



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 21, 2011

RE: Saint-Gobain Containers / 075-29645-00004

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

Notice of Decision: Approval – Effective Immediately

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

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

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

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

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

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

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

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

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



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April 21, 2011

Mr. William D. Mann
524 East Center Street
Saint-Gobain Containers
Dunkirk, IN 47336

Re: 075-29645-00004
Significant Permit Modification to
Part 70 No.: T 075-17108-00004

Dear Mr. Mann:

Saint-Gobain Containers was issued Part 70 Operating Permit Renewal T075-17108-00004 on July 9, 2007 for a stationary glass container manufacturing plant. A letter requesting changes to this permit was received on September 7, 2010. Pursuant to the provisions of 326 IAC 2-7-12, a significant permit modification to this permit is hereby approved as described in the attached Technical Support Document.

The modification consists of changes relating to the installation of new pollution control devices, the construction and operation of new material handling equipment and emergency engines, and the incorporation of the requirements of the Consent Decree: United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ into its Part 70 Operating Permit.

All other conditions of the permit shall remain unchanged and in effect. Please find attached the entire Part 70 Operating Permit Renewal as modified.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Jenny Acker, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Jenny Acker or extension 3-9327, or dial (317) 233-9327.

Sincerely,

Chrystal A. Wagner, Section Chief
Permits Branch
Office of Air Quality

Attachments
Significant Permit Modification No. 075-29645-00004
Technical Support Document (TSD)

JLA

cc: File - Jay County
U.S. EPA, Region V
Jay County Health Department
Compliance Data Section
Administrative and Development



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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**SIGNIFICANT PERMIT MODIFICATION to a
PART 70 OPERATING PERMIT RENEWAL
OFFICE OF AIR QUALITY**

**Saint-Gobain Containers
524 East Center Street
Dunkirk, Indiana 47336**

(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.: T075-17108-00004	
Original signed by: <i>Nisha Sizemore</i> , Chief Permits Branch Office of Air Quality	Issuance Date: July 9, 2007 Expiration Date: July 9, 2012

Administrative Amendment No. 075-25583-00004, issued January 10, 2008
Significant Permit Modification No. 075-25052-00004, issued December 11, 2009

Significant Permit Modification No.: 075-29645-00004	
Issued by:  Chrystal A. Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 21, 2011 Expiration Date: July 9, 2012

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Attachments

- Attachment A Definitions
- Attachment B 40 CFR 60, Subpart CC - Standards of Performance for Glass Manufacturing Plants
- Attachment C 40 CFR 60, Subpart IIII - Standards of Performance for Stationary Compression Ignition Internal Combustion Engines
- Attachment D 40 CFR 63, Subpart ZZZZ - National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

SECTION A

SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)] [326 IAC 2-7-5(15)] [326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary glass container manufacturing plant.

Source Address:	524 East Center Street, Dunkirk, Indiana 47336
General Source Phone Number:	(765) 768-7891
SIC Code:	3221
County Location:	Jay
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Permit Program Major Source, under PSD; Minor Source, Section 112 of the Clean Air Act Not in 1 of 28 Source Categories

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

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

- (a) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 1, constructed in 1993, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1. [40 CFR 60, Subpart CC]

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (b) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 2, constructed in 1998 and approved in 2011 for cold rebuild, with a maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2. [40 CFR 60, Subpart CC]

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (c) One (1) grinding operation, installed in 1994, located in the mold shop, controlled by a dust collector (identified as Wheelabrator), and exhausting outside.
- (d) One (1) soda ash silo, identified as Silo No. 1, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S1. The soda ash is pneumatically conveyed to a scrubber.
- (e) One (1) ESP dust silo, identified as Silo No. 2, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S2.

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

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

- (a) One (1) hot end treatment facility, consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, constructed in 1993, and having a maximum throughput capacity of 4.0 pounds per hour and exhausting through building ventilation system. [326 IAC 6-3]
- (b) One (1) hot end treatment facility, consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, constructed in 1993, and having a maximum throughput capacity of 4.0 pounds per hour and exhausting through building ventilation system. [326 IAC 6-3]
- (c) One (1) batch handling facility servicing melting furnace No. 1, constructed in 1993, with a maximum capacity of 26.04 tons of raw material per hour, venting inside the building. [326 IAC 6-3]
- (d) One (1) batch handling facility servicing melting furnace No. 2, constructed in 1993, with a maximum capacity of 28.65 tons of raw material per hour, venting inside the building. [326 IAC 6-3]
- (e) One (1) raw material handling process consisting of one (1) raw material storage bin, constructed in 2003, with a maximum throughput rate of 560 pounds of iron oxide per hour, controlled by one (1) dust collector, and venting inside the silo. The raw material is transferred to the storage bin using a pneumatic conveyance system. [326 IAC 6-3]
- (f) One (1) mold swabbing facility consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, constructed in 1993, and having a maximum combined capacity of 4.0 pounds of swabbing material per hour and exhausting through building ventilation system. [326 IAC 6-3]
- (g) One (1) mold swabbing facility consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, constructed in 1993, and having a maximum combined capacity of 4.0 pounds of swabbing material per hour and exhausting through building ventilation system. [326 IAC 6-3]
- (h) One (1) sandblaster, installed in 2007, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside. [326 IAC 6-3]
- (i) One (1) sandblaster, installed in 2006, located in the mold shop, controlled by a dust collector (identified as Econoline), and exhausting outside. [326 IAC 6-3]
- (j) One (1) sandblaster, installed in 2001, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside. [326 IAC 6-3]
- (k) Two (2) diesel-fired emergency generators, identified as GEN4 and GEN5, approved in 2011 for construction, each with a maximum rating of 750 kW. [40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]
- (l) Three (3) diesel-fired emergency generators, identified as GEN1, GEN2, and GEN3, each with a maximum rating not to exceed one thousand six hundred (1,600) horsepower (Hp). [40 CFR 63, Subpart ZZZZ]

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

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

- (a) It is a major source, as defined in 326 IAC 2-7-1(22);
- (b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T075-17108-00004, 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:

- (1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(34), and
 - (2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.
 - (c) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

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

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

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][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 326 IAC 2-7-2(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

The Permittee shall implement the PMPs.

- (c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The

PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

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

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

(6) The Permittee immediately took all reasonable steps to correct the emergency.

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

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

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

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

- (b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ, shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

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

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

- (a) All terms and conditions of permits established prior to T075-17108-00004 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 combined permit, all previous registrations and permits are superseded by this combined new source review and 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 anticipated noncompliance does not stay any condition of this permit.

[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

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

deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

- (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(34).
- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-7-11(c)(3)]

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

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

and

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

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

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

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

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

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) Emission Trades [326 IAC 2-7-20(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-7-20(c).
- (d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

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

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

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

- (a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least

thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

- (b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:
 - (1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or
 - (2) If there is a change in the following:
 - (A) Asbestos removal or demolition start date;
 - (B) Removal or demolition contractor; or
 - (C) Waste disposal site.
- (c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).
- (d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue

MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to

thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

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

Indiana Department of Environmental Management
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
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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(34).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

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

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

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

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

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

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

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

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

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

no later than 180 days from the date on which this source commences operation.

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

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

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

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

C.14 Response to Excursions or Exceedances [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:
 - (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.15 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.16 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

Pursuant to 326 IAC 2-6-3(b)(2), starting in 2008 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

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

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, for all record keeping requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:

- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
 - (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

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

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.
- (b) The address for report submittal is:

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit "calendar year" means the twelve (12) month period from January 1 to December 31 inclusive.
- (e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
 - (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (f) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
 - (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

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

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

SECTION D.0

FACILITY OPERATION CONDITIONS

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

- (a) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 1, constructed in 1993, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1.

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (b) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 2, constructed in 1998 and approved in 2011 for cold rebuild, with a maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2.

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

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

Emission Limitations and Standards

D.0.1 Interim NOx Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), the Permittee shall comply with the following interim limits:

- (a) NOx emissions from Furnace No. 1 shall not exceed 146 tons per Calendar Year.
- (b) NOx emissions from Furnace No. 2 shall not exceed 160.6 tons per Calendar Year.
- (c) Compliance with the NOx Calendar Year interim limits (Conditions D.0.1 (a) and (b)) shall be calculated by using the following equation:

$$\text{NOx} = [(\text{PastTest} \times \text{1stprod}) / 2000] + [(\text{NewTest} \times \text{2ndprod}) / 2000]$$

Where:

- NOx = NOx Emissions (tpy)
- PastTest = Last source test result (lb/ton). If no source test has been conducted pursuant to the Consent Decree, an emission factor of 1.6 lbs NOx/ton glass produced shall be used.
- NewTest = New test from the year for which emissions are being calculated (lb/ton).
- 1stprod = Production from January 1st through the Day prior to the Day the new source test is commenced (tons of glass).
- 2ndprod = Production from the Day of the new source test through the end of that same Calendar Year (tons of glass).

Note: If SGCI elects to do more than one test in a year, emissions calculated on the Days following the second test, will be based on that second test.

- (d) For each furnace: upon NO_x CEMS installation and certification compliance with the interim NO_x emission limits shall be demonstrated using emissions data generated by the NO_x CEMS in order to calculate all subsequent daily emission rates that are used to calculate the annual emission rate for the Calendar Year.

For the first Calendar Year during which CEMS are installed and certified, the annual emissions calculated will be the sum of the tons of NO_x emitted on the Days when the emissions were determined from source test data (as calculated above in Condition D.0.1(c)) and the tons of NO_x emitted on the Days when emissions were determined by CEMS data.

- (e) For each furnace: the limits set forth in D.0.1(a) and D.0.1(b) shall remain in effect through December 31st of the Calendar Year in which the furnace is required to with the NO_x emission limitation of 1.3 lb/ton of glass produced as required by Condition D.1.1(a).

Section D.1 of this permit contains the Permittee's obligations with regard to the NO_x CEMS referenced by this condition.

D.0.2 Interim SO₂ Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), the Permittee shall comply with the following interim limits:

- (a) For each furnace: on and after the first stack test after May 7, 2010, SO₂ emissions from the respective furnace shall not exceed 2.5 pounds per ton of glass produced, except during periods of Abnormally Low Production Rate Days, Furnace Startup, Malfunction, Maintenance, and Color Transition.
- (b) Compliance with any the interim limit in Condition D.0.2 may be determined by averaging the emissions from Furnace No. 1 and Furnace No. 2.
- (c) When one Furnace Operating under normal conditions is ducted through the same exhaust stack as a Furnace that is Operating at an Abnormally Low Production Rate, has a Malfunction, undergoes Maintenance, or has a Color Transition, the combined daily emission limit for the Furnaces shall be the sum of the following limit (SO₂ NORMAL LB/DAY) for the normally Operating Furnace and the relevant limit set forth in Condition D.0.2(b) (1), (3), (4), or (5) for the remaining Furnace.

$$\text{SO}_2 \text{ NORMAL LB/DAY} = 2.5 \text{ lb SO}_2/\text{ton glass} \times \text{ADP}$$

Where:

$$\text{SO}_2 \text{ NORMAL LB/DAY} = \text{SO}_2 \text{ interim emission limit for a normally Operating Furnace during a day where a commonly ducted furnace is experiencing an event a set forth in Condition D.0.2(b) (1), (3), (4), or (5).}$$

$$\text{ADP} = \text{Actual Daily Production for the normally Operating Furnace.}$$

These limits shall remain in effect for each furnace, respectively, until the furnace is required to comply with the SO₂ emission limits required by Condition D.1.2(c).

Section D.1 of this permit contains the Permittee's obligations with regard to the SO₂ CEMS referenced by this condition.

D.0.3 Interim PM (Filterable) Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), the Permittee shall comply with the following interim limits:

- (a) For each furnace: on and after the first respective stack test following May 7, 2010, PM (Filterable) emissions from the furnace shall each not exceed 1.0 pound of PM per ton of glass produced.
- (b) This interim PM (Filterable) emission limit shall remain in effect for each Furnace until the Furnace is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit.
 - (1) Furnace No. 1 is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit, no later than December 31, 2012.
 - (2) Furnace No. 2, is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit, on and after the first seven (7) Operating Day(s) of the Furnace Startup following the completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012.

Compliance Determination Requirements

D.0.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the Permittee shall comply with the following stack test requirements:

- (a) For each furnace, compliance with the interim NO_x emission limits (Condition D.0 - Interim NO_x Limit) shall be demonstrated by conducting an EPA Method 7E (40 CFR Part 60 Appendix A) source test. Testing shall be conducted initially no later than May 7, 2011 and once each Calendar Year thereafter until NO_x CEMS are installed and certified. A source test is not required the year that a NO_x CEMS is installed.
- (b) Prior to SO₂ CEMS installation and Certification, compliance with the SO₂ interim limits in Condition D.0.2 shall be demonstrated by conducting an EPA Method 6C (40 CFR Part 60 Appendix A) source test. Testing shall be conducted initially no later than May 7, 2011 and once each Calendar Year thereafter until SO₂ CEMS are installed and certified. A source test is not required the year that a SO₂ CEMS is installed.
- (c) For each Furnace, compliance with the interim PM (Filterable) limits (Condition D.0.3 - Interim PM (Filterable) Limit) shall be demonstrated by conducting an EPA Method 5 (40 CFR Part 60 Appendix A) source test. Testing shall be conducted initially no later than May 7, 2011 and once each Calendar Year thereafter. This stack test shall not be required in a Calendar Year during which compliance with limits determined under Condition D.1.3 - PM (Filterable) and Total PM Limit is demonstrated.

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.

D.0.5 Definition of Terminology

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the definitions, included as Attachment A to this permit, shall apply to the following terms when used throughout Section D.0 of this permit.

- (a) "24-hour Block Average"
- (b) "Affected State(s)"
- (c) "Abnormally Low Production Rate"
- (d) "Abnormally Low Production Rate Day"
- (e) "Calendar Year"
- (f) "CEMS"
- (g) "CEMS Certification"
- (h) "CEMS Certification Event"
- (i) "Color Transition"
- (j) "COMS"
- (k) "Continuous Operating Year"
- (l) "Control Device Startup"
- (m) "Day"
- (n) "Emission Rate 30-day Rolling Average"
- (o) "First Control Device Startup"
- (p) "Furnace"
- (q) "Furnace Startup"
 - (i) "Initial Heating Phase"
 - (ii) "Refractory Soak and Seal Phase"
 - (iii) "Furnace Stabilization Phase"
- (r) "Hot Spot Temperature"
- (s) "Inlet"
- (t) "Maintenance"
- (u) "Major Rebuild"
- (v) "Malfunction"
- (w) "Month"
- (x) "NOx"
- (y) "Operate", "Operation", "Operating", and "Operated"
- (z) "Operating Day"
- (aa) "Outlet"
- (bb) "Outlet 30-day Rolling Average"
- (cc) "Oxyfuel Furnace"
- (dd) "Particulate Matter" and "PM"
- (ee) "Removal Efficiency"
- (ff) "Removal Efficiency 30-day Rolling Average"
- (gg) "Scrubber System"
- (hh) "SO₂"
- (ii) "Ton" or "tons"
- (jj) "TSP"

D.0.6 Continuous Emissions Monitoring Systems (CEMS)

Section D.1 contains the Permittee's obligation with regard to the Compliance Determination Requirements for the CEMS referenced in Section D.0.

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

D.0.7 NOx and SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Section D.1 contains the Permittee's obligation with regard to the Compliance Monitoring Requirements for the CEMS referenced in Section D.0.

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

D.0.8 Record Keeping Requirements

- (a) To document the compliance status with Condition D.0.1 - Interim NO_x Limit, the Permittee shall maintain records for each furnace in accordance with (1) through (5) below, Records shall be complete and sufficient to determine compliance with the NO_x limitations established in Condition D.0.1.
- (1) Data and results from all valid compliance source tests for NO_x.
 - (2) Glass production (1stprod) from January 1 through the Day prior to the Day the new source test (NewTest) commenced in tons of glass produced.
 - (3) Glass production (2ndprod) from the Day of the new source test (NewTest) through the end of that Calendar Year in tons of glass produced.
 - (4) A calculation of the NO_x emissions in tons per year.
 - (5) For a furnace that has a NO_x CEMS, the recorded emissions according to the CEMS in pounds per day.
- (b) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.0.2 - Interim SO₂ Limit, the Permittee shall maintain records in accordance with (1) and (4) below, Records shall be complete and sufficient to determine compliance with the SO₂ limitations established in Condition D.0.2.
- (1) Data and results from all valid compliance source tests for SO₂.
 - (2) For any Operating Day that SO₂ emissions are excluded from the SO₂ Emission Rate 30-day rolling average, the Permittee shall maintain the following records.
 - (A) The date of the exclusion.
 - (B) The exception (Abnormally Low Production Rate Day, Furnace Startup, Furnace Malfunction, Furnace Maintenance, or Color Transition) under which it is excluded.
 - (C) A calculation of the applicable limit in pounds per day.
- (c) To document the compliance status with Condition D.0.3- Interim PM (Filterable) Limit, the Permittee shall maintain records of the data and results from all valid compliance source tests for PM.

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

D.0.9 Reporting Requirements

- (a) An annual report and an annual summary of the information to document the compliance status with Condition D.0.1- Interim NO_x Limit shall be submitted not later than thirty (30) days after the end of the Calendar year being reported.
- (b) Section C – General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.1

FACILITY OPERATION CONDITIONS

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

- (a) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 1, constructed in 1993, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1.

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (b) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 2, constructed in 1998 and approved in 2011 for cold rebuild, with a maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2.

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

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

Emission Limitations and Standards

D.1.1 NO_x Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), for Furnace No. 1 and Furnace No. 2, the Permittee shall comply with the following:

- (a) For Furnace No. 2: on and after, the first Operating Day after completion of the Furnace Startup Period associated with the cold rebuild project and NO_x CEMS certification, but no later than December 31, 2012, the 30-day rolling average NO_x emissions from Furnace No. 2 shall not exceed 1.3 lb/ton glass produced, except during the following periods: Abnormally Low Production Rate Days, Furnace Startup, Malfunction of the Furnace, and Maintenance of the Furnace.
- (b) For Furnace No. 1: on and after the NO_x CEMS certification, but no later than December 31, 2013, the 30-day rolling average NO_x emissions from Furnace No. 1 shall not exceed 1.3 lb/ton glass produced, except during the following periods: Abnormally Low Production Rate Days, Furnace Startup, Malfunction of the Furnace, and Maintenance of the Furnace.
- (c) For any Abnormally Low Production Rate Days, the Permittee may elect to exclude the emissions generated during that Day from the 30-day rolling average. During these days the Permittee shall comply with the following NO_{x OXY ABN} limit (24-hour Block Average):
- (A) For Furnace No. 1, NO_{x OXY ABN} = 650 lb NO_x/ton glass; and,
- (B) For Furnace No. 2, NO_{x OXY ABN} = 717 lb NO_x/ton glass.

The following equation was used to determine the NO_{x OXY ABN} limitations:

$$\text{NO}_{x \text{ OXY ABN}} = 1.3 (\text{lb NO}_x/\text{ton glass produced}) \times P/0.35$$

Where:

$NO_{X OXY ABN}$ = NOx emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day in pounds per day

P = Abnormally Low Production Rate (tons glass produced)

For Furnace No. 1: P = 175 (tons/day)

For Furnace No. 2: P = 193 (tons/day)

(d) Furnace Startup limitations:

(1) During the Initial Heating Phase, the input of natural gas to the respective furnace shall not exceed five million standard cubic feet (5.0 MMscf).

(2) During the Refractory Soak and Seal Phase:

(A) The input of natural gas to the respective furnace shall be no more than sixty million standard cubic feet (60 MMscf).

(B) The excess oxygen at the respective furnace exhaust flue shall not exceed five percent (5%).

(C) The Hot Spot Temperature at the respective furnace shall not exceed 2900 degrees F.

(D) Thermal blankets or similar techniques shall be utilized at the respective furnace to minimize air filtration until expansion joints are sufficiently closed.

(3) During Furnace Stabilization Phase:

(A) The input of natural gas to the respective furnace shall be no more than exceed ninety million standard cubic feet (90 MMscf).

(B) The excess oxygen at the respective furnace exhaust flue shall not exceed five percent (5%).

(C) The Hot Spot Temperature at the respective furnace shall not exceed 2900 degrees F.

(e) For any Operating Day where a Malfunction of a furnace occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day(s) from the 30-day rolling average for the respective furnace. During the Malfunction Days, the Permittee shall comply with the following $NO_{X OXY MALF}$ limit (24-hour Block Average):

(A) For Furnace No. 1, $NO_{X OXY MALF} = 2,600$ lb NOx/ton glass; and,

(B) For Furnace No. 2, $NO_{X OXY MALF} = 2,868$ lb NOx/ton glass.

The following equation was used to determine the $NO_{X OXY MALF}$ limitations:

$$NO_{X OXY MALF} = 4.0 \times NO_{X OXY ABN}$$

Where:

$NOx_{OXY\ MALF}$ = NOx emission limit for an Oxyfuel Furnace during a Malfunction Day, in pounds per day.

$NOx_{OXY\ ABN}$ = As defined in Condition D.1.1(c), NOx emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day, in pounds per day.

For Furnace No. 1: $NOx_{OXY\ ABN} = 650$ (tons/day)

For Furnace No. 2: $NOx_{OXY\ ABN} = 717$ (tons/day)

- (f) For any Operating Day where Maintenance activities on a furnace are performed, the Permittee may elect to exclude the Maintenance Day from the 30-day rolling average for the respective furnace. During the Maintenance Day, the Permittee shall comply with the following $NOx_{OXY\ MAINT}$ limit (24-hour Block Average):

$$NOx_{OXY\ MAINT} = [MH \times (4 \times NOx_{OXY\ ABN}) / 24] + [(NH \times NOx_{OXY\ ABN}) / 24]$$

Where:

$NOx_{OXY\ MAINT}$ = NOx emission limit for an Oxyfuel Furnace during a Maintenance Day, in pounds per day.

$NOx_{OXY\ ABN}$ = As defined in Condition D.1.1(c), NOx emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day, in pounds per day.

For Furnace No. 1: $NOx_{OXY\ ABN} = 650$ (tons/day)

For Furnace No. 2: $NOx_{OXY\ ABN} = 717$ (tons/day)

MH = hours of Maintenance

NH = normal hours = 24 - MH

- (g) Compliance with the 1.3 lb/ton glass produced NOx emission limit (30-day rolling average) for Furnace No. 1 and Furnace No. 2, each, may be determined by averaging the emissions from each furnace.
- (h) Upon completion of the cold rebuild of the Oxyfuel glass melting furnace, identified as Furnace No. 2, but no later than December 31, 2012, the Permittee shall operate Furnace No. 2 using Oxyfuel technology and the gas that provides the oxidant for combustion of the fuel shall be composed of equal to or greater than ninety percent (90%) oxygen.
- (i) No later than December 31, 2013, for the Oxyfuel glass melting furnace, identified as Furnace No. 1, the Permittee shall operate Furnace No.1 using Oxyfuel technology and the gas that provides the oxidant for combustion of the fuel shall be composed of equal to or greater than ninety percent (90%) oxygen.

D.1.2 SO₂ and Sulfuric Acid Mist (H₂SO₄) Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), for Furnace No. 1 and Furnace No. 2, the Permittee shall comply with the following:

- (a) Upon completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012, all stack gases from Furnace No. 2 shall be captured and controlled by a semi-dry scrubber (Scrubber No. 1) except during periods of Control Device Startup, up to the first seven (7) days of the Furnace Startup, and during Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).

- (b) No later than December 31, 2012, all stack gases from Furnace No. 1 shall be captured and controlled by a semi-dry scrubber (Scrubber No. 1), except during periods of Control Device Startup, up to the first seven (7) days of the Furnace Startup, and during Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).
- (c) On and after the first Operating Day after completion of the Control Device Startup and CEMS Certification, but no later than December 31, 2012, Furnace No. 1 and Furnace No. 2 shall comply with the following requirements, except during periods of Control Device Startup, Furnace Startup, Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).
 - (1) No dilution air will be intentionally added to the stack gases between the Scrubber System (Scrubber No. 1) and the SO₂ CEMS. When determining compliance with all Scrubber System (Scrubber No. 1) limits, there shall be no oxygen correction, as per vendor guarantee.
 - (2) The Permittee shall determine a daily SO₂ Inlet 24-hour Block Average. The SO₂ 30-day rolling average compliance limit for each Operating Day will depend on the daily SO₂ Inlet 24-hour Block Average and will either be as defined in Condition D.1.2(c)(3) or Condition D.1.2(c)(4), but not both.
 - (3) If the average daily SO₂ Inlet calculated in Condition D.1.2(c)(2) is equal to or greater than 300 parts per million by volume dry (ppmvd) then the SO₂ Removal Efficiency on a 24-hour Block Average for that Day and a SO₂ Removal Efficiency 30-day Rolling Average shall be calculated. The Permittee shall operate the Semi-dry Scrubber (Scrubber No. 1) such that the SO₂ Removal Efficiency 30-day Rolling Average is greater than or equal to 85 percent.
 - (4) If the average daily SO₂ Inlet calculated in Condition D.1.2(c)(2) is less than 300 ppmvd, then the Scrubber (Scrubber No. 1) SO₂ Outlet 24-hour Block Average concentration for that Day and Scrubber SO₂ Outlet 30-day Rolling Average shall be calculated. The Permittee shall operate the Semi-dry Scrubber such that the Scrubber SO₂ Outlet 30-day Rolling Average is less than or equal to 45 ppmvd.
- (d) During Control Device Startup or up to the first seven (7) Days of Furnace Startup, the Permittee shall comply with the following.
 - (1) During the startup period, the amount of sulfur added to the batch materials shall not exceed 2.6 pounds per ton of total batch material (including cullet) or less.
 - (2) During no more than the first seven (7) Days of Furnace Startup, the Furnace exhaust may bypass the Scrubber System (Scrubber No. 1) to avoid having the operating inlet temperature of the Scrubber System fall below its operational range.
 - (3) During these bypass Days, as specified in Condition D.1.2(d)(2), the furnace shall burn no more than 15.0 million standard cubic feet (MMscf) of natural gas.
- (e) For any Operating Day where a Malfunction of the Scrubber System (Scrubber No. 1) or ESP (ESP No. 1) occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day (or Operating Days if the event covers more than one Operating Day) from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates. During the Malfunction Days excluded from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber

SO₂ Outlet 30-day Rolling Average emission rates, the SO₂ emissions (as a 24-hour Block Average) shall be limited as follows:

- (A) For Furnace No. 1, SO_{2 SCRUB MALF} = 1,250 lb SO₂/ton glass; and,
- (B) For Furnace No. 2, SO_{2 SCRUB MALF} = 1,379 lb SO₂/ton glass.

The following equation was used to determine the SO_{2 SCRUB MALF} limitations:

$$\text{SO}_{2 \text{ SCRUB MALF}} = 2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35)$$

Where:

SO_{2 SCRUB MALF} = SO₂ emission limit for a Furnace with a Semi-dry Scrubber (Scrubber No. 1) during a Malfunction Day, in pounds per day.
P = Abnormally Low Production Rate (tons glass produced)
For Furnace No. 1: P = 175 (tons/day)
For Furnace No. 2: P = 193 (tons/day)

- (f) For any Operating Day where Maintenance activities on the Scrubber System (Scrubber No. 1) or ESP (ESP No. 1) are performed, the Permittee may elect to exclude the Maintenance Day from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates. For any Day which is excluded from the SO₂ 30-day Rolling Average, the SO₂ emissions (as a 24-hour Block Average) shall be limited as follows:

$$\text{SO}_{2 \text{ SCRUB MAINT}} = \frac{[[\text{MH} \times (2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35))] / 24] + [[\text{NH} \times ((1/3) \times 2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35))] / 24]}$$

Where:

SO_{2 SCRUB MAINT} = SO₂ emission limit for a Furnace with a Semi-Dry Scrubber during a Maintenance Day, in pounds per day.
P = Abnormally Low Production Rate (tons glass produced)
For Furnace No. 1: P = 175 tons per day
For Furnace No. 2: P = 193 tons per day
MH = Hours of Maintenance
NH = Normal Hours = 24 – MH

- (g) The emissions of Sulfuric Acid Mist (H₂SO₄) from Furnace No. 1 and Furnace No. 2 shall, each, not exceed 1.0 pound per ton of glass produced.
- (h) When both Furnace No. 1 and Furnace No. 2 are subject to the same emission limit, compliance with the 30-day rolling average limits set forth in Condition D.1.2 may be determined by averaging the emissions from both furnaces subject to the same emission limit.

D.1.3 PM (Filterable) and Total PM Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), for Furnace No. 1 and Furnace No. 2, the Permittee shall comply with the following:

- (a) For Furnace No. 2: on and after the first seven (7) Operating Day(s) of the Furnace Startup following the completion of the cold rebuild project, but no later than December 31, 2012, all stack gases from Furnace No. 2 shall be captured and controlled by an electrostatic precipitator (ESP No. 1), except during periods of Control Device Startup, up

to the first seven (7) Days of the Furnace Startup, and during Malfunction of the electrostatic precipitator (ESP No. 1), and Maintenance on the electrostatic precipitator (ESP No. 1).

- (b) For Furnace No. 1: no later than December 31, 2012, all stack gases from Furnace No. 1 shall be captured and controlled by an electrostatic precipitator (ESP No. 1), except during periods of Control Device Startup, up to the first seven (7) Days of the Furnace Startup, and during Malfunction of the electrostatic precipitator (ESP No. 1), and Maintenance on the electrostatic precipitator (ESP No. 1).
- (c) The emissions from Furnace No. 1 and Furnace No. 2 shall, each, not exceed 0.2 pound of filterable PM per ton of glass produced and 0.45 pound of total PM per ton of glass produced, once the emissions from the respective furnace are controlled by an electrostatic precipitator (ESP No. 1).
- (d) When both Furnace No. 1 and Furnace No. 2 are routed to the same stack and subject to the same emission limits, compliance with the limits on each Furnace set forth in Condition D.1.3 shall be determined using the following equation:

$$PM_{\text{EMISSION RATE}} (\text{lb/ton glass}) = \frac{[(\text{Lbs of PM from ST}) / (\text{Daily production})]}{[(24 \text{ hrs}) / (\text{Source test length})]}$$

Where:

$$PM_{\text{EMISSION RATE}} (\text{lb/ton glass}) = \text{PM Emissions rate (lb PM/ton glass)}$$

- Lbs of PM from ST = The pounds of PM measured during the entire length of the source test (including all runs).
- Daily production = The amount of glass produced on all Furnaces during the Day of the source test in tons.
- Source test length = Length of the entire source test (including all runs), in hours.

If the resulting number is below the limit set forth on each Furnace individually, then both furnaces are in compliance.

If the resulting number is above the limits set forth on each Furnace individually, then both furnaces are in noncompliance.

D.1.4 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the two (2) Oxyfuel glass melting furnaces (identified as Furnace No. 1 and 2) shall not exceed 36.4 and 38.8 pounds per hour when operating at a process weight rate of 52,058 and 57,292 pounds per hour, respectively.

The pounds per hour limitations were 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:

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

D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for these facilities and the associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

D.1.6 Maintenance

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the Permittee shall comply with the following Maintenance requirements.

- (a) Scheduled or preventative furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) operating hours annually.
 - (1) No later than December 31, 2012, ESP No. 1 and Scrubber No. 1 shall be in operation and controlling emissions from Furnace No. 1 at all times when scheduled or preventative furnace Maintenance is conducted.
 - (2) Upon completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012, ESP No. 1 and Scrubber No. 1 shall be in operation and controlling emissions from Furnace No. 2 at all times when scheduled or preventative furnace Maintenance is conducted.
- (b) Scheduled or preventative Maintenance of the emission control system shall occur when the Furnace No. 1 and Furnace No. 2 are not in operation. However, for any Calendar Year which is a Continuous Operating Year, scheduled or preventative Maintenance may be conducted while the one (1) or both of the furnaces are in operation. During these Continuous Operating Year, Maintenance lasting greater than twenty-four (24) consecutive hours, shall occur only during Abnormally Low Production Rate Days. Control system Maintenance must be done in compliance with the following:
 - (1) Bypass of ESP No. 1 shall not exceed one-hundred forty-four (144) hours annually in any Calendar Year. Furthermore if ESP No. 1 is bypassed, Scrubber No. 1 must be bypassed as well.
 - (2) Bypass of Scrubber No. 1 shall not exceed one-hundred forty-four (144) hours annually in any Calendar Year. Bypass of Scrubber No. 1 required by the bypass of ESP No. 1 shall be included in the one-hundred forty-four (144) hours.

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the Permittee shall comply with the following stack test requirements:

- (a) On or before December 31, 2011, in order to demonstrate compliance with Condition D.1.2(g), the Permittee shall perform Sulfuric Acid Mist (H₂SO₄) testing of the stack exhausts of Furnace No. 1 and Furnace No. 2. The stack test(s) shall be performed using Conditional Test Method 13A or B. After the initial valid compliance demonstration, this testing shall be performed at least once during the life of each Title V permit renewal.
- (b) No later than December 31, 2013, in order to demonstrate compliance with Condition D.1.3, the Permittee shall perform PM testing on the stack exhaust of Furnace No. 1 and Furnace No. 2. Testing shall be conducted at least once every Calendar Year thereafter.

- (1) Filterable PM shall be determined using EPA Method 5 (40 CFR Part 60 Appendix A).
- (2) Total PM shall be determined using Method 5 (40 CFR Part 60 Appendix A) and EPA Method 202 (40 CFR Part 51 Appendix M).

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.

D.1.8 Definition of Terminology

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the definitions, included as Attachment A to this permit, shall apply to the following terms when used throughout Conditions D.1.1, D.1.2, D.1.3, D.1.6, D.1.7, D.1.9 (a) through (e), D.1.10(a), D.1.11, D.1.12, and D.1.16 of this permit.

- (a) "24-hour Block Average"
- (b) "Affected State(s)"
- (c) "Abnormally Low Production Rate"
- (d) "Abnormally Low Production Rate Day"
- (e) "Calendar Year"
- (f) "CEMS"
- (g) "CEMS Certification"
- (h) "CEMS Certification Event"
- (i) "Color Transition"
- (j) "COMS"
- (k) "Continuous Operating Year"
- (l) "Control Device Startup"
- (m) "Day"
- (n) "Emission Rate 30-day Rolling Average"
- (o) "First Control Device Startup"
- (p) "Furnace"
- (q) "Furnace Startup"
 - (i) "Initial Heating Phase"
 - (ii) "Refractory Soak and Seal Phase"
 - (iii) "Furnace Stabilization Phase"
- (r) "Hot Spot Temperature"
- (s) "Inlet"
- (t) "Maintenance"
- (u) "Major Rebuild"
- (v) "Malfunction"
- (w) "Month"
- (x) "NOx"
- (y) "Operate", "Operation", "Operating", and "Operated"
- (z) "Operating Day"
- (aa) "Outlet"
- (bb) "Outlet 30-day Rolling Average"
- (cc) "Oxyfuel Furnace"
- (dd) "Particulate Matter" and "PM"
- (ee) "Removal Efficiency"
- (ff) "Removal Efficiency 30-day Rolling Average"
- (gg) "Scrubber System"
- (hh) "SO₂"
- (ii) "Ton" or "tons"
- (jj) "TSP" 6.13

D.1.9 Continuous Emissions Monitoring Systems (CEMS) [326 IAC 3-5]

- (a) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), upon completion of the cold rebuild of Furnace No. 2, but no later than December 31, 2012, the Permittee shall comply with the following:
- (1) A continuous emission monitoring system (CEMS) for NO_x shall be installed, calibrated, maintained, and operated for measuring Furnace No. 2 NO_x emissions at stack No. 2 for the purpose of demonstrating compliance with the NO_x limitations of Condition D.1.1.
- The NO_x CEMS shall monitor continuously and record the hourly NO_x emission concentration (parts per million) during each Operating Day from Furnace No. 2. The CEMS shall calculate and record in units of parts per million of NO_x emitted.
- (2) A continuous emission monitoring systems (CEMS) for SO₂ shall be installed, calibrated, maintained and operated for measuring SO₂ emissions at the inlet and the outlet of the emission control system (consisting of ESP No. 1 and Scrubber No. 1) for measuring Furnace No. 2 SO₂ emissions at stack No. 3 for the purpose of demonstrating compliance with the SO₂ limitations of Condition D.1.2.
- The SO₂ CEMS shall monitor continuously and record the hourly SO₂ emission concentration (parts per million) during each Operating Day from Furnace No. 2. The CEMS shall calculate and record in units of parts per million of SO₂ emitted.
- (b) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), no later than December 31, 2012, the Permittee shall comply with the following:
- (1) A continuous emission monitoring system (CEMS) for NO_x shall be installed, calibrated, maintained, and operated for measuring Furnace No. 1 NO_x emissions at stack No. 1 for the purpose of demonstrating compliance with the NO_x limitations of Condition D.1.1.
- The NO_x CEMS shall monitor continuously and record the hourly NO_x emission concentration (parts per million) during each Operating Day from Furnace No. 2. The CEMS shall calculate and record in units of parts per million of NO_x emitted.
- (2) The continuous emission monitoring systems (CEMS) for SO₂ installed, calibrated, maintained, and operated at the inlet and outlet of the emission control system, as required by Condition D.1.9(a)(2), shall monitor continuously and record the hourly SO₂ emission concentration (parts per million) during each Operating Day from Furnace No. 1 and Furnace No. 2. The CEMS shall calculate and record in units of parts per million of SO₂ emitted.
- (c) 40 CFR Part 60 Appendix B (Performance Specification 2) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures).
- (d) During periods of CEMS Certification Events, the requirement to demonstrate compliance continuously pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) will be suspended until the Certification is completed (provided the seven-day test required for Certification is commenced the first Operating Day following the conclusion of the CEMS Certification Event).

- (e) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), where CEMS is required to determine an emission rate (pound per ton or ton per year), the Permittee shall install, calibrate, certify, maintain, and operate NO_x and SO₂ Continuous Emission Rate Monitoring System (CERMS) as follows:
- (1) The CERMS shall be installed, calibrated, certified, maintained, and operated in accordance with 40 CFR 60.13, 40 CFR Part 60 Appendix B (Performance Specification 6), and 40 CFR Part 60 Appendix F (Quality Assurance Procedures);
 - (2) SGCI must comply with all monitoring, record keeping and reporting requirements in 40 CFR 60.13 and 40 CFR Part 60 Appendix B (Performance Specification 6); and
 - (3) In conjunction with the flow rate monitoring device, the data acquisition and handling system for the CEMS shall convert the ppm values into pound per hour values where the limit is expressed in pounds of pollutant per ton of glass produced. At the end of each Operating Day, the data acquisition and handling system shall divide the total daily emissions in pounds per day for valid CEMS hourly data by the total tons of glass produced during the Operating Day (reduced proportionally based on the valid CEMS data hours) to describe the pound per ton emission rate for the Operating Day. This number shall be recorded in units of pounds of pollutant per ton of glass produced for the applicable Day.
- (f) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

D.1.10 Continuous Opacity Monitoring Systems (COMS) [326 IAC 3-5]

- (a) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the following shall apply:
- (1) Until commencement of the cold rebuild of Furnace No. 2, the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 2.
 - (2) Upon completion of the cold rebuild of the Furnace No. 2, the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 3.
 - (3) Until Furnace No. 1 exhaust is routed to the emission control system (Scrubber No. 1 and ESP No. 1), the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 1.
 - (4) Each COMS shall be operated continuously during each associated furnace(s) Operating Day in accordance with Performance Specification 1 of 40 CFR Part 60 Appendix B; and in compliance with all monitoring, record keeping and reporting requirements in 40 CFR 60.13 and 40 CFR Part 60 Appendix B (Performance Specification 1).
- (b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

D.1.11 Furnace Exhaust Flue Excess Oxygen

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), and in order to determine the compliance status

with Condition D.1.1(d)(2)(B) and D.1.1(d)(3)(B), the Permittee shall record the excess oxygen at the furnace exhaust flue, once per shift, during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. The measurement shall be taken with a handheld monitor.

