INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

TO: Interested Parties / Applicant

DATE: April 3, 2014

RE: Diversified Machine Bristol, Inc. / 039-34082-00191

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 impractible to raise such issues, or if the grounds for such objection arose after the comment period.

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

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

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

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Commissioner

Mr. Doug Forbes
Diversified Machine Bristol, Inc.
51650 County Road 133
Bristol, IN 46507

April 3, 2014

Re: 039-34082-00191
Significant Permit Modification to
Part 70 Renewal No.: T039-29816-00191

Dear Mr. Forbes:

Diversified Machine Bristol, Inc. was issued Part 70 Operating Permit Renewal No. T039-29816-00191 on November 2, 2011 for a stationary aluminum production operation manufacturing cast and machined aluminum motor vehicle parts located at 51650 County Road 133, Bristol, IN. An application to modify the source was received on December 23, 2013. 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.

For your convenience, the entire Part 70 Operating Permit Renewal as modified is attached.

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. 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

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 Heath Hartley of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Heath Hartley or extension 2-8217 or dial (317) 232-8217

Sincerely,

Nathan C. Bell, Section Chief
Permits Branch
Office of Air Quality

Attachment(s): Updated Permit, Technical Support Document and Appendix A

NB/hh

cc: File - Elkhart Name County
Elkhart Name County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
IDEM Northern Regional Office

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Governor

Thomas W. Easterly
Commissioner

Part 70 Operating Permit Renewal

OFFICE OF AIR QUALITY

Diversified Machine Bristol, Inc.
51650 County Road 133
Bristol, Indiana 46507

(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.: T039-29816-00191	
Issued by: Original Signed Donald F. Robin, P.E., Section Chief Permits Branch, Office of Air Quality	Issuance Date: November 2, 2011 Expiration Date: November 2, 2016

First Significant Permit Modification No.: 039-34082-00191	
Issued by: Nathan Bell, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 3, 2014 Expiration Date: November 2, 2016

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Attachment B: 40 CFR 63, Subpart ZZZZZZ - National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary aluminum production operation manufacturing cast and machined aluminum motor vehicle parts.

Source Address:	51650 County Road 133, Bristol, Indiana 46507
General Source Phone Number:	(574) 825-9457
SIC Code:	3714
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

(a) One (1) melting and combustion operation, identified as Unit 020, constructed in 1994, consisting of one (1) reverberatory furnace C processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 75 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 020). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(b) One (1) melting and combustion operation, identified as Unit 021, constructed in 1994, consisting of one (1) reverberatory furnace D processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 75 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 021). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(c) One (1) melting and combustion operation, identified as Unit 022, constructed in 1995, consisting of one (1) reverberatory furnace E processing aluminum, with a maximum melt rate of 3.0 tons per hour, with a maximum flux usage rate of 37.5 pounds per hour, with a maximum heat input capacity of 12.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 022). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(d) One (1) melting and combustion operation, identified as Unit 023, constructed in 2001, consisting of one (1) reverberatory furnace F processing aluminum, with a maximum melt rate of 3.0 tons per hour, with a maximum flux usage rate of 37.5 pounds per hour, with a maximum heat input capacity of 12.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 023). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(e) One (1) melting and combustion operation, identified as Unit 024, constructed in 2001, consisting of one (1) reverberatory furnace G processing aluminum, with a maximum melt

rate of 1.5 tons per hour, with a maximum flux usage rate of 18.75 pounds per hour, with a maximum heat input capacity of 6.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 024). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(f) One (1) stationary and prototype semi-permanent molding operation, identified as Unit 101, constructed in 1984, processing aluminum at a maximum rate of 2.5 tons per hour, and exhausting indoors to general plant ventilation.

(g) One (1) sand silo #5, identified as Unit 200, constructed in 1984, with a maximum sand throughput rate of 3.0 tons per hour, using one (1) dust collector (DC-12) on the sand silo for particulate control, and exhausting to one (1) stack (Stack 200a).

(h) One (1) prototype core making operation, identified as Unit 210, constructed in 1984, consisting of one (1) sand mixer and storage racks, processing sand and resin, with a maximum sand process rate of 0.25 tons per hour, using a phenolic urethane no bake core making process, using a maximum of 2.0 pounds of VOC catalyst per ton of core sand, and exhausting indoors to general plant ventilation.

(i) One (1) mold blasting room, identified as Unit 350, constructed in 1997, with a maximum capacity of 31.2 tons of steel molds per hour and 3 tons of blasting material per hour, using a baghouse (DC-10) for particulate control, and exhausting to one (1) stack (Stack 350).

(j) One (1) melting and combustion operation, identified as Unit 025, approved for construction in 2014, consisting of one (1) reverberatory furnace H processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 40 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 025). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an affected source.

(k) One (1) stationary and prototype semi-permanent molding operation, identified as Unit 101A, approved for construction in 2014, processing aluminum at a maximum rate of 2.0 tons per hour, and exhausting indoors to general plant ventilation.

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

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

(a) Degreasing operations that do not exceed 145 gallons per 12 months; except if subject to 326 IAC 20-6, consisting of:

(1) Three (3) cold cleaner degreasing units with remote solvent reservoirs, identified as Units 309A-C, constructed in 1984, each with a maximum capacity of 480 gallons per year Mineral Spirits, each uncontrolled, and exhausting indoors to general plant ventilation. [326 IAC 8-3-2]

(b) One (1) Natural Gas-Fired Compression Ignition Emergency Back-Up Generator (Generac 3.0), manufactured and installed in 1998, with a site rating of 15kW (20 HP). [40 CFR 63, Subpart ZZZZ]

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; woodworking operations, consisting of:

(1) One (1) Steel Chill Shot Blast Unit, identified as Unit 330, constructed in 1984, with a maximum capacity of 1.0 ton/hr steel, controlled by a 1,800 acfm Torit Downflo Cyclone & Cartridge Collector, and exhausting indoors to the general plant ventilation. [326 IAC 6-3-2]

(d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

(e) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, consisting of:

(1) Seven (7) aluminum natural gas-fired holding furnaces, identified as Units 003A-G, constructed in 1984, with a combined maximum heat input capacity of 16.8 MMBtu/hr, with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(2) Four (4) solution heat treating furnaces, identified as Units 040A-D, constructed in 1995, with a combined maximum heat input capacity of 24.21 MMBtu/hr, with emissions uncontrolled, and exhausting to heat treat solution furnaces stacks (Stack ID 040).

(3) Three (3) aging heat treating furnaces, identified as Units 045A-C, constructed in 1995, with a combined maximum heat input capacity of 4.1 MMBtu/hr, with emissions uncontrolled, and exhausting to heat treat aging furnaces stacks (Stack ID 045).

