leak records. (1) A list of components as specified below in paragraphs (b)(1)(i) and (ii).
- (i) For all affected sources, a list of components in diisocyanate service,
- (ii) For affected sources complying with the emission point specific limitations of §§63.1294 through 63.1298, a list of components in HAP ABA service.
- (2) For transfer pumps in diisocyanate service, a record of the type of control utilized for each transfer pump and the date of installation.
- (3) When a leak is detected as specified in §63.1294(b)(2)(ii), §63.1294(c), §63.1296(a)(2), (b)(1), (c)(1), and (d)(1), the requirements listed in paragraphs (b)(3)(i) and (ii) of this section apply:
- (i) Leaking equipment shall be identified in accordance with the requirements in paragraphs (b)(3)(i)(A) through (C) of this section.
- (A) A readily visible identification, marked with the equipment identification number, shall be attached to the leaking equipment.
- (B) The identification on a valve may be removed after it has been monitored for 2-successive quarters as specified in §63.1296(b)(1) and no leak has been detected during those 2 quarters.
- (C) The identification on equipment, other than a valve, may be removed after it has been repaired.
- (ii) The information in paragraphs (b)(2)(ii)(A) through (H) shall be recorded for leaking components.
- (A) The instrument and operator identification numbers and the equipment identification number.
- (B) The date the leak was detected and the dates of each attempt to repair the leak.
- (C) Repair methods applied in each attempt to repair the leak.
- (D) The words "above leak definition" if the maximum instrument reading measured by the methods specified in §63.1304(a) after each repair attempt is equal or greater than the leak definitions for the specified equipment.
- (E) The words "repair delayed" and the reason for the delay if a leak is not repaired within 15 calendar days after discovery of the leak.
- (F) The expected date of the successful repair of the leak if a leak is not repaired within 15 calendar days.
- (G) The date of successful repair of the leak.
- (H) The date the identification is removed.
- (c) HAP ABA records —(1) Emission point specific limitations—rolling annual compliance and monthly compliance alternative records. Each slabstock affected source complying with the

emission point specific limitations of §63.1294 through 63.1298, and the rolling annual compliance provisions of §63.1297(a)(1), shall maintain the records listed in paragraphs (c)(1)(i), (ii), (iii), and (iv) of this section. Each flexible polyurethane foam slabstock source complying with the emission point specific limitations of §63.1294 through 63.1298, and the monthly compliance alternative of §63.1297(a)(2), shall maintain the records listed in paragraphs (c)(1)(i), (ii), and (iv) of this section.

- (i) Daily records of the information listed below in paragraphs (c)(1)(i)(A) through (C) of this section.
- (A) A log of foam runs each day. For each run, the log shall include a list of the grades produced during the run.
- (B) Results of the density and IFD testing for each grade of foam produced during each run of foam, conducted in accordance with the procedures in §63.1304(b). The results of this testing shall be recorded within 10 working days of the production of the foam. For grades of foam where the owner or operator has designated the HAP ABA formulation limitation as zero, the owner or operator is not required to keep records of the IFD and density.
- (C) The amount of polyol added to the slabstock foam production line at the mixhead for each run of foam, determined in accordance with §63.1303(b).
- (ii) Monthly records of the information listed in paragraphs (c)(1)(ii)(A) through (E) of this section.
- (A) A listing of all foam grades produced during the month,
- (B) For each foam grade produced, the HAP ABA formulation limitation, calculated in accordance with §63.1297(d).
- (C) With the exception of those grades for which the owner or operator has designated zero as the HAP ABA formulation limitation, the total amount of polyol used in the month for each foam grade produced.
- (D) The total allowable HAP ABA emissions for the month, determined in accordance with §63.1297(b)(2).
- (E) The total amount of HAP ABA added to the slabstock foam production line at the mixhead during the month, determined in accordance with §63.1303(b).
- (iii) Each source complying with the rolling annual compliance provisions of §63.1297(b) shall maintain the records listed in paragraphs (c)(1)(iii)(A) and (B) of this section.
- (A) The sum of the total allowable HAP ABA emissions for the month and the previous 11 months.
- (B) The sum of the total actual HAP ABA emissions for the month and the previous 11 months.
- (iv) Records of all calibrations for each device used to measure polyol and HAP ABA added at the mixhead, conducted in accordance with §63.1303(b)(3).
- (2) Source-wide limitations—rolling annual compliance and monthly compliance alternative records. Each slabstock affected source complying with the source-wide limitations of §63.1299, and the rolling annual compliance provisions in §63.1299(a), shall maintain the records listed in paragraphs (c)(2)(i) through (c)(2)(vii) of this section. Each flexible polyurethane foam slabstock

source complying with the source-wide limitations of §63.1299, and the monthly compliance alternative of §63.1299(b), shall maintain the records listed in paragraphs (c)(2)(i) through (c)(2)(iii) and paragraphs (c)(2)(v) through (c)(2)(vii) of this section.

- (i) Daily records of the information listed in paragraphs (c)(2)(i)(A) through (C) of this section.
- (A) A log of foam runs each day. For each run, the log shall include a list of the grades produced during the run.
- (B) Results of the density and IFD testing for each grade of foam produced during each run of foam, conducted in accordance with the procedures in §63.1304(b). The results of this testing shall be recorded within 10 working days of the production of the foam. For grades of foam where the owner or operator has designated the HAP ABA formulation limitation as zero, the owner or operator is not required to keep records of the IFD and density.
- (C) With the exception of those grades for which the owner or operator has designated zero as the HAP ABA formulation limitation, the amount of polyol added to the slabstock foam production line at the mixhead for each grade produced during each run of foam, determined in accordance with §63.1303(b).
- (ii) For sources complying with the source-wide emission limitation, weekly records of the storage tank level, determined in accordance with §63.1303(d).
- (iii) Monthly records of the information listed below in paragraphs (c)(2)(iii)(A) through (E) of this section.
- (A) A listing of all foam grades produced during the month,
- (B) For each foam grade produced, the residual HAP formulation limitation, calculated in accordance with §63.1297(d).
- (C) With the exception of those grades for which the owner or operator has designated zero as the HAP ABA formulation limitation, the total amount of polyol used in the month for each foam grade produced.
- (D) The total allowable HAP ABA and equipment cleaning emissions for the month, determined in accordance with §63.1297(b)(2).
- (E) The total actual source-wide HAP ABA emissions for the month, determined in accordance with 63.1299(c)(1), along with the information listed in paragraphs (c)(2)(iii)(E)(1) and (2) of this section.
- (1) The amounts of HAP ABA in the storage vessel at the beginning and end of the month, determined in accordance with §63.1299(c)(2); and
- (2) The amount of each delivery of HAP ABA to the storage vessel, determined in accordance with §63.1299(c)(3).
- (iv) Each source complying with the rolling annual compliance provisions of §63.1299(a) shall maintain the records listed in paragraphs (c)(2)(iv)(A) and (B) of this section.
- (A) The sum of the total allowable HAP ABA and equipment cleaning HAP emissions for the month and the previous 11 months.

- (B) The sum of the total actual HAP ABA and equipment cleaning HAP emissions for the month and the previous 11 months.
- (v) Records of all calibrations for each device used to measure polyol added at the mixhead, conducted in accordance with §63.1303(b)(3).
- (vi) Records of all calibrations for each device used to measure the amount of HAP ABA in the storage vessel, conducted in accordance with §63.1303(d)(1).
- (vii) Records to verify that all scales used to measure the amount of HAP ABA added to the storage vessel meet the requirements of §63.1303(e)(3). For scales meeting the criteria of §63.1303(e)(3)(i), this documentation shall be in the form of written confirmation of the State or local approval. For scales complying with §63.1303(e)(3)(ii), this documentation shall be in the form of a report provided by the registered scale technician.
- (d) The owner or operator of each affected source complying with §63.1297 or §63.1299 through the use of a recovery device shall maintain the following records:
- (1) A copy of the recovered HAP ABA monitoring and recordkeeping program, developed pursuant to §63.1303(c);
- (2) Certification of the accuracy of the monitoring device,
- (3) Records of periodic calibration of the monitoring devices,
- (4) Records of parameter monitoring results, and
- (5) The amount of HAP ABA recovered each time it is measured.
- (e) The owner or operator of an affected source subject to §63.1298 of this subpart shall maintain a product data sheet for each equipment cleaner used which includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids).
- (f) The owner or operator of an affected source following the compliance methods in §63.1308(b)(1) and (c)(1) shall maintain records of each use of a vapor return line during unloading, of any leaks detected during unloading, and of repairs of leaks detected during unloading.
- (g) The owner or operator of an affected source subject to §63.1300 or §63.1301 of this subpart shall maintain a product data sheet for each compound other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance, which includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each solvent other than diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance.
- (h) The owner or operator of an affected source subject to §63.1300 or §63.1301 of this subpart shall maintain a product data sheet for each mold release agent used that includes the HAP content, in kg of HAP/kg solids (lb HAP/lb solids), of each mold release agent.

§ 63.1308 Compliance demonstrations.

(a) For each affected source, compliance with the requirements listed in paragraphs (a)(1) through (a)(2) of this section shall mean compliance with the requirements contained in §§63.1293 through 63.1301, absent any credible evidence to the contrary.

- (1) The requirements described in Tables 3, 4, and 5 of this subpart; and
- (2) The requirement to submit a compliance certification annually as required under §63.1306(g).
- (b) All slabstock affected sources. For slabstock affected sources, failure to meet the requirements contained in §63.1294 shall be considered a violation of this subpart. Violation of each item listed in the paragraphs (b)(1) through (b)(6) of this section, as applicable, shall be considered a separate violation.
- (1) For each affected source complying with §63.1294(a) in accordance with §63.1294(a)(1), each unloading event that occurs when the diisocyanate storage vessel is not equipped with a vapor return line from the storage vessel to the tank truck or rail car, each unloading event that occurs when the vapor line is not connected, each unloading event that the vapor line is not inspected for leaks as described in §63.1294(a)(1)(i), each unloading event that occurs after a leak has been detected and not repaired, and each calendar day after a leak is detected, but not repaired as soon as practicable;
- (2) For each affected source complying with §63.1294(a) in accordance with §63.1294(a)(2), each unloading event that the diisocyanate storage vessel is not equipped with a carbon adsorption system, each unloading event (or each month if more than one unloading event occurs in a month) that the carbon adsorption system is not monitored for breakthrough in accordance with §63.1303(a)(3) or (4), and each unloading event that occurs when the carbon is not replaced after an indication of breakthrough;
- (3) For each affected source complying with §63.1294(a) in accordance with §63.1294(a)(2) through the alternative monitoring procedures in §63.1303(a)(2), each unloading event that the diisocyanate storage vessel is not equipped with a carbon adsorption system, each time that the carbon adsorption system is not monitored for breakthrough in accordance with §63.1303(a)(3) or (4) at the interval established in the design analysis, and each unloading event that occurs when the carbon is not replaced after an indication of breakthrough;
- (4) For each affected source complying with §63.1294(b) in accordance with §63.1294(b)(1), each calendar day that a transfer pump in diisocyanate service is not a sealless pump;
- (5) For each affected source complying with §63.1294(b) in accordance with §63.1294(b)(2), each calendar day that a transfer pump in diisocyanate service is not submerged as described in §63.1294(b)(2)(i), each week that the pump is not visually monitored for leaks, each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made in accordance with §63.1294(b)(2)(iii)(B), and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or a leak is not repaired as soon as practicable, each subsequent calender day (with the exception of situations meeting the criteria of §63.1294(d));
- (6) For each affected source complying with §63.1294(c), each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made, and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or if a leak is not repaired as soon as practicable, each subsequent calender day (with the exception of situations meeting the criteria of §63.1296(f)).
- (c) Slabstock affected sources complying with the emission point specific limitations. For slabstock affected sources complying with the emission point specific limitations as provided in §63.1293(a), failure to meet the requirements contained in §63.1295 through 63.1298 shall be considered a violation of this subpart. Violation of each item listed in the paragraphs (c)(1) through (c)(17) of this section, as applicable, shall be considered a separate violation.

- (1) For each affected source complying with §63.1295(a) in accordance with §63.1295(b), each unloading event that occurs when the HAP ABA storage vessel is not equipped with a vapor return line from the storage vessel to the tank truck or rail car, each unloading event that occurs when the vapor line is not connected, each unloading event that the vapor line is not inspected for leaks as described in §63.1295(b)(1), each unloading event that occurs after a leak has been detected and not repaired, and each calendar day after a leak is detected but not repaired as soon as practicable;
- (2) For each affected source complying with §63.1295(a) in accordance with §63.1295(c), each unloading event that the HAP ABA storage vessel is not equipped with a carbon adsorption system, each unloading event (or each month if more than one unloading event occurs in a month) that the carbon adsorption system is not monitored for breakthrough in accordance with §63.1303(a)(3) or (4), and each unloading event that occurs when the carbon is not replaced after an indication of breakthrough;
- (3) For each affected source complying with §63.1295(a) in accordance with §63.1295(c) through the alternative monitoring procedures in §63.1303(a)(2), each unloading event that the HAP ABA storage vessel is not equipped with a carbon adsorption system, each time that the carbon adsorption system is not monitored for breakthrough in accordance with §63.1303(a)(3) or (4) at the interval established in the design analysis, and each unloading event that occurs when the carbon is not replaced after an indication of breakthrough;
- (4) For each affected source complying with §63.1296(a) in accordance with §63.1296(a)(1), each calendar day that a transfer pump in HAP ABA service is not a sealless pump;
- (5) For each affected source complying with §63.1296(a) in accordance with §63.1296(a)(2), each week that a visual inspection of a pump in HAP ABA service is not performed, each quarter that a pump in HAP ABA service is not monitored to detect leaks in accordance with §63.1304(a), each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made in accordance with §63.1296(b)(2)(iii)(B), and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or if a leak is not repaired as soon as practicable, each subsequent calender day (with the exception of situations meeting the criteria of §63.1296(f));
- (6) For each affected source complying with §63.1296(b) in accordance with §63.1296(b)(1) and (2), each quarter that a valve in HAP ABA service is not monitored to detect leaks in accordance with §63.1304(a), each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made in accordance with §63.1296(b)(2)(ii), and each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or if a leak is not repaired as soon as practicable, whichever is earlier (with the exception of situations meeting the criteria of §63.1296(f));
- (7) For each affected source complying with §63.1296(b)(3) for each valve designated as unsafe to monitor as described in §63.1296(b)(3)(i), failure to develop the written plan required by §63.1296(b)(3)(ii), each period specified in the written plan that an unsafe-to-monitor valve in HAP ABA service is not monitored, and each calendar day in which a leak is not repaired in accordance with the written plan;
- (8) For each affected source complying with §63.1296(b)(4) for one or more valves designated as difficult-to-monitor in accordance with §63.1296(b)(4)(i) and (ii), failure to develop the written plan required by §63.1296(b)(4)(iii), each calendar year that a difficult-to-monitor valve in HAP ABA service is not monitored, and each calendar day in which a leak is not repaired in accordance with the written plan;

- (9) For each affected source complying with §63.1296(c) in accordance with §63.1296(c)(1) and (2), each year that a connector in HAP ABA service is not monitored to detect leaks in accordance with §63.1304(a); each calendar day after 3 months after a connector has been opened, has otherwise had the seal broken, or a leak is repaired, that each connector in HAP ABA service is not monitored to detect leaks in accordance with §63.1304(a); each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made, and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or if a leak is not repaired as soon as practicable, each subsequent calendar day (with the exception of situations meeting the criteria of §63.1296(f));
- (10) For each affected source complying with §63.1296(c)(3) for one or more connectors designated as unsafe-to-monitor in accordance with §63.1296(c)(3)(i), failure to develop the written plan required by §63.1296(c)(3)(ii), each period specified in the written plan that an unsafe-to-monitor valve in HAP ABA service is not monitored, each calendar day after 5 calendar days after detection of a leak of an unsafe-to-monitor connector that a first attempt at repair has not been made, and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or if a leak is not repaired as soon as practicable, each subsequent calender day (with the exception of situations meeting the criteria of §63.1296(f));
- (11) For each affected source complying with §63.1296(c)(4) for one or more connectors designated as unsafe to repair, each year that one or more unsafe-to-repair connectors in HAP ABA service is not monitored to detect leaks in accordance with §63.1304(a); each calendar day after 3 months after one or more unsafe-to-repair connectors has been opened, has otherwise had the seal broken, or a leak is repaired, that each unsafe-to-repair connector in HAP ABA service is not monitored to detect leaks in accordance with §63.1304(a); and the earlier of each calendar day after six-months after detection of a leak that a leak is not repaired, or if a leak is not repaired as soon as practicable, each subsequent calendar day;
- (12) For each affected source complying with §63.1296(d) in accordance with §63.1296(d)(1) and (2), each calendar day after the 5 days that the pressure-relief device has not been monitored in accordance with §63.1304(a) after a potential leak was discovered as described in §63.1296(d)(1), each calendar day after 5 calendar days after detection of a leak that a first attempt at repair has not been made, and the earlier of each calendar day after 15 calendar days after detection of a leak that a leak is not repaired, or if a leak is detected and not repaired as soon as practicable, each subsequent calendar day (with the exception of situations meeting the criteria of §63.1296(f));
- (13) For each affected source complying with §63.1296(e) in accordance with §63.1296(e)(1) through (5), each calendar day that an open-ended valve or line has no cap, blind flange, plug or second valve as described in §63.1296(e)(2), and each calendar day that a valve on the process fluid end of an open-ended valve or line equipped with a second valve is not closed before the second valve is closed;
- (14) For each affected source complying with §63.1297(a) in accordance with the rolling annual compliance option in §63.1297(a)(1) and (b), each calendar day in the 12-month period for which the actual HAP ABA emissions exceeded the allowable HAP ABA emissions level, each calendar day in which foam is being poured where the amount of polyol added at the mixhead is not monitored (as required) in accordance with §63.1303(b)(1)(i), each calendar day in which foam is being poured where the amount of HAP ABA added at the mixhead is not monitored (as required) in accordance with §63.1303(b)(1)(ii), each calendar day in a 6-month period in which the polyol pumps are not calibrated in accordance with §63.1303(b)(3)(i), each calendar day in a month in which the HAP ABA pumps are not calibrated in accordance with §63.1303(b)(3)(ii), and each calendar day after 10 working days after production where the IFD and density of a foam grade are not determined (where required) in accordance with §63.1304(b):