When for any one (1) reading, the excess oxygen is above five percent (5%), the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

The handheld instrument used for determining the excess oxygen shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

For Furnace No. 1; the Permittee shall comply with this condition no later than December 31, 2012.

For Furnace No. 2; the Permittee shall comply with this condition upon completion of the cold rebuild project, but no later than December 31, 2012.

D.1.12 Furnace Hot Spot Temperature

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), and in order to determine the compliance status with Condition D.1.1(d)(2)(C) and D.1.1(d)(3)(C), the Permittee shall record the furnace Hot Spot Temperature, once per shift, during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase.

When for any one (1) reading, the Hot Spot Temperature is above 2,900 °F, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

The handheld instrument used for determining the temperature shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

For Furnace No. 1; the Permittee shall comply with this condition no later than December 31, 2012.

For Furnace No. 2; the Permittee shall comply with this condition upon completion of the cold rebuild project, but no later than December 31, 2012.

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

D.1.13 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 64]

- (a) The ability of ESP No. 1 to control particulate emissions shall be monitored once per day, when the electrostatic precipitator is required to be in operation in accordance with Condition D.1.3 - Particulate Matter (PM) Limit, by measuring and recording the KVA (Kilovolt-Amperes) of the T-R sets.
- (b) When for any reading the KVA (Kilovolt-Amperes) of a set falls below ninety percent (90%) of the normal range of 263.0 KVA, or a value established during the latest stack test, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A reading that is below the above

mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the total power shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

D.1.14 Maintenance of Continuous Opacity Monitoring Equipment and COMS Downtime
[326 IAC 2-7-5(3)(A)(iii)]

- (a) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (b) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.
 - (1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.
 - (2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.
 - (3) Method 9 readings may be discontinued once a COMS is online.
 - (4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.
- (c) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60, Subpart CC

D.1.15 Maintenance of Continuous Emissions Monitoring Equipment and NO_x and SO₂ CEMS Downtime
[326 IAC 2-7-6] [326 IAC 2-7-5(3)]

- (a) In the event that a breakdown of a CEMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (b) Whenever a NO_x continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
- (c) Whenever a SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO₂ emissions:
 - (1) If the CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.

- (2) If the CEMS is down for twenty-four (24) hours or more, the Permittee shall monitor and record the slurry recirculation pH and sorbent injection rate, to demonstrate that the operation of the semi-dry scrubber (Scrubber No. 1) continues in a manner typical for the glass produced and sulfur added to the batch materials.

Scrubber No. 1 parametric readings shall be recorded at least twice per day, with at least four (4) hours between each set of readings, until the primary CEMS or backup CEMS is brought online.

- (d) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emissions monitoring system pursuant to 326 IAC 3-5.

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

D.1.16 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.1 - NOx Limit, the Permittee shall maintain records in accordance with (1) through (3) below, Records shall be complete and sufficient to determine compliance with the NOx limitations established in Condition D.1.1 (a), (b), (c), (e), and (f).
- (1) Data and results from the most recent performance specifications tests, pursuant to 326 IAC 3-5-3.
- (2) All continuous emissions monitoring data, pursuant to 326 IAC 3-5.
- (3) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), for any Operating Day that NOx emissions are excluded from the NOx Emission Rate 30-day rolling average, the Permittee shall maintain the following records.
- (A) The date of the exclusion.
- (B) The exception (Abnormally Low Production Rate Day, Furnace Startup, Control Device Startup, Malfunction, or Maintenance) under which it is excluded.
- (C) For any Operating Day excluded for Maintenance, the total number of hours during which the Maintenance occurred.
- (D) A calculation of the applicable limit in pounds per day.
- (E) The recorded emissions according to the CEMS in pounds per day.
- (b) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1 - NOx Limit, the Permittee shall maintain records in accordance with (1) through (5) below, Records shall be complete and sufficient to determine compliance with the NOx limitations established in Condition D.1.1(d)(1), D.1.1(d)(2)(A), and D.1.1(d)(3)(A).
- (1) Natural gas usage in million standard cubic feet (MMscf) during a Furnace Startup - Initial Heating Phase.
- (2) Natural gas usage in million standard cubic feet (MMscf) during a Furnace Startup - Refractory Soak and Seal Phase.
- (3) Natural gas usage in million standard cubic feet (MMscf) during a Furnace Startup - Furnace Stabilization Phase.

- (4) The date of the qualifying event.
 - (5) The qualifying event (Furnace Startup - Initial Heating Phase, Furnace Startup - Refractory Soak and Seal Phase, or Furnace Startup - Furnace Stabilization Phase) under which the record is being kept.
- (c) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1(d)(2)(D), the Permittee shall maintain a certified statement asserting whether thermal blankets of similar techniques were used during a Furnace Startup - Refractory Soak and Seal Phase. A certified statement shall be maintained for each a Furnace Startup - Refractory Soak and Seal Phase. The certifications shall meet the requirements of 326 IAC 2-7-6(1) and be signed by a "responsible official" as defined by 326 IAC 2-7-1(34).
- (d) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1(d)(2)(B), D.1.1(d)(3)(B), and D.1.11, the Permittee shall maintain once per shift records of the excess oxygen readings, required during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. The Permittee shall include in its daily record when an excess oxygen reading is not taken and the reason for the lack of an excess oxygen reading.
- (e) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1(d)(2)(C), D.1.1(d)(3)(C), and D.1.12, the Permittee shall maintain once per shift records of the Hot Spot Temperature readings, required during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. The Permittee shall include in its daily record when a Hot Spot Temperature reading is not taken and the reason for the lack of a Hot Spot Temperature reading.
- (f) To document the compliance status with Condition D.1.2 - SO₂ Limit, the Permittee shall maintain records in accordance with (1) through (4) below. Records shall be complete and sufficient to determine compliance with the SO₂ limitations established in D.1.2 (c), (e), and (f).
- (1) Data and results from the most recent performance specifications tests, pursuant to 326 IAC 3-5-3.
 - (2) All continuous emissions monitoring data, pursuant to 326 IAC 3-5.
 - (3) Records of all parametric readings taken during any periods of SO₂ CEMS downtime. Condition D.1.15 contains the readings required by this condition.
 - (4) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), for any Operating Day that SO₂ emissions are excluded from the SO₂ Emission Rate 30-day rolling average, the Permittee shall maintain the following records.
 - (A) The date of the exclusion.
 - (B) The exception (Abnormally Low Production Rate Day, Furnace Startup, Furnace Malfunction, Furnace Maintenance, or Color Transition) under which it is excluded.
 - (C) A calculation of the applicable limit in pounds per day.

- (E) The recorded emissions according to the CEMS in pounds per day.
- (g) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.2(d)(1) and D.1.2(d)(2), during Control Device Startup or up the first seven (7) days of Furnace Startup, the Permittee shall maintain records in accordance with (1) through (3) below. The records shall be complete and sufficient to determine compliance with Condition D.1.2(d)(1) and D.1.2(d)(2).
- (1) The amount of sulfur added to the batch materials in pounds per ton of total batch material (including cullet).
 - (2) The date of the qualifying event.
 - (3) The qualifying event (Control Device Startup or up to the first seven (7) days of a Furnace Startup) under which the record is being kept.
- (h) To document the compliance status with Condition D.1.2(d)(3), during Control Device Startup or up the first seven (7) days of Furnace Startup, the Permittee shall maintain records of the amount of natural gas combusted (MMscf) in the furnace on days when the furnace exhaust is bypassing the Scrubber System (Scrubber No. 1).
- (i) To document the compliance status with Condition D.1.3 - PM (Filterable) and Total PM Limit, the Permittee shall maintain records in accordance with (1) through (3) below, Records shall be complete and sufficient to determine compliance with the PM limitations established in D.1.3 (c) and (d).
- (1) The amount of glass produced by Furnace No. 1 and Furnace No. 2, combined, on a daily basis.
 - (2) Pounds of PM measured from the entire length of the most recent valid compliance test and the length of the test (including all runs).
 - (3) A calculation of the daily PM _{EMISSION RATE} in pounds per ton glass.
- (j) To document the compliance status with Condition D.1.6 - Maintenance, the Permittee shall maintain records in accordance with (1) through (3) below, Records shall be complete and sufficient to determine compliance with the PM limitations established in D.1.6.
- (1) Annual hours of scheduled or preventive maintenance for each Furnace.
 - (2) Number of hours, per Calendar year, ESP No. 1 is bypassed during control system maintenance.
 - (3) Number of hours, per Calendar year, Scrubber No. 1 is bypassed during control system maintenance.
- (k) To document the compliance status with Condition D.1.13, the Permittee shall maintain daily records of the KVA (Kilovolt-Amperes) of the T-R sets. The Permittee shall include in its daily record when a recording is not taken and the reason for the lack of a recording, (i.e., the process did not operate that day).
- (l) To document the compliance status with Condition D.1.14, the Permittee shall maintain the following records:

- (1) Data and results from the most recent stack test.
 - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.
 - (3) The results of Method 9 visible emission readings taken during periods of COM downtime.
- (m) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to the IDEM, OAQ.

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

D.1.17 Reporting Requirements

- (a) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.1 (a), (b), (c), (d)(1), (d)(2)(A), (d)(3)(A), (e), and (f) - NO_x Limit shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (b) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.2 (c), (d), (e), and (f) - SO₂ Limit shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (c) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.3 (c) and (d) - PM (Filterable) and Total PM Limit shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (d) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.6 - Maintenance shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (e) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:
 - (1) Date of downtime.
 - (2) Time of commencement.
 - (3) Duration of each downtime.
 - (4) Reasons for each downtime.
 - (5) Nature of system repairs and adjustments.
- (f) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), performance standards, emissions limits, and other quantitative standards set by or under the Consent Decree must be met to the number of significant digits in which the standard or limit is expressed. The Permittee shall report data to the number of significant digits in which the standard or limit is expressed.
- (g) These reports shall be submitted not later than thirty (30) calendar days following the end of each calendar quarter. Section C – General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2

FACILITY OPERATION CONDITIONS

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

- (a) One (1) hot end treatment facility, consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, and having a maximum throughput capacity of 4.0 pounds per hour and exhausting through building ventilation system.
- (b) One (1) hot end treatment facility consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, and having a maximum throughput capacity of 4.0 pounds per hour and exhausting through building ventilation system.
- (f) One (1) mold swabbing facility consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, and having a maximum combined capacity of 4.0 pounds of swabbing material per hour and exhausting through building ventilation system.
- (g) One (1) mold swabbing facility consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, and having a maximum combined capacity of 4.0 pounds of swabbing material per hour and exhausting through building ventilation system.
- (h) One (1) sandblaster, installed in 2007, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside.
- (i) One (1) sandblaster, installed in 2006, located in the mold shop, controlled by a dust collector (identified as Econoline), and exhausting outside.
- (j) One (1) sandblaster, installed in 2001, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside.

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

Emission Limitations and Standards

D.2.1 Particulate [326 IAC 6-3-2]

- (a) Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from each of the two (2) mold swabbing facilities and two (2) hot end treatment facilities shall not exceed 0.551 pounds per hour, when operating at a process weight rate of less than 100 pounds per hour.
- (b) Pursuant to 326 IAC 6-3-2, the particulate matter emissions from the three (3) sandblasters shall not exceed 1.39 pounds per hour each when operating at a process weight rate of 0.20 tons per hour each. 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:

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

SECTION D.3 FACILITY OPERATION CONDITIONS

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

(c) One (1) batch handling facility servicing melting furnace No. 1, constructed in 1993, with a maximum capacity of 26.04 tons of raw material per hour, venting inside the building.

(d) One (1) batch handling facility servicing melting furnace No. 2, constructed in 1993, with a maximum capacity of 28.65 tons of raw material per hour, venting inside the building.

(e) One (1) raw material handling process consisting of one (1) raw material storage bin, constructed in 2003, with a maximum throughput rate of 560 pounds of iron oxide per hour, controlled by one (1) dust collector, and venting inside the silo. The raw material is transferred to the storage bin using a pneumatic conveyance system.

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

Emission Limitations and Standards

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

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the two (2) batching handling facilities and one (1) raw storage bin shall not exceed the particulate emission limit as shown in the table below.

Emission Units	Process Weight		Particulate Emission Limit (lbs/hour)
	(lbs/hour)	(tons/hour)	
Batch handling facility servicing furnace No. 1	52,080	26.04	36.40
Batch handling facility servicing furnace No. 2	57,292	28.65	38.82
Raw material handling used in conjunction with raw material storage bin	560	0.28	1.75

The pounds 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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour, and} \\ P = \text{process weight rate in tons per hour.}$$

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan is required for these facilities and one (1) dust collector controlling the raw storage bin. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

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

D.3.3 Visible Emissions Notations

- (a) Visible emission notations of the two (2) batch handling facilities (servicing furnace No. 1 and 2) stack exhaust shall be performed once per week during normal daylight operations

when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal reading is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

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

D.3.4 Record Keeping Requirements

- (a) To document the compliance status with Condition D.3.3, the Permittee shall maintain weekly records of visible emission notations of the two (2) batch handling facilities (servicing furnace No. 1 and 2) stack exhaust. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day, or was not venting to atmosphere).
- (b) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.4 FACILITY OPERATION CONDITIONS

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

- (c) One (1) grinding operation, installed in 1994, located in the mold shop, controlled by a dust collector (identified as Wheelabrator), and exhausting outside.
- (d) One (1) soda ash silo, identified as Silo No. 1, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S1. The soda ash is pneumatically conveyed to a scrubber.
- (e) One (1) ESP dust silo, identified as Silo No. 2, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S2.

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

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

D.4.1 Prevention of Significant Deterioration (PSD) Minor Limit PM/PM₁₀ [326 IAC 2-2]

(a) The source shall comply with the following limits:

Process/Emission Units	Year of Construction	PM (lbs/hour)	PM10 (lbs/hour)
Grinding Operation	1994	5.70	3.42

Compliance with the above limits shall limit the potential to emit of PM and PM₁₀ from the grinding operation to less than 25 and 15 tons per year, respectively, and will render the provisions of 326 IAC 2-2 (PSD) not applicable to the 1994 modification.

(b) Pursuant to 326 IAC 2-2 (PSD), and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable to the Furnace No. 2 cold rebuild and control device installation modification (Significant Source Modification No. 075-29643-00004), the Permittee shall comply with the following limits.

- (1) The PM and PM₁₀ emissions from the bin vent controlling the soda ash silo (Silo No. 1) shall each not exceed 1.40 pounds per hour.
- (2) The PM and PM₁₀ emissions from the bin vent controlling the ESP dust silo (Silo No. 2) shall each not exceed 1.40 pounds per hour.

Compliance with these limits shall ensure that the PM and PM₁₀ emissions increase from the Furnace No. 2 cold rebuild and control device installation modification (Significant Source Modification No. 075-29643-00004) shall be less than twenty-five (25) and fifteen (15) tons, respectively, per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-2 (PSD) are rendered not applicable.

D.4.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) shall not exceed the particulate emission limit as shown in the table below.

Emission Units	Process Weight		Particulate Emission Limit (lbs/hour)
	(lbs/hour)	(tons/hour)	
Soda ash silo	40,000	20.0	30.51
ESP dust silo	40,000	20.0	30.51

The pounds per hour limitations were 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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour, and} \\ P = \text{process weight rate in tons per hour.}$$

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

A Preventive Maintenance Plan is required for these facilities and the associated control devices. 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.4.4 Particulate Control

- (a) In order to comply with Condition D.4.1(a), the dust collectors for particulate control shall be in operation and control emissions from the mold shop machine operations at all times that the mold shop machine facilities are in operation.
- (b) In order to comply with Conditions D.4.1(b) and D.4.2, the dust collectors for particulate control shall be in operation and control emissions from the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) at all times that the associated silo is in operation.
- (c) In the event that control failure is observed, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Nor later than 180 days of the issuance of Part 70 permit (T075-17108-00004), in order to demonstrate compliance with Condition D.4.1, the Permittee shall perform PM and PM₁₀ testing for the grinding operation utilizing methods as approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. 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.

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

D.4.6 Visible Emissions Notations

- (a) Daily visible emission notations of the Wheelabrator dust collector's exhaust shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal.
- (b) Visible emission notations of the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) dust collectors' stack exhausts shall be performed once per week during normal daylight loading operations. A trained employee shall record whether emissions are normal or abnormal.
- (c) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (d) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (e) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (f) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal reading is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

D.4.7 Parametric Monitoring

The Permittee shall record the pressure drop across the dust collectors used in conjunction with the mold shop machine operations, at least once per day when the mold shop machine operations is in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

D.4.8 Dust Collector Inspections

An inspection shall be performed each calendar quarter of all the dust collectors controlling the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2). All defective filters shall be replaced.

D.4.9 Broken or Failed Cartridge Detection

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

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

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

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

D.4.10 Record Keeping Requirements

- (a) To document the compliance status with Condition D.4.6, the Permittee shall maintain daily records of the visible emission notations of the mold shop machine facilities dust collectors' exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that day).
- (b) To document the compliance status with Condition D.4.6, the Permittee shall maintain records of the once per week visible emission notations of the Silo No. 1 and Silo No. 2 dust collectors' exhausts. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that week).
- (c) To document the compliance status with Condition D.4.8, the Permittee shall maintain records of the results of the inspections required under Condition D.4.8.
- (d) To document the compliance status with Condition D.4.9, the Permittee shall maintain daily records of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (i.e. the process did not operate that day).
- (e) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION E.1

FACILITY OPERATION CONDITIONS

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

- (a) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 1, constructed in 1993, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1. [40 CFR 60, Subpart CC]

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (b) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 2, constructed in 1998 and approved in 2011 for cold rebuild, with a maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2. [40 CFR 60, Subpart CC]

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

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

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

E.1.1 General Provisions Relating to NSPS CC [326 IAC 12] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR 60, Subpart CC.

E.1.2 Standards of Performance for Glass Manufacturing Plants [326 IAC 12] [40 CFR Part 60, Subpart CC]

The Permittee who owns/operates glass melting furnace for which construction, reconstruction, or modification is commenced after June 15, 1979 shall comply with the following provisions of 40 CFR Part 60, Subpart CC (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, as specified as follows:

- (1) 40 CFR 60.290 (a) and (b)
- (2) 40 CFR 60.291
- (3) 40 CFR 60.293
- (4) 40 CFR 60.296

After each furnace is connected to the ESP, the Permittee who owns/operates glass melting furnace for which construction, reconstruction, or modification is commenced after June 15, 1979 shall comply with the following provisions of 40 CFR 60, Subpart CC (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12 for that respective furnace, and specified as follows:

- (5) 40 CFR 60.290 (and) and (b)
- (6) 40 CFR 60.291
- (7) 40 CFR 60.292
- (8) 40 CFR 60.296

SECTION E.2

FACILITY OPERATION CONDITIONS

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

- (k) Two (2) diesel-fired emergency generators, identified as GEN4 and GEN5, approved in 2011 for construction, each with a maximum rating of 750 kW. [40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]

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

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

E.2.1 General Provisions Relating to NSPS IIII [326 IAC 12] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR 60, Subpart IIII.

E.2.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [326 IAC 12] [40 CFR Part 60, Subpart IIII]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, as specified as follows:

- (1) 40 CFR 60.4200 (a)(2)(i) and (c)
- (2) 40 CFR 60.4205(b)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(b)
- (5) 40 CFR 60.4208
- (6) 40 CFR 60.4209(a)
- (7) 40 CFR 60.4211 (a), (c), and (e)
- (8) 40 CFR 60.4214 (b)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 8 to Subpart IIII of Part 60 - Applicability of General Provisions to Subpart IIII

SECTION E.3

FACILITY OPERATION CONDITIONS

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

- (k) Two (2) diesel-fired emergency generators, identified as GEN4 and GEN5, approved in 2011 for construction, each with a maximum rating of 750 kW. [40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]
- (l) Three (3) diesel-fired emergency generators, identified as GEN1, GEN2, and GEN3, each with a maximum rating not to exceed one thousand six hundred (1,600) horsepower (Hp). [40 CFR 63, Subpart ZZZZ]

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.3.1 General Provisions Relating to NESHAP ZZZZ [326 IAC 20-1] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 63, Subpart ZZZZ, 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 as otherwise specified in 40 CFR 63, Subpart ZZZZ.

E.3.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [326 IAC 20-82] [40 CFR Part 63, Subpart ZZZZ]

Pursuant to 40 CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 20-82, as specified as follows:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585 (a), (b), (c), and (d)
- (3) 40 CFR 63.6590 (a)(1)(iii), (a)(1)(iv), (a)(2)(iii), and (c)(1)
- (4) 40 CFR 63.6595 (a)(1), (a)(7), (b), and (c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625 (e)(3), (f), (h), and (i)
- (8) 40 CFR 63.6640 (a), (b), (d), (e), (f)(1)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6650 (e) and (f)
- (11) 40 CFR 63.6660
- (12) 40 CFR 63.6665
- (13) 40 CFR 63.6670
- (14) 40 CFR 63.6675
- (15) Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions
- (16) Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance with Emission Limitations, Work Practices, and Management Practices
- (17) Table 8 to Subpart ZZZZ of Part 63 - Applicability of General Provisions to Subpart ZZZZ

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Saint-Gobain Containers
Source Address: 524 East Center Street, Dunkirk, Indiana 47336
Part 70 Permit No.: T075-17108-00004

**This certification shall be included when submitting monitoring, testing reports/results
or other documents as required by this permit.**

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify)
- Report (specify)
- Notification (specify)
- Affidavit (specify)
- Other (specify)

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Saint-Gobain Containers
Source Address: 524 East Center Street, Dunkirk, Indiana 47336
Part 70 Permit No.: T075-17108-00004

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) |
| X 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 |
| X The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16. |

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

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

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

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

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

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

Source Name: Saint-Gobain Containers
Source Address: 524 East Center Street, Dunkirk, Indiana 47336
Part 70 Permit No.: T075-17108-00004

Months: _____ to _____ Year: _____

Page 1 of 2

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

**Indiana Department of Environmental Management
Office of Air Quality**

Attachment A

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), terms used throughout the Consent Decree that are defined in the Act or in federal regulations promulgated pursuant to the Act shall have the meanings assigned to them in the Act or such regulations, unless otherwise provided in the Consent Decree. Whenever the terms set forth below are used in the Consent Decree, the following definitions shall apply:

- a. *"24-hour Block Average"* shall be calculated by averaging the twenty-four (24) one-hour relevant data outputs (concentration or pounds) for a given Day and using the daily glass production rates (tons) on that Operating Day where applicable.
- b. *"Affected State(s)"* shall mean any local agency Plaintiff-Intervenor or State Plaintiff-Intervenor and its agencies and political subdivisions having jurisdiction over a Facility addressed in the Consent Decree, which includes the State of Indiana and the Indiana Department of Environmental Management.
- c. *"Abnormally Low Production Rate"* shall mean a glass production rate at or below the production rate set forth in definition d below.
- d. *"Abnormally Low Production Rate Day"* shall mean any Operating Day where production falls into the range of Abnormally Low Production Rate, for at least one continuous hour.

"Abnormally Low Production Rate" (P) shall mean a glass production rate at or below the following:

- (a) Furnace No. 1; P = 175 tons of glass per day *
- (b) Furnace No. 2; P = 193 tons of glass per day *

* Unless capacity subsequently increases as authorized by a revised permit. If production is increased by a permit, the *"Abnormally Low Production Rate" (P)* shall be thirty-five percent (35%) of the new permitted production (or design production, where there is no permitted production) as determined on a daily basis (for the purpose of defining the *"Abnormally Low Production Rate"*)

- e. *"Calendar Year"* shall mean the period commencing on January 1 and ending on December 31 of the same year.
- f. *"CEMS"* means Continuous Emission Monitoring System.
- g. *"CEMS Certification"* means the certification of the CEMS required by 40 C.F.R. § 60.13, 40 C.F.R. Part 60 Appendix B (Performance Specification 2) and 40 C.F.R. Part 60 Appendix F (Quality Assurance Procedures).
- h. *"CEMS Certification Event"* shall mean an event that triggers the requirement to complete a first or subsequent CEMS Certification. The first CEMS Certification shall not be required until December 31, 2012 for the NO_x and SO₂ CEMS for Furnaces 1 and 2. Events that will trigger subsequent CEMS Certification include a Furnace Startup or a First Control Device Startup. SGCI shall commence such recertification no later than thirty (30) days after the Furnace Startup period concludes (but no later than seventy (70) Days after Furnace Startup commences) or First Control Device Startup period concludes. If a Furnace Startup and a First Control Device Startup

happen at the same time, then the recertification shall not be conducted until the first Operating Day after the conclusion of the later startup event.

- i. *"Color Transition"* shall mean the period of not more than seven Days from the time when a glass color of an oxidation state different from that previously melted in the Furnace, is introduced to the Furnace, to the time when saleable glass bottles are being produced in the new color.
- j. *"COMS"* shall mean a Continuous Opacity Monitoring System.
- k. *"Continuous Operating Year"* shall mean a Calendar Year during which, on every day of the year, at least one of the Furnaces connected to a control system is Operating.
- l. *"Control Device Startup"* shall mean the period of time from commencement of operation of a Scrubber System, ESP, or similar add-on control device until the operation of the device has been stabilized and the device has achieved normal operating conditions. Such period shall not exceed thirty (30) Days.
- m. *"Day"* shall mean a calendar day unless expressly stated to be a working day or unless a State rule requires that CEMs data be reported on Standard time (with no change for Daylight Savings Time). In computing any period of time for determining reporting deadlines under the Consent Decree, where the last day would fall on a Saturday, Sunday, or federal or State holiday, in the State where the Facility is located, the period shall run until the close of business of the next working day.
- n. *"Emission Rate 30-day Rolling Average"* shall be expressed as pounds of pollutant per ton of glass produced calculated at the Furnace in question in accordance with the following formula and Subparagraphs i. and ii below:

$$30\text{-day average (lb E/ton)} = [\text{COD}_E \text{ (lbs)} + \text{P29D}_E \text{ (lbs)}] / [\text{COD}_{\text{PROD}} \text{ (tons)} + \text{P29D}_{\text{PROD}} \text{ (tons)}]$$

Where: 30-day average (lb E/ton) = The Emission Rate 30-day Rolling Average E = Emissions of the pollutant in question (NO_x or SO₂)

COD = Current Operating Day where the relevant Emission Rate 30-day Rolling Average is the applicable limit.

COD_E = The daily Emissions as measured by a CEMS on the COD, in pounds.

COD_{PROD} = Daily glass production on the COD, in tons of glass.

P29D = The Previous 29 Operating Days where the relevant Emission Rate 30-day Rolling Average is the applicable limit.

P29D_E = The sum of the daily NO_x or SO₂ Emissions as measured by a CEMS during the P29D, in pounds.

P29D_{PROD} = The sum of the daily glass production during the P29D, in tons of glass.

- i. A new Emission Rate 30-day Rolling Average shall be calculated for each new Operating Day where the Emission Rate 30-day Rolling Average is the applicable standard. Any Operating Day where the newly calculated Emission Rate 30-day Rolling Average exceeds the limit is a separate one Day violation; and
 - ii. As specified in Paragraphs 7-9 of the Consent Decree, some Operating Days will be excluded from the Emission Rate 30-day Rolling Average.
- o. *"First Control Device Startup"* shall only refer to the first startup of the relevant add-on control device (a Scrubber System, ESP, or similar add-on control). First Control Device Startup shall represent the period of time from commencement of operation of the device until the operation of the device has been stabilized and the device has achieved normal operating conditions, but shall not exceed thirty (30) Days.

- p. *"Furnace"* means for the purposes of NSPS only, a refractory vessel in which raw materials are charged, melted at high temperature, refined, and conditioned to produce molten glass which includes foundations, superstructure and retaining walls, raw material charger systems, heat exchangers, melter cooling system, exhaust system, refractory brick work, fuel supply and electrical boosting equipment, integral control systems and instrumentation, and appendages for conditioning and distributing molten glass to forming apparatuses. For all other purposes, *"Furnace"* means a unit comprised of a refractory-lined vessel in which raw materials are charged and melted at high temperature to produce molten glass.
- q. *"Furnace Startup"* means the period of time while a Furnace's refractory is being heated up from ambient temperature and includes the Initial Heating Phase, Refractory Soak and Seal Phase, and Furnace Stabilization Phase.
- i. *"Initial Heating Phase"* means the slow heating of the Furnace refractory using portable natural-gas burners placed in the openings in the Furnace. This phase typically lasts no longer than four (4) Days and ends when the main Furnace burners commence operation.
- ii. *"Refractory Soak and Seal Phase"* means the phase of the furnace Startup following the Initial Heating Phase when the Furnace is filled with molten glass, the temperature of the Furnace reaches operating conditions, and the refractory components reach thermal equilibrium. This phase typically lasts no longer than twenty-one (21) Days and ends when the joints between the refractory components are sealed and the Furnace is closed to the atmosphere.
- iii. *"Furnace Stabilization Phase"* means the phase of Furnace Startup following the Refractory Soak and Seal Phase when the Furnace Operation is being stabilized. This phase will end no later than seventy (70) Days after the beginning of the Initial Heating Phase.
- r. *"Hot Spot Temperature"* shall mean the highest temperature of the Furnace breastwall refractory. Breastwall refractory is the refractory sidewall between the tuck stone (about 18" above glass line) and the crown skew (where the Furnace crown meets the Furnace sidewall).
- s. *"Inlet"* shall be the emission concentration (in parts per million by volume dry) measured prior to the control device.
- t. *"Maintenance"* shall mean activities necessary to keep the system or equipment working in its normal operating condition as set forth in below:
- i. Scheduled or preventative Furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) Operating hours annually and shall be conducted only when any downstream control devices required by the Consent Decree (Scrubber or ESP), if applicable, are operating.
- ii. Control system scheduled or preventative Maintenance – Scheduled or preventative Maintenance of the emission control system shall occur when the Furnace(s) connected to the control system are not Operating. However, for any Calendar Year which is a Continuous Operating Year, scheduled or preventative maintenance may be conducted while the Furnace(s) are Operating. During these Continuous Operating Years, Maintenance lasting greater than twenty-four consecutive hours shall occur only during Abnormally Low Production Rate Days. Control system Maintenance must be done in compliance with the following:

- A. Bypass of the ESP shall not exceed 144 hours annually in any Calendar Year. Furthermore if the ESP is bypassed, the Scrubber System must be bypassed as well.
 - B. Bypass of the Scrubber System shall not exceed 144 hours annually in any Calendar Year. Bypass of the Scrubber System required by the bypass of the ESP shall be included in the 144 hours.
- u. *“Major Rebuild”* shall refer to the process of stopping glass production, stopping the flow of fuel, fully cooling down a Furnace, replacing some or all of the refractory in the Furnace, the crown and/or the regenerators (if applicable), and beginning a new campaign by starting up the Furnace again by firing fuel again and starting the production of glass. A Major Rebuild, for the purposes of the Consent Decree, does not include any refractory repairs conducted when the Furnace is still hot, emergency cold repairs, repairs solely required for restart of a Furnace which has temporarily ceased Operation due to economic reasons.
 - v. *“Malfunction”* shall mean, consistent with 40 C.F.R. § 60.2, 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, but shall not include failures that are caused in part by poor Maintenance or careless operation.
 - w. *“Month”* shall mean calendar month.
 - x. *“NOx”* shall mean the sum of oxides of nitrogen in the flue gas, collectively expressed as NO₂.
 - y. *“Operate”, “Operation”, “Operating”, and “Operated”* shall mean when fuel is fired in the Furnace.
 - z. *“Operating Day”* shall mean any Day where any fuel is fired into the Furnace. The Day starts at 12:00 am and ends at 11:59 pm.
 - aa. *“Outlet”* shall mean the emission concentration (in parts per million by volume dry) measured after a control device.
 - bb. *“Outlet 30-day Rolling Average”* is a term which applies only to SO₂ and shall be calculated by determining the Outlet 24-hour Block Average concentration from each Furnace (or combined stack, if applicable) during an Operating Day and previous twenty-nine (29) Operating Days when Outlet 30-day Rolling Average was the applicable standard. A new Outlet 30-day Rolling Average shall be calculated for each Operating Day. Any Operating Day where the newly calculated Outlet 30-day Rolling Average exceeds the limit is a separate one Day violation. As specified in the Consent Decree, the following Operating Days are exempt from this average: Control Device Startup, Malfunction of the control device (Scrubber System, CCSS, or ESP) and Maintenance on the control device (Scrubber System, CCSS, or ESP).
 - cc. *“Oxyfuel Furnace”* shall mean a Furnace in which the gas that provides the oxidant for combustion of the fuel is composed of greater than or equal to 90 percent oxygen.
 - dd. *“Particulate Matter”* and *“PM”* shall mean any finely divided solid or liquid material, other than uncombined water, as measured by the reference methods specified below:
 - i. Filterable Particulate is the particulate measured using EPA Method 5 (40 C.F.R. Part 60 Appendix A).
 - ii. Total particulate is the combination of filterable plus condensable PM and is measured using Method 5 (40 C.F.R. Part 60 Appendix A) and EPA Method 202: (40 C.F.R. Part 51 Appendix M).

- ee. *“Removal Efficiency”* for SO₂ means the percent reduction in concentration of that pollutant achieved by a Furnace’s pollution control device. This percent reduction shall be calculated by subtracting the Outlet from the Inlet, dividing by the Inlet and then multiplying by 100.
- ff. *“Removal Efficiency 30-day Rolling Average”* is a term which applies to SO₂ emissions and shall be calculated by summing the Removal Efficiency 24-hour Block Averages from each Furnace (or combined stack, if applicable) for each Operating Day and previous twenty-nine (29) Operating Days when Removal Efficiency 30-day Rolling Average was the applicable standard and then dividing by 30. A new Removal Efficiency 30- day Rolling Average shall be calculated for each new Operating Day. As specified in the Consent Decree, the following Operating Days are exempt from this average: Control Device Startup of the Scrubber System or ESP; Malfunction of the Scrubber System or ESP; and Maintenance on the Scrubber System or ESP.
- gg. *“Scrubber System”* shall mean a type of system known sometimes as a sorbent injection system which involves the addition of an alkaline material into the gas stream to react with the acid gases. The acid gases react with the alkaline sorbents to form solid salts.
 - i. Semi-dry Scrubber System – The system described above with the sorbent in an aqueous phase which improves collection efficiency.
- hh. *“SO₂”* shall mean the pollutant sulfur dioxide.
- ii. *“Ton”* or *“tons”* shall mean short ton or short tons (equal to 2000 pounds).
- jj. *“TSP”* shall mean total suspended particulate.

**Indiana Department of Environmental Management
Office of Air Quality**

Attachment B

40 CFR 60, Subpart CC—Standards of Performance for Glass Manufacturing Plants

§ 60.290 Applicability and designation of affected facility.

(a) Each glass melting furnace is an affected facility to which the provisions of this subpart apply.

(b) Any facility under paragraph (a) of this section that commences construction or modification after June 15, 1979, is subject to the requirements of this subpart.

(c) This subpart does not apply to hand glass melting furnaces, glass melting furnaces designed to produce less than 4.55 Mg (5 tons) of glass per day and all-electric melters.

[45 FR 66751, Oct. 7, 1980, as amended at 65 FR 61759, Oct. 17, 2000]

§ 60.291 Definitions.

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

All-electric melter means a glass melting furnace in which all the heat required for melting is provided by electric current from electrodes submerged in the molten glass, although some fossil fuel may be charged to the furnace as raw material only.

Borosilicate recipe means glass product composition of the following approximate ranges of weight proportions: 60 to 80 percent silicon dioxide, 4 to 10 percent total R₂O (e.g., Na₂O and K₂O), 5 to 35 percent boric oxides, and 0 to 13 percent other oxides.

Container glass means glass made of soda-lime recipe, clear or colored, which is pressed and/or blown into bottles, jars, ampoules, and other products listed in Standard Industrial Classification 3221 (SIC 3221).

Experimental furnace means a glass melting furnace with the sole purpose of operating to evaluate glass melting processes, technologies, or glass products. An experimental furnace does not produce glass that is sold (except for further research and development purposes) or that is used as a raw material for nonexperimental furnaces.

Flat glass means glass made of soda-lime recipe and produced into continuous flat sheets and other products listed in SIC 3211.

Flow channels means appendages used for conditioning and distributing molten glass to forming apparatuses and are a permanently separate source of emissions such that no mixing of emissions occurs with emissions from the melter cooling system prior to their being vented to the atmosphere.

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

Glass produced means the weight of the glass pulled from the glass melting furnace.

Hand glass melting furnace means a glass melting furnace where the molten glass is removed from the furnace by a glassworker using a blowpipe or a pontil.

Lead recipe means glass product composition of the following ranges of weight proportions: 50 to 60 percent silicon dioxide, 18 to 35 percent lead oxides, 5 to 20 percent total R₂O (e.g., Na₂O and K₂O), 0 to 8 percent total R₂O₃ (e.g., Al₂O₃), 0 to 15 percent total RO (e.g., CaO, MgO), other than lead oxide, and 5 to 10 percent other oxides.

Pressed and blown glass means glass which is pressed, blown, or both, including textile fiberglass, noncontinuous flat glass, noncontainer glass, and other products listed in SIC 3229. It is separated into:

- (1) Glass of borosilicate recipe.
- (2) Glass of soda-lime and lead recipes.
- (3) Glass of opal, fluoride, and other recipes.

Rebricking means cold replacement of damaged or worn refractory parts of the glass melting furnace. Rebricking includes replacement of the refractories comprising the bottom, sidewalls, or roof of the melting vessel; replacement of refractory work in the heat exchanger; replacement of refractory portions of the glass conditioning and distribution system.

Soda-lime recipe means glass product composition of the following ranges of weight proportions: 60 to 75 percent silicon dioxide, 10 to 17 percent total R₂O (e.g., Na₂O and K₂O), 8 to 20 percent total RO but not to include any PbO (e.g., CaO, and MgO), 0 to 8 percent total R₂O₃ (e.g., Al₂O₃), and 1 to 5 percent other oxides.

Textile fiberglass means fibrous glass in the form of continuous strands having uniform thickness.

With modified-processes means using any technique designed to minimize emissions without the use of add-on pollution controls.

Wool fiberglass means fibrous glass of random texture, including fiberglass insulation, and other products listed in SIC 3296.

[45 FR 66751, Oct. 7, 1980, as amended at 49 FR 41035, Oct. 19, 1984; 65 FR 61759, Oct. 17, 2000]

§ 60.292 Standards for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator of a glass melting furnace subject to the provisions of this subpart shall cause to be discharged into the atmosphere—

- (1) From any glass melting furnace fired exclusively with either a gaseous fuel or a liquid fuel, particulate matter at emission rates exceeding those specified in table CC–1, Column 2 and Column 3, respectively, or
- (2) From any glass melting furnace, fired simultaneously with gaseous and liquid fuels, particulate matter at emission rates exceeding STD as specified by the following equation:

$$\text{STD} = X [1.3(Y) + (Z)]$$

Where:

STD=Particulate matter emission limit, g of particulate/kg (lb of particulate/ton) of glass produced.

X=Emission rate specified in table CC–1 for furnaces fired with gaseous fuel (Column 2).

Y=Decimal fraction of liquid fuel heating value to total (gaseous and liquid) fuel heating value fired in the glass melting furnaces as determined in §60.296(b). (joules/joules).

$Z=(1-Y)$.

(b) Conversion of a glass melting furnace to the use of liquid fuel is not considered a modification for the purposes of §60.14.

(c) Rebricking and the cost of rebricking is not considered a reconstruction for the purposes of §60.15.

(d) An owner or operator of an experimental furnace is not subject to the requirements of this section.