(4) Six (6) heat treat quench tank tube burners, identified as Unit 050, constructed in 1995, each with a maximum heat input capacity of 1.83 MMBtu/hr (10.98 MMBtu/hr combined), with emissions uncontrolled, and exhausting to heat treat tube burner stacks (Stack ID 050). [326 IAC 6-2-4]

(5) One (1) heat treat solution & aging furnace, identified as Unit 040E, constructed in 2002, with a maximum heat input capacity of 9.5 MMBtu/hr, with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(6) Five (5) air make up units, identified as Units 060A-E, constructed in 1984, each with a maximum heat input capacity of 5.0 MMBtu/hr (25.0 MMBtu/hr combined), with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(7) Six (6) air make up units, identified as Units 060F-K, constructed in 1993, each with a maximum heat input capacity of 5.0 MMBtu/hr (30.0 MMBtu/hr combined), with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(8) Six (6) air make up units, identified as Units 060L-Q, constructed in 1994, each with a maximum heat input capacity of 5.0 MMBtu/hr (30.0 MMBtu/hr combined), with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(9) Five (5) air make up units, identified as Units 060R-V, constructed in 1995, each with a maximum heat input capacity of 5.0 MMBtu/hr (25.0 MMBtu/hr combined), with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(10) Three (3) air make up units, identified as Units 060W-Y, constructed in 1998, each with a maximum heat input capacity of 5.0 MMBtu/hr (15.0 MMBtu/hr combined), with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(11) Forty-six (46) mold heating units, identified as Unit 070, constructed in 1984, each with a maximum heat input capacity of 0.25 MMBtu/hr (11.5 MMBtu/hr

total), with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(12) One (1) fluorescent penetrant inspection station, identified as Unit 380, constructed in 2010, with a maximum heat input capacity of 0.8 MMBtu/hr, with emissions uncontrolled, and exhausting indoors to general plant ventilation.

(f) The following equipment not resulting in the emissions of HAPs: brazing equipment, cutting torches, soldering equipment, and welding equipment, including the following:

(1) Three (3) Shielded Metal Arc Welding (SMAW) Stations, identified as Units 401A-C, constructed in 1984, each with a maximum capacity of 2.0 pounds per hour welding wire, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(2) Three (3) Gas Metal Arc Welding (GMAW) Stations, identified Units 402A-C, constructed in 1984, each with a maximum capacity of 2.0 pounds per hour welding wire, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(3) Five (5) Metal Inert Gas Arc (MIG) Welding Stations, identified as Units 403A-E, constructed in 1984, each with a maximum capacity of 2.0 pounds per hour welding wire, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(4) Two (2) Tungsten Inert Gas Arc (TIG) Welding Stations, identified as Units 404A-B, constructed in 1984, each with a maximum capacity of 2.0 pounds per hour welding wire, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(5) Three (3) Tungsten Inert Gas Arc (TIG) Aluminum Welding Stations, identified as Units 405A-C, constructed in 1984, each with a maximum capacity of 5.0 pounds per hour aluminum, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(6) One (1) Flux Cored Arc Welding (FCAW) Station, identified as Unit 406A, constructed in 1984, with a maximum capacity of 2.0 pounds per hour welding wire, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(7) One (1) Stick Welding Operation, identified as Unit 407A, constructed in 1984, with a maximum capacity of 2.0 pounds per hour welding wire, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(8) One (1) Brazing Operation, identified as Unit 408A, constructed in 1984, with a maximum capacity of 2.0 pounds per hour brazing alloy, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(9) One (1) Soldering Operation, identified as Unit 409A, constructed in 1984, with a maximum capacity of 1.0 pound per hour soldering alloy, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(10) Thirteen (13) Oxyacetylene Flame Cutting Torches, identified as Units 410A-M, constructed in 1984, each with a maximum capacity of 15 inches per minute at a ½ inch thickness, with emissions uncontrolled, and exhausting indoors to the general plant ventilation.

(g) Propane or liquefied petroleum gas, or butane-fired combustion source with heat input equal to or less than six million (6,000,000) Btu per hour, including the following:

(1) Two (2) Propane-Fired Onan Gas Metal Arc Welding Stations, each with a maximum heat input capacity of 40,720 Btu/hr.

(2) One (1) propane-fired Honda Pressure Washer, with a maximum heat input capacity of 22,905 Btu/hr.

(h) Combustion source flame safety purging on startup.

(i) A petroleum fuel, other than gasoline dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.

(j) VOC and HAP storage containers, including:

(1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons.

(2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids.

(k) Refractory storage not requiring air pollution control equipment.

(l) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.

(m) Machining where an aqueous cutting coolant continuously floods the machining interface.

(n) Cleaners and solvents characterized as follows:

(1) Having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100 ºF) or

(2) Having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20ºC (68ºF)

the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(o) Closed loop heating and cooling systems.

(p) Rolling oil recovery systems.

(q) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs.

(r) Noncontact cooling tower systems with either of the following:

(1) Natural draft cooling towers not regulated under a NESHAP or

(2) Forced and induced draft cooling tower system not regulated under a NESHAP.

(s) Quenching operations used with heat treating processes, consisting of:

(1) Four (4) polymer quench tanks which will quench aluminum castings at a rate of 7,186 pounds per hour.

(t) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.

(u) Heat exchanger cleaning and repair.

(v) Purging of gas lines and vessels that is related to routine maintenance and repair of buildings, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process.

(w) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.

(x) On-site fire and emergency response training approved by the department.

(y) Purge double block and bleed valves.

(z) Mold release agents using low volatile products (vapor pressure less than or equal to 2 kilopascals measured at 38 degrees C).

(aa) A laboratory as defined in 326 IAC 2-7-1 (21)(D).

(bb) Other activities or categories not previously listed: activities with emissions equal to or less than thresholds require listing only:

(1) Two (2) electric holding furnaces, each rated at 135 KW;

(2) Dross skimming and cooling operations;

(3) Permanent molding operations;

(4) Squeeze casting operations;

(5) Electric holding furnaces and crucibles;

(6) Dross transfer and aluminum scrap handling;

(7) Die penetrant station with powder collector; and

(8) Two (2) electric aluminum launder systems, each rated at 327.5 KW.

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, T039-29816-00191, 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(35), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

(a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 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(35).

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

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

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

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

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

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

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

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

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

The Permittee shall implement the PMPs.

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

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

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

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

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877.

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

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

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

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

(A) A description of the emergency;

(B) Any steps taken to mitigate the emissions; and

(C) Corrective actions taken.

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

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

(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)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

(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 T039-29816-00191 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit.
[326 IAC 2-7-5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ determines any of the following:

(1) That this permit contains a material mistake.

(2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

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

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

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(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(35).

Request for renewal shall be submitted to:

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

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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) or (c). The Permittee shall make such records available, upon reasonable request, for public review.

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

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(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(35).

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

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.

(e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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. 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(35).

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

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

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

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

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

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ if the Permittee submits to IDEM, OAQ a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.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)][40 CFR 64][326 IAC 3-8]

(a) 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(35).

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.

(b) For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.

(c) For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

C.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. The analog instrument shall be capable of measuring values outside of the normal range.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.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 maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

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

C.13 Risk Management Plan [326 IAC 2-7-5(11)] [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 [40 CFR 64][326 IAC 3-8][326 IAC 2-7-5] [326 IAC 2-7-6]

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, 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.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. 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). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or 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.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:
(1) Failed to address the cause of the control device performance problems; or
(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*
(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements

of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

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(35).

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]

In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(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(35).