- (15) For each affected source complying with §63.1297(a) in accordance with the monthly compliance option in §63.1297(a)(2) and (c), each calendar day of each month for which the actual HAP ABA emissions exceeded the allowable HAP ABA emissions level for that month, each calendar day in which foam is being poured where the amount of polyol added at the mixhead is not monitored (as required) in accordance with §63.1303(b)(1)(i), each calendar day in which foam is being poured where the amount of HAP ABA added at the mixhead is not monitored (as required) in accordance with §63.1303(b)(1)(ii), each 6-month period in which the polyol pumps are not calibrated in accordance with §63.1303(b)(3)(i), each month in which the HAP ABA pumps are not calibrated in accordance with §63.1303(b)(3)(ii), and each calendar day after 10 working days after production where the IFD and density of a foam grade are not determined (where required) in accordance with §63.1304(b);
- (16) For each affected source complying with §63.1297(a) by using a recovery device as allowed under §63.1297(e), the items listed in (c)(16)(i) or (ii) of this section, as applicable.
- (i) If complying with rolling annual compliance option in §63.1297(a)(1) and (b), each item listed in (c)(14) of this section, failure to develop a recovered HAP ABA monitoring and recordkeeping program in accordance with §63.1303(c), and each instance when an element of the program is not followed.
- (ii) If complying with the monthly compliance option in §63.1297(a)(2) and (c), each item listed in (c)(15) of this section, failure to develop a recovered HAP ABA monitoring and recordkeeping program in accordance with §63.1303(c), and each instance when an element of the program is not followed.
- (17) For each affected source complying with §63.1298, each calendar day that a HAP or any HAP-based material is used as an equipment cleaner.
- (d) Slabstock affected sources complying with the source-wide emission limitation. For slabstock affected sources complying with the source-wide emission limitation as provided in §63.1293(b), failure to meet the requirements contained in §63.1299 shall be considered a violation of this subpart. Violation of each item listed in the paragraphs (d)(1) through (d)(3) of this section, as applicable, shall be considered a separate violation.
- (1) For each affected source complying with §63.1299 in accordance with the rolling annual compliance option in §63.1299(a), each calendar day in the 12-month period for which the actual HAP ABA emissions exceeded the allowable HAP ABA emissions level, each calendar day in which foam is being poured where the amount of polyol added at the mixhead is not monitored (as required) in accordance with §63.1303(b)(1)(i), each calendar day in a week in which the amount of HAP ABA in a storage vessel is not determined in accordance with §63.1303(d), each delivery of HAP ABA in which the amount of HAP ABA added to the storage vessel is not determined in accordance with §63.1303(e), each calendar day in a 6-month period in which the polyol pumps are not calibrated in accordance with §63.1303(b)(3)(i), and each calendar day after 10 working days after production where the IFD and density of a foam grade are not determined (where required) in accordance with §63.1304(b);
- (2) For each affected source complying with §63.1299 in accordance with the monthly compliance option in §63.1299(b), each calendar day of each month for which the actual HAP ABA emissions exceeded the allowable HAP ABA emissions level for that month, each calendar day in which foam is being poured where the amount of polyol added at the mixhead is not monitored (as required) in accordance with §63.1303(b)(1)(i), each calendar day in a week in which the amount of HAP ABA in a storage vessel is not determined in accordance with §63.1303(d), each delivery of HAP ABA in which the amount of HAP ABA added to the storage vessel is not determined in accordance with §63.1303(e), and each calendar day in a 6-month period in which the polyol pumps are not calibrated in accordance with §63.1303(b)(3)(i), and each calendar day after 10

working days after production where the IFD and density of a foam grade are not determined (where required) in accordance with §63.1304(b).

- (3) For each affected source complying with §63.1299 by using a recovery device as allowed under §63.1299(e), the items listed in (d)(3)(i) or (ii) of this section, as applicable.
- (i) If complying with rolling annual compliance option in §63.1299(a), each item listed in (d)(1) of this section, failure to develop a recovered HAP ABA monitoring and recordkeeping program in accordance with §63.1303(c), and each instance when an element of the program is not followed.
- (ii) If complying with the monthly compliance option in §63.1299(b), each item listed in (d)(2) of this section, failure to develop a recovered HAP ABA monitoring and recordkeeping program in accordance with §63.1303(c), and each instance when an element of the program is not followed.
- (e) Molded and rebond foam affected sources. For molded and rebond foam affected sources, failure to meet the requirements contained in §63.1300 and §63.1301, respectively, shall be considered a violation of this subpart. Violation of each item listed in the following paragraphs shall be considered a separate violation.
- (1) For each molded foam affected source subject to the provisions in §63.1300(a), each calendar day that a HAP-based material is used as an equipment cleaner (except for diisocyanates used to flush the mixhead and associated piping during periods of startup or maintenance, provided that the diisocyanate compounds are contained in a closed-loop system and are re-used in production);
- (2) For each molded foam affected source subject to the provisions of §63.1300(b), each calendar day that a HAP-base material is used as a mold release agent;
- (3) For each rebond foam affected source subject to the provisions of §63.1301(a), each calendar day that a HAP-based material is used as an equipment cleaner; and
- (4) For each rebond foam affected source complying with §63.1301(b), each calendar day that a HAP-based mold release agent is used.

§ 63.1309 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 (5) of this section.
- (1) Approval of alternatives to the requirements in §§63.1290, 63.1291, 63.1293 through 63.1301, and 63.1305.

- (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 alternatives to the specific monitoring requirements of §63.1303(b)(5).
- (5) Approval of major alternatives to recordkeeping and reporting under §63.10(f), as defined in §63.90, and as required in this subpart.

[68 FR 37357, June 23, 2003]

Appendix to Subpart III of Part 63—Tables: Note

For the convenience of the readers of subpart III, the tables below summarize the requirements in §§63.1290 to 63.1307. These tables are intended to assist the reader in determining the requirements applicable to affected sources and do not alter an affected source's obligation to comply with the requirements in §§63.1290 to 63.1307.

Table 1 to Subpart III of Part 63—HAP ABA Formulation Limitations Matrix for New Sources [see §63.1297(d)(2)]

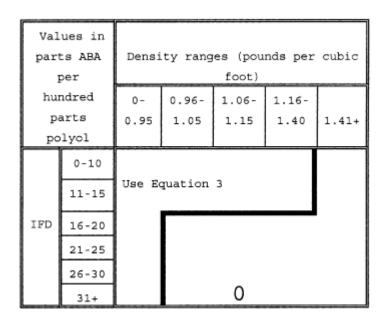


Table 2 to Subpart III of Part 63—Applicability of General Provisions (40 CFR Part 63, Subpart A) to Subpart III

| | Applies to | |
|------------------------|----------------|---|
| Subpart A reference | subpart III | Comment |
| §63.1 | YES | Except that §63.1(c)(2) is not applicable to the extent area sources are not subject to subpart III. |
| §63.2 | YES | Definitions are modified and supplemented by §63.1292. |
| §63.3 | YES | |
| §63.4 | YES | |
| §63.5 | YES | |
| §63.6 (a)–(d) | YES | |
| §63.6(e) (1)–(2) | YES | |
| §63.6(e)(3) | NO | Owners and operators of subpart III affected sources are not required to develop and implement a startup, shutdown, and malfunction plan. |
| §63.6 (f)–(g) | YES | |
| §63.6(h) | NO | Subpart III does not require opacity and visible emission standards. |
| §63.6 (i)–(j) | YES | |
| §63.7 | NO | Performance tests not required by subpart III. |
| §63.8 | NO | Continuous monitoring, as defined in subpart A, is not required by subpart III. |
| §63.9 (a)–(d) | YES | |
| §63.9 (e)–(g) | NO | |
| §63.9(h) | NO | Subpart III specifies Notification of Compliance Status requirements. |
| §63.9 (i)–(j) | YES | |
| §63.10 (a)–(b) | YES | Except that the records specified in §63.10(b)(2)(vi) through (xi) and (xiii) are not required. |
| §63.10(c) | NO | |
| §63.10(d)(1) | YES | |
| §63.10 (d) (2)– (3) | NO | |
| §63.10 (d) (4)– (5) | YES | |
| §63.10(e) | NO | |
| §63.10(f) | YES | |
| §63.11 | YES | |
| §63.12 | YES | |
| §63.13 | YES | |
| §63.14 | YES | |
| §63.15 | YES | |

Table 3 to Subpart III of Part 63—Compliance Requirements for Slabstock Foam Production Affected Sources Complying with the Emission Point Specific Limitations

| Emission point | Emission point compliance option | Emission, work practice, and equipment standards | Monitoring | Recordkeeping | Reporting |
|--|--|---|--|--|-----------------|
| Diisocyanate storage vessels §63.1294(a) | Vapor balance | §63.1294(a)(1) and (1)(ii) | §63.1294(a)(1)(i) | §63.1307(a)(1) and (4) | §63.1306(e)(5). |
| | Carbon adsorber | §63.1294(a)(2) | §63.1303(a)(1), (3), and (4) | §63.1307(a)(1), (3)(i), and (3)(iii) | §63.1306(e)(3). |
| | Carbon adsorber— alternative monitoring | §63.1294(a)(2) | §63.1303(a)(2), (3) and (4) | §63.1307(a)(1), (3)(ii), and (3)(iii) | §63.1306(e)(3). |
| Diisocyanate transfer pumps §63.1294(b) | Sealless pump | §63.1294(b)(1) | | §63.1307 (b)(1)(i) and (2) | |
| | Submerged pump | §63.1294(b)(2)(i) and (iii) | §63.1294 (b)(2)(ii) | §63.1307 (b)(1)(i), (2), and (3) | §63.1306(e)(4). |
| Other components in diisocyanate service §63.1294(c) | N/A | §63.1294(c) | §63.1294(c) | §63.1307 (b)(1)(i) and (3) | §63.1306(e)(4). |
| HAP ABA storage vessels §63.1295 | Vapor balance | §63.1295(b) and (b)(2) | §63.1295 (b)(1) | §63.1307(a)(2) and (4) | §63.1306(e)(5). |
| | Carbon adsorber | §63.1295(c) | §63.1303(a)(1), (3), and (4) | §63.1307(a)(2), (3)(i), (3)(iii) | §63.1306(e)(3). |
| | Carbon adsorber— alternative monitoring | §63.1295(c) | §63.1303(a)(2), (3) and (4) | §63.1307(a)(2), (3)(ii), and (3)(iii) | §63.1306(e)(3). |
| HAP ABA pumps §63.1296(a): | Sealless pump | §63.1296(a)(1) | | §63.1307 (b)(1)(ii) | |
| | Quarterly monitoring | §63.1296(a)(2) and (2)(iii) | §63.1296(a)(2)(i), (2)(ii) and §63.1304(a) | §63.1307 (b)(1)(ii) and (3) | §63.1304(e)(4). |
| HAP ABA valves §63.1296(b): | Quarterly monitoring | §63.1296(b), and (b)(2) | §63.1296 (b)(1) and §63.1304(a) | §63.1307 (b)(1)(ii) and (3) | §63.1304(e)(4). |
| | Unsafe-to- monitor | §63.1296(b)(3) (i), (ii), and (iv) | §63.1296 (b)(3)(iii) | §63.1307 (b)(1)(ii), and (4) | §63.1304(e)(4). |
| | Difficult-to- monitor | §63.1296(b)(4) (i), (ii), (iii), and (v) | | §63.1307 (b)(1)(ii) and (4) | §63.1306(e)(4). |
| HAP ABA | Annual | §63.1296(c) and | §63.1296(c)(1) and | §63.1307 | §63.1306(e)(4). |

| Connectors §63.1296(c): | monitoring | (c)(2) | §63.1304(a) | (b)(1)(ii) and (3) | |
|---|---|---|---|--------------------------------|------------------------|
| | Unsafe-to- monitor | §63.1296(c)(2), (3) (i), and (ii) | §63.1296(c)(3) (iii) and §63.1304(a) | §63.1307 (b)(1)(ii) and (4) | §63.1306(e)(4). |
| | Unsafe-to- repair | §63.1296(c)(4) | §63.1296(c)(1) | §63.1307 (b)(1)(ii) | §63.1306(e)(4). |
| Pressure-relief devices §63.1296(d) | N/A | §63.1296(d) and (d)(2) | §63.1296 (d)(1) and §63.1304(a) | §63.1307 (b)(1)(ii) and (3) | §63.1306(e)(4). |
| Open-ended valves or lines §63.1296(e) | N/A | §63.1296(e) | | §63.1307 (b)(1)(ii) | |
| Production line §63.1297 | Rolling annual compliance | §63.1297(a)(1) and (b) | §63.1303 (b) | §63.1307(c)(1) | §63.1306(e)(1). |
| | Monthly compliance | §63.1297(a)(2) and (c) | §63.1303 (b) | §63.1307(c)(1) | §63.1306(e)(2). |
| | Compliance Using a Recovery device | §63.1297(a)(1), (b), and (e) for rolling annual compliance or §63.1297(a)(2), (c), and (e) for monthly compliance | §63.1303 (b) and (c) | §63.1307(c)(1) and (d) | §63.1306(e)(1) or (2). |
| Equipment Cleaning §63.1298 | N/A | §63.1298 | | §63.1307(e) | |

Table 4 to Subpart III of Part 63—Compliance Requirements for Slabstock Foam Production Affected Sources Complying With the Source-Wide Emission Limitation

| Emission point | Emission point compliance option | Emission, work practice, and equipment standards | Monitoring | Recordkeeping | Reporting |
|--|--|---|---------------------------------|--|-----------------|
| Diisocyanate storage vessels §63.1294(a) | Vapor balance | §63.1294(a)(1) and (1)(ii) | §63.1294(a)(1)(i) | §63.1307(a)(1) and (4) | §63.1306(e)(5). |
| | Carbon adsorber | §63.1294(a)(2) | §63.1303(a)(1), (3), and (4) | §63.1307(a)(1), (3)(i), and (3)(iii) | §63.1306(e)(3). |
| | Carbon adsorber— alternative monitoring | §63.1294(a)(2) | §63.1303(a)(2), (3) and (4) | §63.1307(a)(1), (3)(ii), and (3)(iii) | §63.1306(e)(3). |
| Diisocyanate transfer pumps §63.1294(b) | Sealless pump | §63.1294(b)(1) | | §63.1307 (b)(1)(i) and (2) | |
| | Submerged pump | §63.1294(b)(2)(i) and (iii) | §63.1294 (b)(2)(ii) | §63.1307 (b)(1)(i), (2), and (3) | §63.1306(e)(4). |

| Other components in diisocyanate service §63.1294(c) | N/A | §63.1294(c) | §63.1294(c) | §63.1307 (b)(1)(i) and (3) | §63.1306(e)(4). |
|--|---|--|--|-------------------------------|---------------------------|
| HAP ABA storage vessels, equipment leaks, production line, and equipment cleaning | Rolling annual compliance | §63.1299(a), (c)(1) through (4), and (d) | §63.1303 (b) except (b)(1)(ii), (d), and (e) | §63.1307(c)(2) | §63.1306(e)(1). |
| | Monthly compliance | §63.1299(b), (c)(1) through (4), and (d) | §63.1303 (b) except (b)(1)(ii), (d), and (e) | §63.1307(c)(2) | §63.1306(e)(2). |
| | Compliance Using a Recovery device | §63.1299(a), (d), and (e) for rolling annual compliance or §63.1299(b), (d), and (e) for monthly compliance | | | §63.1306(e)(1) or (2). |

Table 5 to Subpart III of Part 63—Compliance Requirements for Molded and Rebond Foam Production Affected Sources

| Emission point | Emission point compliance option | Emission, work practice, and equipment standards | Monitoring | Recordkeeping | Reporting |
|--------------------|----------------------------------|--|------------|---------------|-----------|
| Molded Foam | | | | | |
| Equipment cleaning | N/A | §63.1300(a) | | §63.1307(g) | |
| Mold release agent | N/A | §63.1300(b) | | §63.1307 (h) | |
| Rebond Foam | | | | | |
| Equipment cleaning | N/A | §63.1301(a) | | §63.1307 (g) | |
| Mold release agent | N/A | §63.1301(b) | | §63.1307 (h) | |

Attachment B for a Part 70 Operating Permit Renewal

Permit Renewal No. T033-33749-00047

National Emission Standards for Hazardous Air Pollutants

Subpart ZZZZ - National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

SOURCE: 69 FR 33506, June 15, 2004, unless otherwise noted.

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

Subpart ZZZZ establishes national emission limitations and operating limitations for hazardous air pollutants (HAP) emitted from stationary reciprocating internal combustion engines (RICE) located at major and area sources of HAP emissions. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limitations and operating limitations.

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

You are subject to this subpart if you own or operate a stationary RICE at a major or area source of HAP emissions, except if the stationary RICE is being tested at a stationary RICE test cell/stand.

- (a) A stationary RICE is any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.
- (b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.
- (c) An area source of HAP emissions is a source that is not a major source.
- (d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.
- (e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008]

§ 63.6590 What parts of my plant does this subpart cover?

This subpart applies to each affected source.

- (a) Affected source. An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.
- (1) Existing stationary RICE.
- (i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.
- (ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.
- (iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.
- (2) New stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.
- (3) Reconstructed stationary RICE. (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after December 19, 2002.
- (ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.
- (iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in § 63.2 and reconstruction is commenced on or after June 12, 2006.
- (b) Stationary RICE subject to limited requirements. (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of § 63.6645(f).
- (i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

- (2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of § 63.6645(f) and the requirements of §§ 63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.
- (3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:
- (i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;
- (v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;
- (vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or
- (viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.
- (c) Stationary RICE subject to Regulations under 40 CFR Part 60. An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.
- (1) A new or reconstructed stationary RICE located at an area source;
- (2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;
- (4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

- (5) A new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;
- (6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;
- (7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9674, Mar. 3, 2010; 75 FR 37733, June 30, 2010; 75 FR 51588, Aug. 20, 2010]

§ 63.6595 When do I have to comply with this subpart?

- (a) Affected sources. (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.
- (2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.
- (3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.
- (5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

- (7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.
- (b) Area sources that become major sources. If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.
- (1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.
- (2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.
- (c) If you own or operate an affected source, you must meet the applicable notification requirements in § 63.6645 and in 40 CFR part 63, subpart A.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3604, Jan. 18, 2008; 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

Emission and Operating Limitations

§ 63.6600 What emission limitations and operating limitations must I meet if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

- (a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.
- (b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.
- (c) If you own or operate any of the following stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the emission limitations in Tables 1a, 2a, 2c, and 2d to this subpart or operating limitations in Tables 1b and 2b to this subpart: an existing 2SLB stationary RICE; an existing 4SLB stationary RICE; a stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis; an emergency stationary RICE; or a limited use stationary RICE.