(e) During routine maintenance of add-on pollution controls, an owner or operator of a glass melting furnace subject to the provisions of paragraph (a) of this section is exempt from the provisions of paragraph (a) of this section if:

(1) Routine maintenance in each calendar year does not exceed 6 days;

(2) Routine maintenance is conducted in a manner consistent with good air pollution control practices for minimizing emissions; and

(3) A report is submitted to the Administrator 10 days before the start of the routine maintenance (if 10 days cannot be provided, the report must be submitted as soon as practicable) and the report contains an explanation of the schedule of the maintenance.

Table CC-1— Emission Rates

[g of particulate/kg of glass produced]

Col. 1—Glass manufacturing plant industry segment	Col. 2—Furnace fired with gaseous fuel	Col. 3—Furnace fired with liquid fuel
Container glass	0.1	0.13
Pressed and blown glass		
(a) Borosilicate Recipes	0.5	0.65
(b) Soda-Lime and Lead Recipes	0.1	0.13
(c) Other-Than Borosilicate, Soda-Lime, and Lead Recipes (including opal, fluoride, and other recipes)	0.25	0.325
Wool fiberglass	0.25	0.325
Flat glass	0.225	0.225

[45 FR 66751, Oct. 7, 1980, as amended at 49 FR 41035, Oct. 19, 1984; 54 FR 6674, Feb. 14, 1989; 65 FR 61759, Oct. 17, 2000]

§ 60.293 Standards for particulate matter from glass melting furnace with modified-processes.

(a) An owner or operator of a glass melting furnaces with modified-processes is not subject to the provisions of §60.292 if the affected facility complies with the provisions of this section.

(b) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator of a glass melting furnace with modified-processes subject to the provisions of this subpart shall cause to be discharged into the atmosphere from the affected facility:

(1) Particulate matter at emission rates exceeding 0.5 gram of particulate per kilogram of glass produced (g/kg) as measured according to paragraph (e) of this section for container glass, flat glass, and pressed and blown glass with a soda-lime recipe melting furnaces.

(2) Particulate matter at emission rates exceeding 1.0 g/kg as measured according to paragraph (e) of this section for pressed and blown glass with a borosilicate recipe melting furnace.

(3) Particulate matter at emission rates exceeding 0.5 g/kg as measured according to paragraph (e) of this section for textile fiberglass and wool fiberglass melting furnaces.

(c) The owner or operator of an affected facility that is subject to emission limits specified under paragraph (b) of this section shall:

(1) Install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from the affected facility.

(2) During the performance test required to be conducted by §60.8, conduct continuous opacity monitoring during each test run.

(3) Calculate 6-minute opacity averages from 24 or more data points equally spaced over each 6-minute period during the test runs.

(4) Determine, based on the 6-minute opacity averages, the opacity value corresponding to the 99 percent upper confidence level of a normal distribution of average opacity values.

(5) For the purposes of §60.7, report to the Administrator as excess emissions all of the 6-minute periods during which the average opacity, as measured by the continuous monitoring system installed under paragraph (c)(1) of this section, exceeds the opacity value corresponding to the 99 percent upper confidence level determined under paragraph (c)(4) of this section.

(d)(1) After receipt and consideration of written application, the Administrator may approve alternative continuous monitoring systems for the measurement of one or more process or operating parameters that is or are demonstrated to enable accurate and representative monitoring of an emission limit specified in paragraph (b) of this section.

(2) After the Administrator approves an alternative continuous monitoring system for an affected facility, the requirements of paragraphs (c) (1) through (5) of this section will not apply for that affected facility.

(e) An owner or operator may redetermine the opacity value corresponding to the 99 percent upper confidence level as described in paragraph (c)(4) of this section if the owner or operator:

(1) Conducts continuous opacity monitoring during each test run of a performance test that demonstrates compliance with an emission limit of paragraph (b) of this section,

(2) Recalculates the 6-minute opacity averages as described in paragraph (c)(3) of this section, and

(3) Uses the redetermined opacity value corresponding to the 99 percent upper confidence level for the purposes of paragraph (c)(5) of this section.

(f) Test methods and procedures as specified in §60.296 shall be used to determine compliance with this section except that to determine compliance for any glass melting furnace using modified processes and fired with either a gaseous fuel or a liquid fuel containing less than 0.50 weight percent sulfur, Method 5 shall be used with the probe and filter holder heating system in the sampling train set to provide a gas temperature of 120 ± 14 °C (248 ± 25 °F).

[49 FR 41036, Oct. 19, 1984, as amended at 64 FR 7466, Feb. 12, 1999; 65 FR 61759, Oct. 17, 2000]

§§ 60.294-60.295 [Reserved]

§ 60.296 Test methods and procedures.

(a) If a glass melting furnace with modified processes is changed to one without modified processes or if a glass melting furnace without modified processes is changed to one with modified processes, the owner or operator shall notify the Administrator at least 60 days before the change is scheduled to occur.

(b) When gaseous and liquid fuels are fired simultaneously in a glass melting furnace, the owner or operator shall determine the applicable standard under §60.292(a)(2) as follows:

(1) The ratio (Y) of liquid fuel heating value to total (gaseous and liquid) fuel heating value fired in the glass melting furnaces shall be computed for each run using the following equation:

$$Y=(H_lL)/(H_lL+H_gG)$$

where:

Y=decimal fraction of liquid fuel heating value to total fuel heating value.

H_l=gross calorific value of liquid fuel, J/kg.

H_g=gross calorific value of gaseous fuel, J/kg.

L=liquid flow rate, kg/hr.

G=gaseous flow rate, kg/hr.

(2) Suitable methods shall be used to determine the rates (L and G) of fuels burned during each test period and a material balance over the glass melting furnace shall be used to confirm the rates.

(3) ASTM Method D240–76 or 92 (liquid fuels) and D1826–77 or 94 (gaseous fuels) (incorporated by reference—see §60.17), as applicable, shall be used to determine the gross calorific values.

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

(d) The owner or operator shall determine compliance with the particulate matter standards in §§60.292 and 60.293 as follows:

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

$$E=(c_sQ_{sd}-A)/P$$

where:

E=emission rate of particulate matter, g/kg.

c_s=concentration of particulate matter, g/dsm.

Q_{sd} =volumetric flow rate, dscm/hr.

A=zero production rate correction

=227 g/hr for container glass, pressed and blown (soda-lime and lead) glass, and pressed and blown (other than borosilicate, soda-lime, and lead) glass.

=454 g/hr for pressed and blown (borosilicate) glass, wool fiberglass, and flat glass.

P=glass production rate, kg/hr.

(2) Method 5 shall be used to determine the particulate matter concentration (c_s) and volumetric flow rate (Q_{sd}) of the effluent gas. The sampling time and sample volume for each run shall be at least 60 minutes and 0.90 dscm (31.8 dscf). The probe and filter holder heating system may be set to provide a gas temperature no greater than 177 ± 14 °C (350 ± 25 °F), except under the conditions specified in §60.293(e).

(3) Direct measurement or material balance using good engineering practice shall be used to determine the amount of glass pulled during the performance test. The rate of glass produced is defined as the weight of glass pulled from the affected facility during the performance test divided by the number of hours taken to perform the performance test.

(4) Method 9 and the procedures in §60.11 shall be used to determine opacity.

[54 FR 6674, Feb. 14, 1989; 54 FR 21344, May 17, 1989, as amended at 65 FR 61759, Oct. 17, 2000]

**Indiana Department of Environmental Management
Office of Air Quality**

Attachment C

40 CFR 60, Subpart IIII—Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

Source: 71 FR 39172, July 11, 2006, unless otherwise noted.

What This Subpart Covers

§ 60.4200 Am I subject to this subpart?

(a) The provisions of this subpart are applicable to manufacturers, owners, and operators of stationary compression ignition (CI) internal combustion engines (ICE) as specified in paragraphs (a)(1) through (3) of this section. For the purposes of this subpart, the date that construction commences is the date the engine is ordered by the owner or operator.

(1) Manufacturers of stationary CI ICE with a displacement of less than 30 liters per cylinder where the model year is:

(i) 2007 or later, for engines that are not fire pump engines,

(ii) The model year listed in table 3 to this subpart or later model year, for fire pump engines.

(2) Owners and operators of stationary CI ICE that commence construction after July 11, 2005 where the stationary CI ICE are:

(i) Manufactured after April 1, 2006 and are not fire pump engines, or

(ii) Manufactured as a certified National Fire Protection Association (NFPA) fire pump engine after July 1, 2006.

(3) Owners and operators of stationary CI ICE that modify or reconstruct their stationary CI ICE after July 11, 2005.

(b) The provisions of this subpart are not applicable to stationary CI ICE being tested at a stationary CI ICE test cell/stand.

(c) If you are an owner or operator of an area source subject to this subpart, you are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 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 applicable to area sources.

(d) Stationary CI ICE may be eligible for exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C (or the exemptions described in 40 CFR part 89, subpart J and 40 CFR part 94, subpart J, for engines that would need to be certified to standards in those parts), except that owners and operators, as well as manufacturers, may be eligible to request an exemption for national security.

Emission Standards for Manufacturers

§ 60.4201 What emission standards must I meet for non-emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 kilowatt (KW) (3,000 horsepower (HP)) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 89.112, 40 CFR 89.113, 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same model year and maximum engine power.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 through 2010 model year non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(c) Stationary CI internal combustion engine manufacturers must certify their 2011 model year and later non-emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder to the certification emission standards for new nonroad CI engines in 40 CFR 1039.101, 40 CFR 1039.102, 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, and 40 CFR 1039.115, as applicable, for all pollutants, for the same maximum engine power.

(d) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

§ 60.4202 What emission standards must I meet for emergency engines if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power less than or equal to 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (a)(1) through (2) of this section.

(1) For engines with a maximum engine power less than 37 KW (50 HP):

(i) The certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants for model year 2007 engines, and

(ii) The certification emission standards for new nonroad CI engines in 40 CFR 1039.104, 40 CFR 1039.105, 40 CFR 1039.107, 40 CFR 1039.115, and table 2 to this subpart, for 2008 model year and later engines.

(2) For engines with a maximum engine power greater than or equal to 37 KW (50 HP), the certification emission standards for new nonroad CI engines for the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants beginning in model year 2007.

(b) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a maximum engine power greater than 2,237 KW (3,000 HP) and a displacement of less than 10 liters per cylinder that are not fire pump engines to the emission standards specified in paragraphs (b)(1) through (2) of this section.

(1) For 2007 through 2010 model years, the emission standards in table 1 to this subpart, for all pollutants, for the same maximum engine power.

(2) For 2011 model year and later, the certification emission standards for new nonroad CI engines for engines of the same model year and maximum engine power in 40 CFR 89.112 and 40 CFR 89.113 for all pollutants.

(c) Stationary CI internal combustion engine manufacturers must certify their 2007 model year and later emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines to the certification emission standards for new marine CI engines in 40 CFR 94.8, as applicable, for all pollutants, for the same displacement and maximum engine power.

(d) Beginning with the model years in table 3 to this subpart, stationary CI internal combustion engine manufacturers must certify their fire pump stationary CI ICE to the emission standards in table 4 to this subpart, for all pollutants, for the same model year and NFPA nameplate power.

§ 60.4203 How long must my engines meet the emission standards if I am a stationary CI internal combustion engine manufacturer?

Engines manufactured by stationary CI internal combustion engine manufacturers must meet the emission standards as required in §§60.4201 and 60.4202 during the useful life of the engines.

Emission Standards for Owners and Operators

§ 60.4204 What emission standards must I meet for non-emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of less than 10 liters per cylinder must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later non-emergency stationary CI ICE with a displacement of less than 30 liters per cylinder must comply with the emission standards for new CI engines in §60.4201 for their 2007 model year and later stationary CI ICE, as applicable.

(c) Owners and operators of non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (c)(1) and (2) of this section.

(1) Reduce nitrogen oxides (NO_x) emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (g/KW-hr) (1.2 grams per HP-hour (g/HP-hr)).

(2) Reduce particulate matter (PM) emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4205 What emission standards must I meet for emergency engines if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of pre-2007 model year emergency stationary CI ICE with a displacement of less than 10 liters per cylinder that are not fire pump engines must comply with the emission standards in table 1 to this subpart. Owners and operators of pre-2007 model year non-emergency stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards in 40 CFR 94.8(a)(1).

(b) Owners and operators of 2007 model year and later emergency stationary CI ICE with a displacement of less than 30 liters per cylinder that are not fire pump engines must comply with the emission standards for new nonroad CI engines in §60.4202, for all pollutants, for the same model year and maximum engine power for their 2007 model year and later emergency stationary CI ICE.

(c) Owners and operators of fire pump engines with a displacement of less than 30 liters per cylinder must comply with the emission standards in table 4 to this subpart, for all pollutants.

(d) Owners and operators of emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must meet the requirements in paragraphs (d)(1) and (2) of this section.

(1) Reduce NO_x emissions by 90 percent or more, or limit the emissions of NO_x in the stationary CI internal combustion engine exhaust to 1.6 grams per KW-hour (1.2 grams per HP-hour).

(2) Reduce PM emissions by 60 percent or more, or limit the emissions of PM in the stationary CI internal combustion engine exhaust to 0.15 g/KW-hr (0.11 g/HP-hr).

§ 60.4206 How long must I meet the emission standards if I am an owner or operator of a stationary CI internal combustion engine?

Owners and operators of stationary CI ICE must operate and maintain stationary CI ICE that achieve the emission standards as required in §§60.4204 and 60.4205 according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer, over the entire life of the engine.

Fuel Requirements for Owners and Operators

§ 60.4207 What fuel requirements must I meet if I am an owner or operator of a stationary CI internal combustion engine subject to this subpart?

(a) Beginning October 1, 2007, owners and operators of stationary CI ICE subject to this subpart that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(a).

(b) Beginning October 1, 2010, owners and operators of stationary CI ICE subject to this subpart with a displacement of less than 30 liters per cylinder that use diesel fuel must use diesel fuel that meets the requirements of 40 CFR 80.510(b) for nonroad diesel fuel.

(c) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart may petition the Administrator for approval to use remaining non-compliant fuel that does not meet the fuel requirements of paragraphs (a) and (b) of this section beyond the dates required for the purpose of using up existing fuel inventories. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(d) Owners and operators of pre-2011 model year stationary CI ICE subject to this subpart that are located in areas of Alaska not accessible by the Federal Aid Highway System may petition the Administrator for approval to use any fuels mixed with used lubricating oil that do not meet the fuel requirements of paragraphs (a) and (b) of this section. Owners and operators must demonstrate in their petition to the Administrator that there is no other place to use the lubricating oil. If approved, the petition will be valid for a period of up to 6 months. If additional time is needed, the owner or operator is required to submit a new petition to the Administrator.

(e) Stationary CI ICE that have a national security exemption under §60.4200(d) are also exempt from the fuel requirements in this section.

Other Requirements for Owners and Operators

§ 60.4208 What is the deadline for importing or installing stationary CI ICE produced in the previous model year?

(a) After December 31, 2008, owners and operators may not install stationary CI ICE (excluding fire pump engines) that do not meet the applicable requirements for 2007 model year engines.

(b) After December 31, 2009, owners and operators may not install stationary CI ICE with a maximum engine power of less than 19 KW (25 HP) (excluding fire pump engines) that do not meet the applicable requirements for 2008 model year engines.

(c) After December 31, 2014, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 19 KW (25 HP) and less than 56 KW (75 HP) that do not meet the applicable requirements for 2013 model year non-emergency engines.

(d) After December 31, 2013, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 56 KW (75 HP) and less than 130 KW (175 HP) that do not meet the applicable requirements for 2012 model year non-emergency engines.

(e) After December 31, 2012, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 130 KW (175 HP), including those above 560 KW (750 HP), that do not meet the applicable requirements for 2011 model year non-emergency engines.

(f) After December 31, 2016, owners and operators may not install non-emergency stationary CI ICE with a maximum engine power of greater than or equal to 560 KW (750 HP) that do not meet the applicable requirements for 2015 model year non-emergency engines.

(g) In addition to the requirements specified in §§60.4201, 60.4202, 60.4204, and 60.4205, it is prohibited to import stationary CI ICE with a displacement of less than 30 liters per cylinder that do not meet the applicable requirements specified in paragraphs (a) through (f) of this section after the dates specified in paragraphs (a) through (f) of this section.

(h) The requirements of this section do not apply to owners or operators of stationary CI ICE that have been modified, reconstructed, and do not apply to engines that were removed from one existing location and reinstalled at a new location.

§ 60.4209 What are the monitoring requirements if I am an owner or operator of a stationary CI internal combustion engine?

If you are an owner or operator, you must meet the monitoring requirements of this section. In addition, you must also meet the monitoring requirements specified in §60.4211.

(a) If you are an owner or operator of an emergency stationary CI internal combustion engine, you must install a non-resettable hour meter prior to startup of the engine.

(b) If you are an owner or operator of a stationary CI internal combustion engine equipped with a diesel particulate filter to comply with the emission standards in §60.4204, the diesel particulate filter must be installed with a backpressure monitor that notifies the owner or operator when the high backpressure limit of the engine is approached.

Compliance Requirements

§ 60.4210 What are my compliance requirements if I am a stationary CI internal combustion engine manufacturer?

(a) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of less than 10 liters per cylinder to the emission standards specified in §60.4201(a) through (c) and §60.4202(a), (b) and (d) using the certification procedures required in 40 CFR part 89, subpart B, or 40 CFR part 1039, subpart C, as applicable, and must test their engines as specified in those parts. For the purposes of this subpart, engines certified to the standards in table 1 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89. For the purposes of this subpart, engines certified to the standards in table 4 to this subpart shall be subject to the same requirements as engines certified to the standards in 40 CFR part 89, except that engines with NFPA nameplate power of less than 37 KW (50 HP) certified to model year 2011 or later standards shall be subject to the same requirements as engines certified to the standards in 40 CFR part 1039.

(b) Stationary CI internal combustion engine manufacturers must certify their stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder to the emission standards specified in §60.4201(d) and §60.4202(c) using the certification procedures required in 40 CFR part 94 subpart C, and must test their engines as specified in 40 CFR part 94.

(c) Stationary CI internal combustion engine manufacturers must meet the requirements of 40 CFR 1039.120, 40 CFR 1039.125, 40 CFR 1039.130, 40 CFR 1039.135, and 40 CFR part 1068 for engines that are certified to the emission standards in 40 CFR part 1039. Stationary CI internal combustion engine manufacturers must meet the corresponding provisions of 40 CFR part 89 or 40 CFR part 94 for engines that would be covered by that part if they were nonroad (including marine) engines. Labels on such engines must refer to stationary engines, rather than or in addition to nonroad or marine engines, as appropriate. Stationary CI internal combustion engine manufacturers must label their engines according to paragraphs (c)(1) through (3) of this section.

(1) Stationary CI internal combustion engines manufactured from January 1, 2006 to March 31, 2006 (January 1, 2006 to June 30, 2006 for fire pump engines), other than those that are part of certified engine families under the nonroad CI engine regulations, must be labeled according to 40 CFR 1039.20.

(2) Stationary CI internal combustion engines manufactured from April 1, 2006 to December 31, 2006 (or, for fire pump engines, July 1, 2006 to December 31 of the year preceding the year listed in table 3 to this subpart) must be labeled according to paragraphs (c)(2)(i) through (iii) of this section:

(i) Stationary CI internal combustion engines that are part of certified engine families under the nonroad regulations must meet the labeling requirements for nonroad CI engines, but do not have to meet the labeling requirements in 40 CFR 1039.20.

(ii) Stationary CI internal combustion engines that meet Tier 1 requirements (or requirements for fire pumps) under this subpart, but do not meet the requirements applicable to nonroad CI engines must be labeled according to 40 CFR 1039.20. The engine manufacturer may add language to the label clarifying that the engine meets Tier 1 requirements (or requirements for fire pumps) of this subpart.

(iii) Stationary CI internal combustion engines manufactured after April 1, 2006 that do not meet Tier 1 requirements of this subpart, or fire pumps engines manufactured after July 1, 2006 that do not meet the requirements for fire pumps under this subpart, may not be used in the U.S. If any such engines are manufactured in the U.S. after April 1, 2006 (July 1, 2006 for fire pump engines), they must be exported or must be brought into compliance with the appropriate standards prior to initial operation. The export provisions of 40 CFR 1068.230 would apply to engines for export and the manufacturers must label such engines according to 40 CFR 1068.230.

(3) Stationary CI internal combustion engines manufactured after January 1, 2007 (for fire pump engines, after January 1 of the year listed in table 3 to this subpart, as applicable) must be labeled according to paragraphs (c)(3)(i) through (iii) of this section.

(i) Stationary CI internal combustion engines that meet the requirements of this subpart and the corresponding requirements for nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate.

(ii) Stationary CI internal combustion engines that meet the requirements of this subpart, but are not certified to the standards applicable to nonroad (including marine) engines of the same model year and HP must be labeled according to the provisions in part 89, 94 or 1039, as appropriate, but the words "stationary" must be included instead of "nonroad" or "marine" on the label. In addition, such engines must be labeled according to 40 CFR 1039.20.

(iii) Stationary CI internal combustion engines that do not meet the requirements of this subpart must be labeled according to 40 CFR 1068.230 and must be exported under the provisions of 40 CFR 1068.230.

(d) An engine manufacturer certifying an engine family or families to standards under this subpart that are identical to standards applicable under parts 89, 94, or 1039 for that model year may certify any such family that contains both nonroad (including marine) and stationary engines as a single engine family and/or may include any such family containing stationary engines in the averaging, banking and trading provisions applicable for such engines under those parts.

(e) Manufacturers of engine families discussed in paragraph (d) of this section may meet the labeling requirements referred to in paragraph (c) of this section for stationary CI ICE by either adding a separate label containing the information required in paragraph (c) of this section or by adding the words "and stationary" after the word "nonroad" or "marine," as appropriate, to the label.

(f) Starting with the model years shown in table 5 to this subpart, stationary CI internal combustion engine manufacturers must add a permanent label stating that the engine is for stationary emergency use only to each new emergency stationary CI internal combustion engine greater than or equal to 19 KW (25 HP) that meets all the emission standards for emergency engines in §60.4202 but does not meet all the emission standards for non-emergency engines in §60.4201. The label must be added according to the labeling requirements specified in 40 CFR 1039.135(b). Engine manufacturers must specify in the owner's manual that operation of emergency engines is limited to emergency operations and required maintenance and testing.

(g) Manufacturers of fire pump engines may use the test cycle in table 6 to this subpart for testing fire pump engines and may test at the NFPA certified nameplate HP, provided that the engine is labeled as "Fire Pump Applications Only".

(h) Engine manufacturers, including importers, may introduce into commerce uncertified engines or engines certified to earlier standards that were manufactured before the new or changed standards took effect until inventories are depleted, as long as such engines are part of normal inventory. For example, if the engine manufacturers' normal industry practice is to keep on hand a one-month supply of engines based on its projected sales, and a new tier of standards starts to apply for the 2009 model year, the engine manufacturer may manufacture engines based on the normal inventory requirements late in the 2008 model year, and sell those engines for installation. The engine manufacturer may not circumvent the provisions of §§60.4201 or 60.4202 by stockpiling engines that are built before new or changed standards take effect. Stockpiling of such engines beyond normal industry practice is a violation of this subpart.

(i) The replacement engine provisions of 40 CFR 89.1003(b)(7), 40 CFR 94.1103(b)(3), 40 CFR 94.1103(b)(4) and 40 CFR 1068.240 are applicable to stationary CI engines replacing existing equipment that is less than 15 years old.

§ 60.4211 What are my compliance requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) If you are an owner or operator and must comply with the emission standards specified in this subpart, you must operate and maintain the stationary CI internal combustion engine and control device according to the manufacturer's written instructions or procedures developed by the owner or operator that are approved by the engine manufacturer. In addition, owners and operators may only change those settings that are permitted by the manufacturer. You must also meet the requirements of 40 CFR parts 89, 94 and/or 1068, as they apply to you.

(b) If you are an owner or operator of a pre-2007 model year stationary CI internal combustion engine and must comply with the emission standards specified in §§60.4204(a) or 60.4205(a), or if you are an owner or operator of a CI fire pump engine that is manufactured prior to the model years in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must demonstrate compliance according to one of the methods specified in paragraphs (b)(1) through (5) of this section.

(1) Purchasing an engine certified according to 40 CFR part 89 or 40 CFR part 94, as applicable, for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's specifications.

(2) Keeping records of performance test results for each pollutant for a test conducted on a similar engine. The test must have been conducted using the same methods specified in this subpart and these methods must have been followed correctly.

(3) Keeping records of engine manufacturer data indicating compliance with the standards.

(4) Keeping records of control device vendor data indicating compliance with the standards.

(5) Conducting an initial performance test to demonstrate compliance with the emission standards according to the requirements specified in §60.4212, as applicable.

(c) If you are an owner or operator of a 2007 model year and later stationary CI internal combustion engine and must comply with the emission standards specified in §60.4204(b) or §60.4205(b), or if you are an owner or operator of a CI fire pump engine that is manufactured during or after the model year that applies to your fire pump engine power rating in table 3 to this subpart and must comply with the emission standards specified in §60.4205(c), you must comply by purchasing an engine certified to the emission standards in §60.4204(b), or §60.4205(b) or (c), as applicable, for the same model year and maximum (or in the case of fire pumps, NFPA nameplate) engine power. The engine must be installed and configured according to the manufacturer's specifications.

(d) If you are an owner or operator and must comply with the emission standards specified in §60.4204(c) or §60.4205(d), you must demonstrate compliance according to the requirements specified in paragraphs (d)(1) through (3) of this section.

(1) Conducting an initial performance test to demonstrate initial compliance with the emission standards as specified in §60.4213.

(2) Establishing operating parameters to be monitored continuously to ensure the stationary internal combustion engine continues to meet the emission standards. The owner or operator must petition the Administrator for approval of operating parameters to be monitored continuously. The petition must include the information described in paragraphs (d)(2)(i) through (v) of this section.

(i) Identification of the specific parameters you propose to monitor continuously;

(ii) A discussion of the relationship between these parameters and NO_x and PM emissions, identifying how the emissions of these pollutants change with changes in these parameters, and how limitations on these parameters will serve to limit NO_x and PM emissions;

(iii) 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;

(iv) A discussion identifying the methods and the instruments you will use to monitor these parameters, as well as the relative accuracy and precision of these methods and instruments; and

(v) A discussion identifying the frequency and methods for recalibrating the instruments you will use for monitoring these parameters.

(3) For non-emergency engines with a displacement of greater than or equal to 30 liters per cylinder, conducting annual performance tests to demonstrate continuous compliance with the emission standards as specified in §60.4213.

(e) Emergency stationary ICE may be operated 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. There is no time limit on the use of emergency stationary ICE in emergency situations. Anyone 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 ICE beyond 100 hours per year. For owners and operators of emergency engines meeting standards under §60.4205 but not §60.4204, any operation other than emergency operation, and maintenance and testing as permitted in this section, is prohibited.

Testing Requirements for Owners and Operators

§ 60.4212 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of less than 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of less than 30 liters per cylinder who conduct performance tests pursuant to this subpart must do so according to paragraphs (a) through (d) of this section.

(a) The performance test must be conducted according to the in-use testing procedures in 40 CFR part 1039, subpart F.

(b) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR part 1039 must not exceed the not-to-exceed (NTE) standards for the same model year and maximum engine power as required in 40 CFR 1039.101(e) and 40 CFR 1039.102(g)(1), except as specified in 40 CFR 1039.104(d). This requirement starts when NTE requirements take effect for nonroad diesel engines under 40 CFR part 1039.

(c) Exhaust emissions from stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8, as applicable, must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in 40 CFR 89.112 or 40 CFR 94.8, as applicable, determined from the following equation:

$$\text{NTE requirement for each pollutant} = (1.25) \times (\text{STD}) \quad (\text{Eq. 1})$$

Where:

STD = The standard specified for that pollutant in 40 CFR 89.112 or 40 CFR 94.8, as applicable.

Alternatively, stationary CI ICE that are complying with the emission standards for new CI engines in 40 CFR 89.112 or 40 CFR 94.8 may follow the testing procedures specified in §60.4213 of this subpart, as appropriate.

(d) Exhaust emissions from stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) must not exceed the NTE numerical requirements, rounded to the same number of decimal places as the applicable standard in §60.4204(a), §60.4205(a), or §60.4205(c), determined from the equation in paragraph (c) of this section.

Where:

STD = The standard specified for that pollutant in §60.4204(a), §60.4205(a), or §60.4205(c).

Alternatively, stationary CI ICE that are complying with the emission standards for pre-2007 model year engines in §60.4204(a), §60.4205(a), or §60.4205(c) may follow the testing procedures specified in §60.4213, as appropriate.

§ 60.4213 What test methods and other procedures must I use if I am an owner or operator of a stationary CI internal combustion engine with a displacement of greater than or equal to 30 liters per cylinder?

Owners and operators of stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder must conduct performance tests according to paragraphs (a) through (d) of this section.

(a) Each performance test must be conducted according to the requirements in §60.8 and under the specific conditions that this subpart specifies in table 7. The test must be conducted within 10 percent of 100 percent peak (or the highest achievable) load.

(b) You may not conduct performance tests during periods of startup, shutdown, or malfunction, as specified in §60.8(c).

(c) You must conduct three separate test runs for each performance test required in this section, as specified in §60.8(f). Each test run must last at least 1 hour.

(d) To determine compliance with the percent reduction requirement, you must follow the requirements as specified in paragraphs (d)(1) through (3) of this section.

(1) You must use Equation 2 of this section to determine compliance with the percent reduction requirement:

$$\frac{C_i - C_o}{C_i} \times 100 = R \quad (\text{Eq. 2})$$

Where:

C_i = concentration of NO_x or PM at the control device inlet,

C_o = concentration of NO_x or PM at the control device outlet, and

R = percent reduction of NO_x or PM emissions.

(2) You must normalize the NO_x or PM concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen (O_2) using Equation 3 of this section, or an equivalent percent carbon dioxide (CO_2) using the procedures described in paragraph (d)(3) of this section.

$$C_{\text{adj}} = C_d \frac{5.9}{20.9 - \% \text{O}_2} \quad (\text{Eq. 3})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2 .

C_d = Measured concentration of NO_x or PM, uncorrected.

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

$\% \text{O}_2$ = Measured O_2 concentration, dry basis, percent.

(3) If pollutant concentrations are to be corrected to 15 percent O_2 and CO_2 concentration is measured in lieu of O_2 concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (d)(3)(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:

$$F_o = \frac{0.209 H}{F_c} \quad (\text{Eq. 4})$$

Where:

F_o = Fuel factor based on the ratio of O_2 volume to the ultimate CO_2 volume produced by the fuel at zero percent excess air.

0.209 = Fraction of air that is O_2 , percent/100.

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, dsm^3 / J ($dscf / 10^6$ Btu).

F_c = Ratio of the volume of CO_2 produced to the gross calorific value of the fuel from Method 19, dsm^3 / J ($dscf / 10^6$ Btu).

(ii) Calculate the CO_2 correction factor for correcting measurement data to 15 percent O_2 , as follows:

$$X_{CO_2} = \frac{5.9}{F_o} \quad (\text{Eq. 5})$$

Where:

X_{CO_2} = 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 PM gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO_2}}{\%CO_2} \quad (\text{Eq. 6})$$

Where:

C_{adj} = Calculated NO_x or PM concentration adjusted to 15 percent O_2 .

C_d = Measured concentration of NO_x or PM, uncorrected.

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

(e) To determine compliance with the NO_x mass per unit output emission limitation, convert the concentration of NO_x in the engine exhaust using Equation 7 of this section:

$$ER = \frac{C_d \times 1.912 \times 10^{-3} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq. 7})$$

Where:

ER = Emission rate in grams per KW-hour.

C_d = Measured NO_x concentration in ppm.

1.912×10^{-3} = Conversion constant for ppm NO_x to grams per standard cubic meter at 25 degrees Celsius.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Brake work of the engine, in KW-hour.

(f) To determine compliance with the PM mass per unit output emission limitation, convert the concentration of PM in the engine exhaust using Equation 8 of this section:

$$ER = \frac{C_{adj} \times Q \times T}{KW\text{-hour}} \quad (\text{Eq 8})$$

Where:

ER = Emission rate in grams per KW-hour.

C_{adj} = Calculated PM concentration in grams per standard cubic meter.

Q = Stack gas volumetric flow rate, in standard cubic meter per hour.

T = Time of test run, in hours.

KW-hour = Energy output of the engine, in KW.

Notification, Reports, and Records for Owners and Operators

§ 60.4214 What are my notification, reporting, and recordkeeping requirements if I am an owner or operator of a stationary CI internal combustion engine?

(a) Owners and operators of non-emergency stationary CI ICE that are greater than 2,237 KW (3,000 HP), or have a displacement of greater than or equal to 10 liters per cylinder, or are pre-2007 model year engines that are greater than 130 KW (175 HP) and not certified, must meet the requirements of paragraphs (a)(1) and (2) of this section.

(1) Submit an initial notification as required in §60.7(a)(1). The notification must include the information in paragraphs (a)(1)(i) through (v) of this section.

(i) Name and address of the owner or operator;

(ii) The address of the affected source;

(iii) Engine information including make, model, engine family, serial number, model year, maximum engine power, and engine displacement;

(iv) Emission control equipment; and

(v) Fuel used.

(2) Keep records of the information in paragraphs (a)(2)(i) through (iv) of this section.

(i) All notifications submitted to comply with this subpart and all documentation supporting any notification.

(ii) Maintenance conducted on the engine.

(iii) If the stationary CI internal combustion is a certified engine, documentation from the manufacturer that the engine is certified to meet the emission standards.

(iv) If the stationary CI internal combustion is not a certified engine, documentation that the engine meets the emission standards.

(b) If the stationary CI internal combustion engine is an emergency stationary internal combustion engine, the owner or operator is not required to submit an initial notification. Starting with the model years in table 5 to this subpart, if the emergency engine does not meet the standards applicable to non-emergency engines in the applicable model year, the owner or operator must keep records of the operation of the engine in emergency and non-emergency service that are recorded through the non-resettable hour meter. The owner must record the time of operation of the engine and the reason the engine was in operation during that time.

(c) If the stationary CI internal combustion engine is equipped with a diesel particulate filter, the owner or operator must keep records of any corrective action taken after the backpressure monitor has notified the owner or operator that the high backpressure limit of the engine is approached.

Special Requirements

§ 60.4215 What requirements must I meet for engines used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands?

(a) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are required to meet the applicable emission standards in §60.4205. Non-emergency stationary CI ICE with a displacement of greater than or equal to 30 liters per cylinder, must meet the applicable emission standards in §60.4204(c).

(b) Stationary CI ICE that are used in Guam, American Samoa, or the Commonwealth of the Northern Mariana Islands are not required to meet the fuel requirements in §60.4207.

§ 60.4216 What requirements must I meet for engines used in Alaska?

(a) Prior to December 1, 2010, owners and operators of stationary CI engines located in areas of Alaska not accessible by the Federal Aid Highway System should refer to 40 CFR part 69 to determine the diesel fuel requirements applicable to such engines.

(b) The Governor of Alaska may submit for EPA approval, by no later than January 11, 2008, an alternative plan for implementing the requirements of 40 CFR part 60, subpart IIII, for public-sector electrical utilities located in rural areas of Alaska not accessible by the Federal Aid Highway System. This alternative plan must be based on the requirements of section 111 of the Clean Air Act including any increased risks to human health and the environment and must also be based on the unique circumstances related to remote power generation, climatic conditions, and serious economic impacts resulting from implementation of 40 CFR part 60, subpart IIII. If EPA approves by rulemaking process an alternative plan, the provisions as approved by EPA under that plan shall apply to the diesel engines used in new stationary internal combustion engines subject to this paragraph.

§ 60.4217 What emission standards must I meet if I am an owner or operator of a stationary internal combustion engine using special fuels?

(a) Owners and operators of stationary CI ICE that do not use diesel fuel, or who have been given authority by the Administrator under §60.4207(d) of this subpart to use fuels that do not meet the fuel requirements of paragraphs (a) and (b) of §60.4207, may petition the Administrator for approval of alternative emission standards, if they can demonstrate that they use a fuel that is not the fuel on which the manufacturer of the engine certified the engine and that the engine cannot meet the applicable standards required in §60.4202 or §60.4203 using such fuels.

(b) [Reserved]

General Provisions

§ 60.4218 What parts of the General Provisions apply to me?

Table 8 to this subpart shows which parts of the General Provisions in §§60.1 through 60.19 apply to you.

Definitions

§ 60.4219 What definitions apply to this subpart?

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

Combustion turbine means all equipment, including but not limited to the turbine, the fuel, air, lubrication and exhaust gas systems, control systems (except emissions control equipment), and any ancillary components and sub-components comprising any simple cycle combustion turbine, any regenerative/recuperative cycle combustion turbine, the combustion turbine portion of any cogeneration cycle combustion system, or the combustion turbine portion of any combined cycle steam/electric generating system.

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

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 number 2 distillate oil.

Diesel particulate filter means an emission control technology that reduces PM emissions by trapping the particles in a flow filter substrate and periodically removes the collected particles by either physical action or by oxidizing (burning off) the particles in a process called regeneration.

Emergency stationary internal combustion engine means any stationary internal combustion engine whose operation is limited to emergency situations and required testing and maintenance. Examples include stationary ICE 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 ICE used to pump water in the case of fire or flood, etc. Stationary CI ICE used to supply power to an electric grid or that supply power as part of a financial arrangement with another entity are not considered to be emergency engines.

Engine manufacturer means the manufacturer of the engine. See the definition of "manufacturer" in this section.

Fire pump engine means an emergency stationary internal combustion engine certified to NFPA requirements that is used to provide power to pump water for fire suppression or protection.

Manufacturer has the meaning given in section 216(1) of the Act. In general, this term includes any person who manufactures a stationary engine for sale in the United States or otherwise introduces a new stationary engine into commerce in the United States. This includes importers who import stationary engines for sale or resale.

Maximum engine power means maximum engine power as defined in 40 CFR 1039.801.

Model year means either:

(1) The calendar year in which the engine was originally produced, or

(2) The annual new model production period of the engine manufacturer if it is different than the calendar year. This must include January 1 of the calendar year for which the model year is named. It may not begin before January 2 of the previous calendar year and it must end by December 31 of the named calendar year. For an engine that is

converted to a stationary engine after being placed into service as a nonroad or other non-stationary engine, model year means the calendar year or new model production period in which the engine was originally produced.

Other internal combustion engine means any internal combustion engine, except combustion turbines, which is not a reciprocating internal combustion engine or rotary internal combustion engine.

Reciprocating internal combustion engine means any internal combustion engine which uses reciprocating motion to convert heat energy into mechanical work.

Rotary internal combustion engine means any internal combustion engine which uses rotary motion to convert heat energy into mechanical work.

Spark ignition means relating to a gasoline, natural gas, or liquefied petroleum gas 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 internal combustion engine means any internal combustion engine, except combustion turbines, that converts heat energy into mechanical work and is not mobile. Stationary ICE differ from mobile ICE in that a stationary internal combustion engine is not a nonroad engine as defined at 40 CFR 1068.30 (excluding paragraph (2)(ii) of that definition), and is not used to propel a motor vehicle or a vehicle used solely for competition. Stationary ICE include reciprocating ICE, rotary ICE, and other ICE, except combustion turbines.

Subpart means 40 CFR part 60, subpart IIII.

Useful life means the period during which the engine is designed to properly function in terms of reliability and fuel consumption, without being remanufactured, specified as a number of hours of operation or calendar years, whichever comes first. The values for useful life for stationary CI ICE with a displacement of less than 10 liters per cylinder are given in 40 CFR 1039.101(g). The values for useful life for stationary CI ICE with a displacement of greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder are given in 40 CFR 94.9(a).