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. Support information includes the following, where applicable:

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

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

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

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

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

(c) If there is a reasonable possibility (as defined in 326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)) that a “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the “projected actual emissions” (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

(1) Before beginning actual construction of the “project” (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(pp)(2)(A)(iii) and/or 326 IAC 2-3-1 (kk)(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 326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), 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] [40 CFR 64][326 IAC 3-8]

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

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

(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) 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 (oo) and/or 326 IAC 2-3-1 (jj)) 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 (ww) and/or 326 IAC 2-3-1 (pp), 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 no later than 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.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(a) One (1) melting and combustion operation, identified as Unit 020, constructed in 1994, consisting of one (1) reverberatory furnace C processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 75 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 020). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(b) One (1) melting and combustion operation, identified as Unit 021, constructed in 1994, consisting of one (1) reverberatory furnace D processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 75 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 021). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(c) One (1) melting and combustion operation, identified as Unit 022, constructed in 1995, consisting of one (1) reverberatory furnace E processing aluminum, with a maximum melt rate of 3.0 tons per hour, with a maximum flux usage rate of 37.5 pounds per hour, with a maximum heat input capacity of 12.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 022). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(d) One (1) melting and combustion operation, identified as Unit 023, constructed in 2001, consisting of one (1) reverberatory furnace F processing aluminum, with a maximum melt rate of 3.0 tons per hour, with a maximum flux usage rate of 37.5 pounds per hour, with a maximum heat input capacity of 12.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 023). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(e) One (1) melting and combustion operation, identified as Unit 024, constructed in 2001, consisting of one (1) reverberatory furnace G processing aluminum, with a maximum melt rate of 1.5 tons per hour, with a maximum flux usage rate of 18.75 pounds per hour, with a maximum heat input capacity at 6.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 024). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(j) One (1) melting and combustion operation, identified as Unit 025, approved for construction in 2014, consisting of one (1) reverberatory furnace H processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 40 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 025). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an affected source.

Insignificant Activities:

(e) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million Btu per hour, consisting of:

(2) Four (4) solution heat treating furnaces, identified as Units 040A-D, constructed in 1995, with a combined maximum heat input capacity of 24.21 MMBtu/hr, with emissions uncontrolled, and exhausting to heat treat solution furnaces stacks (Stack ID 040).

(3) Three (3) aging heat treating furnaces, identified as Units 045A-C, constructed in 1995, with a combined maximum heat input capacity of 4.1 MMBtu/hr, with emissions uncontrolled, and exhausting to heat treat aging furnaces stacks (Stack ID 045).

(4) Six (6) heat treat quench tank tube burners, identified as Unit 050, constructed in 1995, each with a maximum heat input capacity of 1.83 MMBtu/hr (10.98 MMBtu/hr combined), with emissions uncontrolled, and exhausting to heat treat tube burner stacks (Stack ID 050). [326 IAC 6-2-4]

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

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

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

(a) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for the units installed in 1994, the Permittee shall comply with the following:

(1) The total combined throughput of metal to reverberatory furnaces C and D (units 020 and 021) shall be less than 105,120 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The total combined throughput of solid flux to reverberatory furnaces C and D (units 020 and 021) shall not exceed 91.98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) The total PM emissions from melting in reverberatory furnaces C and D (units 020 and 021) shall be less than 1.88 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

(4) The total PM10 emissions from melting in reverberatory furnaces C and D (units 020 and 021) shall be less than 1.85 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

Compliance with the above limits, combined with the potential to emit from the natural gas combustion associated with reverberatory furnaces C and D (units 020 and 021) and the six (6) make up air units (units 060L-Q), shall limit the potential to emit of PM and PM10 for the 1994 project to less than one hundred (100) tons per twelve (12) consecutive month period each and render 326 IAC 2-2 (PSD) not applicable for the 1994 project.

(b) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for the units installed in 1995, the Permittee shall comply with the following:

(1) The throughput of metal to the reverberatory furnace E (unit 022) shall be less than 18,700 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The throughput of solid flux to reverberatory furnace E (unit 022) shall be less than 91.98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(3) The PM emissions from melting in reverberatory furnace E (unit 022) shall be less than 2.58 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

(4) The PM10 emissions from melting in reverberatory furnace E (unit 022) shall be less than 1.34 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

(5) The total combined natural gas usage for reverberatory furnace E (unit 022), four (4) solution heat treat furnaces (units 040A-D), three (3) aging heat treat furnaces (units 045A-C), and six (6) heat treat quench tank tube burners (unit 050) shall be less than 440 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

(6) The NOx emissions for reverberatory furnace E (unit 022), four (4) solution heat treat furnaces (units 040A-D), three (3) aging heat treat furnaces (units 045A-C), and six (6) heat treat quench tank tube burners (unit 050) shall be less than 100 pounds per MMCF of natural gas each.

Compliance with the above limits, combined with the potential to emit from other units from the 1995 project, shall limit the potential to emit of PM , PM10, and NOx to less than twenty-five (25), fifteen (15), and forty (40) tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 not applicable for the 1995 project.

(c) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for the units installed in 2001, the Permittee shall comply with the following:

(1) The total combined throughput of metal to reverberatory furnaces F and G (units 023 and 024) shall be less than 21,300 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The total combined throughput of solid flux to reverberatory furnaces F and G (units 023 and 024) shall be less than 91.98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

(3) The total PM emissions from melting in reverberatory furnaces F and G (units 023 and 024) shall be less than 2.3 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

(4) The total PM10 emissions from melting in reverberatory furnaces F and G (units 023 and 024) shall be less than 1.34 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

Compliance with the above limits shall limit the potential to emit of PM and PM10 from the 2001 project to less than twenty-five (25) and fifteen (15) tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 not applicable for the 2001 project.

(d) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for the units installed in 2014, the Permittee shall comply with the following:

(1) The throughput of metal to reverberatory furnace H (unit 025) shall be less than 25,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The throughput of solid flux to reverberatory furnace H (unit 025) shall be less than 83.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

(3) PM_{10} emissions from melting in reverberatory furnace H (unit 025) shall be less than 0.41 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

(4) $PM_{2.5}$ emissions from melting in reverberatory furnace H (unit 025) shall be less than 0.41 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

Compliance with these limits shall limit the potential to emit of PM, PM_{10} and $PM_{2.5}$ from the 2014 modification to less than twenty-five (25), fifteen (15) and ten (10) tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 not applicable for the 2014 modification.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from the facilities listed below shall be limited as follows:

Emission Unit ID	Process Weight Rate, tons/hr	Allowable Particulate Emissions, lb/hr
Reverberatory Furnace C (020)	6.04	13.68
Reverberatory Furnace D (021)	6.04	13.68
Reverberatory Furnace E (022)	3.02	8.60
Reverberatory Furnace F (023)	3.02	8.60
Reverberatory Furnace G (024)	1.51	5.40
Reverberatory Furnace H (025)	6.02	13.65

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:

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

D.1.3 Particulate Emissions [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4 (Particulate Emission Limitations for Sources of Indirect Heating), particulate emissions from the six (6) tube burners, identified as Unit 50 shall be limited to 0.58 pounds per MMBtu heat input each.

D.1.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for these facilities and any control devices. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the plans required by this condition.

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

D.1.5 Visible Emissions Notations

(a) Daily visible emission notations of the reverberatory furnaces C, D, E, F, and G stack exhausts (Stacks 020-024) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response step(s). Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response step(s) required by this condition. Failure to take a response step(s) shall be considered a deviation from this permit.

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

D.1.6 Record Keeping Requirements

(a) To document the compliance status with Condition D.1.1(a)(1) and (2), the Permittee shall maintain records of the monthly combined metal throughput and solid flux throughput to reverberatory furnaces C and D.

(b) To document the compliance status with Condition D.1.1(b)(1) and (2), the Permittee shall maintain records of the monthly metal throughput and solid flux throughput to reverberatory furnace E.

(c) To document the compliance status with Condition D.1.1(b)(5), the Permittee shall maintain records of the monthly combined natural gas usage for reverberatory furnace E (unit 022), four (4) solution heat treat furnaces (units 040A-D), three (3) aging heat treat furnaces (units 045A-C), and six (6) heat treat quench tank tube burners (unit 050).