(d) If you own or operate an existing non-emergency stationary CI RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010]

§ 63.6601 What emission limitations must I meet if I own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP and less than or equal to 500 brake HP located at a major source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart. If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at major source of HAP emissions manufactured on or after January 1, 2008, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 9675, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010]

§ 63.6602 What emission limitations must I meet if I own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2c to this subpart which apply to you. Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

[75 FR 51589, Aug. 20, 2010]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the average of three 1-hour runs using the testing requirements and procedures in § 63.6620 and Table 4 to this subpart.

- (a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 1b and Table 2b to this subpart that apply to you.
- (b) If you own or operate an existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the Federal Aid Highway System (FAHS) you do not have to meet the numerical CO emission limitations specified in Table 2d to this subpart. Existing stationary non-emergency CI RICE greater than 300 HP located at area sources in areas of Alaska not accessible by the FAHS must meet the management practices that are shown for stationary non-emergency CI RICE less than or equal to 300 HP in Table 2d to this subpart.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6604 What fuel requirements must I meet if I own or operate an existing stationary CI RICE?

If you own or operate an existing non-emergency, non-black start CI stationary RICE with a site rating of more than 300 brake HP with a displacement of less than 30 liters per cylinder that uses diesel fuel, you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel. Existing non-emergency CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, or at area sources in areas of Alaska not accessible by the FAHS are exempt from the requirements of this section.

[75 FR 51589, Aug. 20, 2010]

General Compliance Requirements

§ 63.6605 What are my general requirements for complying with this subpart?

- (a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.
- (b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.

[75 FR 9675, Mar. 3, 2010]

Testing and Initial Compliance Requirements

§ 63.6610 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions?

If you own or operate a stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions you are subject to the requirements of this section.

- (a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).
- (b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

- (c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).
- (d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.
- (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
- (2) The test must not be older than 2 years.
- (3) The test must be reviewed and accepted by the Administrator.
- (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.
- (5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3605, Jan. 18, 2008]

§ 63.6611 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate a new or reconstructed 4SLB SI stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions?

If you own or operate a new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must conduct an initial performance test within 240 days after the compliance date that is specified for your stationary RICE in § 63.6595 and according to the provisions specified in Table 4 to this subpart, as appropriate.

[73 FR 3605, Jan. 18, 2008, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6612 By what date must I conduct the initial performance tests or other initial compliance demonstrations if I own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions?

If you own or operate an existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing stationary RICE located at an area source of HAP emissions you are subject to the requirements of this section.

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance

date that is specified for your stationary RICE in § 63.6595 and according to the provisions in § 63.7(a)(2).

- (b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.
- (1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.
- (2) The test must not be older than 2 years.
- (3) The test must be reviewed and accepted by the Administrator.
- (4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

[75 FR 9676, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

§ 63.6615 When must I conduct subsequent performance tests?

If you must comply with the emission limitations and operating limitations, you must conduct subsequent performance tests as specified in Table 3 of this subpart.

§ 63.6620 What performance tests and other procedures must I use?

- (a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.
- (b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.
- (c) [Reserved]
- (d) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.
- (e)(1) You must use Equation 1 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \qquad \text{(Eq. 1)}$$

Where:

C_i = concentration of CO or formaldehyde at the control device inlet,

C₀ = concentration of CO or formaldehyde at the control device outlet, and

R = percent reduction of CO or formaldehyde emissions.

- (2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO $_2$). If pollutant concentrations are to be corrected to 15 percent oxygen and CO $_2$ concentration is measured in lieu of oxygen concentration measurement, a CO $_2$ correction factor is needed. Calculate the CO $_2$ correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.
- (i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, section 5.2, and the following equation:

$$F_o = \frac{0.209 \, F_d}{F_c}$$
 (Eq. 2)

Where:

 F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is oxygen, percent/100.

 F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm³/J (dscf/10⁶ Btu).

 F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm³ /J (dscf/10⁶ Btu).

(ii) Calculate the CO₂ correction factor for correcting measurement data to 15 percent oxygen, as follows:

$$X_{\omega_2} = \frac{5.9}{F_a} \qquad \text{(Eq. 3)}$$

Where:

 $X_{co2} = CO_2$ correction factor, percent.

5.9 = 20.9 percent $O_2 - 15$ percent O_2 , the defined O_2 correction value, percent.

(iii) Calculate the NO_X and SO_2 gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{\alpha \dot{Q}} = C_d \frac{X_{co_1}}{\% CO_2} \qquad \text{(Eq. 4)}$$

Where:

 $%CO_2$ = Measured CO_2 concentration measured, dry basis, percent.

- (f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.
- (g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.
- (1) Identification of the specific parameters you propose to use as operating limitations;
- (2) A discussion of the relationship between these parameters and HAP emissions, identifying how HAP emissions change with changes in these parameters, and how limitations on these parameters will serve to limit HAP emissions:
- (3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;
- (4) A discussion identifying the methods you will use to measure and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and
- (5) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.
- (h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.
- (1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (e.g., operator adjustment, automatic controller adjustment, etc.) or unintentionally (e.g., wear and tear, error, etc.) on a routine basis or over time:
- (2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;
- (3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;
- (4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;
- (5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments:
- (6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

- (7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.
- (i) The engine percent load during a performance test must be determined by documenting the calculations, assumptions, and measurement devices used to measure or estimate the percent load in a specific application. A written report of the average percent load determination must be included in the notification of compliance status. The following information must be included in the written report: the engine model number, the engine manufacturer, the year of purchase, the manufacturer's site-rated brake horsepower, the ambient temperature, pressure, and humidity during the performance test, and all assumptions that were made to estimate or calculate percent load during the performance test must be clearly explained. If measurement devices such as flow meters, kilowatt meters, beta analyzers, stain gauges, etc. are used, the model number of the measurement device, and an estimate of its accurate in percentage of true value must be provided.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

- (a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO₂ at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.
- (1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.
- (2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in § 63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
- (3) As specified in § 63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.
- (4) The CEMS data must be reduced as specified in § 63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO₂ concentration.
- (b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (5) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.
- (1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in § 63.8(d). As specified in § 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

- (i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;
- (ii) Sampling interface (e.g., thermocouple) location such that the monitoring system will provide representative measurements;
- (iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;
- (iv) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1) and (c)(3); and
- (v) Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).
- (2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.
- (3) The CPMS must collect data at least once every 15 minutes (see also § 63.6635).
- (4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.
- (5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.
- (6) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.
- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.
- (d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.
- (e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:
- (1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions:
- (2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

- (3) An existing emergency or black start stationary RICE located at an area source of HAP emissions:
- (4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;
- (5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions:
- (6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;
- (7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
- (8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;
- (9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and
- (10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.
- (f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.
- (g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.
- (1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or
- (2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.
- (h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

- (i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in items 1 or 2 of Table 2c to this subpart or in items 1 or 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.
- (i) If you own or operate a stationary SI engine that is subject to the work, operation or management practices in items 6, 7, or 8 of Table 2c to this subpart or in items 5, 6, 7, 9, or 11 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Tables 2c and 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table 2c or 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Acid Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Acid Number increases by more than 3.0 milligrams of potassium hydroxide (KOH) per gram from Total Acid Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011]

§ 63.6630 How do I demonstrate initial compliance with the emission limitations and operating limitations?

- (a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.
- (b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.
- (c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.6645.

Continuous Compliance Requirements

§ 63.6635 How do I monitor and collect data to demonstrate continuous compliance?

- (a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.
- (b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.
- (c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

[69 FR 33506, June 15, 2004, as amended at 76 FR 12867, Mar. 9, 2011]

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

- (a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.
- (b) You must report each instance in which you did not meet each emission limitation or operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in § 63.6650. If you change your catalyst, you must reestablish the values of the operating parameters measured during the initial performance test. When you reestablish the values of your operating parameters, you must also conduct a performance test to demonstrate that you are meeting the required emission limitation applicable to your stationary RICE.

(c) [Reserved]

- (d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).
- (e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart that apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing emergency stationary RICE, an existing limited use stationary RICE, or an existing stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in Table 8 to this subpart, except for the initial notification requirements: a

new or reconstructed stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new or reconstructed emergency stationary RICE, or a new or reconstructed limited use stationary RICE.

- (f) Requirements for emergency stationary RICE. (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
- (i) There is no time limit on the use of emergency stationary RICE in emergency situations.
- (ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.
- (iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.
- (2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.
- (i) There is no time limit on the use of emergency stationary RICE in emergency situations.

- (ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.
- (iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

- (a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;
- (1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.
- (2) An existing stationary RICE located at an area source of HAP emissions.
- (3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.
- (4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.
- (5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.
- (b) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.
- (c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.
- (d) As specified in § 63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.
- (e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions on or after March 18, 2008 and

you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

- (f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with § 63.6590(b), your notification should include the information in § 63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).
- (g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in § 63.7(b)(1).
- (h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii).
- (1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.
- (2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to § 63.10(d)(2).

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010]

§ 63.6650 What reports must I submit and when?

- (a) You must submit each report in Table 7 of this subpart that applies to you.
- (b) Unless the Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.
- (1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.6595.
- (2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in § 63.6595.
- (3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

- (4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.
- (5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.
- (6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.6595 and ending on December 31.
- (7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in § 63.6595.
- (8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.
- (9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.
- (c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.
- (1) Company name and address.
- (2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.
- (3) Date of report and beginning and ending dates of the reporting period.
- (4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with § 63.6605(b), including actions taken to correct a malfunction.
- (5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.
- (6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.
- (d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

- (1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.
- (2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.
- (e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.
- (1) The date and time that each malfunction started and stopped.
- (2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.
- (3) The date, time, and duration that each CMS was out-of-control, including the information in § 63.8(c)(8).
- (4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.
- (5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.
- (6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.
- (7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.
- (8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.
- (9) A brief description of the stationary RICE.
- (10) A brief description of the CMS.
- (11) The date of the latest CMS certification or audit.
- (12) A description of any changes in CMS, processes, or controls since the last reporting period.
- (f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However,

submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

- (g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.
- (1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.
- (2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.
- (3) Any problems or errors suspected with the meters.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010]

§ 63.6655 What records must I keep?

- (a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.
- (1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in § 63.10(b)(2)(xiv).
- (2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.
- (3) Records of performance tests and performance evaluations as required in § 63.10(b)(2)(viii).
- (4) Records of all required maintenance performed on the air pollution control and monitoring equipment.
- (5) Records of actions taken during periods of malfunction to minimize emissions in accordance with § 63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.
- (b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.
- (1) Records described in § 63.10(b)(2)(vi) through (xi).
- (2) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).
- (3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in § 63.8(f)(6)(i), if applicable.

- (c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.
- (d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.
- (e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;
- (1) An existing stationary RICE with a site rating of less than 100 brake HP located at a major source of HAP emissions.
- (2) An existing stationary emergency RICE.
- (3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.
- (f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.
- (1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.
- (2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010]

§ 63.6660 In what form and how long must I keep my records?

- (a) Your records must be in a form suitable and readily available for expeditious review according to § 63.10(b)(1).
- (b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.
- (c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1).

[69 FR 33506, June 15, 2004, as amended at 75 FR 9678, Mar. 3, 2010]

Other Requirements and Information

§ 63.6665 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you. If you own or operate a new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions (except new or reconstructed 4SLB engines greater than or equal to 250 and less than or equal to 500 brake HP), a new or reconstructed stationary RICE located at an area source of HAP emissions, or any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with any of the requirements of the General Provisions specified in Table 8: An existing 2SLB stationary RICE, an existing 4SLB stationary RICE, an existing stationary RICE that combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, an existing emergency stationary RICE, or an existing limited use stationary RICE. If you own or operate any of the following RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you do not need to comply with the requirements in the General Provisions specified in Table 8 except for the initial notification requirements: A new stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, a new emergency stationary RICE, or a new limited use stationary RICE.

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

- (a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.
- (b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.
- (c) The authorities that will not be delegated to State, local, or tribal agencies are:
- (1) Approval of alternatives to the non-opacity emission limitations and operating limitations in § 63.6600 under § 63.6(g).
- (2) Approval of major alternatives to test methods under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.
- (3) Approval of major alternatives to monitoring under § 63.8(f) and as defined in § 63.90.
- (4) Approval of major alternatives to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.
- (5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in § 63.6610(b).

§ 63.6675 What definitions apply to this subpart?

Terms used in this subpart are defined in the Clean Air Act (CAA); in 40 CFR 63.2, the General Provisions of this part; and in this section as follows:

Area source means any stationary source of HAP that is not a major source as defined in part 63.

Associated equipment as used in this subpart and as referred to in section 112(n)(4) of the CAA, means equipment associated with an oil or natural gas exploration or production well, and includes all equipment from the well bore to the point of custody transfer, except glycol dehydration units, storage vessels with potential for flash emissions, combustion turbines, and stationary RICE.

Black start engine means an engine whose only purpose is to start up a combustion turbine.

CAA means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Public Law 101-549, 104 Stat. 2399).

Commercial emergency stationary RICE means an emergency stationary RICE used in commercial establishments such as office buildings, hotels, stores, telecommunications facilities, restaurants, financial institutions such as banks, doctor's offices, and sports and performing arts facilities.

Compression ignition means relating to a type of stationary internal combustion engine that is not a spark ignition engine.

Custody transfer means the transfer of hydrocarbon liquids or natural gas: After processing and/or treatment in the producing operations, or from storage vessels or automatic transfer facilities or other such equipment, including product loading racks, to pipelines or any other forms of transportation. For the purposes of this subpart, the point at which such liquids or natural gas enters a natural gas processing plant is a point of custody transfer.

Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

- (1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;
- (2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or
- (3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.
- (4) Fails to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

Diesel engine means any stationary RICE in which a high boiling point liquid fuel injected into the combustion chamber ignites when the air charge has been compressed to a temperature sufficiently high for auto-ignition. This process is also known as compression ignition.

Diesel fuel means any liquid obtained from the distillation of petroleum with a boiling point of approximately 150 to 360 degrees Celsius. One commonly used form is fuel oil number 2. Diesel fuel also includes any non-distillate fuel with comparable physical and chemical properties (e.g. biodiesel) that is suitable for use in compression ignition engines.

Digester gas means any gaseous by-product of wastewater treatment typically formed through the anaerobic decomposition of organic waste materials and composed principally of methane and CO_2 .

Dual-fuel engine means any stationary RICE in which a liquid fuel (typically diesel fuel) is used for compression ignition and gaseous fuel (typically natural gas) is used as the primary fuel.

Emergency stationary RICE means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary RICE used to produce power for critical networks or equipment (including power supplied to portions of a facility) when electric power from the local utility (or the normal power source, if the facility runs on its own power production) is interrupted, or stationary RICE used to pump water in the case of fire or flood, etc. Stationary RICE used for peak shaving are not considered emergency stationary RICE. Stationary RICE used to supply power to an electric grid or that supply non-emergency power as part of a financial arrangement with another entity are not considered to be emergency engines, except as permitted under § 63.6640(f). All emergency stationary RICE must comply with the requirements specified in § 63.6640(f) in order to be considered emergency stationary RICE. If the engine does not comply with the requirements specified in § 63.6640(f), then it is not considered to be an emergency stationary RICE under this subpart.

Engine startup means the time from initial start until applied load and engine and associated equipment reaches steady state or normal operation. For stationary engine with catalytic controls, engine startup means the time from initial start until applied load and engine and associated equipment, including the catalyst, reaches steady state or normal operation.

Four-stroke engine means any type of engine which completes the power cycle in two crankshaft revolutions, with intake and compression strokes in the first revolution and power and exhaust strokes in the second revolution.

Gaseous fuel means a material used for combustion which is in the gaseous state at standard atmospheric temperature and pressure conditions.

Gasoline means any fuel sold in any State for use in motor vehicles and motor vehicle engines, or nonroad or stationary engines, and commonly or commercially known or sold as gasoline.

Glycol dehydration unit means a device in which a liquid glycol (including, but not limited to, ethylene glycol, diethylene glycol, or triethylene glycol) absorbent directly contacts a natural gas stream and absorbs water in a contact tower or absorption column (absorber). The glycol contacts and absorbs water vapor and other gas stream constituents from the natural gas and becomes "rich" glycol. This glycol is then regenerated in the glycol dehydration unit reboiler. The "lean" glycol is then recycled.

Hazardous air pollutants (HAP) means any air pollutants listed in or pursuant to section 112(b) of the CAA.

Institutional emergency stationary RICE means an emergency stationary RICE used in institutional establishments such as medical centers, nursing homes, research centers, institutions of higher education, correctional facilities, elementary and secondary schools, libraries, religious establishments, police stations, and fire stations.

ISO standard day conditions means 288 degrees Kelvin (15 degrees Celsius), 60 percent relative humidity and 101.3 kilopascals pressure.

Landfill gas means a gaseous by-product of the land application of municipal refuse typically formed through the anaerobic decomposition of waste materials and composed principally of methane and CO_2 .

Lean burn engine means any two-stroke or four-stroke spark ignited engine that does not meet the definition of a rich burn engine.

Limited use stationary RICE means any stationary RICE that operates less than 100 hours per year.

Liquefied petroleum gas means any liquefied hydrocarbon gas obtained as a by-product in petroleum refining of natural gas production.

Liquid fuel means any fuel in liquid form at standard temperature and pressure, including but not limited to diesel, residual/crude oil, kerosene/naphtha (jet fuel), and gasoline.

Major Source, as used in this subpart, shall have the same meaning as in § 63.2, except that:

- (1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control:
- (2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated;
- (3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and
- (4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

Natural gas means a naturally occurring mixture of hydrocarbon and non-hydrocarbon gases found in geologic formations beneath the Earth's surface, of which the principal constituent is methane. Natural gas may be field or pipeline quality.

Non-selective catalytic reduction (NSCR) means an add-on catalytic nitrogen oxides (NO_X) control device for rich burn engines that, in a two-step reaction, promotes the conversion of excess oxygen, NO_X , CO, and volatile organic compounds (VOC) into CO_2 , nitrogen, and water.