Table 1 to Subpart IIII of Part 60—Emission Standards for Stationary Pre-2007 Model Year Engines With a Displacement of <10 Liters per Cylinder and 2007–2010 Model Year Engines >2,237 KW (3,000 HP) and With a Displacement of <10 Liters per Cylinder

[As stated in §§60.4201(b), 60.4202(b), 60.4204(a), and 60.4205(a), you must comply with the following emission standards]

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO _x	HC	NO _x	CO	PM
KW<8 (HP<11)	10.5 (7.8)			8.0 (6.0)	1.0 (0.75)
8≤KW<19 (11≤HP<25)	9.5 (7.1)			6.6 (4.9)	0.80 (0.60)
19≤KW<37 (25≤HP<50)	9.5 (7.1)			5.5 (4.1)	0.80 (0.60)
37≤KW<56 (50≤HP<75)			9.2 (6.9)		

Maximum engine power	Emission standards for stationary pre-2007 model year engines with a displacement of <10 liters per cylinder and 2007–2010 model year engines >2,237 KW (3,000 HP) and with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)				
	NMHC + NO _x	HC	NO _x	CO	PM
56≤KW<75 (75≤HP<100)			9.2 (6.9)		
75≤KW<130 (100≤HP<175)			9.2 (6.9)		
130≤KW<225 (175≤HP<300)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
225≤KW<450 (300≤HP<600)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
450≤KW≤560 (600≤HP≤750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)
KW>560 (HP>750)		1.3 (1.0)	9.2 (6.9)	11.4 (8.5)	0.54 (0.40)

Table 2 to Subpart IIII of Part 60—Emission Standards for 2008 Model Year and Later Emergency Stationary CI ICE <37 KW (50 HP) With a Displacement of <10 Liters per Cylinder

[As stated in §60.4202(a)(1), you must comply with the following emission standards]

Engine power	Emission standards for 2008 model year and later emergency stationary CI ICE <37 KW (50 HP) with a displacement of <10 liters per cylinder in g/KW-hr (g/HP-hr)			
	Model year(s)	NO _x + NMHC	CO	PM
KW<8 (HP<11)	2008+	7.5 (5.6)	8.0 (6.0)	0.40 (0.30)
8≤KW<19 (11≤HP<25)	2008+	7.5 (5.6)	6.6 (4.9)	0.40 (0.30)
19≤KW<37 (25≤HP<50)	2008+	7.5 (5.6)	5.5 (4.1)	0.30 (0.22)

Table 3 to Subpart IIII of Part 60—Certification Requirements for Stationary Fire Pump Engines

[As stated in §60.4202(d), you must certify new stationary fire pump engines beginning with the following model years:]

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)
KW<75 (HP<100)	2011
75≤KW<130 (100≤HP<175)	2010

Engine power	Starting model year engine manufacturers must certify new stationary fire pump engines according to §60.4202(d)
130≤KW≤560 (175≤HP≤750)	2009
KW>560 (HP>750)	2008

Table 4 to Subpart IIII of Part 60—Emission Standards for Stationary Fire Pump Engines

[As stated in §§60.4202(d) and 60.4205(c), you must comply with the following emission standards for stationary fire pump engines]

Maximum engine power	Model year(s)	NMHC + NO _x	CO	PM
KW<8 (HP<11)	2010 and earlier	10.5 (7.8)	8.0 (6.0)	1.0 (0.75)
	2011+	7.5 (5.6)		0.40 (0.30)
8≤KW<19 (11≤HP<25)	2010 and earlier	9.5 (7.1)	6.6 (4.9)	0.80 (0.60)
	2011+	7.5 (5.6)		0.40 (0.30)
19≤KW<37 (25≤HP<50)	2010 and earlier	9.5 (7.1)	5.5 (4.1)	0.80 (0.60)
	2011+	7.5 (5.6)		0.30 (0.22)
37≤KW<56 (50≤HP<75)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
56≤KW<75 (75≤HP<100)	2010 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2011+ ¹	4.7 (3.5)		0.40 (0.30)
75≤KW<130 (100≤HP<175)	2009 and earlier	10.5 (7.8)	5.0 (3.7)	0.80 (0.60)
	2010+ ²	4.0 (3.0)		0.30 (0.22)
130≤KW<225 (175≤HP<300)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
225≤KW<450 (300≤HP<600)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+ ³	4.0 (3.0)		0.20 (0.15)
450≤KW≤560 (600≤HP≤750)	2008 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2009+	4.0 (3.0)		0.20 (0.15)
KW>560 (HP>750)	2007 and earlier	10.5 (7.8)	3.5 (2.6)	0.54 (0.40)
	2008+	6.4 (4.8)		0.20 (0.15)

¹For model years 2011–2013, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 revolutions per minute (rpm) may comply with the emission limitations for 2010 model year engines.

²For model years 2010–2012, manufacturers, owners and operators of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2009 model year engines.

³In model years 2009–2011, manufacturers of fire pump stationary CI ICE in this engine power category with a rated speed of greater than 2,650 rpm may comply with the emission limitations for 2008 model year engines.

Table 5 to Subpart IIII of Part 60—Labeling and Recordkeeping Requirements for New Stationary Emergency Engines

[You must comply with the labeling requirements in §60.4210(f) and the recordkeeping requirements in §60.4214(b) for new emergency stationary CI ICE beginning in the following model years:]

Engine power	Starting model year
19≤KW<56 (25≤HP<75)	2013
56≤KW<130 (75≤HP<175)	2012
KW≥130 (HP≥175)	2011

Table 6 to Subpart IIII of Part 60—Optional 3-Mode Test Cycle for Stationary Fire Pump Engines

[As stated in §60.4210(g), manufacturers of fire pump engines may use the following test cycle for testing fire pump engines:]

Mode No.	Engine speed ¹	Torque (percent) ²	Weighting factors
1	Rated	100	0.30
2	Rated	75	0.50
3	Rated	50	0.20

¹Engine speed: ±2 percent of point.

²Torque: NFPA certified nameplate HP for 100 percent point. All points should be ±2 percent of engine percent load value.

Table 7 to Subpart IIII of Part 60—Requirements for Performance Tests for Stationary CI ICE With a Displacement of ≥30 Liters per Cylinder

[As stated in §60.4213, you must comply with the following requirements for performance tests for stationary CI ICE with a displacement of ≥30 liters per cylinder:]

For each	Complying with the requirement to	You must	Using	According to the following requirements
1. Stationary CI internal combustion engine with a displacement of ≥30 liters per cylinder	a. Reduce NO _x emissions by 90 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for NO _x concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurements for NO _x concentration.
		iv. Measure NO _x at the inlet and outlet of the control device	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO _x 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.
	b. Limit the concentration of NO _x in the stationary CI internal combustion engine exhaust.	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.

For each	Complying with the requirement to	You must	Using	According to the following requirements
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and,	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurement for NO _x concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and,	(3) Method 4 of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(c) Measurements to determine moisture content must be made at the same time as the measurement for NO _x concentration.
		iv. Measure NO _x at the exhaust of the stationary internal combustion engine	(4) Method 7E of 40 CFR part 60, appendix A, Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03 (incorporated by reference, see §60.17)	(d) NO _x 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.
	c. Reduce PM emissions by 60 percent or more	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) Sampling sites must be located at the inlet and outlet of the control device.
		ii. Measure O ₂ at the inlet and outlet of the control device;	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content at the inlet and outlet of the control device; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine and moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the inlet and outlet of the control device	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM 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.

For each	Complying with the requirement to	You must	Using	According to the following requirements
	d. Limit the concentration of PM in the stationary CI internal combustion engine exhaust	i. Select the sampling port location and the number of traverse points;	(1) Method 1 or 1A of 40 CFR part 60, appendix A	(a) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary internal combustion engine exhaust at the sampling port location; and	(2) Method 3, 3A, or 3B of 40 CFR part 60, appendix A	(b) Measurements to determine O ₂ concentration must be made at the same time as the measurements for PM concentration.
		iii. If necessary, measure moisture content of the stationary internal combustion engine exhaust at the sampling port location; and	(3) Method 4 of 40 CFR part 60, appendix A	(c) Measurements to determine moisture content must be made at the same time as the measurements for PM concentration.
		iv. Measure PM at the exhaust of the stationary internal combustion engine	(4) Method 5 of 40 CFR part 60, appendix A	(d) PM 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.

Table 8 to Subpart IIII of Part 60—Applicability of General Provisions to Subpart IIII

[As stated in §60.4218, you must comply with the following applicable General Provisions:]

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	

General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder and engines that are not certified).
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart IIII.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥30 liters per cylinder).
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	

**Indiana Department of Environmental Management
Office of Air Quality**

Attachment D

40 CFR 63, Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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 2b to this subpart which 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]

§ 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:

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

Where:

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

C_o = 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 (CO₂). If pollutant concentrations are to be corrected to 15 percent oxygen and CO₂ concentration is measured in lieu of oxygen concentration measurement, a CO₂ correction factor is needed. Calculate the CO₂ 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:

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

Where:

F_o = Fuel factor based on the ratio of oxygen volume to the ultimate CO₂ 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 CO₂ 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:

$$X_{co_2} = \frac{5.9}{F_o} \quad (\text{Eq. 3})$$

Where:

X_{co2} = CO₂ correction factor, percent.

5.9 = 20.9 percent O₂ - 15 percent O₂, the defined O₂ correction value, percent.

(iii) Calculate the NO_x and SO₂ gas concentrations adjusted to 15 percent O₂ using CO₂ as follows:

$$C_{adj} = C_d \frac{X_{co_2}}{\%CO_2} \quad (\text{Eq. 4})$$

Where:

%CO₂ = Measured CO₂ 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.

§ 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 (8) of this section.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit 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.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any 15-minute period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (b)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(6) You must develop a site-specific monitoring plan that addresses paragraphs (b)(6)(i) through (vi) of this section.

(i) Installation of the CPMS sampling probe or other interface at the appropriate location to obtain representative measurements;

(ii) Performance and equipment specifications for the sample interface, parametric signal analyzer, and the data collection and reduction systems;

(iii) Performance evaluation procedures and acceptance criteria (e.g., calibrations);

(iv) Ongoing operation and maintenance procedures in accordance with the general requirements of §63.8(c)(1), (c)(3), and (c)(4)(ii);

(v) Ongoing data quality assurance procedures in accordance with the general requirements of §63.8(d); and

(vi) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of §63.10(c), (e)(1), and (e)(2)(i).

(7) You must conduct a performance evaluation of each CPMS in accordance with your site-specific monitoring plan.

(8) You must operate and maintain the CPMS in continuous operation according to the 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.

(j) 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.

(k) If you have an operating limitation that requires the use of a temperature measurement device, you must meet the requirements in paragraphs (k)(1) through (4) of this section.

(1) Locate the temperature sensor and other necessary equipment in a position that provides a representative temperature.

- (2) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1.0 percent of the temperature value, whichever is larger, for a noncryogenic temperature range.
- (3) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 2.5 percent of the temperature value, whichever is larger, for a cryogenic temperature range.
- (4) Conduct a temperature measurement device calibration check at least every 3 months.

[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]

§ 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, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously at all times that the stationary RICE is operating.
- (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.

§ 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 CO₂.

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 CO₂.

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 CO₂, 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_3H_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 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 P P P P P 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]

Table 1ato 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	a. Reduce formaldehyde emissions by 76 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 or	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 1bto 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, 63.6630 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	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 measured during the initial performance test and
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 O ₂ and using NSCR; or	b. maintain the temperature of your stationary RICE exhaust so the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
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 O ₂ and using NSCR.	

For each . . .	You must meet the following operating limitation . . .
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 O ₂ 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 O ₂ and using NSCR.	

[75 FR 51592, Aug. 20, 2010]

Table 2a 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	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
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	

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 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 9680, Mar. 3, 2010]

Table 2bto 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, 63.6630, 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.

¹Sources 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]

Table 2cto 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 . . .
1. Emergency stationary CI RICE and black start stationary CI RICE. ¹	a. Change oil and filter every 500 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	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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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, 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	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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	
12. Non-emergency, non-black start landfill or digester gas-fired stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O ₂	

¹If 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.

²Sources 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.

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

[75 FR 51593, Aug. 20, 2010]

Table 2dto 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 . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Non-Emergency, non-black start CI stationary RICE ≤300 HP	a. Change oil and filter 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.

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	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.	
2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	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.	
3. Non-Emergency, non-black start CI 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.	
4. Emergency stationary CI RICE and black start stationary CI RICE. ²	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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 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 b. Inspect spark plugs 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.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter 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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

¹Sources 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.

²If 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.

[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 the requirement to . . .	You must . . .
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	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually. ¹
2. 4SRB stationary RICE with a brake horsepower ≥5,000 located at major sources	Reduce formaldehyde emissions	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.

For each . . .	Complying with the requirement to . . .	You must . . .
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.

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 §§63.6610, 63.6611, 63.6612, 63.6620, and 63.6640, you must comply with the following requirements for performance tests for stationary RICE:

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O ₂ at the inlet and outlet of the control device; and	(1) Portable CO and O ₂ analyzer	(a) Using ASTM D6522–00 (2005) ^a (incorporated by reference, see §63.14). Measurements to determine O ₂ must 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	(1) Portable CO and O ₂ analyzer	(a) Using ASTM D6522–00 (2005) ^{ab} (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.

For each . ..	Complying with the requirement to ...	You must ...	Using ...	According to the following requirements ...
		ii. Measure O ₂ at the inlet and outlet of the control device; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00m (2005)	(a) Measurements to determine O ₂ concentration 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	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet of the control device	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03, ^c provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(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 exhaust	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) If using a control device, the sampling site must be located at the outlet of the control device.
		ii. Determine the O ₂ concentration of the stationary RICE exhaust at the sampling port location; and	(1) Method 3 or 3A or 3B of 40 CFR part 60, appendix A, or ASTM Method D6522–00 (2005)	(a) Measurements to determine O ₂ concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.

For each . ..	Complying with the requirement to ...	You must ...	Using ...	According to the following requirements ...
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348-03, ^c provided in ASTM D6348-03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(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.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522-00 (2005), ^a Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03	(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.

^aYou 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.

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

^cYou 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.

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

As stated in §§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	a. Reduce CO emissions and using 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. 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	a. Reduce CO emissions and not 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.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
<p>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</p>	<p>a. Reduce CO emissions, and using a CEMS</p>	<p>i. You have installed a CEMS to continuously monitor CO and either O₂ or CO₂ at 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.</p>
<p>4. 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</p>	<p>a. Reduce formaldehyde emissions and using NSCR</p>	<p>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 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.</p>
<p>5. 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</p>	<p>a. Reduce formaldehyde emissions and not using NSCR</p>	<p>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.</p>

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
6. 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 iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
7. 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.
8. 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 located at an area source of HAP	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.
9. 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 located at an area source of HAP	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.

[75 FR 51598, Aug. 20, 2010]

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:

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
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, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO 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 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.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>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</p>	<p>a. Reduce CO emissions and using a CEMS</p>	<p>i. Collecting the monitoring data according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction 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; 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.</p>
<p>4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP</p>	<p>a. Reduce formaldehyde emissions and using NSCR</p>	<p>i. Collecting the catalyst inlet temperature data according to §63.6625(b); and ii. Reducing these data to 4-hour rolling averages; and</p>
		<p>iii. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p>
		<p>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.</p>
<p>5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP</p>	<p>a. Reduce formaldehyde emissions and not using NSCR</p>	<p>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</p>
		<p>iii. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.</p>
<p>6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP</p>	<p>a. Reduce formaldehyde emissions</p>	<p>Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.^a</p>

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
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; ^a 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.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
<p>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 that operate 24 hours or less per calendar year</p>	<p>a. Work or Management practices</p>	<p>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.</p>
<p>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</p>	<p>a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR</p>	<p>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</p>
		<p>ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and</p>
		<p>iii. Reducing these data to 4-hour rolling averages; and</p>
		<p>iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and</p>
		<p>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.</p>

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
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.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
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 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.

^aAfter 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 51600, Aug. 20, 2010]

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:

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
<p>1. Existing non-emergency, non-black start stationary RICE 100≤HP≤500 located at a major source of HAP; 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</p>	<p>Compliance report</p>	<p>a. If there are no deviations from any emission limitations or operating limitations that apply to you, a statement that there were no deviations from 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-control, as specified in §63.8(c)(7), the information in §63.6650(e); or c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4)</p>	<p>i. Semiannually according to the requirements in §63.6650(b)(1)–(5) for engines that are not limited use stationary RICE subject to numerical emission limitations; and ii. Annually according 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 requirements in §63.6650(b).</p>
<p>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</p>	<p>Report</p>	<p>a. The fuel flow rate of each fuel and the heating values that were used in your calculations, and you must demonstrate that the percentage of heat input provided by landfill gas or digester gas, is equivalent to 10 percent or more of the gross heat input on an annual basis; and</p>	<p>i. Annually, according to the requirements in §63.6650.</p>
		<p>b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and</p>	<p>i. See item 2.a.i.</p>
		<p>c. Any problems or errors suspected with the meters.</p>	<p>i. See item 2.a.i.</p>

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.

General provisions citation	Subject of citation	Applies to subpart	Explanation
§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.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§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 Malfunction Plan	Yes.	
§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.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§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.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§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.
§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.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010]

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Significant Source Modification and Significant Permit Modification to a Part 70 Operating Permit

Source Name:	Saint-Gobain Containers
Source Location:	524 East Center Street, Dunkirk, IN 47336
County:	Jay
SIC Code:	3221
Operation Permit No.:	T075-17108-00004
Operation Permit Issuance Date:	July 9, 2007
Significant Source Modification (SSM) No.:	075-29643-00004
Significant Permit Modification (SPM) No.:	075-29645-00004
Permit Reviewer:	Jenny Acker

Public Notice Information

On February 14, 2011, the Office of Air Quality (OAQ) had a notice published in the News Times in Hartford City, Indiana, stating that Saint-Gobain Containers had applied for a significant modification to its Part 70 Operating Permit, issued on July 9, 2007. The notice also provided information on how the public could review the proposed permits (SSM 075-29643-00004 and SPM 075-29645-00004) and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

Comments from Saint-Gobain Containers

On March 18, 2011, William D. Mann, Plant Manager of Saint-Gobain Containers, submitted comments on the proposed significant modification to Part 70 Operating Permit No. T075-17108-00004.

A summary of the comments and revisions to the permit (**bolded** language has been added, the ~~strike through~~ language has been deleted) is as follows:

Comment 1:

Effective April 2010, all 12 Saint-Gobain glass packaging businesses around the globe (including Saint-Gobain Containers, Inc. ("SGCI") in the U.S.) became a single brand: Verallia.

IDEM, OAQ Response 1:

IDEM, OAQ considers this request to be a separate permitting action. Upon receipt of a permit application requesting the name change, an Administrative Amendment in accordance with the provisions of 326 IAC 2-7-11 will be issued. Therefore, no changes have been made to the permit.

Comment 2:

The potential emissions from the ESP dust silo and the soda ash silo are less than 1 ton per year, each. Due to this fact, the limits and other requirements contained in the draft should be removed.

IDEM has preliminarily indicated agreement. However due to SGCI's time constraints to begin the project and that it will take approximately two more months for further comments, SGCI has elected to submit a permit modification request for this change. The application will be submitted soon. An alternative for these substantive changes is to issue the construction permit first and then issue the changed operating permit later. The issuance of the construction permit would expedite the schedule.

On Page 5 of the TSD (Appendix A), the calculations are too high. The furnaces will never use that much soda ash in the scrubber or generate that quantity of ESP dust (20 tons/hour), because those values far exceed the capacities of the furnaces. The following language should be added below the table and the numbers need to be changed:

The ESP Dust should not equal 20 tons per hour throughput. The ESP is removing PM at the rate of 0.55 lb/ton of glass produced (1.0 lb/ton uncontrolled emission rate minus 0.45 lb/ton controlled emission rate). In order to generate 20 tph of ESP Dust, the furnace would have to produce over 70,000 tons of glass per hour. The soda ash throughput of 20 tph maximum is based on truck delivery, but there is no way the annual throughput is $20 \times 8760 = 175,000$ tpy soda ash.

Although the soda ash silo may receive up to 20 tons per hour of material from a single truck delivery, it does not receive that quantity every hour of every day, and thus the tpy calculations on that page are incorrect. In preceding emissions calculations in Appendix A, there is a CO₂ calculation sheet which calculates emissions from soda ash usage. The total soda ash usage for furnace 2 is listed as 23,652 tpy, with scrubber soda ash usage listed as 2,708 tpy. That is a total throughput of 26,360 tpy, a far cry from the 175,000 tpy used in the silo PSD calculation.

IDEM, OAQ Response 2:

Pursuant to 326 IAC 2-7-1(29), "Potential to emit" (PTE) means the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.

Soda Ash Silo

The total soda ash usage of 2,708 tpy for the scrubber is utilized in a calculation for projected actual emissions. Additionally, the scrubber is permitted to control emissions from both furnace 1 and furnace 2, which requires that the soda ash usage associated with both furnaces be taken into account. Projected actual emissions are not the same as PTE, nor are they federally enforceable. Therefore, pursuant to 326 IAC 2-7-1(29), the soda ash usage rate utilized in the calculations for projected actual emissions can not be considered a physical or operational limitation on the capacity of the soda ash silo to emit an air pollutant. No changes have been made to the PTE of PM or PM₁₀ for the soda ash silo.

ESP Dust Silo

Proposed Condition D.1.3 - PM (Filterable) and Total PM Limit, imposes a PM₁₀ controlled emission rate of 0.45 lb per ton of glass pulled. This limit, in conjunction with the maximum throughput capacity of the furnaces and the control efficiency of the ESP, can not be used to determine a physical and operational design limitation on the maximum capacity of the ESP dust silo because the limit is not federally enforceable until it has been issued in a Part 70 permit. No changes have been made to the PTE of PM or PM₁₀ for the ESP dust silo.

Comment 3:

Regarding the Furnace Maintenance Hours limits in D.1.6(a), on Page 56, for clarification purposes, we suggest substituting the following language:

"For any Operating Day where Maintenance activities on a Furnace are performed, SGCI may elect to exclude the Maintenance Day from the Emission Rate 30-day Rolling Average. The use of this Maintenance exception shall be limited to 96 hours annually. For any day that is excluded from the Emission Rate 30-day Rolling Average, a CEMS shall be used to demonstrate compliance on a 24-hour Block Average with the Maintenance formula pound per day limit." for "Scheduled or preventative furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) operating hours annually."

IDEM, OAQ Response 3:

Condition D.1.6(a) incorporates verbatim the language of the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.). With regards to this condition the consent decree states that "Scheduled or preventative furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) operating hours annually."

The requested additional language, for clarification purposes, is incorporated verbatim from the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), is located in Condition D.1.2(e), and states " For any Operating Day where a Malfunction of the Scrubber System (Scrubber No. 1) or ESP (ESP No. 1) occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day (or Operating Days if the event covers more than one Operating Day) from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates. During the Malfunction Days excluded from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates, the SO₂ emissions (as a 24-hour Block Average) shall be limited as follows:"

Therefore, the requested language is duplicative of Condition D.1.2(e) and unnecessary. No change was made to the permit in response to this comment.

Comment 4:

In Sections D.1.1(d)(2)(C), D.1.1(d)(3)(C), and D.1.12, the Hot Spot temperature limit is listed as 2900.0. That needs to be corrected to the value of 2900 as listed in the Global Consent Decree, which IDEM is a signatory to.

IDEM, OAQ Response 4:

The Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), lists the Hot Spot temperature as "2900". Therefore, the following revisions have been made.

D.1.1 NOx Limit [326 IAC 2-1.1-5]

* * *

(d) Furnace Startup limitations:

(1) * * *

(2) * * *

* * *

(C) The Hot Spot Temperature at the respective furnace shall not exceed 2900-θ degrees F.

* * *

(3)

* * *

* * *

(C) The Hot Spot Temperature at the respective furnace shall not exceed 2900-0 degrees F.

* * *

D.1.12 Furnace Hot Spot Temperature

* * *

When for any one (1) reading, the Hot Spot Temperature is above 2,900-0 °F, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

Comment 5:

In Sections D.1.11, D.1.12, and D.1.13, the handheld equipment calibration requirement is listed as once every six months. That needs to be changed to an annual calibration requirement. The calibrations last for a year and there is no need to calibrate more frequently.

IDEM, OAQ Response 5:

Conditions D.1.11, D.1.12, and D.1.13 specify that the handheld equipment "shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used."

If the manufacturer specifies a yearly calibration schedule, these Conditions already allow for annual calibration of the handheld equipment and Saint-Gobain Containers may calibrate the equipment annually, provided Saint-Gobain Containers maintains the required records. No change was made in response to this comment.

Comment 6:

In the CEMS section in D.1.9(d), on Page 59, for clarification purposes, we suggest adding the following language:

Only certified data will be reported. During uncertified periods, the cover letter for a report will include "The CEMS were operating on XX/XX/XX and certified on XX/XX/XX. The enclosed reports include the data from the certification date to the end of the reporting period."

IDEM, OAQ Response 6:

Pursuant to 326 IAC 3-5-6(a)(4), on and after the certification of a monitoring system, the owner or operator of a source subject to this rule shall maintain records, including raw data, of all monitoring data and supporting information for a minimum of five (5) years from the date of any of the following. Since, the source is not required to maintain records of the data collected prior to the initial certification, that data would be excluded from the reporting requirements. All other continuous emissions monitoring data is required to be maintained and submitted in accordance with the requirements of 326 IAC 3-5. No change was made in response to this comment.

Comment 7:

SGCI is unclear about the need and source of Condition D.1.13(b) using a "normal range of 263.0 KVA". That condition should be deleted. It is unduly burdensome and restrictive.

IDEM, OAQ Response 7:

Parametric monitoring is required to ensure that control devices are operating properly. For an electrostatic precipitator (ESP) IDEM, OAQ has determined that monitoring and maintaining the KVA is appropriate. The value of 263.0 KVA was supplied by the source as the manufacturer's specified value. The parametric monitoring condition allows for this value to be established during the latest stack, which provides for site specific operating conditions. No change was made in response to this comment.

Comment 8:

In D.0.1(e), for greater clarity, the language should be changed to:

For each furnace, the limits set forth in D.0.1(a) and D.0.1(b) above shall remain in effect through December 31st of the Calendar Year in which the furnace is required to comply with the NOx emission limitation of 1.3 lb/ton of glass produced as required by Condition D.1.1(a).

IDEM, OAQ Response 8:

Condition D.0.1 has been revised as follows:

D.0.1 Interim NOx Limit [326 IAC 2-1.1-5]

* * *

- (e) For each furnace: ~~this~~ **the limits set forth in D.0.1 (a) and D.0.1(b)** shall remain in effect through December 31st ~~or of~~ of the Calendar Year in which the furnace is required to with the NOx emission limitation of 1.3 lb/ton of glass produced as required by Condition D.1.1(a).

* * *

Comment 9:

Condition E.1.2: There is a typo in the first paragraph where a strikeout was not removed (and the duplicative "and").

IDEM, OAQ Response 9:

Condition E.1.2 has been revised to correct the typographical errors.

Comment 10:

Conditions D.1.1(a), D.1.1(b), D.1.1(d)(2)(A), and D.1.1(d)(3)(A): Saint-Gobain Containers requests language be changed from "shall not exceed" to "be no more than".

IDEM, OAQ Response 10:

Conditions D.1.1(a), D.1.1(b), D.1.1(d)(2)(A), and D.1.1(d)(3)(A) incorporate verbatim the language of the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No.

2:10-cv-00121-TSZ, (W.D. Wash.) and states that "Scheduled or preventative furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) operating hours annually."

For Conditions D.1.1(a) and D.1.1(b), the consent decree states "shall not exceed". Therefore, the requested change for these conditions has not been made.

For Conditions D.1.1(d)(2)(A) and D.1.1(d)(3)(A), the consent decree states "burn no more than". Therefore Conditions D.1.1(d)(2)(A) and D.1.1(D)(3)(A) have been revised as follows:

D.1.1 NOx Limit [326 IAC 2-1.1-5]

* * *

(d) Furnace Startup limitations:

* * *

(2) During the Refractory Soak and Seal Phase:

(A) The input of natural gas to the respective furnace shall ~~not exceed~~ **be no more than** sixty million standard cubic feet (60 MMscf).

* * *

(3) During Furnace Stabilization Phase:

(A) The input of natural gas to the respective furnace shall ~~not exceed~~ **be no more than** ninety million standard cubic feet (90 MMscf).

* * *

Comment 11:

Attachment A: In term (n), the definition for "P29Dprod" needs its own line. In term (n), change "COB" to "COD" for definition of COD_{PROD}.

IDEM, OAQ Response 11:

The definition "n" of Attachment A has been revised as follows:

n. "Emission Rate 30-day Rolling Average" shall be expressed as pounds of pollutant per ton of glass produced calculated at the Furnace in question in accordance with the following formula and Subparagraphs i. and ii below:

* * *

COD_{PROD} = Daily glass production on the ~~COB~~ **COD**, in tons of glass.

* * *

P29D_E = The sum of the daily NOx or SO₂ Emissions as measured by a CEMS during the P29D, in pounds. ~~P29D_{Prod} = The sum of the daily glass production during the P29D, in tons of glass.~~

P29D_{Prod} = The sum of the daily glass production during the P29D, in tons of glass.

* * *

Comment 12:

The need for quarterly reports in Condition D.1.17 is unclear and burdensome. The PM stack test is conducted annually. The reporting requirement should be annual. In addition, there is no need to have a duplicative reporting requirement, since SGCI already provides IDEM and EPA with the same data through the annual GCD report.

IDEM, OAQ Response 12:

IDEM, OAQ requires quarterly reporting in order to ensure continuous compliance with emission limitations established under the Consent Decree entered in *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements). No change has been made.

Comments on the Technical Support Document

In addition to the above comments, William D. Mann, Plant Manager of Saint-Gobain Containers, submitted comments specific to the Technical Support Document (TSD) of the significant permitting action.

IDEM does not amend the Technical Support Document (TSD) because the technical support material is maintained to document the original review that was placed on public notice. The following is a summary of the comments received regarding the TSD.

TSD Comment 1:

TSD Page 14, Condition 1.2(d)(2)(A) - Need to change "shall be less than" to "shall not exceed" to be consistent with language in the permit.

IDEM, OAQ Response 1:

IDEM, OAQ recognizes that Condition 1.2(d)(2)(A), states "shall be no more than" rather than "shall not exceed" as documented in the TSD.

TSD Comment 2:

TSD Page 2 - HCl was not added to the emissions table. It should be included in the table.

IDEM, OAQ Response 2:

The Source Status Section of the TSD (page 2) contains an emissions summary table based upon the Technical Support Document (TSD) to Part 70 Operating Permit Renewal No. 075-17108-00004. The TSD to Part 70 Operating Permit Renewal No. 075-17108-00004 did not include HCl, nor were calculations for HCl a part of this permitting action. Therefore, it was appropriate not to include HCl emissions in the referenced table.

TSD Comment 3:

TSD Page 18, Term (g) – SGCI requests a change to add "... as determined by stack test conducted once during the lifetime of each Title V renewal" was not implemented.

IDEM, OAQ Response 3:

The comment is in reference to Condition D.1.2(g) of the permit, which states "The emissions of Sulfuric Acid Mist (H_2SO_4) from Furnace No. 1 and Furnace No. 2 shall, each, not exceed 1.0 pound per ton of glass produced." The requested language is not part of the permit condition. Therefore, Term (g) of TSD Page 18 correctly reflects the language in the permit.

TSD Comment 4:

Appendix A to the TSD (Calculations) - Did not identify "PM" as "PM (filterable)" as requested. This is helpful for clarification and needs to be changed.

IDEM, OAQ Response 4:

Where the permit incorporates verbatim the language of the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the term "filterable" is used in conjunction with PM. However, IDEM, OAQ does not use the qualifier "filterable" in conjunction with the term PM. Therefore, it is unnecessary to use the qualifier "filterable" in conjunction with the term PM in the calculations.

**Indiana Department of Environmental Management
Office of Air Quality**

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

Source Description and Location

Source Name:	Saint-Gobain Containers
Source Location:	524 East Center Street, Dunkirk, IN 47336
County:	Jay
SIC Code:	3221
Operation Permit No.:	T075-17108-00004
Operation Permit Issuance Date:	July 9, 2007
Significant Source Modification No.:	075-29643-00004
Significant Permit Modification No.:	075-29645-00004
Permit Reviewer:	Jenny Acker

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. 075-17108-00004 on July 9, 2007. The source has since received the following approvals:

- (a) Significant Permit Modification No. 075-25052-00004, issued December 11, 2009; and,
- (b) Administrative Amendment No. 075-25583-00004, issued January 10, 2008.

County Attainment Status

The source is located in Jay County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM2.5.	

- (a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are

considered when evaluating the rule applicability relating to ozone. Jay 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}**
Jay County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions. These rules became effective on July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**
Jay County has been classified as attainment or unclassifiable in Indiana for SO₂, CO, PM₁₀, NO₂, and Pb (Lead). 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.

Source Status

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Pollutant	Emissions (ton/yr)
PM	224
PM ₁₀	225
SO ₂	460
VOC	47.1
CO	54.7
NO _x	326
HAPs	
Benzene	4.08E-04
Dichlorobenzene	2.33E-04
Formaldehyde	1.46E-02
Hexane	3.50E-01
Toluene	6.61E-04
Total	3.66E-01

- (a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant that is not a Green House Gas (GHG) is emitted at a rate of 250 tons per year or more, and it is not one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).

- (b) This existing source is not a major source of HAPs, as defined in 40 CFR 63.2, because HAPs emissions are less than ten (10) tons per year for any single HAP and less than twenty-five (25) tons per year of a combination of HAPs. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA).
- (c) These emissions are based upon the Technical Support Document (TSD) to Part 70 Operating Permit Renewal No. 075-17108-00004.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Saint-Gobain Containers on September 7, 2010, relating to the installation of new control devices, and associated new equipment, and the incorporation of requirements pursuant to the Consent Decree entered in *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ (W.D. Wash).

Saint-Gobain Containers will install a semi-dry scrubber, identified as Scrubber No. 1, and an electrostatic precipitator, identified as ESP No. 1, for the control of Furnace No. 1 and Furnace No. 2 emissions. New equipment associated with the control devices and continuous emissions monitoring systems (CEMS) for NO_x and SO₂ will be installed. Furnace No. 2 will undergo a cold rebuild, which will not result in an increase in capacity. Additionally, new requirements agreed upon by Saint-Gobain Containers, the U.S. EPA, and the IDEM as part of a global consent decree (Consent Decree: *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ) will be incorporated into the permit.

The following is a list of the proposed and modified emission units and pollution control devices:

- One (1) Oxyfuel glass melting furnace, identified as Furnace No. 1, constructed in 1993, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1. [40 CFR 60, Subpart CC]

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- One (1) Oxyfuel glass melting furnace, identified as Furnace No. 2, constructed in 1998 and approved in 2011 for cold rebuild, with a maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2. [40 CFR 60, Subpart CC]

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- One (1) soda ash silo, identified as Silo No. 1, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S1. The soda ash is pneumatically conveyed to a scrubber.
- One (1) ESP dust silo, identified as Silo No. 2, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S2.

Insignificant Activities

- Two (2) diesel-fired emergency generators, identified as GEN4 and GEN5, approved in 2011 for construction, each with a maximum rating of 750 kW.
- Three (3) diesel-fired emergency generators, identified as GEN1, GEN2, and GEN3, each with a maximum rating not to exceed one thousand six hundred (1,600) horsepower (Hp).

Additionally, the capacities of the following Insignificant Activities have been updated:

- One (1) hot end treatment facility, consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, constructed in 1993, and having a maximum throughput capacity of 4.0 pounds per hour and exhausting through building ventilation system.
- One (1) hot end treatment facility, consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, constructed in 1993, and having a maximum throughput capacity of 4.0 pounds per hour and exhausting through building ventilation system.
- One (1) batch handling facility servicing melting furnace No. 1, constructed in 1993, with a maximum capacity of 26.04 tons of raw material per hour, venting inside the building.
- One (1) batch handling facility servicing melting furnace No. 2, constructed in 1993, with a maximum capacity of 28.65 tons of raw material per hour, venting inside the building.
- One (1) mold swabbing facility consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, constructed in 1993, and having a maximum combined capacity of 4.0 pounds of swabbing material per hour and exhausting through building ventilation system.
- One (1) mold swabbing facility consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, constructed in 1993, and having a maximum combined capacity of 4.0 pounds of swabbing material per hour and exhausting through building ventilation system.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (°F)
Stack No. 3	Furnace No. 1 Furnace No. 2	150	5.83	103,000	300
Stack No. S1	Silo No. 1	TBD	TBD	TBD	amb.
Stack No. S2	Silo No. 2	TBD	TBD	TBD	amb.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency.”

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Emission Unit	Increase in PTE Before Controls of the Modification (ton/yr)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	CO _{2e}
Soda Ash Silo	63.07	63.07	--	--	--	--	--
ESP Dust Silo	63.07	63.07	--	--	--	--	--
Gen4	0.08	0.08	0.01	0.54	1.45	2.65	112.13
Gen5	0.08	0.08	0.01	0.54	1.45	2.65	112.13
Total for Modification	126.30	126.30	0.02	1.08	2.90	5.30	224.26

Increase in PTE Before Controls of the Modification	
Pollutant	Potential To Emit (ton/yr)
Single HAPs	<10
Total HAPs	<25

This source modification is subject to 326 IAC 2-7-10.5(f)(4), because the modification has the potential to emit greater than twenty-five (25) tons per year of particulate matter (PM) and particulate matter with an aerodynamic diameter less than or equal to ten (10) micrometers (PM₁₀). Additionally, the modification will be incorporated into the Part 70 Operating Permit through a significant permit modification issued pursuant to 326 IAC 2-7-12(d)(1), because the modification requires significant changes to existing Part 70 permit terms and conditions.

Permit Level Determination – Prevention of Significant Deterioration (PSD)

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

	PM	PM ₁₀	SO ₂	NOx	VOC	CO	CO _{2e}
<u>PTE (tpy) New Units</u>							
Soda Ash Silo	6.13	6.13	0	0	0	0	0
ESP Dust Silo	6.13	6.13	0	0	0	0	0
GEN4 & GEN5	0.17	0.17	0.02	5.29	1.07	2.89	224.25
PTE of New Units (tpy)	12.43	12.43	0.02	5.29	1.07	2.89	224.25
<u>Actual to Projected Actual (ATPA) (tpy) #2 Furnace</u>							
Baseline	37.62	43.56	182.16	134.64	19.80	19.80	53,671.33
Could Have Accommodated	0.45	0.52	2.19	1.62	0.24	0.24	644.06
Projected Actuals	20.08	45.17	60.23	130.49	20.08	20.08	65,367.40
ATPA (tpy)	< 0	1.08	< 0	< 0	0.04	0.04	11,168.85
<u>Actual to Projected Actual (ATPA) (tpy) - Distributor</u>							
Baseline	0.17	0.17	0.01	2.20	0.12	1.85	2,664.02
Could Have Accommodated	0.00	0.00	0.00	0.05	0.00	0.04	60.15
Projected Actuals	0.17	0.17	0.01	2.20	0.12	1.85	2,646.61
ATPA (tpy)	< 0	< 0	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Forehearths</u>							
Baseline	0.27	0.27	0.02	3.60	0.20	3.02	4,330.82
Could Have Accommodated	0.00	0.00	0.00	0.05	0.00	0.04	60.15
Projected Actuals	0.28	0.28	0.02	3.65	0.20	3.07	4,390.97
ATPA (tpy)	< 0	< 0	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Lehrs</u>							
Baseline	0.20	0.20	0.02	2.65	0.15	2.23	3,187.96
Could Have Accommodated	0.00	0.00	0.00	0.05	0.00	0.04	60.15
Projected Actuals	20	0.20	0.02	2.65	0.15	2.23	3,187.96
ATPA (tpy)	< 0	< 0	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Mold Swab</u>							
Baseline	11.01	11.01	0	0	0	0	0
Could Have Accommodated	0.13	0.13	0	0	0	0	0
Projected Actuals	11.16	11.16	0	0	0	0	0
ATPA (tpy)	0.03	0.03	0	0	0	0	0
<u>Actual to Projected Actual (ATPA) (tpy) - Hot End Coating</u>							
Baseline	3.11	3.11	0	0	0	0	0
Could Have Accommodated	0.04	0.04	0	0	0	0	0
Projected Actuals	3.16	3.16	0	0	0	0	0
ATPA (tpy)	0.01	0.01	0	0	0	0	0
<u>Actual to Projected Actual (ATPA) (tpy) - Batchhouse</u>							
Baseline	0.04	0.04	0	0	0	0	0
Could Have Accommodated	0.00	0.00	0	0	0	0	0
Projected Actuals	0.45	0.45	0	0	0	0	0
ATPA (tpy)	0.41	0.41	0	0	0	0	0

	PM	PM ₁₀	SO ₂	NOx	VOC	CO	CO ₂ e
Hybrid Test (tpy)							
PTE of New Units (tpy)	12.43	12.43	0.02	5.29	1.07	2.89	224.25
Sum of ATPA Increases (tpy)	0.44	1.52	0	0	0.04	0.04	11,168.85
Hybrid Test Emissions Increase (tpy)	12.87	13.95	0.02	5.29	1.11	2.93	11,393.10
Significant Level	25	15	40	40	40	100	75,000

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

Since this source is considered a major PSD source and the unrestricted potential to emit of this modification is greater than twenty-five (25) tons of PM and fifteen (15) tons of PM₁₀, per year respectively, this source has elected to limit the potential to emit of this modification as follows:

- (a) The PM and PM₁₀ emissions from the bin vent controlling the soda ash silo (Silo No. 1) shall each not exceed 1.40 pounds per hour.
- (b) The PM and PM₁₀ emissions from the bin vent controlling the ESP dust silo (Silo No. 2) shall each not exceed 1.40 pounds per hour.