(d) To document the compliance status with Condition D.1.1(c)(1) and (2), the Permittee shall maintain records of the monthly combined metal throughput and solid flux throughput to reverberatory furnaces F and G;.

(e) To document the compliance status with Condition D.1.1(d)(1) and (2), the Permittee shall maintain records of the monthly combined metal throughput and solid flux throughput to reverberatory furnace H.

(f) To document the compliance status with Condition D.1.5, the Permittee shall maintain daily records of the visible emission notations of the reverberatory furnaces C, D, E, F, and G stack exhausts (Stacks 020-024). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g., the process did not operate that day).

(g) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.1.7 Reporting Requirements

Quarterly summaries of the information to document the compliance status with Conditions D.1.1(a)(1) and (2), D.1.1(b)(1), (2) and (5), D.1.1(c)(1) and (2) and D.1.1(d)(1) and (2) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. 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(35).

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

(f) One (1) stationary and prototype semi-permanent molding operation, identified as Unit 101, constructed in 1984, processing aluminum at a maximum rate of 2.5 tons per hour, and exhausting indoors to general plant ventilation.

(g) One (1) sand silo #5, identified as Unit 200, constructed in 1984, with a maximum sand throughput rate of 3.0 tons per hour, using one (1) dust collector (DC-12) on the sand silo for particulate control, and exhausting to one (1) stack (Stack 200a).

(h) One (1) prototype core making operation, identified as Unit 210, constructed in 1984, consisting of one (1) sand mixer and storage racks, processing sand and resin with a maximum sand process rate of 0.25 tons per hour, using a phenolic urethane no bake core making process, using a maximum of 2.0 pounds of VOC catalyst per ton of core sand, exhausting indoors to general plant ventilation.

(i) One (1) mold blasting room, identified as Unit 350, constructed in 1997, with a maximum capacity of 31.2 tons of steel molds per hour and 3 tons of blasting material per hour, using a baghouse (DC-10) for particulate control, and exhausting through one (1) stack (Stack 350).

(k) One (1) stationary and prototype semi-permanent molding operation, identified as Unit 101A, approved for construction in 2014, processing aluminum at a maximum rate of 2.0 tons per hour, and exhausting indoors to general plant ventilation.

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

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

D.2.1 Minor Limits [326 IAC 2-2][326 IAC 8-1-6]

(a) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 8-1-6 (General Reduction Requirements) not applicable for the units installed in 1984, the Permittee shall comply with the following:

(1) The total metal throughput to the semi-permanent molding operation (unit 101) shall be less than 21,900 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

(2) Total PM emissions from the semi-permanent molding operation (unit 101) shall be less than 5.28 pounds per ton of metal throughput.

(3) Total PM10 emissions from the semi-permanent molding operation (unit 101) shall be less than 7.72 pounds per ton of metal throughput.

(4) Total VOC emissions from the semi-permanent molding operation (unit 101) shall be less than 2.274 pounds per ton of metal throughput.

Compliance with (1), (2), and (3) above, in combination with Condition D.3.2 and the potential to emit from other units existing from the 1984 construction project, shall limit the PM and PM10 emissions from the 1984 construction project to less than one hundred (100) tons per twelve (12) consecutive month period each and render 326 IAC 2-2 (PSD) not applicable.

Compliance with (1) and (4) above shall limit the potential VOC emissions from the semi-permanent molding operation (unit 101) to less than twenty-five (25) tons per twelve (12) consecutive month period and render the requirements of 326 IAC 8-1-6 (New Facilities, General Reduction Requirements) not applicable.

(b) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the Mold Blast Room (unit 350), the Permittee shall comply with the following:

(1) The PM emissions from the Mold Blast Room (unit 350) shall be less than 5.68 pounds per hour.

(2) The PM10 emissions from the Mold Blast Room (unit 350) shall be less than 3.40 pounds per hour.

Compliance with the above limits shall limit the potential to emit of PM and PM10 to less than twenty-five (25) and fifteen (15) tons per twelve (12) consecutive month period, respectively, and render the requirements of 326 IAC 2-2 not applicable for the Mold Blast Room (unit 350).

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall be limited as follows:

Emission Unit ID	Process Weight Rate, tons/hr	Allowable Particulate Emissions, lb/hr
Stationary and Prototype Semi-Permanent Molding Operation (101)	2.5	7.58
Sand Silo #5 (200)	3.0	8.56
Prototype Core Making Operation (210)	0.25	1.62
Mold Blast Room (350)	34.2	41.12
Stationary and Prototype Semi-Permanent Molding Operation (101A)	2.0	6.52

The pounds per hour limitations were calculated with either of the following equations:

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

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

or

Interpolation and extrapolation of the data for the process weight rate in excess of 60,000 pounds per hour shall be accomplished by use of the equation:

$E = 55.0\ P^{0.11} - 40$ where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

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

A Preventive Maintenance Plan is required for these facilities and their control devices. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the plans required by this condition.

Compliance Determination Requirements

D.2.4 Particulate Control

(a) In order to ensure compliance with Conditions D.2.1(b) and D.2.2, the baghouse for particulate control shall be in operation and control emissions from the Mold Blast Room (unit 350) at all times that the Mold Blast Room is in operation.

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

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

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

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

D.2.5 Visible Emissions Notations

(a) Daily visible emission notations of the sand silo #5 (unit 200) stack exhaust for dust collector DC-12 (Stack 200a) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response step(s). Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response step(s) required by this condition. Failure to take a response step(s) shall be considered a deviation from this permit.

D.2.6 Visible Emissions Notations [40 CFR 64]

(a) Daily visible emission notations of the mold blasting room baghouse stack exhaust (Stack 350) shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take a reasonable response step(s). Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response step(s) required by this condition. Failure to take a response step(s) shall be considered a deviation from this permit.

D.2.7 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across the baghouse used in conjunction with the mold blast room (Unit 350) at least once per day when the mold blast room is in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 1.0 and 6.0 inches of water, the Permittee shall take a reasonable response step(s). Section C- Response to Excursions or Exceedances contains the Permittee's obligation with regard to the response step(s) required by this condition. A pressure drop reading that is outside the above mentioned range is not a deviation from this permit. Failure to take a response step(s) 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 or replaced at least once every six (6) months.

D.2.8 Broken or Failed Bag Detection - Multi-Compartment Baghouse [40 CFR 64]

In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.2.9 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.1(a)(1), the Permittee shall maintain records of the total monthly metal throughput to the semi-permanent molding operation (unit 101).

(b) To document the compliance status with Conditions D.2.5 and D.2.6, the Permittee shall maintain daily records of visible emission notations of the stack exhaust for dust collector DC-12 (Stack 200a) and the mold blast room baghouse stack exhaust (Stack 350). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.2.7, the Permittee shall maintain daily records of the pressure drop across the baghouse used in conjunction with the mold blast room. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.2.10 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.2.1(a)(1) shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting Requirements contains the Permittee's obligation with regard to the reporting required by this condition. The report 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(35).