Oil and gas production facility as used in this subpart means any grouping of equipment where hydrocarbon liquids are processed, upgraded (*i.e.*, remove impurities or other constituents to meet contract specifications), or stored prior to the point of custody transfer; or where natural gas

is processed, upgraded, or stored prior to entering the natural gas transmission and storage source category. For purposes of a major source determination, facility (including a building, structure, or installation) means oil and natural gas production and processing equipment that is located within the boundaries of an individual surface site as defined in this section. Equipment that is part of a facility will typically be located within close proximity to other equipment located at the same facility. Pieces of production equipment or groupings of equipment located on different oil and gas leases, mineral fee tracts, lease tracts, subsurface or surface unit areas, surface fee tracts, surface lease tracts, or separate surface sites, whether or not connected by a road, waterway, power line or pipeline, shall not be considered part of the same facility. Examples of facilities in the oil and natural gas production source category include, but are not limited to, well sites, satellite tank batteries, central tank batteries, a compressor station that transports natural gas to a natural gas processing plant, and natural gas processing plants.

Oxidation catalyst means an add-on catalytic control device that controls CO and VOC by oxidation.

Peaking unit or engine means any standby engine intended for use during periods of high demand that are not emergencies.

Percent load means the fractional power of an engine compared to its maximum manufacturer's design capacity at engine site conditions. Percent load may range between 0 percent to above 100 percent.

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable. For oil and natural gas production facilities subject to subpart HH of this part, the potential to emit provisions in § 63.760(a) may be used. For natural gas transmission and storage facilities subject to subpart HHH of this part, the maximum annual facility gas throughput for storage facilities may be determined according to § 63.1270(a)(1) and the maximum annual throughput for transmission facilities may be determined according to § 63.1270(a)(2).

Production field facility means those oil and gas production facilities located prior to the point of custody transfer.

Production well means any hole drilled in the earth from which crude oil, condensate, or field natural gas is extracted.

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure $C_3 \, H_8$.

Residential emergency stationary RICE means an emergency stationary RICE used in residential establishments such as homes or apartment buildings.

Responsible official means responsible official as defined in 40 CFR 70.2.

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich

burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

Site-rated HP means the maximum manufacturer's design capacity at engine site conditions.

Spark ignition means relating to either: A gasoline-fueled engine; or any other type of engine with a spark plug (or other sparking device) and with operating characteristics significantly similar to the theoretical Otto combustion cycle. Spark ignition engines usually use a throttle to regulate intake air flow to control power during normal operation. Dual-fuel engines in which a liquid fuel (typically diesel fuel) is used for CI and gaseous fuel (typically natural gas) is used as the primary fuel at an annual average ratio of less than 2 parts diesel fuel to 100 parts total fuel on an energy equivalent basis are spark ignition engines.

Stationary reciprocating internal combustion engine (RICE) means any reciprocating internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work and which is not mobile. Stationary RICE differ from mobile RICE in that a stationary RICE is not a non-road engine as defined at 40 CFR 1068.30, and is not used to propel a motor vehicle or a vehicle used solely for competition.

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart PPPPP of this part, that tests stationary RICE.

Stoichiometric means the theoretical air-to-fuel ratio required for complete combustion.

Storage vessel with the potential for flash emissions means any storage vessel that contains a hydrocarbon liquid with a stock tank gas-to-oil ratio equal to or greater than 0.31 cubic meters per liter and an American Petroleum Institute gravity equal to or greater than 40 degrees and an actual annual average hydrocarbon liquid throughput equal to or greater than 79,500 liters per day. Flash emissions occur when dissolved hydrocarbons in the fluid evolve from solution when the fluid pressure is reduced.

Subpart means 40 CFR part 63, subpart ZZZZ.

Surface site means any combination of one or more graded pad sites, gravel pad sites, foundations, platforms, or the immediate physical location upon which equipment is physically affixed.

Two-stroke engine means a type of engine which completes the power cycle in single crankshaft revolution by combining the intake and compression operations into one stroke and the power and exhaust operations into a second stroke. This system requires auxiliary scavenging and inherently runs lean of stoichiometric.

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011]

Table 1 a to Subpart ZZZZ of Part 63—Emission Limitations for Existing, New, and Reconstructed Spark Ignition, 4SRB Stationary RICE > 500 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations at 100 percent load plus or minus 10 percent for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

| For each | You must meet the following emission limitation, except during periods of startup | During periods of startup you must |
|-------------------------------|---|---|
| 1. 4SRB stationary RICE | percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ¹ |
| | b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O ₂ | |

¹Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9679, Mar. 3, 2010, as amended at 75 FR 51592, Aug. 20, 2010]

Table 1 b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed Spark Ignition 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions and Existing Spark Ignition 4SRB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§ 63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions and existing 4SRB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

| For each | You must meet the following operating limitation |
|---|--|
| 1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and using NSCR. | |
| 2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or | Comply with any operating limitations approved by the Administrator. |

4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O2 and not using NSCR; or 4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent O2 and not using NSCR.

[76 FR 12867, Mar. 9, 2011]

Table 2 a to Subpart ZZZZ of Part 63—Emission Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP and New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600 and 63.6640, you must comply with the following emission limitations for new and reconstructed lean burn and new and reconstructed compression ignition stationary RICE at 100 percent load plus or minus 10 percent:

| For each | You must meet the following emission limitation, except during periods of startup | During periods of startup you must |
|-------------------------------|---|--|
| 1. 2SLB stationary RICE | a. Reduce CO emissions by 58 percent or more; or b. Limit concentration of formaldehyde in the stationary RICE exhaust to 12 ppmvd or less at 15 percent O ₂ . If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may limit concentration of formaldehyde to 17 ppmvd or less at 15 percent O ₂ until June 15, 2007 | loading of the engine, not to exceed 30 minutes, after which time the non- |
| 2. 4SLB stationary RICE | a. Reduce CO emissions by 93 percent or more; or | |
| | b. Limit concentration of formaldehyde in the stationary RICE exhaust to 14 ppmvd or less at 15 percent O ₂ | |
| 3. CI stationary RICE | a. Reduce CO emissions by 70 percent or more; or | |
| | b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O ₂ | |

¹ Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

[75 FR 9680, Mar. 3, 2010]

Table 2 b to Subpart ZZZZ of Part 63— Operating Limitations for New and Reconstructed 2SLB and Compression Ignition Stationary RICE >500 HP Located at a Major Source of HAP Emissions, New and Reconstructed 4SLB Stationary RICE ≥250 HP Located at a Major Source of HAP Emissions, Existing Compression Ignition Stationary RICE >500 HP, and Existing 4SLB Stationary RICE >500 HP Located at an Area Source of HAP Emissions

As stated in §§ 63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and compression ignition stationary RICE located at a major source of HAP emissions; new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions; existing compression ignition stationary RICE >500 HP; and existing 4SLB stationary RICE >500 HP located at an area source of HAP emissions that operate more than 24 hours per calendar year:

| For each | You must meet the following operating limitation |
|--|--|
| 1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and using an oxidation catalyst | a. maintain your catalyst so that the pressure drop across the catalyst does not change by more than 2 inches of water at 100 percent load plus or minus 10 percent from the pressure drop across the catalyst that was measured during the initial performance test; and b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 450 °F and less than or equal to 1350 °F. 1 |
| 2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst | Comply with any operating limitations approved by the Administrator. |

¹ Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.8(g) for a different temperature range.

[75 FR 51593, Aug. 20, 2010, as amended at 76 FR 12867, Mar. 9, 2011]

Table 2 c to Subpart ZZZZ of Part 63—Requirements for Existing Compression Ignition Stationary RICE Located at a Major Source of HAP Emissions and Existing Spark Ignition Stationary RICE ≤ 500 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600, 63.6602, and 63.6640, you must comply with the following requirements for existing compression ignition stationary RICE located at a major source of HAP emissions and existing spark ignition stationary RICE ≤ 500 HP located at a major source of HAP emissions:

| For each | You must meet the following requirement, except during periods of startup | During periods of startup you must |
|--|--|---|
| Emergency stationary CI RICE and black start stationary CI RICE. The stationary CI RICE. | | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. ³ |
| 2. Non-Emergency, non- black start stationary CI RICE < 100 HP | a. Change oil and filter every 1,000 hours of operation or annually, whichever comes first; ² | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³ | |
| 3. Non-Emergency, non- black start CI stationary RICE 100 ≤ HP ≤ 300 HP | Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O ₂ | |
| 4. Non-Emergency, non- black start CI stationary RICE 300 < HP ≤ 500 | a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O ₂ ; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 5. Non-Emergency, non- black start stationary CI RICE >500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O ₂ ; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| 6. Emergency stationary SI RICE and black start stationary SI RICE. ¹ | a. Change oil and filter every 500 hours of operation or annually, | |

| | which over comes first: 2 | |
|---|--|--|
| | whichever comes first; ² | |
| | b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. ³ | |
| 7. Non-Emergency, non- black start stationary SI RICE < 100 HP that are not 2SLB stationary RICE | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; ² | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. ³ | |
| 8. Non-Emergency, non- black start 2SLB stationary SI RICE < 100 HP | a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first; ² | |
| | b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; | |
| | c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. ³ | |
| 9. Non-emergency, non- black start 2SLB stationary RICE 100 ≤ HP ≤ 500 | Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O ₂ | |
| 10. Non-emergency, non- black start 4SLB stationary RICE 100 ≤ HP ≤ 500 | Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O ₂ | |
| 11. Non-emergency, non- black start 4SRB stationary RICE 100 ≤ HP ≤ 500 | Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 | |

| | percent O ₂ | |
|--|---|--|
| black start landfill or digester gas-fired | Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O ₂ | |

¹ If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the work practice requirements on the schedule required in Table 2c of this subpart, or if performing the work practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the work practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The work practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the work practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

[75 FR 51593, Aug. 20, 2010]

Table 2 d to Subpart ZZZZ of Part 63—Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

As stated in §§ 63.6603 and 63.6640, you must comply with the following requirements for existing stationary RICE located at area sources of HAP emissions:

| For each | | During periods of startup you must |
|--|--|--|
| 1. Non-Emergency, non-black start Cl stationary RICE ≤ 300 HP | every 1,000 hours of operation or annually, whichever comes first; ¹ | Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or | |

² Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement in Table 2c of this subpart.

³ Sources can petition the Administrator pursuant to the requirements of 40 CFR 63.6(g) for alternative work practices.

| | annually, whichever comes first, and replace as necessary. | |
|--|--|--|
| stationary RICE 300 <hp≤ 500<="" td=""><td>a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O₂; or</td><td></td></hp≤> | a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O ₂ ; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| stationary RICE > 500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O ₂ ; or | |
| | b. Reduce CO emissions by 70 percent or more. | |
| | a. Change oil and filter every 500 hours of operation or annually, whichever comes first; 1 | |
| | b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 24 hours or less per calendar year; non- emergency, non-black start 4SRB stationary RICE > 500 HP that operate 24 hours or less per calendar year. ² | a. Change oil and filter every 500 hours of operation or annually, whichever comes first; 1 | |
| 6. Non-emergency, non-black start | a. Change oil and filter | |

| 2SLB stationary RICE | every 4,320 hours of operation or annually, whichever comes first; 1 | |
|--|--|--|
| | b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 7. Non-emergency, non-black start 4SLB stationary RICE ≤ 500 HP | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; 1 | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. | |
| 8. Non-emergency, non-black start 4SLB stationary RICE > 500 HP | a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O ₂ ; or | |
| | b. Reduce CO emissions by 93 percent or more. | |
| 9. Non-emergency, non-black start 4SRB stationary RICE ≤ 500 HP | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; 1 | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or | |

| | annually, whichever comes first, and replace as necessary. | |
|---|--|--|
| 10. Non-emergency, non-black start 4SRB stationary RICE > 500 HP | a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O ₂ ; or | |
| | b. Reduce formaldehyde emissions by 76 percent or more. | |
| 11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE | a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first; 1 | |
| | b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and | |
| | c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary. | |

¹ Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[75 FR 51595, Aug. 20, 2010]

Table 3 to Subpart ZZZZ of Part 63—Subsequent Performance Tests

As stated in §§ 63.6615 and 63.6620, you must comply with the following subsequent performance test requirements:

| For each | Complying with | You must |
|----------|----------------|----------|
|----------|----------------|----------|

² If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

| | 1 | |
|--|--|--|
| | the requirement to | |
| 1. New or reconstructed 2SLB stationary RICE with a brake horsepower > 500 located at major sources; new or reconstructed 4SLB stationary RICE with a brake horsepower ≥ 250 located at major sources; and new or reconstructed CI stationary RICE with a brake horsepower > 500 located at major sources | emissions and not | Conduct subsequent performance tests semiannually. ¹ |
| 2. 4SRB stationary RICE with a brake horsepower ≥ 5,000 located at major sources | , | Conduct subsequent performance tests semiannually.1 |
| 3. Stationary RICE with a brake horsepower > 500 located at major sources and new or reconstructed 4SLB stationary RICE with a brake horsepower 250 ≤ HP ≤ 500 located at major sources | Limit the concentration of formaldehyde in the stationary RICE exhaust | Conduct subsequent performance tests semiannually.1 |
| 4. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower > 500 that are not limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower > 500 that are operated more than 24 hours per calendar year that are not limited use stationary RICE | Limit or reduce CO or formaldehyde emissions | Conduct subsequent performance tests every 8,760 hrs. or 3 years, whichever comes first. |
| 5. Existing non-emergency, non-black start CI stationary RICE with a brake horsepower > 500 that are limited use stationary RICE; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE located at an area source of HAP emissions with a brake horsepower > 500 that are operated more than 24 hours per calendar year and are limited use stationary RICE | Limit or reduce CO or formaldehyde emissions | Conduct subsequent performance tests every 8,760 hrs. or 5 years, whichever comes first. |

¹ After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[75 FR 51596, Aug. 20, 2010]

Table 4 to Subpart ZZZZ of Part 63—Requirements for Performance Tests

As stated in $\S\S$ 63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

| Complying with the requirement to | | | According to the following requirements |
|-----------------------------------|----------|-------|---|
| | You must | Using | |

| 1. 2SLB, 4SLB, and CI stationary RICE | a. Reduce CO emissions | i. Measure the O₂at the inlet and outlet of the control device; and | | (a) Using ASTM D6522-00 (2005) ^a (incorporated by reference, see § 63.14). Measurements to determine O₂must be made at the same time as the measurements for CO concentration. |
|---|--|---|---|--|
| | | ii. Measure the CO at the inlet and the outlet of the control device | | (a) Using ASTM D6522-00 (2005) ^{a b} (incorporated by reference, see § 63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O ₂ , dry basis. |
| 2. 4SRB stationary RICE | a. Reduce formaldehyde emissions | i. Select the sampling port location and the number of traverse points; and | (1) Method 1 or 1A of 40 CFR part 60, appendix A § 63.7(d)(1)(i) | (a) Sampling sites must be located at the inlet and outlet of the control device. |
| | | of the control | 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00m | (a) Measurements to determine O₂concentration must be made at the same time as the measurements for formaldehyde concentration. |
| | | iii. Measure moisture content at the inlet and outlet of the control device; and | CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, | (a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | the inlet and the outlet of the control device | appendix A; or ASTM D6348-03, provided in | (a) Formaldehyde concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| 3. Stationary RICE | a. Limit the concentration of formaldehyde or CO in the stationary RICE | location and the number of traverse points; | ` ' | (a) If using a control device, the sampling site must be located at the outlet of the control device. |

| exhaust | | | |
|---------|--|--|---|
| | ii. Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and | 3B of 40 CFR part 60, appendix A, or ASTM Method D6522-00 (2005) | (a) Measurements to determine O₂concentration must be made at the same time and location as the measurements for formaldehyde concentration. |
| | RICE exhaust at the sampling port | appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM | (a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration. |
| | | appendix A; or ASTM D6348-03, provided in | concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour or longer runs. |
| | | appendix A, ASTM Method D6522-00 (2005), Method 320 of | (a) CO Concentration must be at 15 percent O ₂ , dry basis. Results of this test consist of the average of the three 1-hour longer runs. |

^a You may also use Methods 3A and 10 as options to ASTM-D6522-00 (2005). You may obtain a copy of ASTM-D6522-00 (2005) from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106. ASTM-D6522-00 (2005) may be used to test both CI and SI stationary RICE.

[75 FR 51597, Aug. 20, 2010]

Table 5 to Subpart ZZZZ of Part 63—Initial Compliance With Emission Limitations and Operating Limitations

^b You may also use Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.