Compliance with these emission limits will ensure that the potential to emit from this modification shall be less than twenty-five (25) tons of PM per year and fifteen (15) tons of PM₁₀ per year, and therefore, will render the requirements of 326 IAC 2-2 not applicable.

Additionally, the Permittee has provided information as part of the application for this approval, that based on Actual to Projected Actual test in 326 IAC 2-2-2, this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1. IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The applicant will be required to keep records and report in accordance with Source obligation in 326 IAC 2-2-8.

Federal Rule Applicability Determination

NSPS:

40 CFR 60, Subpart CC

- (a) The two (2) Oxyfuel glass melting furnaces (identified as Furnace No. 1 and Furnace No. 2) are subject to the New Source Performance Standard (NSPS) for Glass Manufacturing Plants (40 CFR 60, Subpart CC) because they were constructed after the June 15, 1979 applicability date for this rule, produce more than five (5) tons of glass per day and do not meet the definition of all electric melters. This plant consists of glass melting furnaces comprising a refractory vessel in which raw materials are charged, melted at high temperature, refined, and conditioned to produce molten glass as defined under 40 CFR 60.291, Subpart CC.

The Oxyfuel design allows lower NOx and particulate emissions when compared to the conventional regenerative furnaces of the same size. As part of the T075-6108-00004 permitting action, it was determined that the Oxyfuel glass melting furnaces (identified as

Furnace No. 1 and Furnace No. 2) meet the definition of a modified process because they use a technique designed to minimize emissions without the use of add-on pollution controls. Therefore, the furnaces are subject to the requirements of 40 CFR 60.293 - Standards for Particulate Matter from Glass Melting Furnace with Modified-Processes, and are not subject to the requirements of 40 CFR 60.292 - Standards for Particulate Matter.

Upon routing of each furnace to the emissions control system (Scrubber No. 1 and ESP No. 1), Saint-Gobain Containers has opted to reclassify the respective furnace to a glass melting furnace without modified processes and comply with the requirements of 40 CFR 60.292, in lieu of complying with 40 CFR 60.293. Pursuant to 40 CFR 60.296(a), if a glass melting furnace with modified processes is changed to one without modified processes or if a glass melting furnace without modified processes is changed to one with modified processes, the owner or operator shall notify the Administrator at least 60 days before the change is scheduled to occur.

Nonapplicable portions of the NSPS will not be included in the permit. Furnace No. 1 and Furnace No. 2 are subject to the following portions of 40 CFR 60, Subpart CC:

- (1) 40 CFR 60.290 (a) and (b)
- (2) 40 CFR 60.291
- (3) 40 CFR 60.293
- (4) 40 CFR 60.296

After each furnace is connected to the ESP, the Permittee who owns/operates glass melting furnace for which construction, reconstruction, or modification is commenced after June 15, 1979 shall comply with the following provisions of 40 CFR 60, Subpart CC (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12 for that respective furnace, and specified as follows:

- (5) 40 CFR 60.290 (and) and (b)
- (6) 40 CFR 60.291
- (7) 40 CFR 60.292
- (8) 40 CFR 60.296

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 60, Subpart CC.

40 CFR 60, Subpart IIII

- (a) The generators identified as GEN4 and GEN5 are subject to the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), which is incorporated by reference as 326 IAC 12, because they are considered stationary compression ignition (CI) internal combustion engines (ICE) that were manufactured after April 1, 2006 and are not fire pump engines.

GEN 4 and GEN5 are each considered an emergency CI ICE with a displacement greater than or equal to 10 liters per cylinder and less than 30 liters per cylinder for which construction commenced after 2007. Nonapplicable portions of the NSPS will not be included in the permit. GEN4 and GEN5 are each subject to the following portions of 40 CFR 60, Subpart IIII:

- (1) 40 CFR 60.4200 (a)(2)(i) and (c)
- (2) 40 CFR 60.4205(b)

- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(b)
- (5) 40 CFR 60.4208
- (6) 40 CFR 60.4209(a)
- (7) 40 CFR 60.4211 (a), (c), and (e)
- (8) 40 CFR 60.4214 (b)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 8 to Subpart IIII of Part 60 - Applicability of General Provisions to Subpart IIII

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 60, Subpart IIII.

- (b) The generators identified as GEN1, GEN2, and GEN3 are not subject to the requirements of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40 CFR 60, Subpart IIII), because they are not fire pump engines and construction of the generators commenced prior to the applicability date of July 11, 2006. Therefore, the requirements of 40 CFR 60, Subpart IIII are not applicable to GEN1, GEN2, and GEN3.

NESHAP:

40 CFR 63, Subpart ZZZZ

- (a) The emergency generators, identified as GEN1, GEN2, and GEN3, are subject to the National Emission Standards for Hazardous Air Pollutants for National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) (40 CFR 63.6580, Subpart ZZZZ), which is incorporated by reference as 326 IAC 20-82, because each generator is considered a reciprocating internal combustion engine (RICE) which is not being tested at a stationary RICE test cell/stand.

Each generator is considered an existing emergency stationary compression ignition (CI) reciprocating internal combustion engine (RICE) located at an area source for HAPs, since construction of each generator commenced before June 12, 2006. Nonapplicable portions of the NESHAP will not be included in the permit. GEN1, GEN2, and GEN3 are each subject to the following portions of 40 CFR 63, Subpart ZZZZ:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585 (a), (b), (c), and (d)
- (3) 40 CFR 63.6590 (a)(1)(iii), (a)(1)(iv), (a)(2)(iii), and (c)(1)
- (4) 40 CFR 63.6595 (a)(1), (a)(7), (b), and (c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625 (e)(3), (f), (h), and (i)
- (8) 40 CFR 63.6640 (a), (b), (d), (e), (f)(1)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6650 (e) and (f)
- (11) 40 CFR 63.6660
- (12) 40 CFR 63.6665
- (13) 40 CFR 63.6670
- (14) 40 CFR 63.6675
- (15) Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

- (16) Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance with Emission Limitations, Work Practices, and Management Practices
- (17) Table 8 to Subpart ZZZZ of Part 63 - Applicability of General Provisions to Subpart ZZZZ

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

- (b) The emergency generators, identified as GEN4 and GEN5, are subject to the National Emission Standards for Hazardous Air Pollutants for National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE) (40 CFR 63.6580, Subpart ZZZZ), which is incorporated by reference as 326 IAC 20-82, because they are each considered a reciprocating internal combustion engine (RICE) which is not being tested at a stationary RICE test cell/stand.

Gen4 and GEN5 are each considered a new emergency stationary reciprocating internal combustion engine (RICE) because construction will commence after June 12, 2006. Additionally, the generators will be located at an area source for HAPs. Pursuant to 40 CFR 60.6590(c), a new or reconstructed stationary RICE located at an area source of HAP emissions must meet the requirements of this part (40 CFR 63, Subpart ZZZZ) by meeting the requirements of 40 CFR 60, Subpart IIII or 40 CFR 60, Subpart JJJJ. No further requirements apply for such engines under this part (40 CFR 63, Subpart ZZZZ).

CAM:

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

- (1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;
- (2) is subject to an emission limitation or standard for that pollutant; and
- (3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each new or modified emission unit involved:

CAM Applicability Analysis							
Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (ton/yr)	Controlled PTE (ton/yr)	Part 70 Major Source Threshold (ton/yr)	CAM Applicable (Y/N)	Large Unit (Y/N)
<u>PM/PM₁₀ (326 IAC 2-1.1-5 & 326 IAC 6-3-2)</u>							
soda ash silo	Y	Y	63.7	0.63	100	N	N
ESP dust silo	Y	Y	63.7	0.63	100	N	N
<u>PM Limit (326 IAC 2-1.1-5, 326 IAC 6-3-2, & 40 CFR 60, Subpart CC) ⁽¹⁾</u>							
Furnace No. 1	Y	Y	> 100	18	100	Y	N
Furnace No. 2	Y	Y	> 100	20	100	Y	N

CAM Applicability Analysis							
Emission Unit	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (ton/yr)	Controlled PTE (ton/yr)	Part 70 Major Source Threshold (ton/yr)	CAM Applicable (Y/N)	Large Unit (Y/N)
<u>Total PM Limit (326 IAC 2-1.1-5) ⁽¹⁾</u>							
Furnace No. 1	Y	Y	> 100	41	100	Y	N
Furnace No. 2	Y	Y	> 100	45	100	Y	N
<u>SO₂ Limit (326 IAC 2-1.1-5)</u>							
Furnace No. 1	Y	Y	> 100	> 100	100	exempt	N/A
Furnace No. 2	Y	Y	> 100	> 100	100	exempt	N/A

⁽¹⁾ Controlled PM values based on the following limitations in permit:

$$\text{PM Limits (326 IAC 2-1.1-5) (tpy)} = 0.2 \text{ lb filterable PM/ton glass} \times \text{maximum capacity (ton glass /day)} \times 365 \text{ (days/yr)} \times 1/2000 \text{ lb/ton}$$

$$\text{Total PM Limits (326 IAC 2-1.1-5) (tpy)} = 0.45 \text{ lb total PM/ton glass} \times \text{maximum capacity (ton glass /day)} \times 365 \text{ (days/yr)} \times 1/2000 \text{ lb/ton}$$

PM CAM Applicability

- (a) Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable to the Soda Ash Silo and the ESP Dust Silo for PM and PM₁₀, because the uncontrolled potential to emit for PM and PM₁₀ is less than the major source thresholds.
- (b) Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to Furnace No. 1 and Furnace No. 2 for PM and total PM upon issuance of Significant Source Modification No. 075-29643-00004 and Significant Permit Modification No. 075-29645-00004. The requirements of CAM are applicable because the units have uncontrolled potential to emit above the major source thresholds for PM and total PM, are subject to emission limits for filterable PM [326 IAC 2-1.1-5 & 40 CFR 60, Subpart CC] and total PM [326 IAC 2-1.1-5], and use a control device to comply with the emission limits. Since the controlled PM and total PM emissions do not exceed the major source thresholds, these units are not considered large units. Pursuant to 40 CFR 64.5(b), the source shall submit a Compliance Monitoring Plan (CAM) for Furnace No. 1 and Furnace No. 2 for PM and total PM as part of the Part 70 Operating Renewal permit application.

Furnace No. 1 and Furnace No. 2 are each subject to a particulate matter (PM) emission limit under 36 IAC 6-3-2. However, a control is not necessary to comply with these limits.

SO₂ CAM Applicability

Furnace No. 1 and Furnace No. 2 are exempt from the requirements of 40 CFR Part 64, CAM. Pursuant to 40 CFR 64.2(b)(1)(vi), the requirements of 40 CFR Part 64 (CAM) shall not apply to emission limitations or standards for which a Part 70 permit specifies a continuous compliance determination method. Since compliance with the SO₂ emission limitations in the Part 70 permit is specified to be determined by continuous emissions monitoring systems (CEMS), CAM is not applicable to Furnace No.1 or Furnace No. 2 for SO₂ emissions.

State Rule Applicability Determination

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

PSD applicability is discussed under the Permit Level Determination – Prevention of Significant Deterioration (PSD) section.

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

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the two (2) Oxyfuel glass melting furnaces, the soda ash silo, the ESP dust silo, and the batch handling facilities servicing melting furnaces No. 1 and No. 2 shall not exceed the particulate emission limit as shown in the table below.

Emission Units	Process Weight		Particulate Emission Limit (lbs/hour)
	(lbs/hour)	(tons/hour)	
Oxyfuel furnace No. 1	52,058	26.04	36.40
Oxyfuel furnace No. 2	57,292	28.65	38.82
Soda ash silo	40,000	20.0	30.51
ESP dust silo	40,000	20.0	30.51
Batch handling facility servicing melting furnace No. 1	52,058	26.04	36.40
Batch handling facility servicing melting furnace No. 2	57,292	28.65	38.82

The pounds 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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour, and} \\ P = \text{process weight rate in tons per hour.}$$

The bin vents dust collectors associated with the soda ash silo and ESP dust silo do not need to be in operation in order to comply with this limit.

Consent Decree - 2:10-cv-00121-TSZ Requirements

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the Permittee is subject to the following:

Interim NOx Limit:

The following interim limits for NO_x have been agreed upon for Furnace No. 1 and Furnace No. 2.

- (a) NOx emissions from Furnace No. 1 shall not exceed 146 tons per Calendar Year.
- (b) NOx emissions from Furnace No. 2 shall not exceed 160.6 tons per Calendar Year.
- (c) Compliance with the NOx Calendar Year interim limits shall be calculated by using the following equation:

$$NOx = [(PastTest \times 1stprod) / 2000] + [(NewTest \times 2ndprod) / 2000]$$

Where:

- NOx = NOx Emissions (tpy)
PastTest = Last source test result (lb/ton). If no source test has been conducted pursuant to the Consent Decree, an emission factor of 1.6 lbs NOx/ton glass produced shall be used.
NewTest = New test from the year for which emissions are being calculated (lb/ton)
1stprod = Production from January 1st through the Day prior to the Day the new source test is commenced (tons of glass)
2ndprod = Production from the Day of the new source test through the end of that same Calendar Year (tons of glass)

Note: If SGCI elects to do more than one test in a year, emissions calculated on the Days following the second test, will be based on that second test.

- (d) For each furnace: upon NOx CEMS installation and certification of compliance with the interim NOx emission limits shall be demonstrated using emissions data generated by the NOx CEMS in order to calculate all subsequent daily emission rates that are used to calculate the annual emission rate for the Calendar Year.

For the first Calendar Year during which CEMS are installed and certified, the annual emissions calculated will be the sum of the tons of NOx emitted on the Days when the emissions were determined from source test data (as calculated above) and the tons of NOx emitted on the Days when emissions were determined by CEMS data.

- (e) For each furnace: this limit shall remain in effect through December 31st or the Calendar Year in which the furnace is required to comply with the NOx emission limitation of 1.3 lb/ton of glass produced as required by NOx Limit.

NOx Limit:

The following limits for NOx have been agreed upon for Furnace No. 1 and Furnace No. 2.

- (a) For Furnace No. 2: on and after, the first Operating Day after completion of the Furnace Startup Period associated with the cold rebuild project and NOx CEMS certification, but no later than December 31, 2012, the 30-day rolling average NOx emissions from Furnace No. 2 shall not exceed 1.3 lb/ton glass produced, except during the following periods: Abnormally Low Production Rate Days, Furnace Startup, Malfunction of the Furnace, and Maintenance of the Furnace.
- (b) For Furnace No. 1: on and after the NOx CEMS certification, but no later than December 31, 2013, the 30-day rolling average NOx emissions from Furnace No. 1 shall not exceed 1.3 lb/ton glass produced, except during the following periods: Abnormally Low Production Rate Days, Furnace Startup, Malfunction of the Furnace, and Maintenance of the Furnace.
- (c) For any Abnormally Low Production Rate Days, the Permittee may elect to exclude the emissions generated during that Day from the 30-day rolling average. During these days the Permittee shall comply with the following NO_{X OXY ABN} limit (24-hour Block Average):
- (A) For Furnace No. 1, NO_{X OXY ABN} = 650 lb NOx/ton glass; and,
(B) For Furnace No. 2, NO_{X OXY ABN} = 717 lb NOx/ton glass.

The following equation was used to determine the NO_{X OXY ABN} limitations:

$$\text{NO}_{\text{X OXY ABN}} = 1.3 \text{ (lb NOx/ton glass produced)} \times P/0.35$$

Where:

$NO_{X\ OXY\ ABN}$ = NOx emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day in pounds per day.

P = Abnormally Low Production Rate (tons glass produced)

For Furnace No. 1: P = 175 (tons/day)

For Furnace No. 2: P = 193 (tons/day)

(d) Furnace Startup limitations:

(1) During the Initial Heating Phase, the input of natural gas to the respective furnace shall not exceed five million standard cubic feet (5.0 MMscf).

(2) During the Refractory Soak and Seal Phase:

(A) The input of natural gas to the respective furnace shall be less than sixty million standard cubic feet (60 MMscf).

(B) The excess oxygen at the respective furnace exhaust flue shall be less than five percent (5%).

(C) The Hot Spot Temperature at the respective furnace shall not exceed 2900.0 degrees F.

(D) Thermal blankets or similar techniques shall be utilized at the respective furnace to minimize air filtration until expansion joints are sufficiently closed.

(3) During Furnace Stabilization Phase:

(A) The input of natural gas to the respective furnace shall not exceed ninety million standard cubic feet (90 MMscf).

(B) The excess oxygen at the respective furnace exhaust flue shall be less than five percent (5%).

(C) The Hot Spot Temperature at the respective furnace shall not exceed 2900.0 degrees F.

(e) For any Operating Day where a Malfunction of a furnace occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day(s) from the 30-day rolling average for the respective furnace. During the Malfunction Day(s), the Permittee shall comply with the following $NO_{X\ OXY\ MALF}$ limit (24-hour Block Average):

(A) For Furnace No. 1, $NO_{X\ OXY\ MALF} = 2,600$ lb NOx/ton glass; and,

(B) For Furnace No. 2, $NO_{X\ OXY\ MALF} = 2,868$ lb NOx/ton glass.

The following equation was used to determine the $NO_{X\ OXY\ MALF}$ limitations:

$$NO_{X\ OXY\ MALF} = 4.0 \times NO_{X\ OXY\ ABN}$$

Where:

$NO_{X\ OXY\ MALF}$ = NOx emission limit for an Oxyfuel Furnace during a Malfunction Day, in pounds per day.

$NO_{X\ OXY\ ABN}$ = As defined at NOx Limit, paragraph (c), NOx emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day, in pounds per day.

For Furnace No. 1: $NO_{X\ OXY\ ABN} = 650$ (tons/day)

For Furnace No. 2: $NO_{X\ OXY\ ABN} = 717$ (tons/day)

- (f) For any Operating Day where Maintenance activities on a furnace are performed, the Permittee may elect to exclude the Maintenance Day from the 30-day rolling average for the respective furnace. During the Maintenance Day, the Permittee shall comply with the following $\text{NOx}_{\text{OXY MAINT}}$ limit (24-hour Block Average):

$$\text{NOx}_{\text{OXY MAINT}} = [\text{MH} \times (4 \times \text{NOx}_{\text{OXY ABN}}) / 24] + [(\text{NH} \times \text{NOx}_{\text{OXY ABN}}) / 24]$$

Where:

$\text{NOx}_{\text{OXY MAINT}}$ = NOx emission limit for an Oxyfuel Furnace during a Maintenance Day, in pounds per day.

$\text{NOx}_{\text{OXY ABN}}$ = As defined at NOx Limit, paragraph (c), NOx emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day, in pounds per day.

For Furnace No. 1: $\text{NOx}_{\text{OXY ABN}} = 650$ (tons/day)

For Furnace No. 2: $\text{NOx}_{\text{OXY ABN}} = 717$ (tons/day)

MH = hours of Maintenance

NH = normal hours = 24 - MH

- (g) Compliance with the 1.3 lb/ton glass produced NOx emission limit (30-day rolling average) for Furnace No. 1 and Furnace No. 2, each, may be determined by averaging the emissions from both furnaces.
- (h) Upon completion of the cold rebuild of the Oxyfuel glass melting furnace, identified as Furnace No. 2, but no later than December 31, 2012, the Permittee shall operate Furnace No. 2 using Oxyfuel technology and the gas that provides the oxidant for combustion of the fuel shall be composed of equal to or greater than ninety percent (90%) oxygen.
- (i) No later than December 31, 2013, for the Oxyfuel glass melting furnace, identified as Furnace No. 1, the Permittee shall operate Furnace No.1 using Oxyfuel technology and the gas that provides the oxidant for combustion of the fuel shall be composed of equal to or greater than ninety percent (90%) oxygen.

Interim SO₂ Limit:

The following interim limits for SO₂ have been agreed upon for Furnace No. 1 and Furnace No. 2.

- (a) For each furnace: on and after the first stack test after May 7, 2010, SO₂ emissions from the respective furnace shall not exceed 2.5 pounds per ton of glass produced, except during periods of Abnormally Low Production Rate Days, Furnace Startup, Malfunction, Maintenance, and Color Transition.
- (b) Compliance with any the interim limit in Interim SO₂ Limit may be determined by averaging the emissions from Furnace No. 1 and Furnace No. 2.
- (c) When one Furnace Operating under normal conditions is ducted through the same exhaust stack as a Furnace that is Operating at an Abnormally Low Production Rate, has a Malfunction, undergoes Maintenance, or has a Color Transition, the combined daily emission limit for the Furnaces shall be the sum of the following limit ($\text{SO}_2_{\text{NORMAL LB/DAY}}$) for the normally Operating Furnace and the relevant limit set forth at Interim SO₂ Limit for the remaining Furnace.

$$\text{SO}_2_{\text{NORMAL LB/DAY}} = 2.5 \text{ lb SO}_2/\text{ton glass} \times \text{ADP}$$

Where:

SO_2 NORMAL LB/DAY = SO_2 interim emission limit for a normally Operating Furnace during a day where a commonly ducted furnace is experiencing an event as set forth at Interim SO_2 Limit.

ADP = Actual Daily Production for the normally Operating Furnace.

These limits shall remain in effect for each furnace, respectively, until the furnace is required to comply with the SO_2 emission limits required by SO_2 and H_2SO_4 Limit:

SO_2 and H_2SO_4 Limit:

The following limits for SO_2 have been agreed upon for Furnace No. 1 and Furnace No. 2.

- (a) Upon completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012, all stack gases from Furnace No. 2 shall be captured and controlled by a semi-dry scrubber (Scrubber No. 1) except during periods of Control Device Startup, up to the first seven (7) days of the Furnace Startup, and during Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).
- (b) No later than December 31, 2012, all stack gases from Furnace No. 1 shall be captured and controlled by a semi-dry scrubber (Scrubber No. 1), except during periods of Control Device Startup, up to the first seven (7) days of the Furnace Startup, and during Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).
- (c) On and after the first Operating Day after completion of the Control Device Startup and CEMS Certification, but no later than December 31, 2012, Furnace No. 1 and Furnace No. 2 shall comply with the following requirements, except during periods of Control Device Startup, Furnace Startup, Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).
 - (1) No dilution air will be intentionally added to the stack gases between the Scrubber System (Scrubber No. 1) and the SO_2 CEMS. When determining compliance with all Scrubber System (Scrubber No. 1) limits, there shall be no oxygen correction, as per vendor guarantee.
 - (2) The Permittee shall determine a daily SO_2 Inlet 24-hour Block Average. The SO_2 30-day rolling average compliance limit for each Operating Day will depend on the daily SO_2 Inlet 24-hour Block Average and will either be as defined in SO_2 and H_2SO_4 Limit paragraph (c)(3) or (c)(4) (as follows), but not both.
 - (3) If the calculated average daily SO_2 Inlet is equal to or greater than 300 parts per million by volume dry (ppmvd), the SO_2 Removal Efficiency on a 24-hour Block Average for that Day and a SO_2 Removal Efficiency 30-day Rolling Average shall be calculated. The Permittee shall operate the Semi-dry Scrubber (Scrubber No. 1) such that the SO_2 Removal Efficiency 30-day Rolling Average is greater than or equal to 85 percent.
 - (4) If the calculated average daily SO_2 Inlet is less than 300 ppmvd, the Scrubber (Scrubber No. 1) SO_2 Outlet 24-hour Block Average concentration for that Day and the Scrubber SO_2 Outlet 30-day Rolling Average shall be calculated. The Permittee shall operate the Semi-dry Scrubber such that the Scrubber SO_2 Outlet 30-day Rolling Average is less than or equal to 45 ppmvd.

- (d) During Control Device Startup or up to the first seven (7) Days of Furnace Startup, the Permittee shall comply with the following.
- (1) During the startup period, the amount of sulfur added to the batch materials shall not exceed 2.6 pounds per ton of total batch material (including cullet) or less.
 - (2) During no more than the first seven (7) Days of Furnace Startup, the Furnace exhaust may bypass the Scrubber System (Scrubber No. 1) to avoid having the operating inlet temperature of the Scrubber System fall below its operational range. During these bypass Days, the furnace shall burn no more than 15.0 million standard cubic feet (MMscf) of natural gas.
- (e) For any Operating Day where a Malfunction of the Scrubber System (Scrubber No. 1) or ESP (ESP No. 1) occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day (or Operating Days if the event covers more than one Operating Day) from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates. During the Malfunction Day(s) excluded from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates, the SO₂ emissions (as a 24-hour Block Average) shall be limited as follows:
- (A) For Furnace No. 1, SO_{2 SCRUB MALF} = 1,250 lb SO₂/ton glass; and,
 - (B) For Furnace No. 2, SO_{2 SCRUB MALF} = 1,379 lb SO₂/ton glass.

The following equation was used to determine the SO_{2 SCRUB MALF} limitations:

$$SO_{2\text{ SCRUB MALF}} = 2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35)$$

Where:

$$SO_{2\text{ SCRUB MALF}} = \text{SO}_2 \text{ emission limit for a Furnace with a Semi-dry Scrubber (Scrubber No. 1) during a Malfunction Day, in pounds per day.}$$

P = Abnormally Low Production Rate (tons glass produced)
For Furnace No. 1: P = 175 (tons/day)
For Furnace No. 2: P = 193 (tons/day)

- (f) For any Operating Day where Maintenance activities on the Scrubber System (Scrubber No. 1) or ESP (ESP No. 1) are performed, the Permittee may elect to exclude the Maintenance Day from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates. For any Day which is excluded from the SO₂ 30-day Rolling Average, the SO₂ emissions (as a 24-hour Block Average) shall be limited as follows:

$$SO_{2\text{ SCRUB MAINT}} = \frac{[[MH \times (2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35))] / 24] + [[NH \times ((1/3) \times 2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35))] / 24]}$$

Where:

$$SO_{2\text{ SCRUB MAINT}} = \text{SO}_2 \text{ emission limit for a Furnace with a Semi-Dry Scrubber during a Maintenance Day, in pounds per day.}$$

P = Abnormally Low Production Rate (tons glass produced)
For Furnace No. 1: P = 175 tons per day
For Furnace No. 2: P = 193 tons per day

MH = Hours of Maintenance
NH = Normal Hours = 24 – MH

- (g) The emissions of Sulfuric Acid Mist (H_2SO_4) from Furnace No. 1 and Furnace No. 2 shall, each, not exceed 1.0 pound per ton of glass produced.
- (h) When both Furnace No. 1 and Furnace No. 2 are subject to the same emission limit, compliance with the 30-day rolling average limits may be determined by averaging the emissions from both furnaces subject to the same emission limit.

Interim PM (Filterable) Limit:

The following interim limits for PM (Filterable) have been agreed upon for Furnace No. 1 and Furnace No. 2.

- (a) For each furnace: on and after the first respective stack test following May 7, 2010, PM emissions from each furnace shall not exceed 1.0 pound of PM per ton of glass produced.
- (b) This interim PM emission limit shall remain in effect for each Furnace until the Furnace is required to comply with a PM emission limit specified at PM (Filterable) and Total PM Limit.
 - (1) Furnace No. 1 is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit, no later than December 31, 2012.
 - (2) Furnace No. 2, is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit, on and after the first seven (7) Operating Day(s) of the Furnace Startup following the completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012.

PM (Filterable) and Total PM Limit:

The following limits for PM (Filterable) and Total PM have been agreed upon for Furnace No. 1 and Furnace No. 2.

- (a) For Furnace No. 2: on and after the first seven (7) Operating Days of the Furnace Startup following the completion of the cold rebuild project, but no later than December 31, 2012, all stack gases from Furnace No. 2 shall be captured and controlled by an electrostatic precipitator (ESP No. 1), except during periods of Control Device Startup, up to the first seven (7) Days of the Furnace Startup, and during Malfunction of the electrostatic precipitator (ESP No. 1), and Maintenance on the electrostatic precipitator (ESP No. 1).
- (b) For Furnace No. 1: no later than December 31, 2012, all stack gases from Furnace No. 1 shall be captured and controlled by an electrostatic precipitator (ESP No. 1), except during periods of Control Device Startup, up to the first seven (7) Days of the Furnace Startup, and during Malfunction of the electrostatic precipitator (ESP No. 1), and Maintenance on the electrostatic precipitator (ESP No. 1).
- (c) The emissions from Furnace No. 1 and Furnace No. 2 shall, each, not exceed 0.2 pound of filterable PM per ton of glass produced and 0.45 pound of total PM per ton of glass produced, once the emissions from the respective furnace are controlled by an electrostatic precipitator (ESP No. 1).
- (d) When both Furnace No. 1 and Furnace No. 2 are routed to the same stack and subject to the same emission limits, compliance with these limits shall be determined using the following equation:

$$PM_{\text{EMISSION RATE}} \text{ (lb/ton glass)} = \left[\frac{\text{(Lbs of PM from ST)}}{\text{(Daily production)}} \right] \times \left[\frac{\text{(24 hrs)}}{\text{(Source test length)}} \right]$$

Where:

$$PM_{\text{EMISSION RATE}} \text{ (lb/ton glass)} = \text{PM Emissions rate (lb PM/ton glass)}$$

Lbs of PM from ST = The pounds of PM measured during the entire length of the source test (including all runs).

Daily production = The amount of glass produced on all Furnaces during the Day of the source test in tons.

Source test length = Length of the entire source test (including all runs), in hours.

If the resulting number is below the limit set forth on each Furnace individually, then both furnaces are in compliance.

If the resulting number is above the limits set forth on each Furnace individually, then both furnaces are in noncompliance.

Maintenance

- (a) Scheduled or preventative furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) operating hours annually.
 - (1) No later than December 31, 2012, ESP No. 1 and Scrubber No. 1 shall be in operation and controlling emissions from Furnace No. 1 at all times when scheduled or preventive furnace Maintenance is conducted.
 - (2) Upon completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012, ESP No. 1 and Scrubber No. 1 shall be in operation and controlling emissions from Furnace No. 2 at all times when scheduled or preventive furnace Maintenance is conducted.
- (b) Scheduled or preventative Maintenance of the emission control system shall occur when the Furnace No. 1 and Furnace No. 2 are not in operation. However, for any Calendar Year which is a Continuous Operating Year, scheduled or preventative Maintenance may be conducted while one (1) or both of the furnaces are in operation. During a Continuous Operating Year, Maintenance lasting greater than twenty-four (24) consecutive hours, shall occur only during Abnormally Low Production Rate Days. Control system Maintenance must be done in compliance with the following:
 - (1) Bypass of ESP No. 1 shall not exceed one hundred forty-four (144) hours annually in any Calendar Year. Furthermore if ESP No. 1 is bypassed, Scrubber No. 1 must be bypassed as well.
 - (2) Bypass of Scrubber No. 1 shall not exceed one hundred forty-four (144) hours annually in any Calendar Year. Bypass of Scrubber No. 1 required by the bypass of ESP No. 1 shall be included in the one hundred forty-four (144) hours.

Testing

The Permittee shall perform source testing in accordance with the following table:

Pollutant	Requirement	Control	Initial Test	Frequency of Testing
NOx	Interim NOx Limit (326 IAC 2-1.1-5)	None required for interim limits	No later than May 7, 2011	Once every Calendar year until the NOx CEMS is certified. Testing is not required during the calendar year in which a NOx CEMS is installed.
SO ₂	Interim SO ₂ Limit (326 IAC 2-1.1-5)	None required for interim limits	No later than May 7, 2011	Once every Calendar year until the SO ₂ CEMS is certified. Testing is not required during the calendar year in which a SO ₂ CEMS is installed.
PM	Interim PM Limit (326 IAC 2-1.1-5)	None required for interim limits	No later than May 7, 2011	Once every Calendar year until compliance with final limits is demonstrated. This test is not required in the calendar year which a source test to determine compliance with the following limits is demonstrated: 0.2 lb PM (filterable)/ton glass 0.45 lb total PM/ton glass
H ₂ SO ₄	H ₂ SO ₄ Limit (326 IAC 2-1.1-5)	none specified	On or before December 31, 2011	At least once during the life of each Title V renewal
Filterable PM & Total PM	PM (Filterable) & Total PM Limit (326 IAC 2-1.1-5)	ESP	No later than December 31, 2013	At least once every calendar year.

Terminology

For requirements applicable under the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the definitions, included as Attachment A to Significant Source Modification T075-29643-00004 and Significant Permit Modification T075-29645-00004, shall apply to the terms listed below.

- (a) "24-hour Block Average"
- (b) "Affected State(s)"
- (c) "Abnormally Low Production Rate"
- (d) "Abnormally Low Production Rate Day"
- (e) "Calendar Year"
- (f) "CEMS"
- (g) "CEMS Certification"
- (h) "CEMS Certification Event"
- (i) "Color Transition"
- (j) "COMS"
- (k) "Continuous Operating Year"
- (l) "Control Device Startup"
- (m) "Day"
- (n) "Emission Rate 30-day Rolling Average"
- (o) "First Control Device Startup"
- (p) "Furnace"
- (q) "Furnace Startup"

- (i) "Initial Heating Phase"
- (ii) "Refractory Soak and Seal Phase"
- (iii) "Furnace Stabilization Phase"
- (r) "Hot Spot Temperature"
- (s) "Inlet"
- (t) "Maintenance"
- (u) "Major Rebuild"
- (v) "Malfunction"
- (w) "Month"
- (x) "NOx"
- (y) "Operate", "Operation", "Operating", and "Operated"
- (z) "Operating Day"
- (aa) "Outlet"
- (bb) "Outlet 30-day Rolling Average"
- (cc) "Oxyfuel Furnace"
- (dd) "Particulate Matter" and "PM"
- (ee) "Removal Efficiency"
- (ff) "Removal Efficiency 30-day Rolling Average"
- (gg) "Scrubber System"
- (hh) "SO₂"
- (ii) "Ton" or "tons"
- (jj) "TSP"

Continuous Monitoring

- (a) A continuous emissions monitoring system (CEMS) shall be installed, calibrated, maintained, and operated for the listed pollutant from the associated facilities, in accordance with the table below:

Monitoring Device	Facility	Stack	Timeline
NOx CEMS	Furnace No. 1	Stack No. 1	No later than December 31, 2012
NOx CEMS	Furnace No. 2	Stack No. 2	Upon completion of the cold rebuild project, but no later than December 31, 2012
SO ₂ CEMS	Furnace No. 2	Stack No. 3 One (1) at inlet of Scrubber No. 1 & One (1) at outlet of	Upon completion of the cold rebuild project, but no later than December 31, 2012
	Furnace No. 1	Scrubber No. 1	No later than December 31, 2012

- (1) The NOx CEMS at Stack No. 1 shall monitor continuously and record the hourly NOx emission concentration (parts per million) during each Operating Day from Furnace No. 1, and the NOx CEMS at Stack No. 2 shall monitor continuously and record the hourly NOx emission concentration (parts per million) during each Operating Day from Furnace No. 2. The CEMS shall calculate and record in units of parts per million of NOx emitted.
- (2) The SO₂ CEMS shall monitor continuously and record the hourly SO₂ emission concentration (parts per million) during each Operating Day from Furnace No. 1 and Furnace No. 2. The CEMS shall calculate and record in units of parts per million of SO₂ emitted.

- (b) All CEMS required pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), shall be installed, calibrated, certified, maintained, and operated in accordance with 40 CFR 60.13, 40 CFR Part 60 Appendix B (Performance Specification 2) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures).
- (c) Where CEMS is required to determine an emission rate (pound per ton or ton per year), the Permittee shall install, calibrate, certify, maintain, and operate NO_x and SO₂ Continuous Emission Rate Monitoring System (CERMS) as follows:
 - (1) The CERMS shall be installed, calibrated, certified, maintained, and operated in accordance with 40 CFR 60.13, 40 CFR Part 60 Appendix B (Performance Specification 6), and 40 CFR Part 60 Appendix F (Quality Assurance Procedures);
 - (2) SGCI must comply with all monitoring, record keeping and reporting requirements in 40 CFR 60.13 and 40 CFR Part 60 Appendix B (Performance Specification 6); and
 - (3) In conjunction with the flow rate monitoring device, the data acquisition and handling system for the CEMS shall convert the ppm values into pound per hour values where the limit is expressed in pounds of pollutant per ton of glass produced. At the end of each Operating Day, the data acquisition and handling system shall divide the total daily emissions in pounds per day for valid CEMS hourly data by the total tons of glass produced during the Operating Day (reduced proportionally based on the valid CEMS data hours) to describe the pound per ton emission rate for the Operating Day. This number shall be recorded in units of pounds of pollutant per ton of glass produced for the applicable Day.
- (d) Continuous opacity monitoring system (COMS) shall be installed, calibrated, maintained, and operated, in accordance with the following:
 - (1) Until commencement of the cold rebuild of Furnace No. 2, the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 2.
 - (2) Upon completion of the cold rebuild of the Furnace No. 2, the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 3.
 - (3) Until Furnace No. 1 exhaust is routed to the emission control system (Scrubber No. 1 and ESP No. 1), the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 1.
 - (4) Each COMS shall be operated continuously during each associated furnace's Operating Day in accordance with Performance Specification 1 of 40 CFR Part 60 Appendix B; and in compliance with all monitoring, record keeping and reporting requirements in 40 CFR 60.13 and 40 CFR Part 60 Appendix B (Performance Specification 1).

Furnace Exhaust Flue Excess Oxygen

The Permittee shall record the excess oxygen at the furnace exhaust flue, once per shift, during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. The measurement shall be taken with a handheld monitor. For Furnace No. 1, this

requirement shall apply no later than December 31, 2012. For Furnace No. 2, this requirement shall apply upon completion of the cold rebuild project, but no later than December 31, 2012.

Furnace Hot Spot Temperature

The Permittee shall record the furnace Hot Spot Temperature, once per shift, during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. For Furnace No. 1, this requirement shall apply no later than December 31, 2012. For Furnace No. 2, this requirement shall apply upon completion of the cold rebuild project, but no later than December 31, 2012.

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.

Compliance Determination Requirements

- (a) In addition to compliance determination requirements pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), Furnace No. 1 and Furnace No. 2 have applicable compliance determination conditions as specified below:

Continuous Monitoring

All continuous monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

- (b) The soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) have applicable compliance determination conditions as specified below:

Particulate Control

The dust collectors for particulate control shall be in operation and control emissions at all times when its associated facility/emissions unit (soda ash silo (Silo No. 1) and ESP dust silo (Silo No. 2)) is in operation.