SECTION D.3 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:

Insignificant Activities

(a) Degreasing operations that do not exceed 145 gallons per 12 months; except if subject to 326 IAC 20-6, consisting of:

(1) Three (3) cold cleaner degreasing units with remote solvent reservoirs, identified as Units 309A-C, constructed in 1984, each with a maximum capacity of 480 gallons per year Mineral Spirits, each uncontrolled, and exhausting indoors to general plant ventilation. [326 IAC 8-3-2]

(c) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; woodworking operations, consisting of:

(1) One (1) Steel Chill Shot Blast Unit, identified as Unit 330, constructed in 1984, with a maximum capacity of 1.0 ton/hr steel, controlled by a 1,800 acfm Torit Downflo Cyclone & Cartridge Collector, and exhausting indoors to the general plant ventilation. [326 IAC 6-3-2]

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

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

D.3.1 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

(a) Equip the cleaner with a cover;

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

(c) Close the degreaser cover whenever parts are not being handled in the cleaner;

(d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;

(e) Provide a permanent, conspicuous label summarizing the operation requirements;

(f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.2 PSD Minor Limit [326 IAC 2-2]

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

(a) The PM emissions from the steel chill shot blast unit (unit 330) shall be less than 1.70 pounds per hour.

(b) The PM10 emissions from the steel chill shot blast unit (unit 330) shall be less than 0.17 pounds per hour.

Compliance with these limits in combination with the limits in Condition D.2.1(a)(1)-(3) and the potential to emit from other units existing from the 1984 construction project, shall limit the PM and PM10 emissions from the 1984 construction project to less than one hundred (100) tons per twelve (12) consecutive month period each and render 326 IAC 2-2 (PSD) not applicable.

D.3.3 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the steel chill shot blast unit (unit 330), shall not exceed 4.10 pounds per hour when operating at a process weight rate of 2,000 pounds per hour.

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

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

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

Where E = rate of emission in pounds per hour; and
P = process weight rate in tons per hour

D.3.4 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan is required for the steel chill shot blast unit (unit 330) and its control devices. Section B – Preventive Maintenance Plan contains the Permittee's obligation with regard to the plans required by this condition.

Compliance Determination Requirements

D.3.5 Particulate Control

In order to ensure compliance with conditions D.3.2 and D.3.3, the cyclone and cartridge collector for particulate control shall be in operation and control emissions from the steel chill shot blast unit (unit 330) at all times that the steel chill shot blast unit is in operation.

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

D.3.6 Parametric Monitoring

Daily inspections shall be performed to verify the placement, integrity and particle loading of the cartridge filters. If a condition exists which should result in a response step, the Permittee shall take a reasonable response step(s). Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response step(s) required by this condition. Failure to take a response step(s) shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-6.1-5(a)(2)]

D.3.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.3.6, the Permittee shall maintain a log of daily inspections of the cartridge filters for the steel chill shot blast unit (unit 330). The Permittee shall include in its daily record when an inspection is not performed and the reason for the lack of an inspection notation, (e.g., the process did not operate that day).

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

SECTION E.1 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart ZZZZ

Facility Description [326 IAC 2-7-5(14)]:

Insignificant Activity:

(b) One (1) Natural Gas-Fired Compression Ignition Emergency Back-Up Generator (Generac 3.0), manufactured and installed in 1998, with a site rating of 15kW (20 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.1.1 General Provisions Relating to NESHAP ZZZZ [326 IAC 20-1-1] [40 CFR 63, Subpart A]

Pursuant to 40 CFR 63.6665, the Permittee shall comply with the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in Table 8 of 40 CFR 63, Subpart ZZZZ in accordance with the schedule in 40 CFR 63, Subpart ZZZZ.

E.1.2 Stationary Reciprocating Internal Combustion Engines NESHAP [40 CFR 63, Subpart ZZZZ] [326 IAC 20-82]

The Permittee, which operates a stationary reciprocating internal combustion engine, is subject to the following portions of 40 CFR 63, Subpart ZZZZ (included as Attachment A to the permit), which is incorporated by reference as 326 IAC 20-82, with a compliance date of May 3, 2013:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585(a), (c)
(3) 40 CFR 63.6590(a)(1)(iii)
(4) 40 CFR 63.6595(a)(1), (b)
(5) 40 CFR 63.6603(a)
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(3), (f), (h), (i)
(8) 40 CFR 63.6640(a), (b), (e), (f)(1)
(9) 40 CFR 63.6645(a)(5)
(10) 40 CFR 63.6655(a), (d), (e)(2), (e)(3), (f)(2)
(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 40 CFR Part 63 (4)
(16) Table 6 to Subpart ZZZZ of 40 CFR Part 63 (9)
(17) Table 8 to Subpart ZZZZ of 40 CFR Part 63

SECTION E.2 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart ZZZZZZ

Facility Description [326 IAC 2-7-5(14)]:

(a) One (1) melting and combustion operation, identified as Unit 020, constructed in 1994, consisting of one (1) reverberatory furnace C processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 75 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 020). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(b) One (1) melting and combustion operation, identified as Unit 021, constructed in 1994, consisting of one (1) reverberatory furnace D processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 75 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 021). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(c) One (1) melting and combustion operation, identified as Unit 022, constructed in 1995, consisting of one (1) reverberatory furnace E processing aluminum, with a maximum melt rate of 3.0 tons per hour, with a maximum flux usage rate of 37.5 pounds per hour, with a maximum heat input capacity of 12.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 022). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(d) One (1) melting and combustion operation, identified as Unit 023, constructed in 2001, consisting of one (1) reverberatory furnace F processing aluminum, with a maximum melt rate of 3.0 tons per hour, with a maximum flux usage rate of 37.5 pounds per hour, with a maximum heat input capacity of 12.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 023). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(e) One (1) melting and combustion operation, identified as Unit 024, constructed in 2001, consisting of one (1) reverberatory furnace G processing aluminum, with a maximum melt rate of 1.5 tons per hour, with a maximum flux usage rate of 18.75 pounds per hour, with a maximum heat input capacity of 6.0 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 024). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an existing affected source.

(j) One (1) melting and combustion operation, identified as Unit 025, approved for construction in 2014, consisting of one (1) reverberatory furnace H processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 40 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 025). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an affected source.

(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.2.1 General Provisions Relating to NESHAP ZZZZZZ [326 IAC 20] [40 CFR 63, Subpart A]

Pursuant to 40 CFR 63.11555, the Permittee shall comply with the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1, as specified in Table 1 of 40 CFR 63, Subpart ZZZZZZ in accordance with the schedule in 40 CFR 63, Subpart ZZZZZZ.

E.2.2 Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries NESHAP [40 CFR 63, Subpart ZZZZZZ]

The Permittee, which operates an aluminum foundry, is subject to the following portions of 40 CFR 63, Subpart ZZZZZZ (included as Attachment B to the permit), with a compliance date of June 27, 2011:

(1) 40 CFR 63.11544(a), (b), (c)
(2) 40 CFR 63.11545(a)
(3) 40 CFR 63.11550(a), (d)
(4) 40 CFR 63.11552(a)
(5) 40 CFR 63.11553
(6) 40 CFR 63.11555
(7) 40 CFR 63.11556
(8) 40 CFR 63.11557
(9) Table 1 to Subpart ZZZZZZ of 40 CFR Part 63

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

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191

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 AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191

This form consists of 2 pages **Page 1 of 2**

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

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

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

If any of the following are not applicable, mark N/A **Page 2 of 2**

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N
Type of Pollutants Emitted: TSP, PM-10, SO_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 AND ENFORCEMENT BRANCH