^c You may obtain a copy of ASTM-D6348-03 from at least one of the following addresses: American Society for Testing and Materials, 100 Barr Harbor Drive, West Conshohocken, PA 19428-2959, or University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

As stated in $\S\S$ 63.6612, 63.6625 and 63.6630, you must initially comply with the emission and operating limitations as required by the following:

| For each | Complying with the requirement to | You have demonstrated initial compliance if |
|--|--|--|
| 1. New or reconstructed non- emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non- emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non- emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | oxidation catalyst, and using a CPMS | i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test. |
| 2. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | using oxidation | i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test. |
| 3. New or reconstructed non- emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non- emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non- emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | using oxidation catalyst | i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at | a. Limit the concentration of CO, and not using oxidation catalyst | i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; |

| an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | | and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
|--|---|--|
| 5. New or reconstructed non- emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non- emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non- emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | emissions, and using a CEMS | i. You have installed a CEMS to continuously monitor CO and either O2or CO2at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period. |
| 6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | concentration of CO, and using a CEMS | i. You have installed a CEMS to continuously monitor CO and either O_2 or CO_2 at the outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and |
| | | iii. The average concentration of CO calculated using § 63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period. |
| 7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 | formaldehyde emissions and using NSCR | i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; |

| hours per calendar year | | and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and |
|---|--|--|
| | | iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test. |
| 8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Reduce formaldehyde emissions and not using NSCR | i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and |
| | | iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 9. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Limit the concentration of formaldehyde and not using NSCR | i. The average formaldehyde concentration determined from the initial performance test is less than or equal to the formaldehyde emission limitation; and |
| | | ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and |
| | | iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 10. New or reconstructed non- emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR | i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the |
| | | requirements in § 63.6625(b); and |

| | | pressure drop and catalyst inlet temperature during the initial performance test. |
|---|--|---|
| 11. New or reconstructed non- emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR | i. The average formaldehyde concentration, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and |
| | | iii. You have recorded the approved operating parameters (if any) during the initial performance test. |
| 12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300 <hp≤500 an="" area="" at="" hap<="" located="" of="" source="" td=""><td>a. Reduce CO or formaldehyde emissions</td><td>i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction.</td></hp≤500> | a. Reduce CO or formaldehyde emissions | i. The average reduction of emissions of CO or formaldehyde, as applicable determined from the initial performance test is equal to or greater than the required CO or formaldehyde, as applicable, percent reduction. |
| 13. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300 <hp≤500 an="" area="" at="" hap<="" located="" of="" source="" td=""><td>a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust</td><td>i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O₂, dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable.</td></hp≤500> | a. Limit the concentration of formaldehyde or CO in the stationary RICE exhaust | i. The average formaldehyde or CO concentration, as applicable, corrected to 15 percent O ₂ , dry basis, from the three test runs is less than or equal to the formaldehyde or CO emission limitation, as applicable. |

[76 FR 12867, Mar. 9, 2011]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

As stated in § 63.6640, you must continuously comply with the emissions and operating limitations and work or management practices as required by the following:

| | . , , | You must demonstrate continuous compliance by |
|--|---|--|
| emergency 2SLB stationary RICE >500 HP located at a major source | emissions and using an oxidation catalyst, and using a CPMS | i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; ^a and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and iii. Reducing these data to 4-hour |

| >500 HP located at a major source of HAP | | rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
|--|--|--|
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 2. New or reconstructed non- emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non- emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP | a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS | i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved; ^a and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 3. New or reconstructed non- emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non- emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non- emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year | a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using a CEMS | i. Collecting the monitoring data according to § 63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction or concentration of CO emissions according to § 63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period, or that the emission remain at or below the CO concentration limit; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1. |
| 4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP | a. Reduce formaldehyde emissions and using NSCR | i. Collecting the catalyst inlet temperature data according to § 63.6625(b); and |

| | T | T 1 |
|---|--|---|
| | | ii. Reducing these data to 4-hour rolling averages; and |
| | | iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
| | | iv. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP | a. Reduce formaldehyde emissions and not using NSCR | i. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and |
| | | iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP | a. Reduce formaldehyde emissions | Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved. ^a |
| 7. New or reconstructed non- emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non- emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR | i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; and ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |

| 8. New or reconstructed non- emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non- emergency 4SLB stationary RICE 250 ≤HP≤500 located at a major source of HAP | a. Limit the concentration of formaldehyde in the stationary RICE exhaust and not using oxidation catalyst or NSCR | i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit; ^a and ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and |
|--|--|--|
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 9. Existing emergency and black start stationary RICE ≤500 HP located at a major source of HAP, existing non-emergency stationary RICE <100 HP located at a major source of HAP, existing emergency and black start stationary RICE located at an area source of HAP, existing non-emergency stationary CI RICE ≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year | a. Work or Management practices | i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions. |
| 10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE | | i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the catalyst inlet temperature data according to |

| | | § 63.6625(b); and |
|---|---|---|
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE | a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using oxidation catalyst or NSCR | i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |
| 12. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year | a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR | i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |

| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and |
|---|---|---|
| | | v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test. |
| 13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year | a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and not using an oxidation catalyst or NSCR | i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and |
| | | ii. Collecting the approved operating parameter (if any) data according to § 63.6625(b); and |
| | | iii. Reducing these data to 4-hour rolling averages; and |
| | | iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test. |

^a After you have demonstrated compliance for two consecutive tests, you may reduce the frequency of subsequent performance tests to annually. If the results of any subsequent annual performance test indicate the stationary RICE is not in compliance with the CO or formaldehyde emission limitation, or you deviate from any of your operating limitations, you must resume semiannual performance tests.

[76 FR 12870, Mar. 9, 2011]

Table 7 to Subpart ZZZZ of Part 63—Requirements for Reports

As stated in § 63.6650, you must comply with the following requirements for reports:

| You must submit a | | You must submit the report |
|-------------------|-------------------------------|---|
| report | from any emission limitations | i. Semiannually according to the requirements in § 63.6650(b)(1)-(5) for |

| existing non-emergency, non-black start stationary CI RICE > 500 HP located at a major source of HAP; existing non-emergency 4SRB stationary RICE > 500 HP located at a major source of HAP; existing non-emergency, non-black start stationary CI RICE > 300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE > 500 HP located at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE > 500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250 ≤ HP ≤ 500 located at a major source of HAP | | the emission limitations or operating limitations during the reporting period. If there were no periods during Which the CMS, including CEMS and CPMS, was out-of-control, as specified in § 63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in § 63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of- | to the requirements in § 63.6650(b)(6)-(9) for engines that are limited use stationary RICE subject to numerical emission limitations. i. Semiannually according to the requirements in § 63.6650(b). i. Semiannually according to the |
|---|--------|--|--|
| 2. New or reconstructed non- emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis | Report | fuel and the heating values | i. Annually, according to the requirements in § 63.6650. |
| | | b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and | i. See item 2.a.i. |
| | | c. Any problems or errors suspected with the meters. | i. See item 2.a.i. |

[75 FR 51603, Aug. 20, 2010]

Table 8 to Subpart ZZZZ of Part 63—Applicability of General Provisions to Subpart ZZZZ.

As stated in § 63.6665, you must comply with the following applicable general provisions.

| General provisions citation | Subject of citation | Applies to subpart | Explanation |
|-----------------------------------|---|--------------------|--|
| § 63.1 | General applicability of the General Provisions | Yes. | |
| § 63.2 | Definitions | Yes | Additional terms defined in § 63.6675. |
| § 63.3 | Units and abbreviations | Yes. | |
| § 63.4 | Prohibited activities and circumvention | Yes. | |
| § 63.5 | Construction and reconstruction | Yes. | |
| § 63.6(a) | Applicability | Yes. | |
| § 63.6(b)(1)-(4) | Compliance dates for new and reconstructed sources | Yes. | |
| § 63.6(b)(5) | Notification | Yes. | |
| § 63.6(b)(6) | [Reserved] | | |
| § 63.6(b)(7) | Compliance dates for new and reconstructed area sources that become major sources | Yes. | |
| § 63.6(c)(1)-(2) | Compliance dates for existing sources | Yes. | |
| § 63.6(c)(3)-(4) | [Reserved] | | |
| § 63.6(c)(5) | Compliance dates for existing area sources that become major sources | Yes. | |
| § 63.6(d) | [Reserved] | | |
| § 63.6(e) | Operation and maintenance | No. | |
| § 63.6(f)(1) | Applicability of standards | No. | |
| § 63.6(f)(2) | Methods for determining compliance | Yes. | |
| § 63.6(f)(3) | Finding of compliance | Yes. | |
| § 63.6(g)(1)-(3) | Use of alternate standard | Yes. | |
| § 63.6(h) | Opacity and visible emission standards | No | Subpart ZZZZ does not contain opacity or visible emission standards. |
| § 63.6(i) | Compliance extension procedures and criteria | Yes. | |
| § 63.6(j) | Presidential compliance exemption | Yes. | |
| § 63.7(a)(1)-(2) | Performance test dates | Yes | Subpart ZZZZ contains |

| | | | performance test dates at §§ 63.6610, 63.6611, and 63.6612. |
|------------------|--|------|--|
| § 63.7(a)(3) | CAA section 114 authority | Yes. | |
| § 63.7(b)(1) | Notification of performance test | Yes | Except that § 63.7(b)(1) only applies as specified in § 63.6645. |
| § 63.7(b)(2) | Notification of rescheduling | Yes | Except that § 63.7(b)(2) only applies as specified in § 63.6645. |
| § 63.7(c) | Quality assurance/test plan | Yes | Except that § 63.7(c) only applies as specified in § 63.6645. |
| § 63.7(d) | Testing facilities | Yes. | |
| § 63.7(e)(1) | Conditions for conducting performance tests | No. | Subpart ZZZZ specifies conditions for conducting performance tests at § 63.6620. |
| § 63.7(e)(2) | Conduct of performance tests and reduction of data | Yes | Subpart ZZZZ specifies test methods at § 63.6620. |
| § 63.7(e)(3) | Test run duration | Yes. | |
| § 63.7(e)(4) | Administrator may require other testing under section 114 of the CAA | Yes. | |
| § 63.7(f) | Alternative test method provisions | Yes. | |
| § 63.7(g) | Performance test data analysis, recordkeeping, and reporting | Yes. | |
| § 63.7(h) | Waiver of tests | Yes. | |
| § 63.8(a)(1) | Applicability of monitoring requirements | Yes | Subpart ZZZZ contains specific requirements for monitoring at § 63.6625. |
| § 63.8(a)(2) | Performance specifications | Yes. | |
| § 63.8(a)(3) | [Reserved] | | |
| § 63.8(a)(4) | Monitoring for control devices | No. | |
| § 63.8(b)(1) | Monitoring | Yes. | |
| § 63.8(b)(2)-(3) | Multiple effluents and multiple monitoring systems | Yes. | |
| § 63.8(c)(1) | Monitoring system operation and maintenance | Yes. | |
| § 63.8(c)(1)(i) | Routine and predictable SSM | Yes. | |

| § 63.8(c)(1)(ii) | SSM not in Startup Shutdown | Yes. | |
|-------------------|---|---|---|
| | Malfunction Plan | | |
| § 63.8(c)(1)(iii) | Compliance with operation and maintenance requirements | Yes. | |
| § 63.8(c)(2)-(3) | Monitoring system installation | Yes. | |
| § 63.8(c)(4) | Continuous monitoring system (CMS) requirements | Yes | Except that subpart ZZZZ does not require Continuous Opacity Monitoring System (COMS). |
| § 63.8(c)(5) | COMS minimum procedures | No | Subpart ZZZZ does not require COMS. |
| § 63.8(c)(6)-(8) | CMS requirements | Yes | Except that subpart ZZZZ does not require COMS. |
| § 63.8(d) | CMS quality control | Yes. | |
| § 63.8(e) | CMS performance evaluation | Yes | Except for § 63.8(e)(5)(ii), which applies to COMS. |
| | | Except that § 63.8(e) only applies as specified in § 63.6645. | |
| § 63.8(f)(1)-(5) | Alternative monitoring method | Yes | Except that § 63.8(f)(4) only applies as specified in § 63.6645. |
| § 63.8(f)(6) | Alternative to relative accuracy test | Yes | Except that § 63.8(f)(6) only applies as specified in § 63.6645. |
| § 63.8(g) | Data reduction | Yes | Except that provisions for COMS are not applicable. Averaging periods for demonstrating compliance are specified at §§ 63.6635 and 63.6640. |
| § 63.9(a) | Applicability and State delegation of notification requirements | Yes. | |
| § 63.9(b)(1)-(5) | Initial notifications | Yes | Except that § 63.9(b)(3) is reserved. |
| | | Except that § 63.9(b) only applies as specified in § 63.6645. | |
| § 63.9(c) | Request for compliance extension | Yes | Except that § 63.9(c) only applies as specified in § 63.6645. |

| § 63.9(d) | Notification of special compliance requirements for new sources | Yes | Except that § 63.9(d) only applies as specified in § 63.6645. |
|----------------------------|---|---|---|
| § 63.9(e) | Notification of performance test | Yes | Except that § 63.9(e) only applies as specified in § 63.6645. |
| § 63.9(f) | Notification of visible emission (VE)/opacity test | No | Subpart ZZZZ does not contain opacity or VE standards. |
| § 63.9(g)(1) | Notification of performance evaluation | Yes | Except that § 63.9(g) only applies as specified in § 63.6645. |
| § 63.9(g)(2) | Notification of use of COMS data | No | Subpart ZZZZ does not contain opacity or VE standards. |
| § 63.9(g)(3) | Notification that criterion for alternative to RATA is exceeded | Yes | If alternative is in use. |
| | | Except that § 63.9(g) only applies as specified in § 63.6645. | |
| § 63.9(h)(1)-(6) | Notification of compliance status | Yes | Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved. |
| | | | Except that § 63.9(h) only applies as specified in § 63.6645. |
| § 63.9(i) | Adjustment of submittal deadlines | Yes. | |
| § 63.9(j) | Change in previous information | Yes. | |
| § 63.10(a) | Administrative provisions for recordkeeping/reporting | Yes. | |
| § 63.10(b)(1) | Record retention | Yes. | |
| § 63.10(b)(2)(i)-(v) | Records related to SSM | No. | |
| § 63.10(b)(2)(vi)- (xi) | Records | Yes. | |
| § 63.10(b)(2)(xii) | Record when under waiver | Yes. | |
| § 63.10(b)(2)(xiii) | Records when using alternative to RATA | Yes | For CO standard if using RATA alternative. |

| | 1 | 1 | |
|--------------------------|---|------|--|
| § 63.10(b)(2)(xiv) | Records of supporting documentation | Yes. | |
| § 63.10(b)(3) | Records of applicability determination | Yes. | |
| § 63.10(c) | Additional records for sources using CEMS | Yes | Except that § 63.10(c)(2)-(4) and (9) are reserved. |
| § 63.10(d)(1) | General reporting requirements | Yes. | |
| § 63.10(d)(2) | Report of performance test results | Yes. | |
| § 63.10(d)(3) | Reporting opacity or VE observations | No | Subpart ZZZZ does not contain opacity or VE standards. |
| § 63.10(d)(4) | Progress reports | Yes. | |
| § 63.10(d)(5) | Startup, shutdown, and malfunction reports | No. | |
| § 63.10(e)(1) and (2)(i) | Additional CMS Reports | Yes. | |
| § 63.10(e)(2)(ii) | COMS-related report | No | Subpart ZZZZ does not require COMS. |
| § 63.10(e)(3) | Excess emission and parameter exceedances reports | Yes. | Except that § 63.10(e)(3)(i) (C) is reserved. |
| § 63.10(e)(4) | Reporting COMS data | No | Subpart ZZZZ does not require COMS. |
| § 63.10(f) | Waiver for recordkeeping/reporting | Yes. | |
| § 63.11 | Flares | No. | |
| § 63.12 | State authority and delegations | Yes. | |
| § 63.13 | Addresses | Yes. | |
| § 63.14 | Incorporation by reference | Yes. | |
| § 63.15 | Availability of information | Yes. | |

[75 FR 9688, Mar. 3, 2010]

Indiana Department of Environmental Management

Office of Air Quality

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

Source Background and Description

Source Name: FXI, Inc.

Source Location: 2211 South Wayne Street, Auburn, Indiana 46706

County: DeKalb

SIC Code: 3086 (Plastics Foam Products)

Permit Renewal No.: T033-33749-00047

Permit Reviewer: Mehul Sura

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from FXI, Inc. relating to the operation of a stationary flexible polyurethane foam production and foam processing plant. On October 3, 2013, FXI, Inc. submitted an application to the OAQ requesting to renew its operating permit. FXI, Inc. was issued its second Part 70 Operating Permit Renewal T033-27355-00047 on July 31, 2009.

The source name has been changed from 'Foamex Innovations, Inc.' to 'FXI, Inc.' through this renewal.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

- (a) Four (4) rebond mold lines, consisting of the following:
 - (1) One (1) rebond mold unit, identified as EU-R1, producing Flat Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 28a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 28b.
 - (2) One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 29a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 29b.
 - (3) One (1) rebond mold unit, identified as EU-R3, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 35a.
 - This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 35b.
 - (4) One (1) rebond mold unit, identified as EU-R2, producing Round Block Foam, constructed in 1996, with a maximum capacity of bonding 2.4 tons per hour of scrap foam, without control and exhausting to stack 36a.

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This rebond mold unit is heated by a dryer, which receives its heat from a boiler, identified as EU-B1, with no control and exhausting to stack 36b.

Note: Boiler, identified as EU-B1, provides heat to each dryer associated to each rebond mold unit.

Under 40 CFR 63, Subpart III, these emission units are considered existing affected source.

(b) One (1) coating booth for adhesive application, used to apply adhesive to glue buns, constructed in 1996, with maximum adhesive usage of 0.11 gal/hr, using spray application method, equipped with dry filters, and emissions venting inside the plant.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

(c) One (1) source-wide chemical cleaning solvent usage operation, used to clean equipment, constructed in 1996, with maximum solvent usage 0.23 gal/hr, using dip and spray methods of application, with no control, and emissions venting inside the plant.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

(d) One (1) Variable Pressure Foaming (VPF) line, constructed in 2001 and modified in 2005, with a maximum production rate of 1.2 billion board feet of foam per twelve (12) consecutive month period, using carbon adsorber as control, and exhausting to Stacks 39 and 40.

The flexible foam is produced by the mix of TDI and/or MDI with polyol and/or resin and other chemicals, including amines, tins, silicones, and fillers.

Under 40 CFR 63, Subpart III, it is considered an existing affected source.

- (e) Eight (8) bun cutters listed below, constructed in 2009, venting inside and without control:
 - (i) Pourline saw #1, with a maximum throughput rate of 14.75 tons/hr,
 - (ii) Pourline saw #2, with a maximum throughput rate of 14.75 tons/hr,
 - (iii) Bun room saw #1, with a maximum throughput rate of 5.35 tons/hr,
 - (iv) Bun room saw #2, with a maximum throughput rate of 5.35 tons/hr,
 - (v) V-21 saw, with a maximum throughput rate of 0.75 tons/hr,
 - (vi) V-31 saw, with a maximum throughput rate of 0.75 tons/hr,
 - (vii) Baumer Loop saw, with a maximum throughput rate of 1.5 tons/hr, and
 - (viii) Visco line saw, with a maximum throughput rate of 2.95 tons/hr.
- (f) Six (6) BSV slitters listed below, constructed in 2009, venting inside and without control:
 - (i) BSL -204 slitter, with a maximum throughput rate of 0.75 tons/hr,
 - (ii) Contour slitter saw, with a maximum throughput rate of 1.25 tons/hr,
 - (iii) Baumer loop slitter, with a maximum throughput rate of 1.5 tons/hr,
 - (iv) Carousel slitter #1, with a maximum throughput rate of 0.75 tons/hr,
 - (v) Carousel slitter #1, with a maximum throughput rate of 0.75 tons/hr,
 - (vi) West line slitter, with a maximum throughput rate of 0.3 tons/hr, and
 - (vii) Visco line slitter, with a maximum throughput rate of 1.5 tons/hr.
- (g) Three (3) natural gas-fired industrial boilers:

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- (1) One (1) natural gas fired boiler, identified as EU-B1, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1978, without control and exhausting through stack ID 31.
- One (1) natural gas fired boiler, identified as EU-B2, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1978, without control and exhausting through stack ID 32.
- One (1) natural gas fired boiler, identified as EU-B3, rated at 10.5 million (MM) British thermal units (Btu) per hour, constructed in 1986, without control and exhausting through stack ID 33.

Emission Units and Pollution Control Equipment Constructed and/or Operated without a Permit

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

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

- (a) One (1) foam coating operation, identified as CL-01, approved in 2012 for construction, utilizing no control equipment, exhausting to stack CL-01, and consisting of:
 - (1) Six (6) flow coating systems;
 - (2) Six (6) coating mix tanks, each with a maximum storage capacity of 6,000 gallons; and
 - (3) One (1) natural gas-fired forced air convection oven, with a nominal rating of 2.0 MMBtu/hr.