Compliance Monitoring Requirements

- (a) In addition to compliance monitoring requirements pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), Furnace No. 1 and Furnace No. 2 have applicable compliance monitoring conditions as specified below:

Parametric Monitoring

The ability of ESP No. 1 to control particulate emissions shall be monitored once per day when either Furnace No. 1 or Furnace No. 2 are in operation by measuring and recording the KVA (Kilovolt-Amperes) of the T-R sets.

These monitoring conditions are necessary because the ESP must operate properly in order to ensure compliance with PM and PM₁₀ limits, which render the requirements of 326 IAC 2-1.1-5 (Air Quality Requirements) not applicable.

Maintenance of Continuous Opacity Monitoring (COM) Equipment and COMS Downtime

In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.

Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor opacity from the stack.

- (1) Visible Emission readings shall be performed in accordance with 40 CFR Part 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.
- (2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least once twice per day during daylight operations, with at least four (4) hours between each set of readings until a COM is online.
- (3) Method 9 opacity readings may be discontinued once a COMS is online.
- (4) Any opacity exceedances determined by Method 9 opacity readings shall be reported in the Quarterly Opacity Exceedances Reports.

These monitoring requirements are necessary whenever a COMS down for a period equal to or greater than twenty-four (24) hours in order to ensure compliance with PM and PM₁₀ limits, which render the requirements of 326 IAC 326 IAC 2-1.1-5 (Air Quality Requirements) not applicable.

Maintenance of Continuous Emissions Monitoring (CEMS) Equipment, and NO_x & SO₂ CEMS Downtime

- (1) In the event that a breakdown of a CEMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.
- (2) Whenever a NO_x continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
- (3) Whenever a SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO₂ emissions:

- (i) If the CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.
- (ii) If the CEMS is down for twenty-four (24) hours or more, the Permittee shall monitor and record the slurry recirculation pH and the sorbent injection rate, to demonstrate that the operation of the semi-dry scrubber (Scrubber No. 1) continues in a manner typical for the glass produced and sulfur added to the batch materials.

Scrubber No. 1 parametric readings shall be recorded at least twice per day, with at least four (4) hours between each set of readings, until the primary CEMS or backup CEMS is brought online.

These monitoring requirements are necessary whenever the a NO_x CEMS or SO₂ CEMS is down for a period equal to or greater than twenty-four (24) hours in order to ensure compliance with NO_x and SO₂ emission limits.

- (b) The soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) have applicable compliance monitoring conditions as specified below:

Visible Emission Notations

Visible emission notations of the soda ash silo and the ESP dust collector stack exhausts shall be performed once per week during normal daylight loading operations. A trained employee shall record whether emissions are normal or abnormal.

Dust Collector Inspections

An inspection shall be performed each calendar quarter of all the dust collectors controlling the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2). All defective filters shall be replaced.

Broken or Failed Dust Collector Detection

In the event that dust collector filter failure has been observed:

- (1) For a single compartment dust collectors controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (2) For a single compartment dust collectors controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the line. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (3) Filter failure can be indicated by a significant drop in the dust collector's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

These monitoring conditions are necessary because the dust collectors must operate properly in order to ensure compliance with PM and PM₁₀ limits.

On average, Silo No. 1 will receive soda ash once per day via truck, which will take an hour to unload. Silo No. 2 will collect the dust from the ESP when the TR sets are rapped. Based on this information, once per week visible emission notations and dust collector inspections, in lieu of pressure drop readings, have been determined to be adequate to ensure compliance with the PM and PM₁₀ emissions limits.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. 075-17108-00004. Deleted language appears as ~~strike throughs~~ and new language appears in **bold**:

IDEM Change 1:

IDEM, OAQ has removed all references to the source mailing address. IDEM, OAQ will continue to maintain records of the mailing address.

IDEM Change 2:

The phrases "no later than" and "not later than" are clearer than "within" in relation to the end of a timeline. Therefore all timelines have been switched to "no later than" or "not later than". The underlying rules for Title V fees, emergency provisions, continuous compliance plans, and revocation of permits state "within". Therefore, conditions regulated under these rules were not updated.

The exceptions to this revision are as follows:

1. Wherever the timeframe states "within a reasonable" time. This is not considered a specifically stated timeframe.
2. Pursuant to 326 IAC 2-7-16(b)(4), for an emergency lasting one (1) hour or more, the Permittee notified the commissioner within four (4) business days. Pursuant to 326 IAC 2-7-16(b)(5), the Permittee submitted the notice either in writing or by facsimile of the emergency to the commissioner within two (2) working days. Therefore, this change has not been made in Section B - Emergency Provisions paragraph (b)(4) and (b)(5).
3. Pursuant to 326 IAC 2-7-19(b), a source shall pay the annual fee within thirty (30) calendar days of receipt of a billing by the department. Therefore, this change has not been made in Section B - Annual Fee Payment.

IDEM Change 3:

326 IAC 2-7 requires that "a responsible official" perform certain actions. 326 IAC 2-7-1(34) allows for multiple people to meet the definition of "responsible official." Therefore, IDEM is revising all instances of "the responsible official" to read "a responsible official."

IDEM Change 4:

IDEM has clarified what rule requirements a certification needs to meet. IDEM has removed the last sentence dealing with the need for certification from the forms because the Conditions

requiring the forms already address this issue. Additionally, the statement at the bottom of the forms included with the permit stating whether a certification need accompany the form has been removed.

The exceptions to this revision are as follows:

1. Section B - Annual Compliance Certification: With the exception of the final statement the word "certification" references the annual compliance certification report, not a certification in accordance with the requirements of 326 IAC 2-7-6(1). Therefore, the above revision is made only in the final statement.
2. Section B - Credible Evidence: The reference is to "compliance certifications" not a certification in accordance with 326 IAC 2-7-6(1).
3. Section C - Asbestos, Paragraph (d): The reference certification in the sentence " 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. " is not a certification in accordance with 326 IAC 2-7-6(1).

In all other conditions, the language "the certification..." has been changed to "**the a certification that meets the requirements of 326 IAC 2-7-6(1)...**"

IDEM Change 5:

Paragraph (a) of Section B - Duty to Provide Information has been revised as follows:

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

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

IDEM Change 6:

To clarify that Section B - Certification only states what a certification must be, IDEM has revised paragraphs (a) and (b) of the condition as follows:

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

- (a) ~~Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that,~~ **A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:**
- (i) **it contains a certification by a "responsible official", as defined by 326 IAC 2-7-1 (34), and**
 - (ii) **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) ~~One (1) certification shall be included, using~~ **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.

IDEM Change 7:

IDEM, OAQ has added a new paragraph (b) to handle a future situation where the Permittee adds units that need preventive maintenance plans developed. IDEM, OAQ has clarified other aspects of Section B - Preventive Maintenance Plan.

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

(a) **A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:** ~~The Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) for the source as described in 326 IAC 1-6-2. At a minimum, the PMPs shall include:~~

- (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
- (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
- (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

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

The Permittee shall implement the PMPs.

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

IDEM Change 8:

IDEM, OAQ is revising Section B - Emergency Provisions to delete paragraph (h). 326 IAC 2-7-5(3)(C)(ii) allows that deviations reported under an independent requirement do not have to be included in the Quarterly Deviation and Compliance Monitoring Report.

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
 - (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

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

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

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

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

The notification which shall be submitted by the Permittee does not require the a certification **that meets the requirements of 326 IAC 2-7-6(1)** by the a "responsible official" as defined by 326 IAC 2-7-1(34).

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

IDEM Change 9:

Having a separate condition for the reporting of deviations is unnecessary. Therefore, IDEM has removed Section B - Deviation form Permit Requirements and Conditions and added the requirements of that condition to Section C - General Reporting Requirements. Paragraph (d) of

Section C - General Reporting Requirements has been removed because IDEM already states the timeline and certification needs of each report in the condition requiring the report.

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

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

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

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

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

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

~~C.19C.18~~ ~~General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2]~~

~~(a)~~ ~~The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported **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 ~~the a~~ **a certification that meets the requirements of 326 IAC 2-7-6(1)** by ~~the a~~ "responsible official" as defined by 326 IAC 2-7-1(34). **A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.**~~

~~(b)~~ ~~The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to **address for report submittal is:**~~

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

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

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

- ~~(e)~~(d) **The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period.** Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.
- ~~(f)~~(e) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- ~~(g)~~(f) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee ~~deems fit~~ **wishes** to include in this report **such as an explanation as to why the emissions differ from the preconstruction projection.**

Reports required in this part shall be submitted to:

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

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

IDEM Change 10:

IDEM, OAQ will state which rule establishes the authority to set a deadline for the Permittee to submit additional information. Therefore, Section B - Permit Renewal has been revised.

B.17B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require ~~the a~~ a certification **that meets the requirements of 326 IAC 2-7-6(1)** by ~~the a~~ a "responsible official" as defined by 326 IAC 2-7-1(34).

Request for renewal shall be submitted to:

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

- (b) A timely renewal application is one that is:
- (1) Submitted at least nine (9) months prior to the date of the expiration of this permit; and
 - (2) If the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, **pursuant to 326 IAC 2-7-4(a)(2)(D)**, in writing by IDEM, OAQ any additional information identified as being needed to process the application.

IDEM Change 11:

IDEM, OAQ will state that no notice is required for approved changes in Section B - Permit Revision Under Economic Incentives and Other Programs.

B.19B.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.

IDEM Change 12:

IDEM, OAQ has added 326 IAC 5-1-1 to the exception clause of Section C - Opacity, since 326 IAC 5-1-1 does list exceptions.

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.

IDEM Change 13:

IDEM, OAQ has revised Section C - Incineration to more closely reflect the two underlying rules.

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

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

IDEM Change 14:

IDEM has removed the first paragraph of Section C - Performance Testing due to the fact that specific testing conditions elsewhere in the permit will specify the timeline and procedures.

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require ~~the~~ **a certification that meets the requirements of 326 IAC 2-7-6(1)** by ~~the~~ **a "responsible official"** as defined by 326 IAC 2-7-1(34).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require

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

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

IDEM Change 15:

IDEM, OAQ has revised Section C - Compliance Monitoring. The reference to recordkeeping has been removed due to the fact that other conditions already address recordkeeping. The voice of the condition has been changed to clearly indicate that it is the Permittee that must follow the requirements of the condition.

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

Unless otherwise specified in this permit, ~~for all monitoring and record keeping requirements not already legally required, the Permittee shall be allowed up to shall be implemented within ninety (90) days of from the date of permit issuance or ninety (90) days of initial start-up, whichever is later, to begin such monitoring. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment.~~ If due to circumstances beyond ~~its~~ **the Permittee's** control, ~~that any monitoring equipment required by this permit cannot be installed and operated within no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later,~~ **that any monitoring equipment required by this permit cannot be installed and operated within no later than ninety (90) days after permit issuance or the date of initial startup, whichever is later,** the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require ~~the a certification that meets the requirements of 326 IAC 2-7-6(1) by the a "responsible official" as defined by 326 IAC 2-7-1(34).~~

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

IDEM Change 16:

IDEM, OAQ has moved Section C - Maintenance of Continuous Opacity Monitoring Equipment into Section D.1, since both conditions cover the Permittee's requirement for COMs.

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

- ~~(a) The Permittee shall install, calibrate, maintain, and operate all necessary continuous opacity monitoring systems (COMS) and related equipment. For a boiler, the COMS shall be in operation at all times that the induced draft fan is in operation.~~

- ~~(b) All COMS shall meet the performance specifications of 40 CFR 60, Appendix B, Performance Specification No. 1, and are subject to monitor system certification requirements pursuant to 326 IAC 3-5.~~
- ~~(c) In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.~~
- ~~(d) Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.~~
- ~~(1) Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.~~
- ~~(2) Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at east four (4) hours between each set of readings, until a COMS is online.~~
- ~~(3) Method 9 readings may be discontinued once a COMS is online.~~
- ~~(4) Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.~~
- ~~(e) Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60 Subpart CC.~~

IDEM Change 17:

IDEM, OAQ has removed Section C - Monitoring Methods. The conditions that require the monitoring or testing, if required, state what methods shall be used.

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

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

IDEM Change 18:

IDEM, OAQ has revised Section C - Response to Excursions or Exceedances. The introduction sentence has been added to clarify that it is only when an excursion or exceedance is detected that the requirements of this condition need to be followed. The word "excess" was added to the last sentence of paragraph (a) because the Permittee only has to minimize excess emissions. The middle of paragraph (b) has been deleted as it was duplicative of paragraph (a). The phrase "or are returning" was added to subparagraph (b)(2) as this is an acceptable response assuming the operation or emission unit does return to normal or its usual manner of operation. The phrase "within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable" was replaced with "normal or usual manner of operation" because the first phrase is just a limited list of the second phrase. The recordkeeping required by paragraph

(e) was changed to require only records of the response because the previously listed items are required to be recorded elsewhere in the permit.

C.15C.14 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) ~~Upon detecting an excursion or exceedance,~~ 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 ~~and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions).~~ ~~Corrective actions~~ **The response** may include, but ~~are 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 ~~within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable~~ **normal or usual manner of operation.**
- (c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:
- (1) monitoring results;
 - (2) review of operation and maintenance procedures and records; and/or
 - (3) inspection of the control device, associated capture system, and the process.
- (d) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (e) The Permittee shall ~~record maintain the following records~~ **the reasonable responses steps taken.** ÷
- ~~(1) monitoring data;~~
 - ~~(2) monitor performance data, if applicable; and~~
 - ~~(3) corrective actions taken.~~

IDEM Change 19:

IDEM, OAQ has revised Section C - Actions Related to Noncompliance Demonstrated by a Stack Test. The requirements to take response steps and minimize excess emissions have been removed because Section C - Response to Excursions or Exceedances already requires

response steps related to exceedances and excess emissions minimization. The start of the timelines was switched from "the receipt of the test results" to "the date of the test". There was confusion if the "receipt" was by IDEM, OAQ, the Permittee, or someone else. Since the start of the timelines has been moved up, the length of the timelines was increased. The new timelines require action within a comparable timeline; and the new timelines still ensure that the Permittee will return to compliance within a reasonable timeframe.

C.16C.15 Actions Related to Noncompliance Demonstrated by a Stack Test
[326 IAC 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the ~~Permittee shall take appropriate response actions.~~ The Permittee shall submit a description of ~~its these~~ response actions to IDEM, OAQ, ~~within no later than thirty (30) days of receipt of the test results~~ **seventy-five (75) days after the date of the test.** ~~The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.~~
- (b) A retest to demonstrate compliance shall be performed ~~within~~ **no later than** one hundred ~~eighty (180) twenty (120) days of receipt of the original test results~~ **days after the date of the test.** Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred ~~eighty (180) twenty (120) days~~ is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require ~~the a~~ certification **that meets the requirements of 326 IAC 326 IAC 2-7-6(1)** by ~~the a~~ "responsible official" as defined by 326 IAC 2-7-1(34).

IDEM Change 20:

Paragraph (b) of Section C - Emission Statement has been removed. It was duplicative of the requirement in Section C - General Reporting Requirements.

C.17C.16 Emission Statement
[326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- ~~(a)~~ Pursuant to 326 IAC 2-6-3(b)(2), starting in 2008 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
- (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
- (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require ~~the~~ a certification **that meets the requirements of 326 IAC 326 IAC 2-7-6(1)** by ~~the~~ a "responsible official" as defined by 326 IAC 2-7-1(34).

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

IDEM Change 21:

The voice of paragraph (b) of Section C - General Record Keeping Requirements has been changed to clearly indicate that it is the Permittee that must follow the requirements of the paragraph.

C.17 General Record Keeping Requirements [326 IAC 2-7-5(3)] [326 IAC 2-7-6] [326 IAC 2-2][326 IAC 2-3]

-
- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. 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** ~~shall be implemented within~~ ninety (90) days **from the date** of permit issuance or ~~ninety (90) days~~ **the date** of initial start-up, whichever is later, **to begin such record keeping.**
- (c) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A), 40 CFR 51.165(a)(6)(vi)(B), 40 CFR 51.166(r)(6)(vi)(a), and/or 40 CFR 51.166(r)(6)(vi)(b)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
- (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;

- (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1 (mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
- (d) If there is a reasonable possibility (as defined in 40 CFR 51.165(a)(6)(vi)(A) and/or 40 CFR 51.166(r)(6)(vi)(a)) that a "project" (as defined in 326 IAC 2-2-1(qq) and/or 326 IAC 2-3-1(II)) at an existing emissions unit, other than projects at a source with a Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1(ee) and/or 326 IAC 2-3-1(z)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(rr) and/or 326 IAC 2-3-1(mm)), the Permittee shall comply with following:
- (1) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (2) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

IDEM Change 22:

IDEM has simplified the referencing in Section C - Compliance with 40 CFR 82 and 326 IAC 22-1.

C.20C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

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

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

IDEM Change 23:

Some stakeholders feel that having general conditions that say "when required by a D section do YYY" and D conditions that say "do YYY in accordance with section C" creates two conditions to be in violation of for a single act. For clarity, IDEM has changed references to the general conditions: "in accordance with Section B", "in accordance with Section C", or other similar language, to "Section C contains the Permittee's obligations with regard to the records required by this condition", or other similar language. The following Section D conditions have been revised.

The revisions are shown in the appropriate "Modification" paragraph of this Proposed Changes Section.

- Condition D.1.5 - Preventive Maintenance Plan (originally Condition D.1.2)
- Condition D.3.3 - Preventive Maintenance Plan (originally Condition D.3.2)
- Paragraph (e) of Condition D.3.5 - Visible Emission Notations (originally Condition D.3.3)
- Paragraph (b) of Condition D.3.7 - Record Keeping Requirements (originally Condition D.3.4)
- Condition D.4.2 - Preventive Maintenance Plan
- Condition D.4.4 - Testing Requirements
- Paragraph (e) of Condition D.4.5 - Visible Emission Notations
- Condition D.4.6 - Parametric Monitoring
- Paragraph (c) of Condition D.4.8 - Record Keeping Requirements

IDEM Change 24:

IDEM will allow the Permittee the option of using manufacturer's recommendations for the calibration frequency. Condition D.4.6, which contained parametric monitoring instrumentation requirements has been modified. The revisions are shown in the appropriate "Modification" paragraph of this Proposed Changes Section.

IDEM Change 25:

The Permittee has the obligation to document the compliance status. Therefore, in the Section D - Reporting Requirements, the phrase "To document compliance with" has been revised to state "To document **the compliance status** with". Conditions D.3.7 (originally Condition D.3.4) and D.4.8 have been revised to reflect this change. The revisions are shown in the appropriate "Modification" paragraph of this Proposed Changes Section.

Modification No. 1:

The emission unit descriptions in Section A.2 and the Insignificant Activities Descriptions in Section A.3, and the corresponding Sections D and E, have been revised to reflect the, updated capacities to existing units, modifications to existing units and stack configurations, and the addition of new emission units and control devices. The revised Sections A.2 and A.3 are shown below, and the revised Sections D and E are shown in the appropriate "Modification" paragraph of this Proposed Changes Section.

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

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

- (a) One (1) ~~oxy-fuel~~ **Oxyfuel** glass melting furnace, (identified as Furnace No. 1), **constructed in 1993**, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1. ~~This unit was constructed in 1993.~~ **[40 CFR 60, Subpart CC]**

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (b) One (1) ~~oxy-fuel~~ **Oxyfuel** glass melting furnace, (identified as Furnace No. 2), **constructed in 1998 and approved in 2011 for cold rebuild, with a maximum**

throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2. ~~This unit was constructed in 1998.~~
[40 CFR 60, Subpart CC]

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (c) One (1) grinding operation, installed in 1994, located in the mold shop, controlled by a dust collector (identified as Wheelabrator), and exhausting outside.
- (d) **One (1) soda ash silo, identified as Silo No. 1, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S1. The soda ash is pneumatically conveyed to scrubber.**
- (e) **One (1) ESP dust silo, identified as Silo No. 2, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S2.**

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

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

- (a) One (1) hot end treatment facility, consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, **constructed in 1993**, and having a maximum throughput capacity of **4.0 0.90** pounds per hour and exhausting through building ventilation system. ~~This unit was constructed in 1993.~~ [326 IAC 6-3]
- (b) One (1) hot end treatment facility, consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, **constructed in 1993**, and having a maximum throughput capacity of **4.0 0.90** pounds per hour and exhausting through building ventilation system. ~~This unit was constructed in 1993.~~ [326 IAC 6-3]
- (c) One (1) batch handling facility servicing melting furnace No. 1, **constructed in 1993**, with a maximum capacity of **26.04 22.5** tons of raw material per hour, venting inside the building. ~~This unit was constructed in 1993.~~ [326 IAC 6-3]
- (d) One (1) batch handling facility servicing melting furnace No. 2, **constructed in 1993**, with a maximum capacity of **28.65 24.8** tons of raw material per hour, venting inside the building. ~~This unit was constructed in 1993.~~ [326 IAC 6-3]
- (e) One (1) raw material handling process consisting of one (1) raw material storage bin, **constructed in 2003**, with a maximum throughput rate of 560 pounds of iron oxide per hour, controlled by one (1) dust collector, and venting inside the silo. The raw material is transferred to the storage bin using a pneumatic conveyance system. ~~This process was constructed in 2003.~~ [326 IAC 6-3]
- (f) One (1) mold swabbing facility consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, **constructed in 1993**, and having a maximum combined capacity of **4.0 3.33** pounds of swabbing

material per hour and exhausting through building ventilation system. ~~This unit was constructed in 1993.~~ [326 IAC 6-3]

- (g) One (1) mold swabbing facility consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, **constructed in 1993**, and having a maximum combined capacity of **4.0 3.80** pounds of swabbing material per hour and exhausting through building ventilation system. ~~This unit was constructed in 1993.~~ [326 IAC 6-3]
- (h) One (1) sandblaster, installed in 2007, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside. [326 IAC 6-3]
- (i) One (1) sandblaster, installed in 2006, located in the mold shop, controlled by a dust collector (identified as Econoline), and exhausting outside. [326 IAC 6-3]
- (j) One (1) sandblaster, installed in 2001, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside. [326 IAC 6-3]
- (k) **Two (2) diesel-fired emergency generators, identified as GEN4 and GEN5, approved in 2011 for construction, each with a maximum rating of 750 kW. [40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]**
- (l) **Three diesel-fired emergency generators, identified as GEN1, GEN2, and GEN3, each with a maximum rating not to exceed one thousand six hundred (1,600) horsepower (Hp). [40 CFR 63, Subpart ZZZZ]**

Modification No. 2:

In order to incorporate requirements agreed upon in the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), new Section D.0, which reflects interim limitations, has been added to the permit as follows:

SECTION D.0 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(15)]:	Interim Limits
(a) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 1, constructed in 1993, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1.	No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.
(b) One (1) Oxyfuel glass melting furnace, identified as Furnace No. 2, constructed in 1998 and approved in 2011 for cold rebuild, with a maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2.	Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

(The information describing the process contained in this facility description box is descriptive

information and does not constitute enforceable conditions.)

Emission Limitations and Standards

D.0.1 Interim NOx Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), the Permittee shall comply with the following interim limits:

- (a) NOx emissions from Furnace No. 1 shall not exceed 146 tons per Calendar Year.
- (b) NOx emissions from Furnace No. 2 shall not exceed 160.6 tons per Calendar Year.
- (c) Compliance with the NOx Calendar Year interim limits (Conditions D.0.1 (a) and (b)) shall be calculated by using the following equation:

$$\text{NOx} = [(\text{PastTest} \times \text{1stprod}) / 2000] + [(\text{NewTest} \times \text{2ndprod}) / 2000]$$

Where:

- NOx = NOx Emissions (tpy)
- PastTest = Last source test result (lb/ton). If no source test has been conducted pursuant to the Consent Decree, an emission factor of 1.6 lbs NOx/ton glass produced shall be used.
- NewTest = New test from the year for which emissions are being calculated (lb/ton).
- 1stprod = Production from January 1st through the Day prior to the Day the new source test is commenced (tons of glass).
- 2ndprod = Production from the Day of the new source test through the end of that same Calendar Year (tons of glass).

Note: If SGCI elects to do more than one test in a year, emissions calculated on the Days following the second test, will be based on that second test.

- (d) For each furnace: upon NOx CEMS installation and certification compliance with the interim NOx emission limits shall be demonstrated using emissions data generated by the NOx CEMS in order to calculate all subsequent daily emission rates that are used to calculate the annual emission rate for the Calendar Year.

For the first Calendar Year during which CEMS are installed and certified, the annual emissions calculated will be the sum of the tons of NOx emitted on the Days when the emissions were determined from source test data (as calculated above in Condition D.0.1(c)) and the tons of NOx emitted on the Days when emissions were determined by CEMS data.

- (e) For each furnace: this limit shall remain in effect through December 31st or the Calendar Year in which the furnace is required to with the NOx emission limitation of 1.3 lb/ton of glass produced as required by Condition D.1.1(a).

Section D.1 of this permit contains the Permittee's obligations with regard to the NOx CEMS referenced by this condition.

D.0.2 Interim SO₂ Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), the Permittee shall comply with the following interim limits:

- (a) For each furnace: on and after the first stack test after May 7, 2010, SO₂ emissions from the respective furnace shall not exceed 2.5 pounds per ton of glass produced, except during periods of Abnormally Low Production Rate Days, Furnace Startup, Malfunction, Maintenance, and Color Transition.
- (b) Compliance with any the interim limit in Condition D.0.2 may be determined by averaging the emissions from Furnace No. 1 and Furnace No. 2.
- (c) When one Furnace Operating under normal conditions is ducted through the same exhaust stack as a Furnace that is Operating at an Abnormally Low Production Rate, has a Malfunction, undergoes Maintenance, or has a Color Transition, the combined daily emission limit for the Furnaces shall be the sum of the following limit (SO₂ NORMAL LB/DAY) for the normally Operating Furnace and the relevant limit set forth in Condition D.0.2(b) (1), (3), (4), or (5) for the remaining Furnace.

$$\text{SO}_2 \text{ NORMAL LB/DAY} = 2.5 \text{ lb SO}_2/\text{ton glass} \times \text{ADP}$$

Where:

SO₂ NORMAL LB/DAY = SO₂ interim emission limit for a normally Operating Furnace during a day where a commonly ducted furnace is experiencing an event a set forth in Condition D.0.2(b) (1), (3), (4), or (5).

ADP = Actual Daily Production for the normally Operating Furnace.

These limits shall remain in effect for each furnace, respectively, until the furnace is required to comply with the SO₂ emission limits required by Condition D.1.2(c).

Section D.1 of this permit contains the Permittee's obligations with regard to the SO₂ CEMS referenced by this condition.

D.0.3 Interim PM (Filterable) Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), the Permittee shall comply with the following interim limits:

- (a) For each furnace: on and after the first respective stack test following May 7, 2010, PM (Filterable) emissions from the furnace shall each not exceed 1.0 pound of PM per ton of glass produced.
- (b) This interim PM (Filterable) emission limit shall remain in effect for each Furnace until the Furnace is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit.
 - (1) Furnace No. 1 is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit, no later than December 31, 2012.
 - (2) Furnace No. 2, is required to comply with a PM emission limit specified in Condition D.1.3 - PM (Filterable) and Total PM Limit, on and after the first seven (7) Operating Day(s) of the Furnace Startup following the completion

of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012.

Compliance Determination Requirements

D.0.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the Permittee shall comply with the following stack test requirements:

- (a) For each furnace, compliance with the interim NO_x emission limits (Condition D.0 - Interim NO_x Limit) shall be demonstrated by conducting an EPA Method 7E (40 CFR Part 60 Appendix A) source test. Testing shall be conducted initially no later than May 7, 2011 and once each Calendar Year thereafter until NO_x CEMS are installed and certified. A source test is not required the year that a NO_x CEMS is installed.
- (b) Prior to SO₂ CEMS installation and Certification, compliance with the SO₂ interim limits in Condition D.0.2 shall be demonstrated by conducting an EPA Method 6C (40 CFR Part 60 Appendix A) source test. Testing shall be conducted initially no later than May 7, 2011 and once each Calendar Year thereafter until SO₂ CEMS are installed and certified. A source test is not required the year that a SO₂ CEMS is installed.
- (c) For each Furnace, compliance with the interim PM (Filterable) limits (Condition D.0.3 - Interim PM (Filterable) Limit) shall be demonstrated by conducting an EPA Method 5 (40 CFR Part 60 Appendix A) source test. Testing shall be conducted initially no later than May 7, 2011 and once each Calendar Year thereafter. This stack test shall not be required in a Calendar Year during which compliance with limits determined under Condition D.1.3 - PM (Filterable) and Total PM Limit is demonstrated.

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.

D.0.5 Definition of Terminology

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the definitions, included as Attachment A to this permit, shall apply to the following terms when used throughout Section D.0 of this permit.

- (a) "24-hour Block Average"
- (b) "Affected State(s)"
- (c) "Abnormally Low Production Rate"
- (d) "Abnormally Low Production Rate Day"
- (e) "Calendar Year"
- (f) "CEMS"
- (g) "CEMS Certification"
- (h) "CEMS Certification Event"
- (i) "Color Transition"
- (j) "COMS"
- (k) "Continuous Operating Year"
- (l) "Control Device Startup"
- (m) "Day"
- (n) "Emission Rate 30-day Rolling Average"

- (o) "First Control Device Startup"
- (p) "Furnace"
- (q) "Furnace Startup"
 - (i) "Initial Heating Phase"
 - (ii) "Refractory Soak and Seal Phase"
 - (iii) "Furnace Stabilization Phase"
- (r) "Hot Spot Temperature"
- (s) "Inlet"
- (t) "Maintenance"
- (u) "Major Rebuild"
- (v) "Malfunction"
- (w) "Month"
- (x) "NOx"
- (y) "Operate", "Operation", "Operating", and "Operated"
- (z) "Operating Day"
- (aa) "Outlet"
- (bb) "Outlet 30-day Rolling Average"
- (cc) "Oxyfuel Furnace"
- (dd) "Particulate Matter" and "PM"
- (ee) "Removal Efficiency"
- (ff) "Removal Efficiency 30-day Rolling Average"
- (gg) "Scrubber System"
- (hh) "SO₂"
- (ii) "Ton" or "tons"
- (jj) "TSP"

D.0.6 Continuous Emissions Monitoring Systems (CEMS)

Section D.1 contains the Permittee's obligation with regard to the Compliance Determination Requirements for the CEMS referenced in Section D.0.

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

D.0.7 NO_x and SO₂ Monitoring System Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

Section D.1 contains the Permittee's obligation with regard to the Compliance Monitoring Requirements for the CEMS referenced in Section D.0.

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

D.0.8 Record Keeping Requirements

- (a) To document the compliance status with Condition D.0.1 - Interim NO_x Limit, the Permittee shall maintain records for each furnace in accordance with (1) through (5) below, Records shall be complete and sufficient to determine compliance with the NO_x limitations established in Condition D.0.1.
 - (1) Data and results from all valid compliance source tests for NO_x.
 - (2) Glass production (1stprod) from January 1 through the Day prior to the Day the new source test (NewTest) commenced in tons of glass produced.
 - (3) Glass production (2ndprod) from the Day of the new source test (NewTest) through the end of that Calendar Year in tons of glass produced.
 - (4) A calculation of the NO_x emissions in tons per year.

- (5) For a furnace that has a NO_x CEMS, the recorded emissions according to the CEMS in pounds per day.
- (b) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.0.2 - Interim SO₂ Limit, the Permittee shall maintain records in accordance with (1) and (4) below, Records shall be complete and sufficient to determine compliance with the SO₂ limitations established in Condition D.0.2.
- (1) Data and results from all valid compliance source tests for SO₂.
- (2) For any Operating Day that SO₂ emissions are excluded from the SO₂ Emission Rate 30-day rolling average, the Permittee shall maintain the following records.
- (A) The date of the exclusion.
- (B) The exception (Abnormally Low Production Rate Day, Furnace Startup, Furnace Malfunction, Furnace Maintenance, or Color Transition) under which it is excluded.
- (C) A calculation of the applicable limit in pounds per day.
- (c) To document the compliance status with Condition D.0.3- Interim PM (Filterable) Limit, the Permittee shall maintain records of the data and results from all valid compliance source tests for PM.

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

D.0.9 Reporting Requirements

- (a) An annual report and an annual summary of the information to document the compliance status with Condition D.0.1- Interim NO_x Limit shall be submitted not later than thirty (30) days after the end of the Calendar year being reported.
- (b) Section C – General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(34).

Modification No. 3:

The following revisions have been made to Section D.1:

- (a) The Facility Description box has been revised to reflect modifications to emission units and stack configurations, and new control devices.
- (b) In order to incorporate requirements agreed upon in the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the following new Conditions have been added to the permit:
- D.1.1 - NO_x Limit
 - D.1.2 - SO₂ and Sulfuric Acid Mist (H₂SO₄) Limit
 - D.1.3 - PM (Filterable) and Total PM Limit
 - D.1.6 - Maintenance
 - D.1.7 - Testing Requirements

- D.1.8 - Definition of Terminology
 - D.1.9 - Continuous Emissions Monitoring Systems (CEMS), Paragraphs (a) through (e)
 - D.1.10 - Continuous Opacity Monitoring Systems (COMS), Paragraph (a)
 - D.1.11 - Furnace Exhaust Flue Excess Oxygen, the first, fourth, and fifth Paragraphs
 - D.1.12 - Furnace Hot Spot Temperature, the first, fourth, and fifth Paragraphs
 - D.1.16 - Record Keeping Requirements, Paragraphs (a)(3), (b), (c), (d), (e), (f)(4), (g), (l), and (m)
 - D.1.17 - Reporting Requirements, Paragraph (f)
- (c) To ensure compliance with applicable requirements, the following new Conditions have been added to the permit:
- (1) Condition D.1.9 - Continuous Emissions Monitoring Systems (CEMS), Paragraph (f), specifies the monitor system certification requirements pursuant to 326 IAC 3-5-3.
 - (2) Condition D.1.10 - Continuous Opacity Monitoring Systems (COMS), Paragraph (b) specifies the monitor system certification requirements pursuant to 326 IAC 3-5-3.
 - (3) Condition D.1.11 - Furnace Exhaust Flue Excess Oxygen, the second and third Paragraphs contains response steps specifications and instrumentation specifications associated with the required furnace exhaust flue gas oxygen readings.
 - (4) Condition D.1.12 - Furnace Hot Spot Temperature, the second and third Paragraphs contains response steps specifications and instrumentation specifications associated with the required furnace hot spot temperature readings.
 - (5) Condition D.1.13 - Transformer-Rectifier (T-R) Sets specifies the parametric monitoring requirements for ESP No.1.
 - (6) Condition D.1.14 - Maintenance of Continuous Opacity Monitoring Equipment and COMS Downtime specifies the actions to be taken when a COMS in not operation.
 - (7) Condition D.1.15 - Maintenance of Continuous Emissions Monitoring Equipment and NO_x and SO₂ CEMS Downtime specifies the actions to be taken when a CEMS in not operation.
 - (8) Condition D.1.16 - Record Keeping Requirements, Paragraphs (a)(1), (a)(2), (f)(1), (f)(2), (f)(3), (h), (i), (j), (k), (l), and (n) specify record keeping requirements not specifically addressed in the Consent Decree, but required under 326 IAC 2-7.
 - (9) Condition D.1.17 - Reporting Requirements, Paragraphs (a), (b), (c), (d), (e), and (g) specify reporting requirements not specifically addressed in the Consent Decree, but required under 326 IAC 2-7.
- (d) Revisions, as specified in the above "IDEM Change" paragraphs of this Proposed Changes Section have been incorporated as applicable.

Section D.1 has been revised as follows:

SECTION D.1 FACILITY OPERATION CONDITIONS

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

- (a) One (1) ~~oxy-fuel~~ **Oxyfuel** glass melting furnace, (identified as Furnace No. 1), **constructed in 1993**, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1. ~~This unit was constructed~~

~~in 1993.~~

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (b) One (1) ~~oxy-fuel~~ **Oxyfuel** glass melting furnace, (identified as Furnace No. 2), **constructed in 1998 and approved in 2011 for cold rebuild, with a** maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2. ~~This unit was constructed in 1998.~~

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

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

Emission Limitations and Standards

D.1.1 NO_x Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), for Furnace No. 1 and Furnace No. 2, the Permittee shall comply with the following:

- (a) For Furnace No. 2: on and after, the first Operating Day after completion of the Furnace Startup Period associated with the cold rebuild project and NO_x CEMS certification, but no later than December 31, 2012, the 30-day rolling average NO_x emissions from Furnace No. 2 shall not exceed 1.3 lb/ton glass produced, except during the following periods: Abnormally Low Production Rate Days, Furnace Startup, Malfunction of the Furnace, and Maintenance of the Furnace.
- (b) For Furnace No. 1: on and after the NO_x CEMS certification, but no later than December 31, 2013, the 30-day rolling average NO_x emissions from Furnace No. 1 shall not exceed 1.3 lb/ton glass produced, except during the following periods: Abnormally Low Production Rate Days, Furnace Startup, Malfunction of the Furnace, and Maintenance of the Furnace.
- (c) For any Abnormally Low Production Rate Days, the Permittee may elect to exclude the emissions generated during that Day from the 30-day rolling average. During these days the Permittee shall comply with the following NO_{x OXY ABN} limit (24-hour Block Average):
- (A) For Furnace No. 1, NO_{x OXY ABN} = 650 lb NO_x/ton glass; and,
- (B) For Furnace No. 2, NO_{x OXY ABN} = 717 lb NO_x/ton glass.

The following equation was used to determine the NO_{x OXY ABN} limitations:

$$\text{NO}_{x \text{ OXY ABN}} = 1.3 \text{ (lb NO}_x\text{/ton glass produced)} \times P/0.35$$

Where:

NO_{X OXY ABN} = NO_x emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day in pounds per day
P = Abnormally Low Production Rate (tons glass produced)
For Furnace No. 1: P = 175 (tons/day)
For Furnace No. 2: P = 193 (tons/day)

(d) Furnace Startup limitations:

- (1) During the Initial Heating Phase, the input of natural gas to the respective furnace shall not exceed five million standard cubic feet (5.0 MMscf).**
- (2) During the Refractory Soak and Seal Phase:**
 - (A) The input of natural gas to the respective furnace shall not exceed sixty million standard cubic feet (60 MMscf).**
 - (B) The excess oxygen at the respective furnace exhaust flue shall not exceed five percent (5%).**
 - (C) The Hot Spot Temperature at the respective furnace shall not exceed 2900.0 degrees F.**
 - (D) Thermal blankets or similar techniques shall be utilized at the respective furnace to minimize air filtration until expansion joints are sufficiently closed.**
- (3) During Furnace Stabilization Phase:**
 - (A) The input of natural gas to the respective furnace shall not exceed ninety million standard cubic feet (90 MMscf).**
 - (B) The excess oxygen at the respective furnace exhaust flue shall not exceed five percent (5%).**
 - (C) The Hot Spot Temperature at the respective furnace shall not exceed 2900.0 degrees F.**

(e) For any Operating Day where a Malfunction of a furnace occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day(s) from the 30-day rolling average for the respective furnace. During the Malfunction Days, the Permittee shall comply with the following NO_{X OXY MALF} limit (24-hour Block Average):

- (A) For Furnace No. 1, NO_{X OXY MALF} = 2,600 lb NO_x/ton glass; and,**
- (B) For Furnace No. 2, NO_{X OXY MALF} = 2,868 lb NO_x/ton glass.**

The following equation was used to determine the NO_{X OXY MALF} limitations:

$$\text{NO}_{X OXY MALF} = 4.0 \times \text{NO}_{X OXY ABN}$$

Where:

NO_X _{OXY MALF} = NO_x emission limit for an Oxyfuel Furnace during a Malfunction Day, in pounds per day.

NO_X _{OXY ABN} = As defined in Condition D.1.1(c), NO_x emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day, in pounds per day.