Part 70 Quarterly Report

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191
Facility: reverberatory furnaces C and D (units 020 and 021)
Parameter: metal and solid flux throughput
Limit: (a) The combined throughput of metal to reverberatory furnaces C and D (units 020 and 021) shall be less than 105,120 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
(b) The combined throughput of solid flux to reverberatory furnaces C and D (units 020 and 021) shall be less than 91.98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 1a	Column 2	Column 2a	Column 1 + Column 2	Column 1a + Column 2a
	Metal Throughput This Month (tons)	Solid Flux Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	Solid Flux Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)	12 Month Total Solid Flux Throughput (tons)
Month 1						
Month 2						
Month 3						

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191
Facility: reverberatory furnace E (unit 022)
Parameter: metal and solid flux throughput
Limit: (a) The throughput of metal to the reverberatory furnace E (unit 022) shall be less than 18,700 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
(b) The throughput of solid flux to reverberatory furnace E (unit 022) shall be less than 91.98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 1a	Column 2	Column 2a	Column 1 + Column 2	Column 1a + Column 2a
	Metal Throughput This Month (tons)	Solid Flux Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	Solid Flux Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)	12 Month Total Solid Flux Throughput (tons)
Month 1						
Month 2						
Month 3						

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191
Facility: reverberatory furnaces F and G (units 023 and 024)
Parameter: metal and solid flux throughput
Limit: (a) The combined throughput of metal to reverberatory furnaces F and G (units 023 and 024) shall be less than 21,300 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
(b) The combined throughput of solid flux to reverberatory furnaces F and G (units 023 and 024) shall be less than 91.98 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 1a	Column 2	Column 2a	Column 1 + Column 2	Column 1a + Column 2a
	Metal Throughput This Month (tons)	Solid Flux Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	Solid Flux Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)	12 Month Total Solid Flux Throughput (tons)
Month 1						
Month 2						
Month 3						

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191
Facility: semi-permanent molding operation (unit 101)
Parameter: metal throughput
Limit: The total metal throughput to the semi-permanent molding operation (unit 101) shall be less than 21,900 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	Metal Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191
Facility: furnace E (unit 022), four (4) solution heat treat furnaces (units 040A-D), three (3) aging heat treat furnaces (units 045A-C), and six (6) heat treat quench tank tube burners (unit 050)
Parameter: natural gas usage
Limit: The total combined natural gas usage for reverberatory furnace E (unit 022), four (4) solution heat treat furnaces (units 040A-D), three (3) aging heat treat furnaces (units 045A-C), and six (6) heat treat quench tank tube burners (unit 050) shall be less than 440 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	Natural Gas Usage This Month (MMCF)	Natural Gas Usage Previous 11 Months (MMCF)	12 Month Total Natural Gas Usage (MMCF)
Month 1			
Month 2			
Month 3			

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

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

Part 70 Quarterly Report

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191
Facility: reverberatory furnace H (unit 025)
Parameter: metal and solid flux throughput
Limit: (a) The combined throughput of metal to reverberatory furnace H (unit 025) shall be less than 25,000 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.
(b) The combined throughput of solid flux to reverberatory furnace H (unit 025) shall be less than 83.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:_____

Month	Column 1	Column 1a	Column 2	Column 2a	Column 1 + Column 2	Column 1a + Column 2a
	Metal Throughput This Month (tons)	Solid Flux Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	Solid Flux Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)	12 Month Total Solid Flux Throughput (tons)
Month 1						
Month 2						
Month 3						

☐ No deviation occurred in this quarter.
☐ Deviation/s occurred in this quarter.
Deviation has been reported on: _____

☐ No deviation occurred in this quarter.

☐ Deviation/s occurred in this quarter.
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature:_____
Date: _____
Phone: _____

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

Source Name: Diversified Machine Bristol, Inc.
Source Address: 51650 County Road 133, Bristol, Indiana 46507
Part 70 Permit No.: T039-29816-00191

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".	
☐ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
☐ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	**Duration of Deviation:**
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

Attachment A

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

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.

(f) The emergency stationary RICE listed in paragraphs (f)(1) through (3) of this section are not subject to this subpart. The stationary RICE must meet the definition of an emergency stationary RICE in § 63.6675, which includes operating according to the provisions specified in § 63.6640(f).

(1) Existing residential emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

(2) Existing commercial emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

(3) Existing institutional emergency stationary RICE located at an area source of HAP emissions that do not operate or are not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) and that do not operate for the purpose specified in § 63.6640(f)(4)(ii).

[69 FR 33506, June 15, 2004, as amended at 73 FR 3603, Jan. 18, 2008; 78 FR 6700, Jan. 30, 2013]

§ 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 that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(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 that does not operate or is not contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(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;

(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; 78 FR 6700, Jan. 30, 2013]

§ 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, operating limitations and other requirements 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, operating limitations, and other requirements 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, operating limitations, and other requirements 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; 78 FR 6701, Jan. 30, 2013]

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 and other requirements 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 and other requirements 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.

[78 FR 6701, Jan. 30, 2013]

§ 63.6603 What emission limitations, operating limitations, and other requirements 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 that apply to you.

(b) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meets either paragraph (b)(1) or (2) of this section, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. Existing stationary non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP that meet either paragraph (b)(1) or (2) of this section must meet the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart.

(1) The area source is located in an area of Alaska that is not accessible by the Federal Aid Highway System (FAHS).

(2) The stationary RICE is located at an area source that meets paragraphs (b)(2)(i), (ii), and (iii) of this section.

(i) The only connection to the FAHS is through the Alaska Marine Highway System (AMHS), or the stationary RICE operation is within an isolated grid in Alaska that is not connected to the statewide electrical grid referred to as the Alaska Railbelt Grid.

(ii) At least 10 percent of the power generated by the stationary RICE on an annual basis is used for residential purposes.

(iii) The generating capacity of the area source is less than 12 megawatts, or the stationary RICE is used exclusively for backup power for renewable energy.

(c) If you own or operate an existing stationary non-emergency CI RICE with a site rating of more than 300 HP located on an offshore vessel that is an area source of HAP and is a nonroad vehicle that is an Outer Continental Shelf (OCS) source as defined in 40 CFR 55.2, you do not have to meet the numerical CO emission limitations specified in Table 2d of this subpart. You must meet all of the following management practices:

(1) Change oil every 1,000 hours of operation or annually, whichever comes first. Sources have the option to utilize an oil analysis program as described in § 63.6625(i) in order to extend the specified oil change requirement.

(2) Inspect and clean air filters every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(3) Inspect fuel filters and belts, if installed, every 750 hours of operation or annually, whichever comes first, and replace as necessary.

(4) Inspect all flexible hoses every 1,000 hours of operation or annually, whichever comes first, and replace as necessary.

(d) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and that is subject to an enforceable state or local standard that requires the engine to be replaced no later than June 1, 2018, you may until January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018, choose to comply with the management practices that are shown for stationary non-emergency CI RICE with a site rating of less than or equal to 300 HP in Table 2d of this subpart instead of the applicable emission limitations in Table 2d, operating limitations in Table 2b, and crankcase ventilation system requirements in § 63.6625(g). You must comply with the emission limitations in Table 2d and operating limitations in Table 2b that apply for non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018. You must also comply with the crankcase ventilation system requirements in § 63.6625(g) by January 1, 2015, or 12 years after the installation date of the engine (whichever is later), but not later than June 1, 2018.

(e) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 3 (Tier 2 for engines above 560 kilowatt (kW)) emission standards in Table 1 of 40 CFR 89.112, you may comply with the requirements under this part by meeting the requirements for Tier 3 engines (Tier 2 for engines above 560 kW) in 40 CFR part 60 subpart IIII instead of the emission limitations and other requirements that would otherwise apply under this part for existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions.