The source has removed the following Insignificant Activities:

- (a) Natural gas fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour:
 - (1) Decommissioned 2.1 MMBtu/hour natural gas-fired boiler

Note: This boiler has been decommissioned. Therefore, this boiler will not be listed in this renewal.

- (b) Infrared cure equipment:
 - (1) One (1) laminator equipped with an infrared heating unit
- (c) Gasoline emergency generators not exceeding 110 horsepower.

Insignificant Activities

The source also consists of the following insignificant activities:

(a) Propane or liquefied petroleum gas, or butane fired combustion sources (space heaters or process heaters) with heat input equal to or less than six million (6,000,000) Btu per hour.

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(b) The following VOC and HAP storage containers:

- (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.
- (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.
- (c) Degreasing operations that do not exceed 145 gallons per twelve (12) months, except if subject to 326 IAC 20-6:
 - (1) One (1) 100% petroleum distillate Safety-Kleen parts washer, with no remote solvent reservoir.
- (d) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees Celsius (100°F), or
 - (2) having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20 degrees Celsius (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per twelve (12) months,
- (e) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
- (f) Closed loop heating and cooling systems:
 - (1) One (1) glycol chiller system
- (g) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.
- (h) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs.
- (i) Replacement or repair of electrostatic precipitators, bags in baghouses and filters in other air filtration equipment.
- (j) Heat exchanger cleaning and repair.
- (k) Process vessel degassing and cleaning to prepare for internal repairs.
- (I) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (m) Blowdown of any of the following: sight glass; boiler; compressors; pumps cooling tower.
- (n) One (1) diesel fuel-fired compression ignition emergency engine for fire pump, rated at 250 HP, installed in 1979.
 - This unit is considered an existing emergency stationary reciprocating internal combustion engine at an area source of hazardous air pollutants under NESHAP, Subpart ZZZZ.
- (o) Purge double block and bleed valves.

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(p) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kPa measured at 38 degrees Celsius (100 degrees F).

- (q) The following units emitting greater than 1 pound per day but less than 5 pounds per day or 1 ton per year of a single HAP:
 - (1) Hot wire seamers
 - (2) One (1) hot roll laminator
- (r) The following activities with emissions equal to or less than insignificant thresholds:
 - (1) Ink handling and applications,
 - (2) one (1) hot roll (drum) laminator, and
 - (3) Gen 2 gel process.

Note: the detailed description for the Gen 2 gel process is not specified in the permit due to confidentiality claim by the source .

- (s) Storage tanks:
 - (1) Three (3) TDI Storage Tanks, with vapor pressure of TDI less than 3 kilopascal, and equipped with carbon drums.
 - Under 40 CFR 63 (NESHAP), Subpart III, these MDI storage tanks are considered affected facilities.
 - (2) Three (3) MDI Storage Tanks, with vapor pressure MDI less than 3 kilopascal, and equipped with carbon drums.
 - Under 40 CFR 63 (NESHAP), Subpart III, these MDI storage tanks are considered affected facilities.
 - (3) Twelve (12) Polyol storage tanks, with vapor pressure of Polyol less than 3 kilopascal.
 - (4) Twenty five (25) Amines storage tanks, constructed prior 1984, with vapor pressure of Amines less than 3 kilopascal.
 - (5) Fire retardant storage tanks.
 - (6) Three (3) Process oil storage tanks, with capacity of less than 75 cubic meters (19,813 gallons).
 - (8) Three (3) Binder storage tanks, each with capacity of less than 75 cubic meters (19,813 gallons).
 - (9) Four (4) Binder blend tanks, each with capacity of less than 75 cubic meters (19,813 gallons).
 - (10) Filter handling and storage.
- (t) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone.

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- (u) One (1) rebond granulation area, constructed in 1996 with a maximum capacity of 3.42 tons/hr, equipped with a cyclone and a baghouse in series for particulate control.
- (v) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations.
- (w) Laboratory emissions:
 - (1) Product test burning
- (x) One (1) quick cool unit, identified as QC-01, constructed in 2009, with a maximum production capacity of twenty (20) batches of foam buns per hour, and exhausting to stack 37 (S/V ID 37).

Existing Approvals

Since the issuance of the Part 70 Operating Permit on July 31, 2009, the source has constructed or has been operating under the following additional approvals:

- (a) Significant Source Modification No. 033-32024-00047, issued on September 11, 2012
- (b) Significant Permit Modification No. 033-32044-00047, issued on September 28, 2012

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

The calculation details of the Gen 2 gel process is not revealed in the calculations because this information is claimed as confidential by FXI, Inc.

The source does not use methylene chloride for the foam production.

The partial vapor pressure of Amines, MDI, TDI and Polyol storage tanks are very low. As a result, VOC emissions are considered to be negligible from the Amines, MDI, TDI and Polyol storage tanks.

County Attainment Status

The source is located in DeKalb County.

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| Pollutant | Designation |
|-----------------------------|--|
| SO ₂ | Better than national standards. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| O_3 | Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard. ¹ |
| PM _{2.5} | Unclassifiable or attainment effective April 5, 2005, for the annual PM _{2.5} standard. |
| PM _{2.5} | Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM _{2.5} standard. |
| PM ₁₀ | Unclassifiable effective November 15, 1990. |
| NO ₂ | Cannot be classified or better than national standards. |
| Pb | Unclassifiable or attainment effective December 31, 2011. |
| ¹ Unclassifiable | e or attainment effective October 18, 2000, for the 1-hour ozone standard which was |

revoked effective June 15, 2005.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. DeKalb County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM_{2.5}
DeKalb County has been classified as attainment for PM_{2.5}. Therefore, direct PM_{2.5}, SO₂, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants

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

Fugitive Emissions

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7, and there is no applicable New Source Performance Standard that was in effect on August 7, 1980, fugitive emissions are not counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Unrestricted Potential Emissions

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

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 and will be issued a Part 70 Operating Permit Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

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Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, because the source met the following:

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

Potential to Emit After Issuance

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

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| | Potential To Emit of the Entire Source After Issuance of Renewal (tons/year) | | | | | | | | | | |
|--------------------------------------|--|--------|--------|------|-------|----------|-------|---------------------------|-------|---------------|--|
| Emission Unit | PM | PM10 | PM2.5 | SO2 | NOX | VOC | CO | CO2e | HAPs | single HAP | |
| Rebond mold unit (EU-R1) | PM | PM10 | PM2.5 | SO2 | NOX | VOC | СО | CO2e | HAPs | single HAP | |
| Rebond mold unit (EU-R2) | 1.23 | 1.23 | 1.23 | - | - | 1.66 | - | - | 1.66 | 1.66 (TDI) | |
| Rebond mold unit (EU-R3) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) | |
| Rebond mold unit (EU-R4) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) | |
| source-wide adhesive application | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) | |
| source-wide cleaning solvent usage | - | - | - | - | - | 9.00 | - | - | - | - | |
| Variable Pressure Foaming Line (VPF) | - | - | - | - | - | 168.63** | - | - | 1.05 | 1.05 (TDI) | |
| Rebond Granulation | 3.65 | 3.65 | 3.65 | - | - | - | - | - | - | - | |
| Pourline saw #1 | 8.45 * | 8.45 * | 8.45 * | - | - | - | - | - | - | - | |
| Pourline saw #2 | 8.45 * | 8.45 * | 8.45 * | - | - | - | - | - | - | - | |
| Bun room saw #1 | 8.45 * | 8.45 * | 8.45 * | - | - | - | 1 | - | - | - | |
| Bun room saw #2 | 8.45 * | 8.45 * | 8.45 * | - | - | - | - | - | - | - | |
| V-21 saw | 8.45 * | 8.45 * | 8.45 * | - | - | - | - | - | - | - | |
| V-31 saw | 8.45 * | 8.45 * | 8.45 * | - | - | - | - | - | - | - | |
| Baumer Loop saw | 8.45 * | 8.45 * | 8.45 * | - | - | - | - | - | - | - | |
| Visco line saw | 8.45 * | 8.45 * | 8.45 * | - | - | - | - | - | - | - | |
| BSL -204 slitter | 4.07 * | 4.07 * | 4.07 * | - | - | - | - | - | - | - | |
| Contour slitter saw | 4.07 * | 4.07 * | 4.07 * | - | - | - | - | - | - | - | |
| Baumer loop slitter | 4.07 * | 4.07 * | 4.07 * | - | - | - | 1 | - | - | - | |
| Carousel slitter #1 | 4.07 * | 4.07 * | 4.07 * | - | - | - | 1 | - | - | - | |
| West line slitter | 4.07 * | 4.07 * | 4.07 * | - | - | - | 1 | - | - | - | |
| Visco line slitter | 4.07 * | 4.07 * | 4.07 * | - | - | - | 1 | - | - | - | |
| Boiler (EU-B1) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | - | 0.09 | 0.08 (Hexane) | |
| Boiler (EU-B2) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | - | 0.09 | 0.08 (Hexane) | |
| Boiler (EU-B3) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | - | 0.09 | 0.08 (Hexane) | |
| Gen 2 gel process | 0.02 | 0.02 | 0.02 | - | - | 0.04 | | - | - | - | |
| LPG - space heaters | 0.06 | 0.20 | 0.20 | 0.14 | 3.73 | 0.29 | 2.15 | 3668.63 | - | - | |
| TOTAL | 116.33 | 117.25 | 117.25 | 0.22 | 17.26 | 191.78 | 13.52 | 19,996.85 | 10.07 | 9.81 (TDI) | |
| Title V Major Source Thresholds | NA | 100 | 100 | 100 | 100 | 100 | 100 | 100,000 CO ₂ e | 25 | 10 | |
| PSD Major Source Thresholds | 250 | 250 | 250 | 250 | 250 | 250 | 250 | 100,000 CO ₂ e | NA | NA | |

* PM, PM10 and PM2.5 PTEs are based on the following PSD Minor limits taken by the source:

| | PS | PSD Minor limit (lb/hr) | | | | | | | | |
|-----------------------|------|-------------------------|-------|--|--|--|--|--|--|--|
| Emission Units | PM | PM10 | PM2.5 | | | | | | | |
| Pourline saw #1 | 1.93 | 1.93 | 1.93 | | | | | | | |
| Pourline saw #2 | 1.93 | 1.93 | 1.93 | | | | | | | |
| Bun room saw #1 | 1.93 | 1.93 | 1.93 | | | | | | | |
| Bun room saw #2 | 1.93 | 1.93 | 1.93 | | | | | | | |
| V-21 saw | 1.93 | 1.93 | 1.93 | | | | | | | |
| V-31 saw | 1.93 | 1.93 | 1.93 | | | | | | | |
| Baumer Loop saw | 1.93 | 1.93 | 1.93 | | | | | | | |
| Visco line saw | 1.93 | 1.93 | 1.93 | | | | | | | |
| BSL -204 slitter | 0.93 | 0.93 | 0.93 | | | | | | | |
| Contour slitter saw | 0.93 | 0.93 | 0.93 | | | | | | | |
| Baumer loop slitter | 0.93 | 0.93 | 0.93 | | | | | | | |
| Carousel slitter #1 | 0.93 | 0.93 | 0.93 | | | | | | | |
| Carousel slitter #2 | 0.93 | 0.93 | 0.93 | | | | | | | |
| West line slitter | 0.93 | 0.93 | 0.93 | | | | | | | |
| Visco line slitter | 0.93 | 0.93 | 0.93 | | | | | | | |

Compliance with these limits in conjunction with the PM, PM10 and PM2.5 PTE of other emission units at this source will limit source-wide total PM, PM10 and PM2.5 PTE, each, to less than 250 tons per 12 consecutive month period and therefore, render the source minor under 326 IAC 2-2 (PSD).

Each limit in the above table is an uncontrolled emission rate proposed by the source. There is no emission factor information available in AP 42 for these operations. Therefore, one-time testing requirement has been included in the permit to verify these uncontrolled emission rates (for details, please refer 'Compliance Determination and Monitoring Requirements' section of this TSD).

- ** VOC PTE is based on the existing 326 IAC 8-1-6 BACT established for Variable Pressure Foaming Line (VPF) (for details, please refer 326 IAC 8-1-6 rule applicability in 'State Rule Applicability – Individual Facilities' section of this TSD).
- (a) This existing stationary source is not major for PSD because the emissions of each regulated pollutant, excluding GHGs, are less than two hundred fifty (<250) tons per year, and it is not in one of the twenty-eight (28) listed source categories.
- (b) GHG emissions are less than one hundred thousand (<100,000) tons of CO₂ equivalent (CO₂e) emissions per year.

Federal Rule Applicability

Compliance Assurance Monitoring (CAM)

Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to each existing pollutant-specific emission unit that meets the following criteria:

- (1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

Only the Variable Pressure Foaming Line (VPF) (and insignificant activities Trimmers and Grinding and machining) are equipped with add-on control at this source. Therfore, CAM has been evaluated for Variable Pressure Foaming Line (VPF) only.

| Emission Unit | Pollutant | Control Device Used | Emission Limitation (Y/N) | Uncontrolled PTE (tons/year) | Controlled PTE (tons/year) | Major Source Threshold (tons/year) | CAM Applicable (Y/N) | Large Unit (Y/N) |
|--------------------------------------|-----------|---------------------------|---------------------------------|------------------------------------|----------------------------------|---|----------------------------|------------------------|
| Variable Pressure Foaming Line (VPF) | VOC | carbon adsorber | Y | 344.33 | 168.72 | 100 | N* | Υ |

* The VOC emitted from Variable Pressure Foaming Line (VPF) are either TDI (2, 4 -Toluene Diisocyanate) or MDI (4,4' Methylene Diphenyl Dissocyanate). Variable Pressure Foaming Line (VPF) is subject to the requirements of NESHAP, Subpart III (promulgated after November 15, 1990) and the TDI and MDI emissions from Variable Pressure Foaming Line (VPF) are regulated under this NESHAP. Therefore, CAM for VOC does not apply to Variable Pressure Foaming Line (VPF).

New Source Performance Standards (NSPS)

- (a) Subpart D-Standards of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction Is Commenced After August 17, 1971
 - The 3 boilers (EU-B1, EU-B2 and EU-B3) are not subject to the requirements of this NSPS because the heat input capacity of each of these boilers is less than 250 MMBtu/hr.
- (b) Subpart Da- Standards of Performance for Electric Utility Steam Generating Units for Which Construction Is Commenced After September 18, 1978
 - The 3 boilers (EU-B1, EU-B2 and EU-B3) are not subject to the requirements of this NSPS because these boilers are not electric utility steam generating unit.
- (c) Subpart Db-Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units
 - The 3 boilers (EU-B1, EU-B2 and EU-B3) are not subject to the requirements of this NSPS because the heat input capacity each of these boiler is less than 100 MMBtu/hr.
- (d) Subpart Dc-Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

The 3 boilers (EU-B1, EU-B2 and EU-B3) are not subject to the requirements of this NSPS because these boilers were constructed prior to June 9, 1989 the applicability date of this NSPS and no modification have been made to these boilers after June 9, 1989.

(e) Subpart Kb-Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced after July 23, 1984

The tanks listed below are not subject to this NSPS. The reasons are specified in the same table.

| Tank | Reason |
|---------------------------------------|---------------------------------------|
| Three (3) TDI Storage Tanks | vapor pressure less than 3kpa |
| Three (3) MDI Storage Tanks | vapor pressure less than 3kpa |
| Twelve (12) Polyol storage tanks | vapor pressure less than 3kpa |
| Twenty five (25) Amines storage tanks | constructed prior July 23, 1984 and |
| | vapor pressure less than 3kpa |
| Three (3) Process oil storage tanks | capacity of less than 75 cubic meters |
| | (19,813 gallons) |
| Three (3) Binder storage tanks | capacity of less than 75 cubic meters |
| | (19,813 gallons) |
| Four (4) Binder blend tanks | capacity of less than 75 cubic meters |
| | (19,813 gallons) |

(f) Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

The fire pump diesel engine (250 hp) is not subject to this NSPS because it was installed in July 11, 2005 (which is prior to July 11, 2006, the applicability of this NSPS).

(g) There are no NSPS (326 IAC 12 and 40 CFR Part 60) included in this permit renewal.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(a) Subpart MMMMM- National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Fabrication Operations

The requirements of this NESHAP do not apply to this source because this source is an area source under NESHAP.

(b) Subpart III-National Emission Standard for Hazardous Air Pollutants for Flexible Polyurethane Foam Production

This source produces flexible polyurethane or rebond foam and was a major source on the first compliance date of this NESHAP because single HAP and combination of HAPs PTE from the source were more than 10 and 25 tons per year, respectively, on the first compliance date of this NESHAP.

Although, now the single HAP and combination of HAPs are less than 10 and 25 tons per year, respectively, the source will remain subject to the this NESHAP (which is incorporated by reference as 326 IAC 20-22) based on the May 16, 1995 EPA memo PTE for MACT Standards – Guidance on Timing Issues (also known as Once In, Always In Interpretation).

The source does not use methylene chloride for the foam production.

The units subject to this NESHAP include the following:

(a) Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4),

- (b) Source-wide adhesive application,
- (c) Source-wide chemical cleaning solvent usage,
- (d) Variable Pressure Foaming Line (VPF),
- (e) MDI storage tanks, and
- (f) TDI storage tanks.

This source is subject to the following portions of Subpart III:

- (1) 40 CFR 63.1290
- (2) 40 CFR 63.1291
- (3) 40 CFR 63.1292
- (4) 40 CFR 63.1293
- (5) 40 CFR 63.1294
- (6) 40 CFR 63.1299
- (7) 40 CFR 63.1301
- (8) 40 CFR 63.1302
- (9) 40 CFR 63.1303
- (10) 40 CFR 63.1304
- (11) 40 CFR 63.1306 (12) 40 CFR 63.1307
- (13) 40 CFR 63.1308; and
- (14) Table 2 to Subpart III

The provisions of 40 CFR 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 63, Subpart III.

This is an existing applicable requirement.

Since the NESHAP subject emission units listed above are not using add-on control to comply with this NESHAP, no performance test is required for these emission units under this NESHAP.

(c) Subpart OOOOO—National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources

The requirements of this NESHAP are not included in the permit because this source is subject to the requirements of major source NESHAP (40 CFR 63, Subpart III).

(d) Subpart ZZZZ - National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE)

The fire pump diesel engine (250 hp) is subject to this NESHAP, which is incorporated by reference as 326 IAC 20-82-1, because it is considered existing stationary RICE at an area source of HAP and is emergency stationary RICE with a site rating of less than 500 HP.