For Furnace No. 1: **NO_X _{OXY ABN} = 650 (tons/day)**

For Furnace No. 2: **NO_X _{OXY ABN} = 717 (tons/day)**

- (f) For any Operating Day where Maintenance activities on a furnace are performed, the Permittee may elect to exclude the Maintenance Day from the 30-day rolling average for the respective furnace. During the Maintenance Day, the Permittee shall comply with the following NO_X _{OXY MAINT} limit (24-hour Block Average):

$$\text{NO}_X \text{ OXY MAINT} = [\text{MH} \times (4 \times \text{NO}_X \text{ OXY ABN}) / 24] + [(\text{NH} \times \text{NO}_X \text{ OXY ABN}) / 24]$$

Where:

NO_X _{OXY MAINT} = NO_x emission limit for an Oxyfuel Furnace during a Maintenance Day, in pounds per day.

NO_X _{OXY ABN} = As defined in Condition D.1.1(c), NO_x emission limit for an Oxyfuel Furnace during an Abnormally Low Production Rate Day, in pounds per day.

For Furnace No. 1: **NO_X _{OXY ABN} = 650 (tons/day)**

For Furnace No. 2: **NO_X _{OXY ABN} = 717 (tons/day)**

MH = hours of Maintenance

NH = normal hours = 24 - MH

- (g) Compliance with the 1.3 lb/ton glass produced NO_x emission limit (30-day rolling average) for Furnace No. 1 and Furnace No. 2, each, may be determined by averaging the emissions from each furnace.
- (h) Upon completion of the cold rebuild of the Oxyfuel glass melting furnace, identified as Furnace No. 2, but no later than December 31, 2012, the Permittee shall operate Furnace No. 2 using Oxyfuel technology and the gas that provides the oxidant for combustion of the fuel shall be composed of equal to or greater than ninety percent (90%) oxygen.
- (i) No later than December 31, 2013, for the Oxyfuel glass melting furnace, identified as Furnace No. 1, the Permittee shall operate Furnace No.1 using Oxyfuel technology and the gas that provides the oxidant for combustion of the fuel shall be composed of equal to or greater than ninety percent (90%) oxygen.

D.1.2 SO₂ and Sulfuric Acid Mist (H₂SO₄) Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), for Furnace No. 1 and Furnace No. 2, the Permittee shall comply with the following:

- (a) Upon completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012, all stack gases from Furnace No. 2 shall be captured and controlled by a semi-dry scrubber (Scrubber No. 1) except during periods of Control Device Startup, up to the first seven (7) days of the Furnace Startup, and

during Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).

- (b) No later than December 31, 2012, all stack gases from Furnace No. 1 shall be captured and controlled by a semi-dry scrubber (Scrubber No. 1), except during periods of Control Device Startup, up to the first seven (7) days of the Furnace Startup, and during Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).**
- (c) On and after the first Operating Day after completion of the Control Device Startup and CEMS Certification, but no later than December 31, 2012, Furnace No. 1 and Furnace No. 2 shall comply with the following requirements, except during periods of Control Device Startup, Furnace Startup, Malfunction of the emission control system (Scrubber No. 1 and ESP No. 1), and Maintenance on the emission control system (Scrubber No. 1 and ESP No. 1).**
- (1) No dilution air will be intentionally added to the stack gases between the Scrubber System (Scrubber No. 1) and the SO₂ CEMS. When determining compliance with all Scrubber System (Scrubber No. 1) limits, there shall be no oxygen correction, as per vendor guarantee.**
 - (2) The Permittee shall determine a daily SO₂ Inlet 24-hour Block Average. The SO₂ 30-day rolling average compliance limit for each Operating Day will depend on the daily SO₂ Inlet 24-hour Block Average and will either be as defined in Condition D.1.2(c)(3) or Condition D.1.2(c)(4), but not both.**
 - (3) If the average daily SO₂ Inlet calculated in Condition D.1.2(c)(2) is equal to or greater than 300 parts per million by volume dry (ppmvd) then the SO₂ Removal Efficiency on a 24-hour Block Average for that Day and a SO₂ Removal Efficiency 30-day Rolling Average shall be calculated. The Permittee shall operate the Semi-dry Scrubber (Scrubber No. 1) such that the SO₂ Removal Efficiency 30-day Rolling Average is greater than or equal to 85 percent.**
 - (4) If the average daily SO₂ Inlet calculated in Condition D.1.2(c)(2) is less than 300 ppmvd, then the Scrubber (Scrubber No. 1) SO₂ Outlet 24-hour Block Average concentration for that Day and Scrubber SO₂ Outlet 30-day Rolling Average shall be calculated. The Permittee shall operate the Semi-dry Scrubber such that the Scrubber SO₂ Outlet 30-day Rolling Average is less than or equal to 45 ppmvd.**
- (d) During Control Device Startup or up to the first seven (7) Days of Furnace Startup, the Permittee shall comply with the following.**
- (1) During the startup period, the amount of sulfur added to the batch materials shall not exceed 2.6 pounds per ton of total batch material (including cullet) or less.**
 - (2) During no more than the first seven (7) Days of Furnace Startup, the Furnace exhaust may bypass the Scrubber System (Scrubber No. 1) to avoid having the operating inlet temperature of the Scrubber System fall below its operational range.**

- (3) During these bypass Days, as specified in Condition D.1.2(d)(2), the furnace shall burn no more than 15.0 million standard cubic feet (MMscf) of natural gas.
- (e) For any Operating Day where a Malfunction of the Scrubber System (Scrubber No. 1) or ESP (ESP No. 1) occurs for any period of time, the Permittee may elect to exclude the emissions generated during that Operating Day (or Operating Days if the event covers more than one Operating Day) from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates. During the Malfunction Days excluded from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates, the SO₂ emissions (as a 24-hour Block Average) shall be limited as follows:
- (A) For Furnace No. 1, SO_{2 SCRUB MALF} = 1,250 lb SO₂/ton glass; and,
- (B) For Furnace No. 2, SO_{2 SCRUB MALF} = 1,379 lb SO₂/ton glass.

The following equation was used to determine the SO_{2 SCRUB MALF} limitations:

$$\text{SO}_2 \text{ SCRUB MALF} = 2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35)$$

Where:

SO_{2 SCRUB MALF} = SO₂ emission limit for a Furnace with a Semi-dry Scrubber (Scrubber No. 1) during a Malfunction Day, in pounds per day.

P = Abnormally Low Production Rate (tons glass produced)
For Furnace No. 1: P = 175 (tons/day)
For Furnace No. 2: P = 193 (tons/day)

- (f) For any Operating Day where Maintenance activities on the Scrubber System (Scrubber No. 1) or ESP (ESP No. 1) are performed, the Permittee may elect to exclude the Maintenance Day from the SO₂ Removal Efficiency 30-day Rolling Average and Scrubber SO₂ Outlet 30-day Rolling Average emission rates. For any Day which is excluded from the SO₂ 30-day Rolling Average, the SO₂ emissions (as a 24-hour Block Average) shall be limited as follows:

$$\text{SO}_2 \text{ SCRUB MAINT} = \frac{[[\text{MH} \times (2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35))]]}{24} + \frac{[[\text{NH} \times ((1/3) \times 2.5 \text{ lb SO}_2/\text{ton glass} \times (P/0.35))]]}{24}$$

Where:

SO_{2 SCRUB MAINT} = SO₂ emission limit for a Furnace with a Semi-Dry Scrubber during a Maintenance Day, in pounds per day.

P = Abnormally Low Production Rate (tons glass produced)
For Furnace No. 1: P = 175 tons per day
For Furnace No. 2: P = 193 tons per day

MH = Hours of Maintenance
NH = Normal Hours = 24 – MH

- (g) The emissions of Sulfuric Acid Mist (H₂SO₄) from Furnace No. 1 and Furnace No. 2 shall, each, not exceed 1.0 pound per ton of glass produced.
- (h) When both Furnace No. 1 and Furnace No. 2 are subject to the same emission limit, compliance with the 30-day rolling average limits set forth in Condition D.1.2 may

be determined by averaging the emissions from both furnaces subject to the same emission limit.

D.1.3 PM (Filterable) and Total PM Limit [326 IAC 2-1.1-5]

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) and 326 IAC 2-1.1-5 (Air Quality Requirements), for Furnace No. 1 and Furnace No. 2, the Permittee shall comply with the following:

- (a) For Furnace No. 2: on and after the first seven (7) Operating Day(s) of the Furnace Startup following the completion of the cold rebuild project, but no later than December 31, 2012, all stack gases from Furnace No. 2 shall be captured and controlled by an electrostatic precipitator (ESP No. 1), except during periods of Control Device Startup, up to the first seven (7) Days of the Furnace Startup, and during Malfunction of the electrostatic precipitator (ESP No. 1), and Maintenance on the electrostatic precipitator (ESP No. 1).
- (b) For Furnace No. 1: no later than December 31, 2012, all stack gases from Furnace No. 1 shall be captured and controlled by an electrostatic precipitator (ESP No. 1), except during periods of Control Device Startup, up to the first seven (7) Days of the Furnace Startup, and during Malfunction of the electrostatic precipitator (ESP No. 1), and Maintenance on the electrostatic precipitator (ESP No. 1).
- (c) The emissions from Furnace No. 1 and Furnace No. 2 shall, each, not exceed 0.2 pound of filterable PM per ton of glass produced and 0.45 pound of total PM per ton of glass produced, once the emissions from the respective furnace are controlled by an electrostatic precipitator (ESP No. 1).
- (d) When both Furnace No. 1 and Furnace No. 2 are routed to the same stack and subject to the same emission limits, compliance with the limits on each Furnace set forth in Condition D.1.3 shall be determined using the following equation:

$$\text{PM}_{\text{EMISSION RATE}} (\text{lb/ton glass}) = [(\text{Lbs of PM from ST}) / (\text{Daily production})] \times [(\text{24 hrs}) / (\text{Source test length})]$$

Where:

$$\text{PM}_{\text{EMISSION RATE}} (\text{lb/ton glass}) = \text{PM Emissions rate (lb PM/ton glass)}$$

- Lbs of PM from ST = The pounds of PM measured during the entire length of the source test (including all runs).
- Daily production = The amount of glass produced on all Furnaces during the Day of the source test in tons.
- Source test length = Length of the entire source test (including all runs), in hours.

If the resulting number is below the limit set forth on each Furnace individually, then both furnaces are in compliance.

If the resulting number is above the limits set forth on each Furnace individually, then both furnaces are in noncompliance.

D.1.4D.1.4 Particulate [326 IAC 6-3]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from the two (2) Oxyfuel glass melting furnaces (identified as Furnace No. 1

and 2) shall not exceed ~~31.4~~ **36.4** and ~~33.4~~ **38.8** pounds per hour when operating at a process weight rate of ~~41,667~~ **52,058** and ~~45,834~~ **57,292** pounds per hour, respectively.

The pounds per hour limitations were 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:

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

D.1.2D.1.5 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

~~A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities~~ **and the associated control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.**

D.1.6 Maintenance

Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the Permittee shall comply with the following Maintenance requirements.

- (a) Scheduled or preventative furnace Maintenance, including checker raking and burning, shall not exceed ninety-six (96) operating hours annually.**
 - (1) No later than December 31, 2012, ESP No. 1 and Scrubber No. 1 shall be in operation and controlling emissions from Furnace No. 1 at all times when scheduled or preventative furnace Maintenance is conducted.**
 - (2) Upon completion of the cold rebuild project associated with Furnace No. 2, but no later than December 31, 2012, ESP No. 1 and Scrubber No. 1 shall be in operation and controlling emissions from Furnace No. 2 at all times when scheduled or preventative furnace Maintenance is conducted.**

- (b) Scheduled or preventative Maintenance of the emission control system shall occur when the Furnace No. 1 and Furnace No. 2 are not in operation. However, for any Calendar Year which is a Continuous Operating Year, scheduled or preventative Maintenance may be conducted while the one (1) or both of the furnaces are in operation. During these Continuous Operating Year, Maintenance lasting greater than twenty-four (24) consecutive hours, shall occur only during Abnormally Low Production Rate Days. Control system Maintenance must be done in compliance with the following:**
 - (1) Bypass of ESP No. 1 shall not exceed one-hundred forty-four (144) hours annually in any Calendar Year. Furthermore if ESP No. 1 is bypassed, Scrubber No. 1 must be bypassed as well.**
 - (2) Bypass of Scrubber No. 1 shall not exceed one-hundred forty-four (144) hours annually in any Calendar Year. Bypass of Scrubber No. 1 required by the bypass of ESP No. 1 shall be included in the one-hundred forty-four (144) hours.**

Compliance Determination Requirements

D.1.7 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

Pursuant to the Consent Decree entered in *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the Permittee shall comply with the following stack test requirements:

- (a) On or before December 31, 2011, in order to demonstrate compliance with Condition D.1.2(g), the Permittee shall perform Sulfuric Acid Mist (H₂SO₄) testing of the stack exhausts of Furnace No. 1 and Furnace No. 2. The stack test(s) shall be performed using Conditional Test Method 13A or B. After the initial valid compliance demonstration, this testing shall be performed at least once during the life of each Title V permit renewal.
- (b) No later than December 31, 2013, in order to demonstrate compliance with Condition D.1.3, the Permittee shall perform PM testing on the stack exhaust of Furnace No. 1 and Furnace No. 2. Testing shall be conducted at least once every Calendar Year thereafter.
 - (1) Filterable PM shall be determined using EPA Method 5 (40 CFR Part 60 Appendix A).
 - (2) Total PM shall be determined using Method 5 (40 CFR Part 60 Appendix A) and EPA Method 202 (40 CFR Part 51 Appendix M).

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.

D.1.8 Definition of Terminology

Pursuant to the Consent Decree entered in *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the definitions, included as Attachment A to this permit, shall apply to the following terms when used throughout Conditions D.1.1, D.1.2, D.1.3, D.1.6, D.1.7, D.1.9 (a) through (e), D.1.10(a), D.1.11, D.1.12, and D.1.16 of this permit.

- (a) "24-hour Block Average"
- (b) "Affected State(s)"
- (c) "Abnormally Low Production Rate"
- (d) "Abnormally Low Production Rate Day"
- (e) "Calendar Year"
- (f) "CEMS"
- (g) "CEMS Certification"
- (h) "CEMS Certification Event"
- (i) "Color Transition"
- (j) "COMS"
- (k) "Continuous Operating Year"
- (l) "Control Device Startup"
- (m) "Day"
- (n) "Emission Rate 30-day Rolling Average"
- (o) "First Control Device Startup"
- (p) "Furnace"
- (q) "Furnace Startup"
 - (i) "Initial Heating Phase"
 - (ii) "Refractory Soak and Seal Phase"

- (iii) "Furnace Stabilization Phase"
- (r) "Hot Spot Temperature"
- (s) "Inlet"
- (t) "Maintenance"
- (u) "Major Rebuild"
- (v) "Malfunction"
- (w) "Month"
- (x) "NOx"
- (y) "Operate", "Operation", "Operating", and "Operated"
- (z) "Operating Day"
- (aa) "Outlet"
- (bb) "Outlet 30-day Rolling Average"
- (cc) "Oxyfuel Furnace"
- (dd) "Particulate Matter" and "PM"
- (ee) "Removal Efficiency"
- (ff) "Removal Efficiency 30-day Rolling Average"
- (gg) "Scrubber System"
- (hh) "SO₂"
- (ii) "Ton" or "tons"
- (jj) "TSP" 6.13

D.1.9 Continuous Emissions Monitoring Systems (CEMS) [326 IAC 3-5]

- (a) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), upon completion of the cold rebuild of Furnace No. 2, but no later than December 31, 2012, the Permittee shall comply with the following:
 - (1) A continuous emission monitoring system (CEMS) for NOx shall be installed, calibrated, maintained, and operated for measuring Furnace No. 2 NOx emissions at stack No. 2 for the purpose of demonstrating compliance with the NOx limitations of Condition D.1.1.

The NOx CEMS shall monitor continuously and record the hourly NOx emission concentration (parts per million) during each Operating Day from Furnace No. 2. The CEMS shall calculate and record in units of parts per million of NOx emitted.
 - (2) A continuous emission monitoring systems (CEMS) for SO₂ shall be installed, calibrated, maintained and operated for measuring SO₂ emissions at the inlet and the outlet of the emission control system (consisting of ESP No. 1 and Scrubber No. 1) for measuring Furnace No. 2 SO₂ emissions at stack No. 3 for the purpose of demonstrating compliance with the SO₂ limitations of Condition D.1.2.

The SO₂ CEMS shall monitor continuously and record the hourly SO₂ emission concentration (parts per million) during each Operating Day from Furnace No. 2. The CEMS shall calculate and record in units of parts per million of SO₂ emitted.
- (b) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), no later than December 31, 2012, the Permittee shall comply with the following:
 - (1) A continuous emission monitoring system (CEMS) for NOx shall be installed, calibrated, maintained, and operated for measuring Furnace No. 1

NOx emissions at stack No. 1 for the purpose of demonstrating compliance with the NOx limitations of Condition D.1.1.

The NOx CEMS shall monitor continuously and record the hourly NOx emission concentration (parts per million) during each Operating Day from Furnace No. 2. The CEMS shall calculate and record in units of parts per million of NOx emitted.

- (2) The continuous emission monitoring systems (CEMS) for SO₂ installed, calibrated, maintained, and operated at the inlet and outlet of the emission control system, as required by Condition D.1.9(a)(2), shall monitor continuously and record the hourly SO₂ emission concentration (parts per million) during each Operating Day from Furnace No. 1 and Furnace No. 2. The CEMS shall calculate and record in units of parts per million of SO₂ emitted.
- (c) 40 CFR Part 60 Appendix B (Performance Specification 2) and 40 CFR Part 60 Appendix F (Quality Assurance Procedures).
- (d) During periods of CEMS Certification Events, the requirement to demonstrate compliance continuously pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.) will be suspended until the Certification is completed (provided the seven-day test required for Certification is commenced the first Operating Day following the conclusion of the CEMS Certification Event).
- (e) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), where CEMS is required to determine an emission rate (pound per ton or ton per year), the Permittee shall install, calibrate, certify, maintain, and operate NOx and SO₂ Continuous Emission Rate Monitoring System (CERMS) as follows:
 - (1) The CERMS shall be installed, calibrated, certified, maintained, and operated in accordance with 40 CFR 60.13, 40 CFR Part 60 Appendix B (Performance Specification 6), and 40 CFR Part 60 Appendix F (Quality Assurance Procedures);
 - (2) SGCI must comply with all monitoring, record keeping and reporting requirements in 40 CFR 60.13 and 40 CFR Part 60 Appendix B (Performance Specification 6); and
 - (3) In conjunction with the flow rate monitoring device, the data acquisition and handling system for the CEMS shall convert the ppm values into pound per hour values where the limit is expressed in pounds of pollutant per ton of glass produced. At the end of each Operating Day, the data acquisition and handling system shall divide the total daily emissions in pounds per day for valid CEMS hourly data by the total tons of glass produced during the Operating Day (reduced proportionally based on the valid CEMS data hours) to describe the pound per ton emission rate for the Operating Day. This number shall be recorded in units of pounds of pollutant per ton of glass produced for the applicable Day.
- (f) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

D.1.10 Continuous Opacity Monitoring Systems (COMS) [326 IAC 3-5]

- (a) Pursuant to the Consent Decree entered in *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), the following shall apply:
- (1) Until commencement of the cold rebuild of Furnace No. 2, the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 2.
 - (2) Upon completion of the cold rebuild of the Furnace No. 2, the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 3.
 - (3) Until Furnace No. 1 exhaust is routed to the emission control system (Scrubber No. 1 and ESP No. 1), the Permittee shall install, calibrate, certify, maintain, and operate a continuous opacity monitoring system (COMS) at stack No. 1.
 - (4) Each COMS shall be operated continuously during each associated furnace(s) Operating Day in accordance with Performance Specification 1 of 40 CFR Part 60 Appendix B; and in compliance with all monitoring, record keeping and reporting requirements in 40 CFR 60.13 and 40 CFR Part 60 Appendix B (Performance Specification 1).
- (b) All continuous emission monitoring systems are subject to monitor system certification requirements pursuant to 326 IAC 3-5-3.

D.1.11 Furnace Exhaust Flue Excess Oxygen

Pursuant to the Consent Decree entered in *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), and in order to determine the compliance status with Condition D.1.1(d)(2)(B) and D.1.1(d)(3)(B), the Permittee shall record the excess oxygen at the furnace exhaust flue, once per shift, during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. The measurement shall be taken with a handheld monitor.

When for any one (1) reading, the excess oxygen is above five percent (5%), the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

The handheld instrument used for determining the excess oxygen shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

For Furnace No. 1; the Permittee shall comply with this condition no later than December 31, 2012.

For Furnace No. 2; the Permittee shall comply with this condition upon completion of the cold rebuild project, but no later than December 31, 2012.

D.1.12 Furnace Hot Spot Temperature

Pursuant to the Consent Decree entered in *United States vs. Saint-Gobain Containers, Inc.*, Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), and in order to determine the compliance

status with Condition D.1.1(d)(2)(C) and D.1.1(d)(3)(C), the Permittee shall record the furnace Hot Spot Temperature, once per shift, during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase.

When for any one (1) reading, the Hot Spot Temperature is above 2,900.0 °F, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition.

The handheld instrument used for determining the temperature shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

For Furnace No. 1; the Permittee shall comply with this condition no later than December 31, 2012.

For Furnace No. 2; the Permittee shall comply with this condition upon completion of the cold rebuild project, but no later than December 31, 2012.

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

D.1.13 Transformer-Rectifier (T-R) Sets [326 IAC 2-7-6(1)] [326 IAC 2-7-5(1)] [40 CFR Part 64]

- (a) **The ability of ESP No. 1 to control particulate emissions shall be monitored once per day, when the electrostatic precipitator is required to be in operation in accordance with Condition D.1.3 - Particulate Matter (PM) Limit, by measuring and recording the KVA (Kilovolt-Amperes) of the T-R sets.**
- (b) **When for any reading the KVA (Kilovolt-Amperes) of a set falls below ninety percent (90%) of the normal range of 263.0 KVA, or a value established during the latest stack test, the Permittee shall take reasonable response steps. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A reading that is below the above mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.**

The instrument used for determining the total power shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.

D.1.14 Maintenance of Continuous Opacity Monitoring Equipment and COMS Downtime [326 IAC 2-7-5(3)(A)(iii)]

- (a) **In the event that a breakdown of a COMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.**
- (b) **Whenever a COMS is malfunctioning or is down for maintenance or repairs for a period of twenty-four (24) hours or more and a backup COMS is not online within twenty-four (24) hours of shutdown or malfunction of the primary COMS, the Permittee shall provide a certified opacity reader, who may be an employee of the Permittee or an independent contractor, to self-monitor the emissions from the emission unit stack.**

- (1) **Visible emission readings shall be performed in accordance with 40 CFR 60, Appendix A, Method 9, for a minimum of five (5) consecutive six (6) minute averaging periods beginning not more than twenty-four (24) hours after the start of the malfunction or down time.**
 - (2) **Method 9 opacity readings shall be repeated for a minimum of five (5) consecutive six (6) minute averaging periods at least twice per day during daylight operations, with at least four (4) hours between each set of readings, until a COMS is online.**
 - (3) **Method 9 readings may be discontinued once a COMS is online.**
 - (4) **Any opacity exceedances determined by Method 9 readings shall be reported with the Quarterly Opacity Exceedances Reports.**
- (c) **Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous opacity monitoring system pursuant to 326 IAC 3-5 and 40 CFR 60, Subpart CC**

D.1.15 Maintenance of Continuous Emissions Monitoring Equipment and NO_x and SO₂ CEMS Downtime [326 IAC 2-7-6] [326 IAC 2-7-5(3)]

- (a) **In the event that a breakdown of a CEMS occurs, a record shall be made of the times and reasons of the breakdown and efforts made to correct the problem.**
- (b) **Whenever a NO_x continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.**
- (c) **Whenever a SO₂ continuous emission monitoring system (CEMS) is malfunctioning or down for repairs or adjustments, the following shall be used to provide information related to SO₂ emissions:**
 - (1) **If the CEMS is down for less than twenty-four (24) hours, the Permittee shall substitute an average of the quality-assured data from the hour immediately before and the hour immediately after the missing data period for each hour of missing data.**
 - (2) **If the CEMS is down for twenty-four (24) hours or more, the Permittee shall monitor and record the slurry recirculation pH and sorbent injection rate, to demonstrate that the operation of the semi-dry scrubber (Scrubber No. 1) continues in a manner typical for the glass produced and sulfur added to the batch materials.**

Scrubber No. 1 parametric readings shall be recorded at least twice per day, with at least four (4) hours between each set of readings, until the primary CEMS or backup CEMS is brought online.
- (d) **Nothing in this permit shall excuse the Permittee from complying with the requirements to operate a continuous emissions monitoring system pursuant to 326 IAC 3-5.**

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

D.1.16 Record Keeping Requirements

- (a) To document the compliance status with Condition D.1.1 - NO_x Limit, the Permittee shall maintain records in accordance with (1) through (3) below, Records shall be complete and sufficient to determine compliance with the NO_x limitations established in Condition D.1.1 (a), (b), (c), (e), and (f).
- (1) Data and results from the most recent performance specifications tests, pursuant to 326 IAC 3-5-3.
 - (2) All continuous emissions monitoring data, pursuant to 326 IAC 3-5.
 - (3) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), for any Operating Day that NO_x emissions are excluded from the NO_x Emission Rate 30-day rolling average, the Permittee shall maintain the following records.
 - (A) The date of the exclusion.
 - (B) The exception (Abnormally Low Production Rate Day, Furnace Startup, Control Device Startup, Malfunction, or Maintenance) under which it is excluded.
 - (C) For any Operating Day excluded for Maintenance, the total number of hours during which the Maintenance occurred.
 - (D) A calculation of the applicable limit in pounds per day.
 - (E) The recorded emissions according to the CEMS in pounds per day.
- (b) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1 - NO_x Limit, the Permittee shall maintain records in accordance with (1) through (5) below, Records shall be complete and sufficient to determine compliance with the NO_x limitations established in Condition D.1.1(d)(1), D.1.1(d)(2)(A), and D.1.1(d)(3)(A).
- (1) Natural gas usage in million standard cubic feet (MMscf) during a Furnace Startup - Initial Heating Phase.
 - (2) Natural gas usage in million standard cubic feet (MMscf) during a Furnace Startup - Refractory Soak and Seal Phase.
 - (3) Natural gas usage in million standard cubic feet (MMscf) during a Furnace Startup - Furnace Stabilization Phase.
 - (4) The date of the qualifying event.
 - (5) The qualifying event (Furnace Startup - Initial Heating Phase, Furnace Startup - Refractory Soak and Seal Phase, or Furnace Startup - Furnace Stabilization Phase) under which the record is being kept.
- (c) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1(d)(2)(D), the Permittee shall maintain a certified statement asserting whether thermal blankets of similar techniques were used during a Furnace Startup - Refractory Soak and Seal Phase. A certified

statement shall be maintained for each a Furnace Startup - Refractory Soak and Seal Phase. The certifications shall meet the requirements of 326 IAC 2-7-6(1) and by signed by a “responsible official” as defined by 326 IAC 2-7-1(34).

- (d) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1(d)(2)(B), D.1.1(d)(3)(B), and D.1.11 , the Permittee shall maintain once per shift records of the excess oxygen readings, required during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. The Permittee shall include in its daily record when an excess oxygen reading is not taken and the reason for the lack of an excess oxygen reading.**
- (e) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.1(d)(2)(C), D.1.1(d)(3)(C), and D.1.12 , the Permittee shall maintain once per shift records of the Hot Spot Temperature readings, required during a Furnace Startup - Refractory Soak and Seal Phase and a Furnace Startup - Furnace Stabilization Phase. The Permittee shall include in its daily record when a Hot Spot Temperature reading is not taken and the reason for the lack of a Hot Spot Temperature reading.**
- (f) To document the compliance status with Condition D.1.2 - SO₂ Limit, the Permittee shall maintain records in accordance with (1) through (4) below, Records shall be complete and sufficient to determine compliance with the SO₂ limitations established in D.1.2 (c), (e), and (f).**
 - (1) Data and results from the most recent performance specifications tests, pursuant to 326 IAC 3-5-3.**
 - (2) All continuous emissions monitoring data, pursuant to 326 IAC 3-5.**
 - (3) Records of all parametric readings taken during any periods of SO₂ CEMS downtime. Condition D.1.15 contains the readings required by this condition.**
 - (4) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), for any Operating Day that SO₂ emissions are excluded from the SO₂ Emission Rate 30-day rolling average, the Permittee shall maintain the following records.**
 - (A) The date of the exclusion.**
 - (B) The exception (Abnormally Low Production Rate Day, Furnace Startup, Furnace Malfunction, Furnace Maintenance, or Color Transition) under which it is excluded.**
 - (C) A calculation of the applicable limit in pounds per day.**
 - (E) The recorded emissions according to the CEMS in pounds per day.**
- (g) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), to document the compliance status with Condition D.1.2(d)(1) and D.1.2(d)(2), during Control Device Startup or up the first seven (7) days of Furnace Startup, the Permittee shall maintain records in accordance with (1) through (3) below. The records shall be complete and sufficient to determine compliance with Condition D.1.2(d)(1) and D.1.2(d)(2).**

- (1) The amount of sulfur added to the batch materials in pounds per ton of total batch material (including cullet).
 - (2) The date of the qualifying event.
 - (3) The qualifying event (Control Device Startup or up to the first seven (7) days of a Furnace Startup) under which the record is being kept.
- (h) To document the compliance status with Condition D.1.2(d)(3), during Control Device Startup or up the first seven (7) days of Furnace Startup, the Permittee shall maintain records of the amount of natural gas combusted (MMscf) in the furnace on days when the furnace exhaust is bypassing the Scrubber System (Scrubber No. 1).
- (i) To document the compliance status with Condition D.1.3 - PM (Filterable) and Total PM Limit, the Permittee shall maintain records in accordance with (1) through (3) below, Records shall be complete and sufficient to determine compliance with the PM limitations established in D.1.3 (c) and (d).
 - (1) The amount of glass produced by Furnace No. 1 and Furnace No. 2, combined, on a daily basis.
 - (2) Pounds of PM measured from the entire length of the most recent valid compliance test and the length of the test (including all runs).
 - (3) A calculation of the daily PM EMISSION RATE in pounds per ton glass.
- (j) To document the compliance status with Condition D.1.6 - Maintenance, the Permittee shall maintain records in accordance with (1) through (3) below, Records shall be complete and sufficient to determine compliance with the PM limitations established in D.1.6.
 - (1) Annual hours of scheduled or preventive maintenance for each Furnace.
 - (2) Number of hours, per Calendar year, ESP No. 1 is bypassed during control system maintenance.
 - (3) Number of hours, per Calendar year, Scrubber No. 1 is bypassed during control system maintenance.
- (k) To document the compliance status with Condition D.1.13, the Permittee shall maintain daily records of the KVA (Kilovolt-Amperes) of the T-R sets. The Permittee shall include in its daily record when a recording is not taken and the reason for the lack of a recording, (i.e., the process did not operate that day).
- (l) To document the compliance status with Condition D.1.14, the Permittee shall maintain the following records:
 - (1) Data and results from the most recent stack test.
 - (2) All continuous opacity monitoring data, pursuant to 326 IAC 3-5.
 - (3) The results of Method 9 visible emission readings taken during periods of COM downtime.

- (m) Pursuant to 326 IAC 3-7-5(a), the Permittee shall develop a standard operating procedure (SOP) to be followed for sampling, handling, analysis, quality control, quality assurance, and data reporting of the information collected pursuant to 326 IAC 3-7-2 through 326 IAC 3-7-4. In addition, any revision to the SOP shall be submitted to the IDEM, OAQ.

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

D.1.17 Reporting Requirements

- (a) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.1 (a), (b), (c), (d)(1), (d)(2)(A), (d)(3)(A), (e), and (f) - NO_x Limit shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (b) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.2 (c), (d), (e), and (f) - SO₂ Limit shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (c) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.3 (c) and (d) - PM (Filterable) and Total PM Limit shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (d) A quarterly report and a quarterly summary of the information to document the compliance status with Condition D.1.6 - Maintenance shall be submitted not later than thirty (30) days after the end of the quarter being reported.
- (e) Pursuant to 326 IAC 3-5-7(5), reporting of continuous monitoring system instrument downtime, except for zero (0) and span checks, which shall be reported separately, shall include the following:
- (1) Date of downtime.
 - (2) Time of commencement.
 - (3) Duration of each downtime.
 - (4) Reasons for each downtime.
 - (5) Nature of system repairs and adjustments.
- (f) Pursuant to the Consent Decree entered in United States vs. Saint-Gobain Containers, Inc., Civil Action No. 2:10-cv-00121-TSZ, (W.D. Wash.), performance standards, emissions limits, and other quantitative standards set by or under the Consent Decree must be met to the number of significant digits in which the standard or limit is expressed. The Permittee shall report data to the number of significant digits in which the standard or limit is expressed.
- (g) These reports shall be submitted not later than thirty (30) calendar days following the end of each calendar quarter. Section C – General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The reports submitted by the Permittee do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a “responsible official” as defined by 326 IAC 2-7-1(34).

Modification No. 4:

The Facility Description Box of Section D.2 has been modified to reflect the updated capacities of the following Insignificant Activities; the hot end treatment facilities and mold swabbing facilities.

SECTION D.2 FACILITY OPERATION CONDITIONS

<p>Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities</p> <ul style="list-style-type: none">(a) One (1) hot end treatment facility, consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, and having a maximum throughput capacity of 4.0 0.90 pounds per hour and exhausting through building ventilation system.(b) One (1) hot end treatment facility consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, and having a maximum throughput capacity of 4.0 0.90 pounds per hour and exhausting through building ventilation system.(f) One (1) mold swabbing facility consisting of five (5) individual treatment locations (identified as shops 11, 12, 13, 14, and 15), servicing melting furnace No. 1, and having a maximum combined capacity of 4.0 3.33 pounds of swabbing material per hour and exhausting through building ventilation system.(g) One (1) mold swabbing facility consisting of three (3) individual treatment locations (identified as shops 21, 22, and 23), servicing melting furnace No. 2, and having a maximum combined capacity of 4.0 3.80 pounds of swabbing material per hour and exhausting through building ventilation system.(h) One (1) sandblaster, installed in 2007, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside.(i) One (1) sandblaster, installed in 2006, located in the mold shop, controlled by a dust collector (identified as Econoline), and exhausting outside.(j) One (1) sandblaster, installed in 2001, located in the mold shop, controlled by a dust collector (identified as Empire), and exhausting outside. <p>(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)</p>
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Modification No. 5:

The following revisions have been made to Section D.3:

- (a) The Facility Description Box of Section D.3 has been modified to reflect the updated capacities of the following Insignificant Activities; the batch handling facilities servicing the melting furnaces No. 1 and No. 2.
- (b) Condition D.3.1 - Particulate has been modified to reflect the changes to the limits established under 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) resulting from updated capacities of the batch handling facilities.
- (c) Revisions, as specified in the above "IDEM Change" paragraphs of this Proposed Changes Section have been incorporated as applicable.

Section D.3 has been revised as follows:

SECTION D.3 FACILITY OPERATION CONDITIONS

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

~~(a)~~**(c)** One (1) batch handling facility servicing melting furnace No. 1, **constructed in 1993**, with a maximum capacity of ~~26.04~~ 22.5 tons of raw material per hour, venting inside the building. ~~This unit was constructed in 1993. [326 IAC 6-3]~~

~~(b)~~**(d)** One (1) batch handling facility servicing melting furnace No. 2, **constructed in 1993**, with a maximum capacity of ~~28.65~~ 24.8 tons of raw material per hour, venting inside the building. ~~This unit was constructed in 1993. [326 IAC 6-3]~~

~~(e)~~**(e)** One (1) raw material handling process consisting of one (1) raw material storage bin, **constructed in 2003**, with a maximum throughput rate of 560 pounds of iron oxide per hour, controlled by one (1) dust collector, and venting inside the silo. The raw material is transferred to the storage bin using a pneumatic conveyance system. ~~This process was constructed in 2003. [326 IAC 6-3]~~

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

Emission Limitations and Standards

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

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the two (2) batching handling facilities and one (1) raw storage bin, shall not exceed the exceed the particulate emission limit as shown in the table below.

Emission Units	Process Weight		Particulate Emission Limit (lbs/hour)
	(lbs/hour)	(tons/hour)	
Batch handling facility servicing furnace No. 1	52,058 45,000	26.04 22.5	36.40 33.0
Batch handling facility servicing furnace No. 2	57,292 49,500	28.65 24.8	38.82 35.2
Raw material handling used in conjunction with raw material storage bin	560	0.28	1.75

The pounds per hour limitations were 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.

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, ~~in accordance with Section B - Preventive Maintenance Plan, of this permit,~~ is required for these facilities and one (1) dust collector controlling the raw storage bin. **Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.**

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

D.3.3 Visible Emissions Notations

- (a) Visible emission notations of the two (2) batch handling facilities (servicing furnace No. 1 and 2) stack exhaust shall be performed once per week during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response. ~~steps in accordance with Section C - Response to Excursions or Exceedances~~ **contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal reading is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~ shall be considered a deviation from this permit.

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

D.3.4 Record Keeping Requirements

- (a) To document **the compliance status** with Condition D.3.3, the Permittee shall maintain weekly records of visible emission notations of the two (2) batch handling facilities (servicing furnace No. 1 and 2) stack exhaust. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of visible emission notation, ~~(e.g. i.e. the process did not operate that day, or was not venting to atmosphere).~~
- (b) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements~~ **contains the Permittee's obligation with regard to the records required by this condition** ~~of this permit.~~

Modification No. 6:

The following revisions have been made to Section D.4:

- (a) The Facility Description box has been revised to incorporate the new soda ash silo (Silo No. 1) and the new ESP dust silo (Silo No. 2).
- (b) Paragraph (b) has been added to Condition D.4.1 - Prevention of Significant Deterioration (PSD) Minor Limit PM/PM₁₀ to incorporate limits necessary to ensure to the PM and PM₁₀ from this modification remain below the significant emissions thresholds.
- (c) New Condition D.4.2 - Particulate contains particulate (PM) limits (pursuant to 326 IAC 6-3) for the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2).

- (d) Paragraph (b) has been added to Condition D.4.4 (originally Conditions D.4.3) and requires the dust collectors for Silo No. 1 and Silo No. 2 to be in operation at all times the associated facility is in operation.
- (e) Paragraph (b) has been added to Condition D.4.6 - Visible Emissions Notations (originally Condition D.4.5) to include soda ash silo (Silo No. 2) and the ESP dust silo (Silo No. 2) visible emission notation requirements.
- (f) New Condition D.4.8 - Dust Collector Inspections has been added. Since Silo No. 1 and Silo No. 2 operate in a batch mode and are static, (i.e. do not utilize fans to create a pressure differential), it is appropriate to allow the source to conduct quarterly dust collector inspections in lieu of daily pressure drop readings.
- (g) Condition D.4.10 - Record Keeping Requirements (originally Condition D.4.8) has been revised to include the requirement to maintain visible emission notations for Silo No. 1 and Silo No. 2, and records of the quarterly dust collector inspections.
- (h) Revisions, as specified in the above "IDEM Change" paragraphs of this Proposed Changes Section have been incorporated as applicable.

Section D.4 has been revised as follows:

SECTION D.4 FACILITY OPERATION CONDITIONS

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

- ~~(a)~~(c) One (1) grinding operation, installed in 1994, located in the mold shop, controlled by a dust collector (identified as Wheelabrator), and exhausting outside.
- (d) One (1) soda ash silo, identified as Silo No. 1, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S1. The soda ash is pneumatically conveyed to scrubber.**
- (e) One (1) ESP dust silo, identified as Silo No. 2, approved in 2011 for construction, with a maximum throughput rate of 20 tons per hour, equipped with a dust collector for particulate control, exhausting at stack No. S2.**

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

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

D.4.1 Prevention of Significant Deterioration (PSD) Minor Limit PM/PM₁₀ [326 IAC 2-2]

- (a) The source shall comply with the following limits:

Process/Emission Units	Year of Construction	PM (lbs/hour)	PM10 (lbs/hour)
Grinding Operation	1994	5.70	3.42

Compliance with the above limits shall limit the potential to emit of PM and PM₁₀ from the grinding operation to less than 25 and 15 tons per year, respectively, and will render the provisions of 326 IAC 2-2 (PSD) not applicable to the 1994 modification.