(f) An existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP must meet the definition of remote stationary RICE in § 63.6675 on the initial compliance date for the engine, October 19, 2013, in order to be considered a remote stationary

RICE under this subpart. Owners and operators of existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that meet the definition of remote stationary RICE in § 63.6675 of this subpart as of October 19, 2013 must evaluate the status of their stationary RICE every 12 months. Owners and operators must keep records of the initial and annual evaluation of the status of the engine. If the evaluation indicates that the stationary RICE no longer meets the definition of remote stationary RICE in § 63.6675 of this subpart, the owner or operator must comply with all of the requirements for existing non-emergency SI 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at area sources of HAP that are not remote stationary RICE within 1 year of the evaluation.

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6701, Jan. 30, 2013]

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

(a) 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.

(b) Beginning January 1, 2015, if you own or operate an existing emergency CI stationary RICE with a site rating of more than 100 brake HP and a displacement of less than 30 liters per cylinder that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(c) Beginning January 1, 2015, if you own or operate a new emergency CI stationary RICE with a site rating of more than 500 brake HP and a displacement of less than 30 liters per cylinder located at a major source of HAP that uses diesel fuel and operates or is contractually obligated to be available for more than 15 hours per calendar year for the purposes specified in § 63.6640(f)(2)(ii) and (iii), you must use diesel fuel that meets the requirements in 40 CFR 80.510(b) for nonroad diesel fuel, except that any existing diesel fuel purchased (or otherwise obtained) prior to January 1, 2015, may be used until depleted.

(d) Existing CI stationary RICE located in Guam, American Samoa, the Commonwealth of the Northern Mariana Islands, at area sources in areas of Alaska that meet either § 63.6603(b)(1) or § 63.6603(b)(2), or are on offshore vessels that meet § 63.6603(c) are exempt from the requirements of this section.

[78 FR 6702, Jan. 30, 2013]

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, operating limitations, and other requirements 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, as amended at 78 FR 6702, Jan. 30, 2013]

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. The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load for the stationary RICE listed in paragraphs (b)(1) through (4) of this section.

(1) Non-emergency 4SRB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(2) New non-emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 brake HP located at a major source of HAP emissions.

(3) New non-emergency 2SLB stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(4) New non-emergency CI stationary RICE with a site rating of greater than 500 brake HP located at a major source of HAP emissions.

(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, unless otherwise specified in this subpart.

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

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

Where:

C_i = concentration of carbon monoxide (CO), total hydrocarbons (THC), or formaldehyde at the control device inlet,

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

R = percent reduction of CO, THC, or formaldehyde emissions.

(2) You must normalize the CO, THC, or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations are to be corrected to 15 percent oxygen and CO_2 concentration is measured in lieu of oxygen concentration measurement, a CO_2 correction factor is needed. Calculate the CO_2 correction factor as described in paragraphs (e)(2)(i) through (iii) of this section.

(i) Calculate the fuel-specific F_o value for the fuel burned during the test using values obtained from Method 19, Section 5.2, and the following equation:

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

Where:

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

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

F_d = Ratio of the volume of dry effluent gas to the gross calorific value of the fuel from Method 19, 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:

$$X_{CO2} = \frac{5.9}{F_o} \quad (Eq. 3)$$

Where:

X_{CO2} = CO_2 correction factor, percent.

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

(iii) Calculate the CO, THC, and formaldehyde gas concentrations adjusted to 15 percent O_2 using CO_2 as follows:

$$C_{adj} = C_d \frac{X_{CO2}}{\%CO_2} \quad (Eq. 4)$$

Where:

C_{adj} = Calculated concentration of CO, THC, or formaldehyde adjusted to 15 percent O_2.

C_d = Measured concentration of CO, THC, or formaldehyde, uncorrected.

X_{CO2} = CO_2 correction factor, percent.

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

(f) If you comply with the emission limitation to reduce CO and you are not using an oxidation catalyst, if you comply with the emission limitation to reduce formaldehyde and you are not using NSCR, or if you comply with the emission limitation to limit the concentration of formaldehyde in the stationary RICE exhaust and you are not using an oxidation catalyst or NSCR, you must petition the Administrator for operating limitations to be established during the initial performance test and continuously monitored thereafter; or for approval of no operating limitations. You must not conduct the initial performance test until after the petition has been approved by the Administrator.

(g) If you petition the Administrator for approval of operating limitations, your petition must include the information described in paragraphs (g)(1) through (5) of this section.

(1) Identification of the specific parameters you propose to use as operating limitations;

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

(3) A discussion of how you will establish the upper and/or lower values for these parameters which will establish the limits on these parameters in the operating limitations;

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

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

(h) If you petition the Administrator for approval of no operating limitations, your petition must include the information described in paragraphs (h)(1) through (7) of this section.

(1) Identification of the parameters associated with operation of the stationary RICE and any emission control device which could change intentionally (*e.g.,* operator adjustment, automatic controller adjustment, etc.) or unintentionally (*e.g.,* wear and tear, error, etc.) on a routine basis or over time;

(2) A discussion of the relationship, if any, between changes in the parameters and changes in HAP emissions;

(3) For the parameters which could change in such a way as to increase HAP emissions, a discussion of whether establishing limitations on the parameters would serve to limit HAP emissions;

(4) For the parameters which could change in such a way as to increase HAP emissions, a discussion of how you could establish upper and/or lower values for the parameters which would establish limits on the parameters in operating limitations;

(5) For the parameters, a discussion identifying the methods you could use to measure them and the instruments you could use to monitor them, as well as the relative accuracy and precision of the methods and instruments;

(6) For the parameters, a discussion identifying the frequency and methods for recalibrating the instruments you could use to monitor them; and

(7) A discussion of why, from your point of view, it is infeasible or unreasonable to adopt the parameters as operating limitations.

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

[69 FR 33506, June 15, 2004, as amended at 75 FR 9676, Mar. 3, 2010; 78 FR 6702, Jan. 30, 2013]

§ 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 O_2 or CO_2 according to the requirements in paragraphs (a)(1)

through (4) of this section. If you are meeting a requirement to reduce CO emissions, the CEMS must be installed at both the inlet and outlet of the control device. If you are meeting a requirement to limit the concentration of CO, the CEMS must be installed at the outlet of the control device.

(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 CO_2 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 (6) of this section. For an affected source that is complying with the emission limitations and operating limitations on March 9, 2011, the requirements in paragraph (b) of this section are applicable September 6, 2011.

(1) You must prepare a site-specific monitoring plan that addresses the monitoring system design, data collection, and the quality assurance and quality control elements outlined in paragraphs (b)(1)(i) through (v) of this section and in § 63.8(d). As specified in § 63.8(f)(4), you may request approval of monitoring system quality assurance and quality control procedures alternative to those specified in paragraphs (b)(1) through (5) of this section in your site-specific monitoring plan.

(i) The performance criteria and design specifications for the monitoring system equipment, including the sample interface, detector signal analyzer, and data acquisition and calculations;

(ii) Sampling interface (*e.g.,* thermocouple) location such that the monitoring system will provide representative measurements;

(iii) Equipment performance evaluations, system accuracy audits, or other audit procedures;

(iv) Ongoing operation and maintenance procedures in accordance with provisions in § 63.8(c)(1)(ii) and (c)(3); and

(v) Ongoing reporting and recordkeeping procedures in accordance with provisions in § 63.10(c), (e)(1), and (e)(2)(i).