Nonapplicable portions of the NESHAP will not be included in the permit. The fire pump diesel engine (250 hp) is subject to the following portions of Subpart ZZZZ:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585
- (3) 40 CFR 63.6590(a)(1)(iii) and (iv)
- (4) 40 CFR 63.6595(a)(1), (b), and (c)

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- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625(e),(f),(h),(i)
- (8) 40 CFR 63.6640(a),(e),(f)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6650(f)
- (11) 40 CFR 63.6655(except 40 CFR 63.6655(b) and (c))
- (12) 40 CFR 63.6660
- (13) 40 CFR 63.6665
- (14) 40 CFR 63.6670
- (15) 40 CFR 63.6675

The provisions of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-1-1, apply to Fire Pump Diesel Engine (EG) except when otherwise specified in 40 CFR 63, Subpart ZZZZ.

This is a new applicable requirement. This is a Title I change.

No testing requirements are specified for the fire pump diesel engine (250 hp) under this NSPS.

- (e) Subpart T- National Emission Standards for Halogenated Solvent Cleaning The degreasing operations at this source are not subject to the requirements of this NESHAP because halogenated HAPs cleaning solvent are not used for the degreasing operations.
- (f) Subpart DDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters
 - The requirements of this NESHAP are not included in the permit for the 3 boilers (EU-B1, EU-B2 and EU-B3) because these boilers are located at area source.
- (g) There are no other NESHAP (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit due to the proposed renewal for this source.

State Rule Applicability - Entire Source

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

PSD applicability is discussed under the Permit Level Determination – PSD.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit pursuant to 326 IAC 2-7, Part 70. This source is located in DeKalb County. The source-wide limited PTE of each criteria pollutant is less than 250 tons per year. Therefore, pursuant to 326 IAC 2-6-3(a)(2), triennial reporting is required.

An emission statement shall be submitted in accordance with the compliance schedule in 326 IAC 2-6-3(b)(1). The next emission statement is due by July 1, 2016 and successive emission statements are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 5-1 (Opacity Limitations)

This source is subject to the opacity limitations specified in 326 IAC 5-1-2(1).

326 IAC 6-4 (Fugitive Dust Emissions)

Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions), fugitive dust shall not be visible crossing the boundary or property line of a source. Observances of visible emissions crossing property lines may be refuted by factual data expressed in 326 IAC 6-4-2(1), (2) or (3).

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

The source-wide fugitive particulate emissions are less than 25 tons per year; therefore, this rule does not apply to this source.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This rule does not apply to this source because it was constructed before October 7, 1974, the applicability date for this rule.

State Rule Applicability - Individual Facilities

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

Each facility at this source has potential HAP emissions less than 10 and 25 tons per year for single and combined HAPs, respectively. Therefore, 326 IAC 2-4.1 does not apply to any facility at this source.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

(a) Boiler (EU-B1) and Boiler (EU-B2), each rated at 10.5 MMBtu per hour, are subject to 326 IAC 6-2-3, because these boilers are sources of indirect heating and these boilers were constructed prior to September 21, 1983.

The heat input capacity of each of these boilers is less than 250 MMBtu/hr and began operation after June 8, 1972. Therefore, Particulate specified in 326 IAC 6-2-3(e) rule apply to these boilers.

Pursuant to 326 IAC 6-2-3(e) (Particulate Matter Emissions Limitations for Sources of Indirect Heating), the particulate emissions from each Boiler (EU-B1) and Boiler (EU-B2), which began operation after June 8, 1972, shall not exceed 0.6 pounds per MMBtu heat input each.

(b) Boiler (EU-B3), rated at 10.5 MMBtu per hour, is subject to 326 IAC 6-2-4 (Particulate Matter Emission Limitations for Sources of Indirect Heating), because this boiler is source of indirect heating and constructed after September 21, 1983.

Pursuant to 326 IAC 6-2-4(a) (Particulate Matter Emission Limitations for Sources of Indirect Heating) the particulate emissions from the 10.5 MMBtu per hour heat input Boiler (EU-B3) (installed in 1986) shall not exceed 0.44 pounds per MMBtu heat input.

This limitation is based on the following equation:

$$Pt = \frac{1.09}{Q^{0.26}}$$

where: Pt = Pounds of particulate matter emitted per MMBtu heat input.

Q = Total source maximum operating capacity rating of indirect heating facilities in MMBtu per hour = 31.5 MMBtu per hour

The potential particulate emission from each of the 3 boilers (EU-B1, EU-B2 and EU-B3) is 0.019 lb/MMBtu (see Appendix A, for detailed compliance calculations). Therefore, Boilers (EU-B1, EU-B2 and EU-B3) can comply with the above limits.

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

(a) Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from each of the Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4) shall not exceed a total of 7.37 pounds per hour when operating at a process weight rate of 2.4 tons per hour.

The pound per hour limitation was calculated with the following equation:

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

$$E = 4.10 P^{0.67}$$
 where:

E = rate of emission in pounds per hour and

P = process weight rate in tons per hour = 9.6 tons per hour

The uncontrolled particulate emissions from each of these Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4) are less than its respective limit; therefore these processes can comply with these limits.

- (b) One (1) coating booth for adhesive application is exempt from the requirements of 326 IAC 6-3 because this operation uses less than five (5) gallons of coating material per day.
- (c) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the facilities listed below shall be limited as specified when operating at their respective process weight rate:

| Emission Unit ID | Process Weight Rate (tons/hr) | Allowable Particulate Emission Rate | Can comply? |
|---------------------|----------------------------------|---|-------------|
| Pourline saw #1 | 14.75 | 24.88 | |
| Pourline saw #2 | 14.75 | 24.88 | |
| Bun room saw #1 | 5.35 | 12.61 | |
| Bun room saw #2 | 5.35 | 12.61 | |
| V-21 saw | 0.75 | 3.38 | |
| V-31 saw | 0.75 | 3.38 | |
| Baumer Loop saw | 1.5 | 5.38 | |
| Visco line saw | 2.95 | 8.46 | * |
| BSL -204 slitter | 0.75 | 3.38 | |
| Contour slitter saw | 1.25 | 4.76 | |
| Baumer loop slitter | 1.5 | 5.38 | |
| Carousel slitter #1 | 0.75 | 3.38 | |
| Carousel slitter #2 | 0.75 | 3.38 | |
| West line slitter | 0.3 | 1.83 | |
| Visco line slitter | 1.5 | 5.38 | |

- * One-time testing requirement has been included in the permit to verify the compliance with these allowable particulate emission rates (for details, please refer 'Compliance Determination and Monitoring Requirements' section of this TSD).
- (d) Pursuant to 326 IAC 6-3-2(e)(2), the allowable particulate emissions rate the insignificant activities listed below, each with a maximum process weight rate less than 100 pounds per hour, shall not exceed 0.551 pounds per hour.
 - (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment.
 - (ii) Trimmers that do not produce fugitive emissions and that are equipped with a dust collection or trim material recovery device such as a bag filter or cyclone
 - (iii) Gen 2 gel process

The unlimited potential VOC emissions from the each emission unit listed below are less than twenty-five (25) tons per year. Therefore, the requirements of 326 IAC 8-1-6 do not apply to these emission units. There are no other limitations and standards specified in 326 IAC 8 for these emission units.

| Rebond mold unit (EU-R1) |
|------------------------------------|
| Rebond mold unit (EU-R2) |
| Rebond mold unit (EU-R3) |
| Rebond mold unit (EU-R4) |
| source-wide adhesive application |
| source-wide cleaning solvent usage |

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

Pursuant to Significant Source Modification 033-20970-00047, issued October 25, 2005, Significant Permit Modification 033-21341-00047, issued November 8, 2005, and 326 IAC 8-1-6 (BACT), the VOC BACT for the Variable Pressure Foaming Line (VPF) shall be the following:

- (a) The Permittee shall operate the carbon adsorber to control total VOC emissions from the VPF line at all times that the VPF line is in operation.
- (b) The carbon adsorber shall operate at a minimum overall control efficiency of 51% for total VOC (including TDI, MDI, and tertiary amine VOC).
- (c) VOC emissions from the carbon adsorber shall not exceed 38.5 lbs/hr. (This is equivalent to 168.63 tons per year of VOC emissions.)
- (d) The production of polyurethane foam in the VPF line shall be limited to a maximum of 1.2 billion board feet per twelve (12) consecutive month period with compliance determined at the end of each month.

There are no changes made to this BACT requirement under this renewal.

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

One (1) source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer) without remote solvent reservoir are subject to this rule because these operations have VOC emissions more than 15 pounds per day and were constructed after July 1, 1990.

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control and Equipment Operating Requirements), the Permittee shall:

- (a) Ensure the following control equipment and operating requirements are met for the one
 (1) source-wide chemical cleaning solvent usage operation and degreasing operations
 (Safety-Kleen parts washer):
 - (1) Equip the degreaser with a cover.
 - (2) Equip the degreaser with a device for draining cleaned parts.
 - (3) Close the degreaser cover whenever parts are not being handled in the degreaser.
 - (4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.
 - (5) Provide a permanent, conspicuous label that lists the operating requirements in items (3), (4), (6), and (7).
 - (6) Store waste solvent only in closed containers.
 - (7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

- (b) Ensure the following additional control equipment and operating requirements are met for the one (1) source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer):
 - (1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) A refrigerated chiller.
 - (D) Carbon adsorption.
 - (E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.
 - (2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.
 - (3) If used, solvent spray:
 - (A) must be a solid, fluid stream; and
 - (B) shall be applied at a pressure that does not cause excessive splashing.

326 IAC 8-3-8 (Material requirements for cold cleaner degreasers)

The source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer) are subject to the provisions of 326 IAC 8-3-8 (Material requirements for cold cleaning degreasers) because this source is a user of solvents for use in cold cleaning degreasers and these solvents are not intended to be used to clean electronic components.

The source does not sell solvents, therefore, the requirements of 326 IAC 8-3-8(b)(1) and 326 IAC 8-3-8(c)(1) do not apply to the source.

- (a) Pursuant to 326 IAC 8-3-8(b)(2), on and after January 1, 2015, the Permittee shall not operate one (1) source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer) with a solvent that has a VOC composite partial vapor pressure than exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).
- (b) Pursuant to 326 IAC 8-3-8(c)(2), on and after January 1, 2015, the Permittee shall maintain each of the following records for each solvent purchase for the one (1) source-wide chemical cleaning solvent usage operation and degreasing operations (Safety-Kleen parts washer):
 - (A) The name and address of the solvent supplier.
 - (B) The date of purchase (or invoice/bill date of contract servicer indicating service date).
 - (C) The type of solvent purchased.
 - (D) The total volume of the solvent purchased.
 - (E) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixtyeight (68) degrees Fahrenheit).
- (c) Pursuant to 326 IAC 8-3-8(d), all the records specified in paragraph (b) above shall be retained on-site or accessible electronically from the site for the most recent three (3) year period, and reasonably accessible for an additional two (2) year period.

326 IAC 8 (VOC Rules)

Gen 2 gel process has potential VOC emissions less than 15 pounds per day, therefore, this process is not subject to the requirements of 326 IAC 8.

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.

Testing Requirements

| Emission Unit | Emission Stack | Control Device | Timeframe for Testing | Pollutant | Frequency of Testing | Most Recent Testing date | Type of limit |
|--------------------------------------|---------------------|--------------------|---|-------------------------------|----------------------|-----------------------------------|---------------------------------------|
| Variable Pressure Foaming Line (VPF) | Stacks 39 and 40 | carbon adsorber | no later than five (5) years from the most recent testing | VOC | every 5 years | 09/18/2012 | 326 IAC 8-1-6 |
| Pourline saw #1 | none | none | no later than one hundred eighty (180) days after the issuance of this permit renewal | PM, PM10 and PM2.5 * | one-time testing | not applicable | 326 IAC 2-2 and 2326 IAC 6-3 |
| Contour slitter saw | none | none | no later than one hundred eighty (180) days after the issuance of this permit renewal | PM, PM10 and PM2.5 * | one-time testing | not applicable | 326 IAC 2-2 and 2326 IAC 6-3 |

^{*} PM includes filterable PM only.

The Pourline saw #1 and Contour slitter saw test results will be used as representative test for all the foam cutting saws and slitters, respectively. The Pourline saw #1 and Contour slitter saw are chosen for the testing because these emission units have maximum throughput rates among the all the saws and slitters, respectively.

The following listed emission units are not equiped with control; therefore, testing requirements are not included for these emission units:

| Rebond mold unit (EU-R1) | |
|--------------------------|--|
| Rebond mold unit (EU-R2) | |
| Rebond mold unit (EU-R3) | |
| Rebond mold unit (EU-R4) | |

FXI, Inc. 2211 South Wayne Street, Auburn, Indiana 46706 Permit Reviewer: Mehul Sura

Compliance Monitoring Requirements

The carbon adsorber compliance monitoring requirements are not specified in the existing permit. The most recent stack test performed on September 18, 2012 for the carbon adsorber revealed that that the uncontrolled VOC emission is significantly lower than 326 IAC 8-1-6 BACT limit. Therefore, the compliance monitoring requirement for the carbon adsorber is not included through this renewal. The Compliance Branch staff was consulted by the permit writer in order to make this determination and both agreed to this determination.

Recommendation

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

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

An application for the purposes of this review was received on October 3, 2013.

Conclusion

The operation of this stationary flexible polyurethane foam production and foam processing plant shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. T033-33749-00047.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Mehul Sura at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-6868 or toll free at 1-800-451-6027 extension 3-6868.
- (b) A copy of the findings is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emissions Calculations Emissions Summary

Company Name: FXI, Inc.

Address City IN Zip: 2211 South Wayne Street, Auburn, Indiana 46706

 Permit Number:
 T033-33749-00047

 Reviewer:
 Mehul Sura

 Date:
 4/17/2014

Uncontrolled Potential to Emit

| Emission Unit | PM | PM10 | PM2.5 | SO ₂ | NO _x | VOC | СО | CO2e | HAPs | single HAP |
|--------------------------------------|--------|--------|--------|-----------------|-----------------|--------|-------|-----------|-------|---------------|
| Rebond mold unit (EU-R1) | 1.23 | 1.23 | 1.23 | - | - | 1.66 | - | - | 1.66 | 1.66 (TDI) |
| Rebond mold unit (EU-R2) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) |
| Rebond mold unit (EU-R3) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) |
| Rebond mold unit (EU-R4) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) |
| source-wide adhesive application | - | - | - | - | - | 3.60 | - | - | - | - |
| source-wide cleaning solvent usage | - | - | - | - | - | 9.00 | - | - | - | - |
| Variable Pressure Foaming Line (VPF) | - | - | - | - | - | 344.33 | - | - | 1.05 | 1.05 (TDI) |
| Rebond Granulation | 12.17 | 12.17 | 12.17 | - | - | - | - | - | - | - |
| Pourline saw #1 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Pourline saw #2 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Bun room saw #1 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Bun room saw #2 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| V-21 saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| V-31 saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Baumer Loop saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Visco line saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| BSL -204 slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Contour slitter saw | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Baumer loop slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Carousel slitter #1 | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| West line slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Visco line slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Boiler (EU-B1) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | 5,443 | 0.085 | 0.08 (Hexane) |
| Boiler (EU-B2) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | 5,443 | 0.085 | 0.08 (Hexane) |
| Boiler (EU-B3) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | 5,443 | 0.085 | 0.08 (Hexane) |
| Gen 2 gel process * | 0.02 | 0.02 | 0.02 | • | - | 0.77 | - | - | - | • |
| LPG - space heaters | 0.06 | 0.20 | 0.20 | 0.14 | 3.73 | 0.29 | 2.15 | 3,668.63 | - | - |
| TOTAL | 124.85 | 125.76 | 125.76 | 0.22 | 17.26 | 367.49 | 13.52 | 19,996.85 | 10.07 | 9.81 (TDI) |

Limited Potential to Emit

| Emission Unit | PM | PM10 | PM2.5 | SO2 | NOX | VOC | CO | CO2e | HAPs | single HAP |
|--------------------------------------|--------|--------|--------|------|-------|--------|-------|-----------|-------|---------------|
| Rebond mold unit (EU-R1) | 1.23 | 1.23 | 1.23 | - | - | 1.66 | - | - | 1.66 | 1.66 (TDI) |
| Rebond mold unit (EU-R2) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) |
| Rebond mold unit (EU-R3) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) |
| Rebond mold unit (EU-R4) | 6.35 | 6.35 | 6.35 | - | - | 2.37 | - | - | 2.37 | 2.37 (TDI) |
| source-wide adhesive application | - | - | - | - | - | 3.60 | - | - | - | - |
| source-wide cleaning solvent usage | - | - | - | - | - | 9.00 | - | - | - | - |
| Variable Pressure Foaming Line (VPF) | - | - | - | - | - | 168.63 | - | - | 1.05 | 1.05 (TDI) |
| Rebond Granulation | 3.65 | 3.65 | 3.65 | - | - | - | - | - | - | - |
| Pourline saw #1 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Pourline saw #2 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Bun room saw #1 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Bun room saw #2 | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| V-21 saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| V-31 saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Baumer Loop saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| Visco line saw | 8.45 | 8.45 | 8.45 | - | - | - | - | - | - | - |
| BSL -204 slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Contour slitter saw | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Baumer loop slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Carousel slitter #1 | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| West line slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Visco line slitter | 4.07 | 4.07 | 4.07 | - | - | - | - | - | - | - |
| Boiler (EU-B1) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | 5,443 | 0.09 | 0.08 (Hexane) |
| Boiler (EU-B2) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | 5,443 | 0.09 | 0.08 (Hexane) |
| Boiler (EU-B3) | 0.09 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | 5,443 | 0.09 | 0.08 (Hexane) |
| Gen 2 gel process * | 0.02 | 0.02 | 0.02 | - | - | 0.77 | - | - | - | |
| LPG - space heaters | 0.06 | 0.20 | 0.20 | 0.14 | 3.73 | 0.29 | 2.15 | 3,668.63 | - | - |
| TOTAL | 116.33 | 117.25 | 117.25 | 0.22 | 17.26 | 191.78 | 13.52 | 19,996.85 | 10.07 | 9.81 (TDI) |

^{*} The calculation details of the Gen 2 gel process is not revealed in the calculations because this information is claimed as confidential by FXI, Inc.

Appendix A: Emissions Calculations
Particulate Matter Emissions

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Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4) Variable Pressure Foaming Line (VPF)

Company Name: FXI, Inc.