(b) Pursuant to 326 IAC 2-2 (PSD), and in order to render the requirements of 326 IAC 2-2 (PSD) not applicable to the Furnace No. 2 cold rebuild and control device installation modification (Significant Source Modification No. 075-29643-00004), the Permittee shall comply with the following limits.

- (1) The PM and PM₁₀ emissions from the bin vent controlling the soda ash silo (Silo No. 1) shall each not exceed 1.40 pounds per hour.**
- (2) The PM and PM₁₀ emissions from the bin vent controlling the ESP dust silo (Silo No. 2) shall each not exceed 1.40 pounds per hour.**

Compliance with these limits shall ensure that the PM and PM₁₀ emissions increase from the Furnace No. 2 cold rebuild and control device installation modification (Significant Source Modification No. 075-29643-00004) shall be less than twenty-five (25) and fifteen (15) tons, respectively, per twelve (12) consecutive month period, with compliance determined at the end of each month. Therefore, the requirements of 326 IAC 2-2 (PSD) are rendered not applicable.

D.4.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e) (Particulate Emission Limitations for Manufacturing Processes), particulate emissions from the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) shall not exceed the particulate emission limit as shown in the table below.

Emission Units	Process Weight		Particulate Emission Limit (lbs/hour)
	(lbs/hour)	(tons/hour)	
Soda ash silo	40,000	20.0	30.51
ESP dust silo	40,000	20.0	30.51

The pounds per hour limitations were 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:

$$E = 4.10 P^{0.67} \quad \text{where } E = \text{rate of emission in pounds per hour, and} \\ P = \text{process weight rate in tons per hour.}$$

D.4.2D.4.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B – Preventive Maintenance Plan, of this permit, is required for these facilities and the associated control devices. 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.4.3D.4.4 Particulate Control

- (a) In order to comply with Condition D.4.1(a), the dust collectors for particulate control shall be in operation and control emissions from the mold shop machine operations at all times that the mold shop machine facilities are in operation.**
- (b) In order to comply with Conditions D.4.1(b) and D.4.2, the dust collectors for particulate control shall be in operation and control emissions from the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) at all times that the associated silo is in operation.**

~~(b)(c)~~ * * *

D.4.4D.4.5 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

~~Within~~ **Nor later than** 180 days of the issuance of this Part 70 permit (T075-17108-00004), in order to demonstrate compliance with Condition D.4.1, the Permittee shall perform PM and PM₁₀ testing for the grinding operation utilizing methods as approved by the Commissioner. ~~This test shall be repeated,~~ at least once every five (5) years from the date of this **the most recent** valid compliance demonstration. PM₁₀ includes filterable and condensable PM₁₀. ~~Testing shall be conducted in accordance with Section C - Performance Testing.~~ **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.**

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

D.4.5D.4.6 Visible Emissions Notations

(a) * * *

(b) Visible emission notations of the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2) dust collectors' stack exhausts shall be performed once per week during normal daylight loading operations. A trained employee shall record whether emissions are normal or abnormal.

~~(b)(c)~~ * * *

~~(c)(d)~~ * * *

~~(d)(e)~~ * * *

~~(e)(f)~~ If abnormal emissions are observed, the Permittee shall take reasonable response. ~~steps in accordance with Section C - Response to Excursions or Exceedances~~ **contains the Permittee's obligation with regard to the reasonable response steps required by this condition. An abnormal reading is not a deviation from this permit.** Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances~~ shall be considered a deviation from this permit.

D.4.6D.4.7 Parametric Monitoring

The Permittee shall record the pressure drop across the dust collectors used in conjunction with the mold shop machine operations, at least once per day when the mold shop machine operations is in operation. When for any one reading, the pressure drop across the dust collector is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response. ~~steps in accordance with Section C - Response to Excursions and Exceedances~~ **contains the Permittee's obligation with regard to the reasonable response steps required by this condition.** A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps ~~in accordance with Section C - Response to Excursions or Exceedances,~~ shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months **or other time period specified by the manufacturer. The Permittee shall maintain records of the manufacturer specifications, if used.**

D.4.8 Dust Collector Inspections

An inspection shall be performed each calendar quarter of all the dust collectors controlling the soda ash silo (Silo No. 1) and the ESP dust silo (Silo No. 2). All defective filters shall be replaced.

~~D.4.7~~D.4.9 Broken or Failed Cartridge Detection

* * *

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

~~D.4.8~~D.4.10 Record Keeping Requirements

- (a) To document **the compliance status** with Condition ~~D.4.5~~**D.4.6**, the Permittee shall maintain daily records of the visible emission notations of the **mold shop machine facilities** dust collector-s' exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (~~e.g.i.e.~~ the process did not operate that day).
- (b) **To document the compliance status with Condition D.4.6, the Permittee shall maintain records of the once per week visible emission notations of the Silo No. 1 and Silo No. 2 dust collectors' exhausts. The Permittee shall include in its weekly record when a visible emission notation is not taken and the reason for the lack of visible emission notation, (i.e. the process did not operate that week).**
- (c) **To document the compliance status with Condition D.4.8, the Permittee shall maintain records of the results of the inspections required under Condition D.4.8.**
- ~~(b)~~(d) To document **the compliance status** with Condition ~~D.4.6~~**D.4.9**, the Permittee shall maintain daily records of the pressure drop. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (~~e.g.i.e.~~ the process did not operate that day).
- ~~(e)~~(e) ~~All records shall be maintained in accordance with Section C - General Record Keeping Requirements~~ **contains the Permittee's obligation with regard to the records required by this condition of this permit.**

Modification No. 7:

The following revisions have been made to Section E.1:

- (a) The Facility Description box has been revised to reflect modifications to emission units and stack configurations and new control devices.
- (b) Condition E.1.2 has been revised to reflect changes in applicability under 40 CFR 60, Subpart CC.

Section E.1 has been revised as follows:

SECTION E.1

FACILITY OPERATION CONDITIONS

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

- (a) One (1) ~~oxy-fuel~~ **Oxyfuel** glass melting furnace, (identified as Furnace No. 1), **constructed in 1993**, with a maximum throughput capacity of 500 tons of glass per day and a maximum heat input capacity of 80 MMBtu per hour, and exhausting at stack No. 1. ~~This unit was constructed in 1993.~~ **[40 CFR 60, Subpart CC]**

No later than December 31, 2012, the stack No. 1 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

- (b) One (1) ~~oxy-fuel~~ **Oxyfuel** glass melting furnace, (~~identified as Furnace No. 2~~), **constructed in 1998 and approved in 2011 for cold rebuild, with a** maximum throughput capacity of 550 tons of glass per day and a maximum heat input capacity of 84.8 MMBtu per hour, and exhausting at stack No. 2. ~~This unit was constructed in 1998.~~ **[40 CFR 60, Subpart CC]**

Upon completion of the cold rebuild, the stack No. 2 exhaust will be routed to an emission control system consisting of an electrostatic precipitator, identified as ESP No. 1, and a semi-dry scrubber, identified as Scrubber No. 1, which will exhaust at stack No. 3.

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

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

E.1.1 General Provisions Relating to NSPS CC [326 IAC 12] [40 CFR Part 60, Subpart A]

* * *

E.1.2 Standards of Performance for Glass Manufacturing Plants [326 IAC 12] [40 CFR Part 60, Subpart CC]

The Permittee who owns/operates glass melting furnace for which construction, reconstruction, or modification is commenced after June 15, 1979 shall comply with the following provisions of 40 CFR Part 60, Subpart CC (included as Attachment A **B** of this permit), **which are incorporated by reference as 326 IAC 12, as specified as follows:**

- (1) 40 CFR 60.290 **(a) and (b)**
- (2) 40 CFR 60.291
- (3) 40 CFR 60.293
- (4) 40 CFR 60.296 ~~(b), (c), and (d)~~

After each furnace is connected to the ESP, the Permittee who owns/operates glass melting furnace for which construction, reconstruction, or modification is commenced after June 15, 1979 shall comply with the following provisions of 40 CFR 60, Subpart CC (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12 for that respective furnace, and specified as follows:

- (5) 40 CFR 60.290 (and) and (b)
- (6) 40 CFR 60.291
- (7) 40 CFR 60.292
- (8) 40 CFR 60.296

Modification No. 8:

New Section E.2 has been added to incorporate the applicable requirements of 40 CFR 60, Subpart IIII.

SECTION E.2 FACILITY OPERATION CONDITIONS

<p>Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities</p> <p>(k) Two (2) diesel-fired emergency generators, identified as GEN4 and GEN5, approved in 2011 for construction, each with a maximum rating of 750 kW. [40 CFR 60, Subpart IIII] [40 CFR 63, Subpart ZZZZ]</p> <p>(The information describing the process contained in this facility description box is descriptive information and does not constitute enforceable conditions.)</p>
--

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

E.2.1 General Provisions Relating to NSPS IIII [326 IAC 12] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12, except as otherwise specified in 40 CFR 60, Subpart IIII.

E.2.2 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines [326 IAC 12] [40 CFR Part 60, Subpart IIII]

Pursuant to 40 CFR Part 60, Subpart IIII, the Permittee shall comply with the provisions of the Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 12, as specified as follows:

- (1) 40 CFR 60.4200 (a)(2)(i) and (c)
- (2) 40 CFR 60.4205(b)
- (3) 40 CFR 60.4206
- (4) 40 CFR 60.4207(b)
- (5) 40 CFR 60.4208
- (6) 40 CFR 60.4209(a)
- (7) 40 CFR 60.4211 (a), (c), and (e)
- (8) 40 CFR 60.4214 (b)
- (9) 40 CFR 60.4218
- (10) 40 CFR 60.4219
- (11) Table 8 to Subpart IIII of Part 60 - Applicability of General Provisions to Subpart IIII

Modification No. 9:

New Section E.3 has been added to incorporate the applicable requirements of 40 CFR 63, Subpart ZZZZ.

SECTION E.3 FACILITY OPERATION CONDITIONS

<p>Facility Description [326 IAC 2-7-5(15)]: Insignificant Activities</p> <p>(k) Two (2) diesel-fired emergency generators, identified as GEN4 and GEN5, approved in 2011 for construction, each with a maximum rating of 750 kW. [40 CFR 60, Subpart IIII]</p>
--

[40 CFR 63, Subpart ZZZZ]

- (I) **Three diesel-fired emergency generators, identified as GEN1, GEN2, and GEN3, each with a maximum rating not to exceed one thousand six hundred (1,600) horsepower (Hp). [40 CFR 63, Subpart ZZZZ]**

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

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements
[326 IAC 2-7-5(1)]**

E.3.1 General Provisions Relating to NESHAP ZZZZ [326 IAC 20-1] [40 CFR Part 60, Subpart A]

Pursuant to 40 CFR 63, Subpart ZZZZ, 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 as otherwise specified in 40 CFR 63, Subpart ZZZZ.

E.3.2 National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines [326 IAC 20-82] [40 CFR Part 63, Subpart ZZZZ]

Pursuant to 40 CFR Part 63, Subpart ZZZZ, the Permittee shall comply with the provisions of the National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (included as Attachment B of this permit), which are incorporated by reference as 326 IAC 20-82, as specified as follows:

- (1) 40 CFR 63.6580
- (2) 40 CFR 63.6585 (a), (b), (c), and (d)
- (3) 40 CFR 63.6590 (a)(1)(iii), (a)(1)(iv), (a)(2)(iii), and (c)(1)
- (4) 40 CFR 63.6595 (a)(1), (a)(7), (b), and (c)
- (5) 40 CFR 63.6603(a)
- (6) 40 CFR 63.6605
- (7) 40 CFR 63.6625 (e)(3), (f), (h), and (i)
- (8) 40 CFR 63.6640 (a), (b), (d), (e), (f)(1)
- (9) 40 CFR 63.6645(a)(5)
- (10) 40 CFR 63.6650 (e) and (f)
- (11) 40 CFR 63.6660
- (12) 40 CFR 63.6665
- (13) 40 CFR 63.6670
- (14) 40 CFR 63.6675
- (15) **Table 2d to Subpart ZZZZ of Part 63 - Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions**
- (16) **Table 6 to Subpart ZZZZ of Part 63 - Continuous Compliance with Emission Limitations, Work Practices, and Management Practices**
- (17) **Table 8 to Subpart ZZZZ of Part 63 - Applicability of General Provisions to Subpart ZZZZ**

Conclusion and Recommendation

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 075-29643-00004 and Significant Permit Modification No. 075-29645-00004. The staff recommends to the Commissioner that this Part 70 Significant Source and Significant Permit Modification be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jenny Acker 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) 233-3927 or toll free at 1-800-451-6027 extension 3-9327.
- (b) A copy of the findings is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emission Calculations
Summary Of Emissions Increase
(page 1 of 4)

Company Name: Saint-Gobain Containers
Address City IN Zip: 524 East Center Street, Dunkirk, Indiana 47336
Significant Source Modification No. : 075-29643-00004
Significant Permit Modification No. : 075-29645-00004
Reviewer: Jenny Acker
Date: 11/3/2010

1. Summary of Emissions Increase

	PM	PM10	SO2	NOx	VOC	CO	CO2e
<u>PTE (tpy) New Units</u>							
Soda Ash Silo (Limited)	6.13	6.13	--	--	--	--	--
ESP Dust Silo (Limited)	6.13	6.13	--	--	--	--	--
GEN4 & GEN5	0.17	0.17	0.02	5.29	1.07	2.89	224.25
PTE of New Units (tpy)	12.43	12.43	0.02	5.29	1.07	2.89	224.25
<u>Actual to Projected Actual (ATPA) (tpy) #2 Furnace</u>							
Baseline	37.62	45.54	182.16	134.64	19.80	19.80	53,554.48
Could Have Accommodated (CHA)	0.45	0.55	2.19	1.62	0.24	0.24	644.06
Projected Actuals	20.08	45.17	60.23	130.49	20.08	20.08	65,367.40
ATPA (tpy)	< 0	< 0	< 0	< 0	0.04	0.04	11,168.85
<u>Actual to Projected Actual (ATPA) (tpy) - Distributor</u>							
Baseline	0.17	0.17	0.01	2.20	0.12	1.85	2,644.02
Could Have Accommodated (CHA)	0.00	0.00	0.00	0.05	0.00	0.04	60.15
Projected Actuals	0.17	0.17	0.01	2.20	0.12	1.85	2,646.61
ATPA (tpy)	< 0	< 0	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Forehearths</u>							
Baseline	0.27	0.27	0.02	3.60	0.20	3.02	4,330.82
Could Have Accommodated (CHA)	0.00	0.00	0.00	0.05	0.00	0.04	60.15
Projected Actuals	0.28	0.28	0.02	3.65	0.20	3.07	4,390.97
ATPA (tpy)	< 0	< 0	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Lehrs</u>							
Baseline	0.20	0.20	0.02	2.65	0.15	2.23	3,187.96
Could Have Accommodated (CHA)	0.00	0.00	0.00	0.05	0.00	0.04	60.15
Projected Actuals	0.20	0.20	0.02	2.65	0.15	2.23	3,187.96
ATPA (tpy)	< 0	< 0	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Mold Swab</u>							
Baseline	11.01	11.01	0.00	0.00	0.00	0.00	0.00
Could Have Accommodated (CHA)	0.13	0.13	0.00	0.00	0.00	0.00	0.00
Projected Actuals	11.16	11.16	0.00	0.00	0.00	0.00	0.00
ATPA (tpy)	0.03	0.03	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Hot End Coating</u>							
Baseline	3.11	3.11	0.00	0.00	0.00	0.00	0.00
Could Have Accommodated (CHA)	0.04	0.04	0.00	0.00	0.00	0.00	0.00
Projected Actuals	3.16	3.16	0.00	0.00	0.00	0.00	0.00
ATPA (tpy)	0.01	0.01	< 0	< 0	< 0	< 0	< 0
<u>Actual to Projected Actual (ATPA) (tpy) - Batchhouse</u>							
Baseline	0.04	0.04	0.00	0.00	0.00	0.00	0.00
Could Have Accommodated (CHA)	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Projected Actuals	0.45	0.45	0.00	0.00	0.00	0.00	0.00
ATPA (tpy)	0.41	0.41	< 0	< 0	< 0	< 0	< 0
<u>Hybrid Test (tpy)</u>							
PTE of New Units (tpy)	12.43	12.43	0.02	5.29	1.07	2.89	224.25
Sum of ATPA Increases (tpy)	0.44	0.44	0.00	0.00	0.04	0.04	11,168.85
Hybrid Test Emissions Increase (tpy)	12.87	12.87	0.02	5.29	1.11	2.93	11,393.10

Appendix A: Emission Calculations
Summary Of Emissions Increase
 (page 2 of 4)

2. Calculations for Affected Existing Units (PM, PM10, SO2, NOx, VOC, CO)

	Glass (tpy)						
		PM	PM10	SO2	NOx	VOC	CO
Emission Factors (lb/ton glass)							
AP-42 (Table 11.15-2, 10/86) Based on Source Testing		0.38	0.46	1.84	1.36	0.20	0.20
#2 Furnace Baseline PTE (tpy)	198,003	37.62	45.54	182.16	134.64	19.80	19.80
#2 Furnace CHA PTE (tpy)	2,382	0.45	0.55	2.19	1.62	0.24	0.24
Emission Factors (lb/ton glass)		0.20	0.45	0.60	1.30	0.20	0.20
#2 Furnace Projected Actuals (tpy)	200,750	20.08	45.17	60.23	130.49	20.08	20.08

Methodology: PTE (tpy) = glass (tpy) x emission factor (lb/ton glass) x 1/2000 (ton/lbs)
 Projected Actual Emission Factors for PM/PM10/PM2.5, SO2 & NOx based on Consent Decree.
 Projected Actual Emission Factors for VOC & CO from similar facility stack testing data.

	N. Gas (mmscf/yr)						
		PM	PM10	SO2	NOx	VOC	CO
Emission Factors (lb/mmscf)							
AP-42 (Table 1.4-1 & 2, 7/98)		7.60	7.60	0.60	100.00	5.50	84.00
Distributor Baseline PTE (tpy)	44	0.17	0.17	0.01	2.20	0.12	1.85
Forehearths Baseline PTE (tpy)	72	0.27	0.27	0.02	3.60	0.20	3.02
Lehrs Baseline PTE (tpy)	53	0.20	0.20	0.02	2.65	0.15	2.23
Distributor CHA PTE (tpy)	1	3.80E-03	3.80E-03	3.00E-04	5.00E-02	2.75E-03	4.20E-02
Forehearths CHA PTE (tpy)	1	3.80E-03	3.80E-03	3.00E-04	5.00E-02	2.75E-03	4.20E-02
Lehrs CHA PTE (tpy)	1	3.80E-03	3.80E-03	3.00E-04	5.00E-02	2.75E-03	4.20E-02
Distributor Projected Actuals (tpy)	44	1.67E-01	1.67E-01	1.32E-02	2.20E+00	1.21E-01	1.85E+00
Forehearths Projected Actuals (tpy)	73	2.77E-01	2.77E-01	2.19E-02	3.65E+00	2.01E-01	3.07E+00
Lehrs CHA PTE (tpy)	53	2.01E-01	2.01E-01	1.59E-02	2.65E+00	1.46E-01	2.23E+00

Methodology: PTE (tpy) = N. Gas (mmscf) x emission factor (lb/mmscf) x 1/2000 (ton/lbs)

	Material (lb/yr)						
		PM	PM10	SO2	NOx	VOC	CO
Mold Swab Emission Factor (lb/lb material)		0.90	0.90	0.00	0.00	0.00	0.00
Hot End Coating Emission Factor (lb/lb material)		0.24	0.24	0.00	0.00	0.00	0.00
Mold Swab Baseline PTE (tpy)	24,458	11.01	11.01	0.00	0.00	0.00	0.00
Hot End Coating Baseline PTE (tpy)	25,957	3.11	3.11	0.00	0.00	0.00	0.00
Mold Swab CHA PTE (tpy)	294	0.13	0.13	0.00	0.00	0.00	0.00
Hot End Coating CHA PTE (tpy)	312	0.04	0.04	0.00	0.00	0.00	0.00
Mold Swab Projected Actuals (tpy)	24,808	11.16	11.16	0.00	0.00	0.00	0.00
Hot End Coating Projected Actuals (tpy)	26,317	3.16	3.16	0.00	0.00	0.00	0.00

Methodology: PTE (tpy) = material (tpy) x emission factor (lb/ton material) x 1/2000 (ton/lbs)

	Material (tpy)						
		PM	PM10	SO2	NOx	VOC	CO
Emission Factors (lb/ton material)		3.60E-03	3.60E-03	0.00	0.00	0.00	0.00
Batchhouse Baseline PTE (tpy)	235,186	4.40E-02	4.40E-02	0.00	0.00	0.00	0.00
Batchhouse CHA PTE (tpy)	2,829	5.29E-04	5.29E-04	0.00	0.00	0.00	0.00
Batchhouse Projected Actuals (tpy)	250,974	0.45	0.45	0.00	0.00	0.00	0.00

Methodology: PTE (tpy) = material (tpy) x emission factor (lb/ton material) x 1/2000 (ton/lbs)

Appendix A: Emission Calculations
Summary Of Emissions Increase
 (page 3 of 4)

3. CO₂e Calculations for Affected Existing Units

- a. Emission factors for N.G. combustion from 40 CFR 98 Subpart C (General Fuel Stationary Combustion Sources).
- b. Emission factors for carbonate based raw material usage from 40 CFR 98 Subpart N (Glass Production) & the following calculation:

E.F. (M ton/M ton material) = summation [Mfi x (Mi x 2000 M ton/2205 ton) x EFi x Fi]

Where:

- Mfi = Annual average mass fraction of carbonate-base mineral i in carbonate-based raw material i (% expressed as a decimal). Per, 40 CFR 98.143 (c) can use a value of 1.
- Mi = Annual amount of carbonate-based raw material i charged to furnace (tons).
- EFi = Emission factor for carbonate-based raw material i (metric ton CO₂ per metric ton carbonate-based raw material, as shown in Table N-1 to this subpart)
 EFi (limestone) = 0.44, EFi (soda ash) = 0.415
- Fi = Fraction of calcination achieved for carbonate-based raw material i, assumed to be equal to 1.0 (percentage, expressed as a decimal).

Emission Factors:	CO ₂	CH ₄	N ₂ O
kg/MMBtu	53.02	0.001	0.0001
M ton/M ton limestone	0.44	0	0
M ton/M ton soda ash (furnace)	0.415	0	0
M ton/M ton soda ash (scrubber)	0.415	0	0

Furnace No. 2 - Baseline	Throughput	Units	CO ₂	CH ₄	N ₂ O
⁽¹⁾ natural gas usage	569,025	MMBtu/yr	31,014.46	0.58	0.06
⁽²⁾ limestone usage	21,884	ton/yr	8,733.75	0.00	0.00
⁽²⁾ soda ash usage (furnace)	23,370	ton/yr	8,796.87	0.00	0.00
Furnace No. 1 Baseline PTE (M ton/yr) =			48,545.08	0.58	0.06
Furnace No. 1 Baseline PTE (tpy) =			53,520.95	0.64	0.06

Furnace No. 2 - Baseline		
Compound	GWP	Resultant
CO ₂	1	53,520.95
CH ₄	21	13.54
N ₂ O	310	19.99
⁽³⁾ CO ₂ e PTE (tpy) = 53,554.48		

Furnace No. 2 - Could Have Accommodated (CHA)	Throughput	Units	CO ₂	CH ₄	N ₂ O
⁽¹⁾ natural gas usage	6,845	MMBtu/yr	373.08	0.01	0.00
⁽²⁾ limestone usage	263	ton/yr	104.96	0.00	0.00
⁽²⁾ soda ash usage (furnace)	281	ton/yr	105.77	0.00	0.00
Furnace No. 1 CHA PTE (M ton/yr) =			583.82	0.01	0.001
Furnace No. 1 CHA PTE (tpy) =			643.66	0.01	0.001

Furnace No. 2 - (CHA) Could Have Accommodated		
Compound	GWP	Resultant
CO ₂	1	643.66
CH ₄	21	0.16
N ₂ O	310	0.24
⁽³⁾ CO ₂ e PTE (tpy) = 644.06		

Furnace No. 2 - Projected Actuals	Throughput	Units	CO ₂	CH ₄	N ₂ O
⁽¹⁾ natural gas usage	742,848	MMBtu/yr	40,488.60	0.76	0.08
⁽²⁾ limestone usage	22,148	ton/yr	8,839.11	0.00	0.00
⁽²⁾ soda ash usage (furnace)	23,652	ton/yr	8,903.02	0.00	0.00
⁽²⁾ soda ash usage (scrubber)	2,709	ton/yr	1,019.71	0.00	0.00
Furnace No. 1 Projected Actuals PTE (M ton/yr) =			59,250.45	0.76	0.08
Furnace No. 1 Projected Actuals PTE (tpy) =			65,323.62	0.84	0.084

Furnace No. 2 - Projected Actuals		
Compound	GWP	Resultant
CO ₂	1	65,323.62
CH ₄	21	17.68
N ₂ O	310	26.10
⁽³⁾ CO ₂ e PTE (tpy) = 65,367.40		

Distributor - Baseline	Throughput (MMscf/yr)	CO ₂	CH ₄	N ₂ O
⁽⁴⁾ natural gas usage	44	2,398.20	0.00	0.00
Distributor Baseline PTE (M ton/yr) =		2,398.20	4.52E-05	4.52E-06
Distributor Baseline PTE (tpy) =		2,644.02	4.99E-05	4.99E-06

Distributor - Baseline		
Compound	GWP	Resultant
CO ₂	1	2,644.02
CH ₄	21	0.00
N ₂ O	310	0.00
⁽³⁾ CO ₂ e PTE (tpy) = 2,644.02		

Appendix A: Emission Calculations
Summary Of Emissions Increase
 (page 4 of 4)

Distributor - Could Have Accommodated (CHA)	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	1	54.50	1.03E-03	1.03E-04
Distributor CHA PTE (M ton/yr) =		54.50	1.03E-03	1.03E-04
Distributor CHA PTE (tpy) =		60.09	1.13E-03	1.13E-04

Distributor - CHA			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	60.09	2.38E-02	3.51E-02
⁽³⁾ CO2e PTE (tpy) = 60.15			

Distributor - Projected Actuals	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	44	2,398.20	4.52E-02	4.52E-03
Distributor Projected Actuals PTE (M ton/yr) =		2,398.20	4.52E-02	4.52E-03
Distributor Projected Actuals PTE (tpy) =		2,644.02	4.99E-02	4.99E-03

Distributor - Projected Actuals			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	2,644.02	1.05E+00	1.55E+00
⁽³⁾ CO2e PTE (tpy) = 2,646.61			

Forehearths - Baseline	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	72	3,924.33	7.40E-02	7.40E-03
Forehearths Baseline PTE (M ton/yr) =		3,924.33	7.40E-02	7.40E-03
Forehearths Baseline PTE (tpy) =		4,326.57	8.16E-02	8.16E-03

Forehearths - Baseline			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	4,326.57	1.71E+00	2.53E+00
⁽³⁾ CO2e PTE (tpy) = 4,330.82			

Forehearths - Could Have Accommodated (CHA)	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	1	54.50	1.03E-03	1.03E-04
Forehearths CHA PTE (M ton/yr) =		54.50	1.03E-03	1.03E-04
Forehearths CHA PTE (tpy) =		60.09	1.13E-03	1.13E-04

Forehearths - CHA			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	60.09	2.38E-02	3.51E-02
⁽³⁾ CO2e PTE (tpy) = 60.15			

Forehearths - Projected Actuals	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	73	3,978.83	7.50E-02	7.50E-03
Forehearths Projected Actuals PTE (M ton/yr) =		3,978.83	7.50E-02	7.50E-03
Forehearths Projected Actuals PTE (tpy) =		4,386.66	8.27E-02	8.27E-03

Forehearths - Projected Actuals			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	4,386.66	1.74E+00	2.56E+00
⁽³⁾ CO2e PTE (tpy) = 4,390.97			

Lehrs - Baseline	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	53	2,888.74	5.45E-02	5.45E-03
Lehrs Baseline PTE (M ton/yr) =		2,888.74	5.45E-02	5.45E-03
Lehrs Baseline PTE (tpy) =		3,184.84	6.01E-02	6.01E-03

Lehrs - Baseline			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	3,184.84	1.26E+00	1.86E+00
⁽³⁾ CO2e PTE (tpy) = 3,187.96			

Lehrs - Could Have Accommodated (CHA)	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	1	54.50	1.03E-03	1.03E-04
Lehrs CHA PTE (M ton/yr) =		54.50	1.03E-03	1.03E-04
Lehrs CHA PTE (tpy) =		60.09	1.13E-03	1.13E-04

Lehrs - CHA			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	60.09	2.38E-02	3.51E-02
⁽³⁾ CO2e PTE (tpy) = 60.15			

Lehrs - Projected Actuals	Throughput (MMscf/yr)	CO2	CH4	N2O
⁽⁴⁾ natural gas usage	53	2,888.74	5.45E-02	5.45E-03
Lehrs Projected Actuals PTE (M ton/yr) =		2,888.74	5.45E-02	5.45E-03
Lehrs Projected Actuals PTE (tpy) =		3,184.84	6.01E-02	6.01E-03

Lehrs - Projected Actuals			
Compound	CO2	CH4	N2O
GWP	1	21	310
Resultant	3,184.84	1.26E+00	1.86E+00
⁽³⁾ CO2e PTE (tpy) = 3,187.96			

Methodology:

GWP = Global Warming Potential (unitless) (40 CFR 98, Subpart A, Table A-1)

M ton = Metric ton

Emissions factors from 40 CFR 98 Subparts C (General Fuel Stationary Combustion Sources) & N (Glass Production)

⁽¹⁾ PTE (M ton/yr) = [N.G. Usage (MMBtu/yr) x 1,000 scf/1 MMBtu x HHV (MMBtu/scf) x E.F. (kg/MMBtu) x 1.0E-3 (M ton/kg)]

Where:

HHV (High Heating Value) = 1.028E-03 MMBtu/scf

1,000 scf N.G. = 1.0 MMBtu

⁽²⁾ PTE (M ton/yr) = [Material Throughput (ton/yr) x 2000/2205 (M ton/ton) x E.F. (M ton Emissions/M ton Material)]

PTE (tpy) = PTE M ton/yr x 2205 ton/2000 M ton

⁽³⁾ PTE CO2e = Summation of the Resultants [PTE Compound (tpy) x GWP] (Pursuant to 40 CFR 52.21(b)(49)(ii)(a))

⁽⁴⁾ PTE (M ton/yr) = [1.0E-3 M ton/kg x N.G. Usage (MMscf/yr) x 1,000,000 (scf/MMscf) x HHV (MMBtu/scf) x E.F. (kg/MMBtu)]

Where:

HHV (High Heating Value) = 1.028E-03 MMBtu/scf

1,000 scf N.G. = 1.0 MMBtu

Appendix A: Emission Calculations
PTE of New Silos

Company Name: Saint-Gobain Containers
Address City IN Zip: 524 East Center Street, Dunkirk, Indiana 47336
Significant Source Modification No. : 075-29643-00004
Significant Permit Modification No. : 075-29645-00004
Reviewer: Jenny Acker
Date: 11/3/2010

1. PTE

Emission Unit	Emission Factor (lb/1000 lbs)	Material Throughput (ton/hr)	Controlled PTE PM/PM10		Uncontrolled PTE PM/PM10		PTE as Limited PM/PM10	
			(lb/hr)	(tpy)	(lb/hr)	(tpy)	(lb/hr)	(tpy)
Soda Ash Silo	0.0036	20	0.14	0.63	14.40	63.07	1.40	6.13
ESP Dust Silo	0.0036	20	0.14	0.63	14.40	63.07	1.40	6.13

Methodology

Emissions factor per AP-42, Table 11.26-1 for bin loading with fabric filter.

Material Throughput established by maximum silo loading/unloading rate of one 20-ton capacity truck per hour.

Bin vent control efficiency is 99%

$PTE \text{ (controlled) PM/PM10 (lb/hr)} = \text{Material Throughput (ton/hr)} \times 2000 \text{ lb/ton} \times \text{Emission Factor (lb/1000 lbs)}$

$PTE \text{ (controlled) PM/PM10 (tpy)} = PTE \text{ (controlled) PM/PM10 (lb/hr)} \times 8760 \text{ hr/yr} \times 1/2000 \text{ lb/ton}$

$PTE \text{ (uncontrolled) PM/PM10 (lb/hr)} = PTE \text{ (controlled) PM/PM10 (lb/hr)} / (1-99\%)$

$PTE \text{ (uncontrolled) PM/PM10 (ton/yr)} = PTE \text{ (uncontrolled) PM/PM10 (lb/hr)} \times 8760 \text{ ton/yr} \times 1/2000 \text{ lb/ton}$

**Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Diesel Fuel
Output Rating (<=600 HP)
Maximum Input Rate (<=4.2 MMBtu/hr)**

**Company Name: Saint-Gobain Containers
Address City IN Zip: 524 East Center Street, Dunkirk, Indiana 47336
Significant Source Modification No. : 075-29643-00004
Significant Permit Modification No. : 075-29645-00004
Reviewer: Jenny Acker
Date: 11/3/2010**

1. Calculations PM, PM10, SO2, NOx, VOC, CO

Heat Input Capacity (each gen)	750.0	kW
Heat Input Capacity (each gen)	3.0	MMBtu/hr
Maximum Hours Operated (each gen)	500	Per Year

Emission Factors	Emergency Generator (GEN4) PTE					
	PM	PM10*	SO2	NOx	VOC	CO
AP-42 (Table 3.4-1) (lb/mmbtu) NSPS IIII (g/kW-hr)			1.52E-02			
	0.20	0.20		6.40	1.30	3.50
PTE per Generator (tpy)	0.08	0.08	0.01	2.65	0.54	1.45
PTE 2 Generators (tpy)	0.17	0.17	0.02	5.29	1.07	2.89

*PM and PM2.5 emission factors are assumed to be equivalent to PM10 emission factors. No information was given regarding which method was used to determine the factor or the fraction of PM10 which is condensable.

Methodology

Heat Input Capacity (hp-hr) = heat input capacity (kW-hr) * 0.276 hp-hr/kW-hr
 where: 0.276 hp-hr/kW-hr from 0.608 (kg/kW-hr) / (lb/hp-hr) from AP-42, Table 3.4-1
 SO2 emission factor based on 1.01%S , where S% of diesel fuel is 150ppmv
 PTE (tpy) = NSPS IIII (g/kW-hr) x heat input capacity (kW-hr) x 1/453.6 (lb/g) x 500 hrs/yr x 1/2000 (ton/lbs)
 PTE (tpy) = AP-42 (Table 3.4-1) (lb/mmbtu) x heat input capacity (mmbtu) x 500 hrs/yr x 1/2000 (ton/lbs)

Hazardous Air Pollutants (HAPs)

Emission Factor in lb/MMBtu	Pollutant							
	Benzene	Toluene	Xylene	Propylene	Formaldehyde	Acetaldehyde	Acrolein	Total PAH HAPs***
Potential Emission in tons/yr	7.76E-04	2.81E-04	1.93E-04	2.79E-03	7.89E-05	2.52E-05	7.88E-06	2.12E-04
	5.82E-04	2.11E-04	1.45E-04	2.09E-03	5.92E-05	1.89E-05	5.91E-06	1.59E-04
	PTE per Generator: Total HAPs (tons/yr)							3.27E-03
	PTE 2 Generators: Total HAPs (tons/yr)							6.55E-03

Methodology

PTE (tpy) = AP-42 (Tables 3.4-3 and 3.4-4) (lb/mmbtu) x heat input capacity (mmbtu) x 500 hrs/yr x 1/2000 (ton/lbs)

2. CO2e Calculations

	Fuel (gal/yr)	Emission Factors (kg/MMBtu)		
		CO2	CH4	N2O
Per Generator	10,948.91	73.96	3.00E-03	6.00E-04
PTE Per Generator (Mton/yr) =		111.75	4.53E-03	9.07E-04
PTE 2 Generators (tpy) =		223.50	9.07E-03	1.81E-03

PTE: 2 Generators		
Compound	GWP	Resultant
CO2	1	223.50
CH4	21	0.19
N2O	310	0.56
CO2e PTE (tpy) =		224.25

Methodology:

GWP = Global Warming Potential (unitless) (40 CFR 98, Subpart A, Table A-1)
 Mton = Metric ton
 Fuel Usage (gal/yr) = Heat Input Capacity (MMBtu/hr) x 500 hrs/yr x 1,000,000 Btu/MMBtu x 1 gal/137,000 Btu
 Fuel Usage (gal/yr) = 3.0 MMBtu/hr x 500 hrs/yr x 1,000,000 Btu/MMBtu x 1 gal/137,000 Btu
 Emissions factors from 40 CFR 98 Subpart C (General Fuel Stationary Combustion Sources)
⁽¹⁾ PTE (Mton/yr) = [1.0E-3 Mton/kg x No. 2 Fuel Oil Usage (gal/yr) x HHV (MMBtu/gal) x E.F. (kg/MMBtu)]
 Where:
 HHV (High Heating Value) for No. 2 Fuel Oil = 0.14 MMBtu/gallon
 1,000 scf N.G. = 1.0 MMBtu
 PTE (tpy) = PTE Mton/yr x 2000 ton/2205 Mton
⁽²⁾ PTE CO2e (tpy) = Summation of the Resultants [PTE Compound (tpy) x GWP] (Pursuant to 40 CFR 52.21(b)(49)(ii)(a))



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: William Mann
Saint-Gobain Containers
524 E Center Street
Dunkirk, IN 47336

DATE: April 21, 2011

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

SUBJECT: Final Decision
Title V - Significant Permit Modification
075-29645-00004

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:
David Dempsey Trinity Consultants
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

Final Applicant Cover letter.dot 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

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Governor

Thomas W. Easterly
Commissioner

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

April 21, 2011

TO: Dunkirk City Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Saint-Gobain Containers
Permit Number: 075-29645-00004

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 11/30/07



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

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

TO: Interested Parties / Applicant

DATE: April 21, 2011

RE: Saint-Gobain Containers / 075-29645-00004

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

In order to conserve paper and reduce postage costs, IDEM's Office of Air Quality is now sending many permit decisions on CDs in Adobe PDF format. The enclosed CD contains information regarding the company named above.

This permit is also available on the IDEM website at:
<http://www.in.gov/ai/appfiles/idem-caats/>

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

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

Please Note: *If you feel you have received this information in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV.*

Enclosures
CD Memo.dot 11/14/08

Mail Code 61-53

IDEM Staff	LPOGOST 4/21/2011 Saint-Gobain Containers, L.L.C. 075-29645-00004 /final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING	
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: CERTIFICATE OF MAILING ONLY	

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee	Remarks
1		William Mann Saint-Gobain Containers, L.L.C. 524 E Center Street Dunkirk IN 47336 (Source CAATS) Via confirmed delivery										
2		Dunkirk City Public Library 127 W Washington St Dunkirk IN 47336-3727 (Library)										
3		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 (Affected Party)										
4		Jay County Commissioners Jay County Courthouse Portland IN 47371 (Local Official)										
5		Jay County Health Department 504 West Arch Street Portland IN 47371 (Health Department)										
6		Dunkirk City Council and Mayors Office 131 S. Main St. Dunkirk IN 47336 (Local Official)										
7		Mr. David Dempsey Trinity Consultants 201 N. Illinois St, 16th Flr. South Tower Indianapolis IN 46204 (Consultant)										
8		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 (Affected Party)										
9												
10												
11												
12												
13												
14												
15												

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