Address City IN Zip: 2211 South Wayne Street, Auburn, Indiana 46706

Permit Number: T033-33749-00047
Reviewer: Mehul Sura
Date: 4/17/2014

Rebond mold units (EU-R1, EU-R2, EU-R3, and EU-R4)

| | | | PM | | | VOC | | PM | PM10 | PM2.5 | VOC | HAP (TDI/MDI) |
|--------------------------|--------------|------------------|----------------|----------------|----------------|----------|----------|----------------|----------------|----------------|----------------|-------------------|
| | | | | | | Drying | Combined | | | | | |
| | | | Drying | Combined | Process | Emission | Emission | | | | | |
| | | Process Emission | Emission | Emission | Emission | Factor | Factor | Potential to | Potential to | Potential to | Potential to | Potential to Emit |
| | Type of Foam | Factor (lb/hr) | Factor (lb/hr) | Factor (lb/hr) | Factor (lb/hr) | (lb/hr) | (lb/hr) | Emit (tons/yr) | Emit (tons/yr) | Emit (tons/yr) | Emit (tons/yr) | (tons/yr) |
| Rebond mold unit (EU-R1) | Flat Block | 0.28 | 0.08 | 0.36 | 0.29 | 0.09 | 0.38 | 1.23 | 1.23 | 1.23 | 1.66 | 1.66 |
| Rebond mold unit (EU-R2) | Round Block | 1.45 | 0.08 | 1.53 | 0.45 | 0.09 | 0.54 | 6.35 | 6.35 | 6.35 | 2.37 | 2.37 |
| Rebond mold unit (EU-R3) | Round Block | 1.45 | 0.08 | 1.53 | 0.45 | 0.09 | 0.54 | 6.35 | 6.35 | 6.35 | 2.37 | 2.37 |
| Rebond mold unit (EU-R4) | Round Block | 1.45 | 0.08 | 1.53 | 0.45 | 0.09 | 0.54 | 6.35 | 6.35 | 6.35 | 2.37 | 2.37 |
| | | | | | | | | 20.20 | 20.20 | 20.20 | 0.76 | 0.76 |

METHODOLOGY

All Emission factors from January 2002 stack testing of the rebond mold units.

PM=PM10=PM2.5

VOC=TDI=MDI

PM Potential Emissions (tons/yr) = Combined Emission Factor (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

VOC Potential Emissions (tons/yr) = Combined Emission Factor (lb/hr) x 8760 (hrs/yr) / 2000 (lbs/ton)

Variable Pressure Foaming Line (VPF)

| | | | | | | | to Emit | | Limited PTE | | | |
|------------------|------------------------------|------------------|---------------------|-------------------------|-----------------|------------------|------------------|---|------------------|------------------|--|--|
| Material | Non-Reactive Fraction (%) | Weight % VOC (%) | Weight % HAP (%) | Max. Usage (lbs/min) | VOC (lbs/hr) | VOC (tons/yr) | HAP (tons/yr) | 326 IAC 8-1-6 VOC BACT Limit (lbs/hr) | VOC (tons/yr) | HAP (tons/yr) | | |
| TDI 80/20* | 0.0016% | 100% | 100% | 250 | 0.24 | 1.05 | 1.05 | | | 1.05 | | |
| MDI** | 0.0011% | 100% | 100% | 250 | 0.17 | 0.72 | 0.72 | 38.5 | 168.63 | 0.72 | | |
| Amine (Catalyst) | 27.5% | 100% | 0.00% | 4.75 | 78.4 | 343 | 0.00 | | | 0.00 | | |
| | | | | Total | 78.6 | 344 | 1.05 | 38.50 | 168.63 | 1.05 | | |

METHODOLOGY

* TDI = 2, 4 -Toluene Diisocyanate.

** MDI = 4,4' Methylene Diphenyl Dissocyanate.

The source does not use methylene chloride for foam production.

VOC/HAP Uncontrolled Emissions (lbs/hr)= Max. Usage (lbs/min) x 60 min/hr x Non-Reactive Fraction (%) x Weight % VOC VOC/HAP Uncontrolled Emissions (tons/year) = VOC Uncontrolled Emissions (lbs/hr) x 8760 hours/year x 1 ton/2000 lbs.

VOC Limited Emissions (tons/yr) = 326 IAC 8-1-6 VOC BACT Limit (lbs/hr) x 8760 hours/year x 1 ton/2000 lbs.

Limited Emissions HAPs Emissions (tons/yr) = Uncontrolled HAP Emissions (tons/yr)

Bun Cutting and Slitting Operations

| | PM/PM10/PM2.5 | |
|---------------------|------------------|---------------------|
| | Emissions Factor | PM/PM10/PM2.5 |
| Emission Unit ID | (lb/hr) | Emissions (tons/yr) |
| Pourline saw #1 | 1.93 | 8.4534 |
| Pourline saw #2 | 1.93 | 8.4534 |
| Bun room saw #1 | 1.93 | 8.4534 |
| Bun room saw #2 | 1.93 | 8.4534 |
| V-21 saw | 1.93 | 8.4534 |
| V-31 saw | 1.93 | 8.4534 |
| Baumer Loop saw | 1.93 | 8.4534 |
| Visco line saw | 1.93 | 8.4534 |
| BSL -204 slitter | 0.93 | 4.0734 |
| Contour slitter saw | 0.93 | 4.0734 |
| Baumer loop slitter | 0.93 | 4.0734 |
| Carousel slitter #1 | 0.93 | 4.0734 |
| Carousel slitter #2 | 0.93 | 4.0734 |
| West line slitter | 0.93 | 4.0734 |
| Visco line slitter | 0.93 | 4.0734 |

Methodology

PM/PM10/PM2.5 Emissions Factors are provided by the source. A testing requirement has been included in the permit to verify these Emission Factors.

Potential Emissions = Emission Rate (lb/hr) x 8760 (hrs/yr) /2000 (lb/ton)

Appendix A: Emissions Calculations Fugitive VOC Emissions

Company Name: FXI, Inc.

Address City IN Zip: 2211 South Wayne Street, Auburn, Indiana 46706

Permit Number: T033-33749-00047
Reviewer: Mehul Sura
Date: 4/17/2014

| | Density (Lb/Gal) | Weight % Volatile (H20 & Organics) | Weight % Water | Weight % Organics | Volume % Water | Maximum Usage (gal/hr) | Pounds VOC per gallon of coating less water | Pounds VOC per gallon of coating | Potential VOC pounds per hour | Potential VOC pounds per day | Potential VOC tons per year |
|------------------------------------|---------------------|--|-------------------|----------------------|-------------------|---------------------------|--|----------------------------------|-------------------------------|------------------------------|-----------------------------|
| source-wide cleaning solvent usage | 8.9 | 100.00% | 0.0% | 100.0% | 0.0% | 0.23000 | 8.93 | 8.93 | 2.05 | 49.29 | 9.00 |
| source-wide adhesive application | 10.3 | 72.52% | 0.0% | 72.5% | 0.0% | 0.11000 | 7.47 | 7.47 | 0.82 | 19.72 | 3.60 |

METHODOLOGY

Transfer efficiency for adhesive application is 100%, so no particulate emissions are expected

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)

Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Maximum usage (gal/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Maximum Usage (gal/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Maximum Usage (gal/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Rebond Granulation Process

1. Process Description:

PM Control Equipment: Cyclone and Baghouse in series

Amount of foam dust collected from 2.75 pounds

baghouse:

Time period of collection: 1 hour
Control efficiency - Cyclone: 70.00%
Control efficiency - Baghouse: 99%

2. Amount collected (lb/hr): 2.75

3. Uncontrolled PM/PM10/PM2.5 Emissions:

=(Amount collected (lbs/hr))/(control efficiency of the baghouse)=
=(Uncontrolled emissions (lbs/hr))*8760 hr/yr*(1/2000 lbs/ton)=

2.78 lbs/hr
12.167 tons/yr

4. Controlled PM/PM10/PM2.5 Emissions:

=(Uncontrolled emissions (lbs/hr))*(1-control efficiency of the cyclone)=

=(Controlled emissions (lbs/hr))*8760 hr/yr*(1/2000 lbs/ton)=

3.650 tons/yr

5. Assumed that PM=PM10=PM2.5

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Appendix A: Emissions Calculations Natural Gas Combustion

Company Name: FXI, Inc.

Address City IN Zip: 2211 South Wayne Street, Auburn, Indiana 46706

Part 70 Operating Permit Renewal No.: T033-33749-00047 Reviewer: Mehul Sura

Application Received: 4/17/2014

| Unit ID | Heat Input Capacity (MMBtu/hr) | HHV (mmBtu/mmscf) | Potential Throughput (MMCF/yr) |
|----------------|--------------------------------------|----------------------|--------------------------------------|
| Boiler (EU-B1) | 10.5 | 1020 | 90.2 |
| Boiler (EU-B2) | 10.5 | 1020 | 90.2 |
| Boiler (EU-B3) | 10.5 | 1020 | 90.2 |

| | | | | Pollutant (tons/) | /r) | | | | | | | |
|----------------------------|--------|--|--------|-------------------|--------|--------|--------|--|--|--|--|--|
| | PM* | PM* PM10* direct PM2.5* SO2 NOx VOC CO | | | | | | | | | | |
| Emission Factor in lb/MMCF | 1.9 | 7.6 | 7.6 | 0.6 | 100 ** | 5.5 | 84 | | | | | |
| Emission Rate in lb/MMBtu | 0.0019 | 0.0075 | 0.0075 | 0.0006 | 0.0980 | 0.0054 | 0.0824 | | | | | |
| Boiler (EU-B1) | 0.086 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | | | | | |
| Boiler (EU-B2) | 0.086 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | | | | | |
| Boiler (EU-B3) | 0.086 | 0.34 | 0.34 | 0.03 | 4.51 | 0.25 | 3.79 | | | | | |

^{*}PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

Methodology
All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Emission Rate in lb/MMBtu = Emission Factor (lb/MMCF) / 1020 (MMBtu/MMCF)

Emission Factors are from A-PL (Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

| | HAPs - Organics (tons/yr) | | | | | | HAPs - Metals (tons/yr) | | | | | | |
|----------------------------|--|---------|---------|---------|---------|---------|-------------------------|----------|-----------|---------|--|--|--|
| | Benzene Dichlorobenzen e Formaldehyde Hexane Toluene | | | | | | Cadmium | Chromium | Manganese | Nickel | | | |
| Emission Factor in lb/MMcf | 0.002 | 0.001 | 0.075 | 1.800 | 0.003 | 0.001 | 0.001 | 0.001 | 0.000 | 0.002 | | | |
| Boiler (EU-B1) | 9.5E-05 | 5.4E-05 | 3.4E-03 | 8.1E-02 | 1.5E-04 | 2.3E-05 | 5.0E-05 | 6.3E-05 | 1.7E-05 | 9.5E-05 | | | |
| Boiler (EU-B2) | 9.5E-05 | 5.4E-05 | 3.4E-03 | 8.1E-02 | 1.5E-04 | 2.3E-05 | 5.0E-05 | 6.3E-05 | 1.7E-05 | 9.5E-05 | | | |
| Boiler (EU-B3) | 9.5E-05 | 5.4E-05 | 3.4E-03 | 8.1E-02 | 1.5E-04 | 2.3E-05 | 5.0E-05 | 6.3E-05 | 1.7E-05 | 9.5E-05 | | | |

Methodology is the same as above.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.

| | | (| Greenhouse Gas | 3 |
|----------------|---|----------------------------------|-------------------------|----------------------|
| | Emission Factor in lb/MMcf | CO2 120,000 | CH4 2.3 | N2O 2.2 |
| Boiler (EU-B2) | Potential Emission in tons/yr Potential Emission in tons/yr Potential Emission in tons/yr | 5,410.59 5,410.59 5,410.59 | 0.10 0.10 0.10 | 0.10 0.10 0.10 |
| Boiler (EU-B2) | Summed Potential Emissions in tons/yr Summed Potential Emissions in tons/yr Summed Potential Emissions in tons/yr | | 5,411 5,411 5,411 | |
| Boiler (EU-B2) | CO2e Total in tons/yr CO2e Total in tons/yr CO2e Total in tons/yr | | 5,443 5,443 5,443 | |

Methodology

The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.

Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lbMMCF)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

PM2.5 emission factor is filterable and condensable PM2.5 combined.

"Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Appendix A: Emission Calculations LPG - space heaters

Company Name: FXI, Inc.

Address CAddress City IN Zip: 2211 South Wayne Street, Auburn, Indiana 46706

Permit Number: T033-33749-00047
Reviewer: Mehul Sura
Date: 4/17/2014

Heat Input Capacity Potential Throughput SO2 Emission factor = 0.10 x S

MMBtu/hr kgals/year S = Sulfur Content = 5.00 grains/100ft^3

6.00 574.43

| | | Pollutant PM* PM10* direct PM2.5** SO2 NOx VOC CO 0.2 0.7 0.7 0.5 13.0 1.0 7.5 | | | | | | | | |
|-------------------------------|-----|---|----------------|---------|------|-------------|-----|--|--|--|
| | PM* | PM10* | direct PM2.5** | SO2 | NOx | VOC | CO | | | |
| Emission Factor in lb/kgal | 0.2 | 0.7 | 0.7 | 0.5 | 13.0 | 1.0 | 7.5 | | | |
| | | | | (0.10S) | | **TOC value | | | | |
| Potential Emission in tons/yr | 0.1 | 0.2 | 0.2 | 0.1 | 3.7 | 0.3 | 2.2 | | | |

^{*}PM emission factor is filterable PM only. PM emissions are stated to be all less than 10 microns in aerodynamic equivalent diameter, footnote in Table 1.5-1, therefore PM10 is based on the filterable and condensable PM emission factors.

Methodology

1 gallon of LPG has a heating value of 94,000 Btu

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Emission Factors are from AP42 (7/08), Table 1.5-1 (SCC #1-02-010-02)

Propane Emission Factors shown. Please see AP-42 for butane.

Emission (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

Greenhouse Gas

| | Gre | enhouse Gas | |
|---------------------------------------|--------|-------------|-----|
| | CO2 | CH4 | N2O |
| Emission Factor in lb/kgal | 12,500 | 0.2 | 0.9 |
| | | | |
| Potential Emission in tons/yr | 3,590 | 0.1 | 0.3 |
| Summed Potential Emissions in tons/yr | | 3,590 | |
| CO2e Total in tons/yr | | 3,669 | |

Methodology

The CO2 Emission Factor for Propane is 12500. The CO2 Emission Factor for Butane is 14300.

Emission Factors are from AP 42 (7/08), Table 1.5-1 (SCC #1-02-010-02)

Global Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.

Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (25) + N2O Potential Emission ton/yr x N2O GWP (298).

^{**} No direct PM2.5 emission factor was given. Direct PM2.5 is a subset of PM10. If one assumes all PM10 to be all direct PM2.5, then a worst case assumption of direct PM2.5 can be made.

^{**}The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Michael R. Pence Governor

Thomas W. Easterly

Commissioner

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Audrey Tremblay

FXI, Inc.

2211 S Wayne St Auburn, IN 46706

DATE: September 26, 2014

FROM: Matt Stuckey, Branch Chief

Permits Branch Office of Air Quality

SUBJECT: Final Decision

Title V - Renewal 033 - 33749 - 00047

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to: Paul Rachiele, VP Marjorie Collins ARCADIS U.S.

OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at ibrush@idem.IN.gov.

Final Applicant Cover letter.dot 6/13/2013





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Michael R. Pence Governor

Thomas W. Easterly

Commissioner

September 26, 2014

TO: Eckhart Public Library

From: Matthew Stuckey, Branch Chief

Permits Branch
Office of Air Quality

Subject: Important Information for Display Regarding a Final Determination

Applicant Name: FXI, Inc.

Permit Number: 033 - 33749 - 00047

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, we ask that you retain this document for at least 60 days.

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures Final Library.dot 6/13/2013





Mail Code 61-53

| IDEM Staff | LPOGOST 9/26/ | /2014 | | |
|------------|------------------|--|----------------|-------------|
| | FXI Incorporated | 033 - 33749 - 00047 final) | | AFFIX STAMP |
| Name and | | Indiana Department of Environmental | Type of Mail: | HERE IF |
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| Sender | | Office of Air Quality – Permits Branch | CERTIFICATE OF | CERTIFICATE |
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| | | | | | | | | | | | Remarks |
| 1 | | Audrey Tremblay FXI Incorporated 2211 S Wayne St Auburn IN 46706 (Source CAATS | S) Via confirm | ned delivery | | | | | | | |
| 2 | | Paul Rachiele VP FXI Incorporated 2211 S Wayne St Auburn IN 46706 (RO CAATS) | | | | | | | | | |
| 3 | | Mr. Steve Christman NISWMD 2320 W 800 S, P.O. Box 370 Ashley IN 46705 (Affects | ed Party) | | | | | | | | |
| 4 | | DeKalb County Commissioners 100 South Main Street Auburn IN 46706 (Local Official) | | | | | | | | | |
| 5 | | Ms. Diane Leroy 303 N. Jackson St. Auburn IN 46706 (Affected Party) | . Diane Leroy 303 N. Jackson St. Auburn IN 46706 (Affected Party) | | | | | | | | |
| 6 | | Mr. Barry Fordanish R#3 1480 CR 66 Auburn IN 46706 (Affected Party) | | | | | | | | | |
| 7 | | Mr. Brent Beaty 1607 Allison Auburn IN 46706 (Affected Party) | | | | | | | | | |
| 8 | | Auburn City Council and Mayors Office P.O. Box 506 Auburn IN 46706-0506 (Local | Official) | | | | | | | | |
| 9 | | Dekalb County Health Department 220 E 7th St #110 Auburn IN 46706 (Health Department | artment) | | | | | | | | |
| 10 | | Daniel & Sandy Trimmer 15021 Yellow River Road Columbia City IN 46725 (Affected | d Party) | | | | | | | | |
| 11 | | Brown & Sons Fuel Co. P.O. Box 665 Kendallville IN 46755 (Affected Party) | | | | | | | | | |
| 12 | | Mr. Marty K. McCurdy 2550 County Road 27 Waterloo IN 46793 (Affected Party) | | | | | | | | | |
| 13 | | Eckhart Public Library 603 South Jackson Street Auburn IN 46706 (Library) | | | | | | | | | |
| 14 | | Marjorie Collins ARCADIS U.S., Inc. 28550 Cabot Drive, Suite 500 Novi MI 48377 (Consultant) | | | | | | | | | |
| 15 | | DeKalb County Building Department 301 S Union St Auburn IN 46706 (Local Officia | 1) | | | | | | | | |

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