(2) You must install, operate, and maintain each CPMS in continuous operation according to the procedures in your site-specific monitoring plan.

(3) The CPMS must collect data at least once every 15 minutes (see also § 63.6635).

(4) For a CPMS for measuring temperature range, the temperature sensor must have a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit) or 1 percent of the measurement range, whichever is larger.

(5) You must conduct the CPMS equipment performance evaluation, system accuracy audits, or other audit procedures specified in your site-specific monitoring plan at least annually.

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

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must monitor and record your fuel usage daily with separate fuel meters to measure the volumetric flow rate of each fuel. In addition, you must operate your stationary RICE in a manner which reasonably minimizes HAP emissions.

(d) If you are operating a new or reconstructed emergency 4SLB stationary RICE with a site rating of greater than or equal to 250 and less than or equal to 500 brake HP located at a major source of HAP emissions, you must install a non-resettable hour meter prior to the startup of the engine.

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(1) An existing stationary RICE with a site rating of less than 100 HP located at a major source of HAP emissions;

(2) An existing emergency or black start stationary RICE with a site rating of less than or equal to 500 HP located at a major source of HAP emissions;

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(4) An existing non-emergency, non-black start stationary CI RICE with a site rating less than or equal to 300 HP located at an area source of HAP emissions;

(5) An existing non-emergency, non-black start 2SLB stationary RICE located at an area source of HAP emissions;

(6) An existing non-emergency, non-black start stationary RICE located at an area 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.

(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 (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 that meet either § 63.6603(b)(1) or § 63.6603(b)(2) do not have to meet the requirements of this paragraph (g). Existing CI engines located on offshore vessels that meet § 63.6603(c) do not have to meet the requirements of this paragraph (g).

(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 business 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 business 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 business 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 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the

program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine.

[69 FR 33506, June 15, 2004, as amended at 73 FR 3606, Jan. 18, 2008; 75 FR 9676, Mar. 3, 2010; 75 FR 51589, Aug. 20, 2010; 76 FR 12866, Mar. 9, 2011; 78 FR 6703, Jan. 30, 2013]

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

(a) You must demonstrate initial compliance with each emission limitation, operating limitation, and other requirement 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.

(d) Non-emergency 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more can demonstrate initial compliance with the formaldehyde emission limit by testing for THC instead of formaldehyde. The testing must be conducted according to the requirements in Table 4 of this subpart. The average reduction of emissions of THC determined from the performance test must be equal to or greater than 30 percent.

(e) The initial compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least three test runs.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

[69 FR 33506, June 15, 2004, as amended at 78 FR 6704, Jan. 30, 2013]

Continuous Compliance Requirements

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

(a) If you must comply with emission and operating limitations, you must monitor and collect data according to this section.

(b) Except for monitor malfunctions, associated repairs, required performance evaluations, and required quality assurance or control activities, you must monitor continuously at all times that the stationary RICE is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(c) You may not use data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must, however, use all the valid data collected during all other periods.

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

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

(a) You must demonstrate continuous compliance with each emission limitation, operating limitation, and other requirements 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) The annual compliance demonstration required for existing non-emergency 4SLB and 4SRB stationary RICE with a site rating of more than 500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year must be conducted according to the following requirements:

(1) The compliance demonstration must consist of at least one test run.

(2) Each test run must be of at least 15 minute duration, except that each test conducted using the method in appendix A to this subpart must consist of at least one measurement cycle and include at least 2 minutes of test data phase measurement.

(3) If you are demonstrating compliance with the CO concentration or CO percent reduction requirement, you must measure CO emissions using one of the CO measurement methods specified in Table 4 of this subpart, or using appendix A to this subpart.

(4) If you are demonstrating compliance with the THC percent reduction requirement, you must measure THC emissions using Method 25A, reported as propane, of 40 CFR part 60, appendix A.

(5) You must measure O_2 using one of the O_2 measurement methods specified in Table 4 of this subpart. Measurements to determine O_2 concentration must be made at the same time as the measurements for CO or THC concentration.

(6) If you are demonstrating compliance with the CO or THC percent reduction requirement, you must measure CO or THC emissions and O_2 emissions simultaneously at the inlet and outlet of the control device.

(7) If the results of the annual compliance demonstration show that the emissions exceed the levels specified in Table 6 of this subpart, the stationary RICE must be shut down as soon as safely possible, and appropriate corrective action must be taken (e.g., repairs, catalyst cleaning, catalyst replacement). The stationary RICE must be retested within 7 days of being restarted and the emissions must meet the levels specified in Table 6 of this subpart. If the retest shows that the emissions continue to exceed the specified levels, the stationary RICE must again be shut down as soon as safely possible, and the stationary RICE may not operate, except for purposes of startup and testing, until the owner/operator demonstrates through testing that the emissions do not exceed the levels specified in Table 6 of this subpart.

(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) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. 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 calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see § 63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in the NERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(3) Emergency stationary RICE located at major sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. The 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, 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.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[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; 78 FR 6704, Jan. 30, 2013]

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).

(i) If you own or operate an existing non-emergency CI RICE with a site rating of more than 300 HP located at an area source of HAP emissions that is certified to the Tier 1 or Tier 2 emission standards in Table 1 of 40 CFR 89.112 and subject to an enforceable state or local standard requiring engine replacement and you intend to meet management practices rather than emission limits, as specified in § 63.6603(d), you must submit a notification by March 3, 2013, stating that you intend to use the provision in § 63.6603(d) and identifying the state or local regulation that the engine is subject to.

[73 FR 3606, Jan. 18, 2008, as amended at 75 FR 9677, Mar. 3, 2010; 75 FR 51591, Aug. 20, 2010; 78 FR 6705, Jan. 30, 2013]

§ 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.

(h) If you own or operate an emergency stationary RICE with a site rating of more than 100 brake HP that operates or is contractually obligated to be available for more than 15 hours per calendar year for the

purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operates for the purpose specified in § 63.6640(f)(4)(ii), you must submit an annual report according to the requirements in paragraphs (h)(1) through (3) of this section.

(1) The report must contain the following information:

(i) Company name and address where the engine is located.

(ii) Date of the report and beginning and ending dates of the reporting period.

(iii) Engine site rating and model year.

(iv) Latitude and longitude of the engine in decimal degrees reported to the fifth decimal place.

(v) Hours operated for the purposes specified in § 63.6640(f)(2)(ii) and (iii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(vi) Number of hours the engine is contractually obligated to be available for the purposes specified in § 63.6640(f)(2)(ii) and (iii).

(vii) Hours spent for operation for the purpose specified in § 63.6640(f)(4)(ii), including the date, start time, and end time for engine operation for the purposes specified in § 63.6640(f)(4)(ii). The report must also identify the entity that dispatched the engine and the situation that necessitated the dispatch of the engine.

(viii) If there were no deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), a statement that there were no deviations from the fuel requirements during the reporting period.

(ix) If there were deviations from the fuel requirements in § 63.6604 that apply to the engine (if any), information on the number, duration, and cause of deviations, and the corrective action taken.

(2) The first annual report must cover the calendar year 2015 and must be submitted no later than March 31, 2016. Subsequent annual reports for each calendar year must be submitted no later than March 31 of the following calendar year.

(3) The annual report must be submitted electronically using the subpart specific reporting form in the Compliance and Emissions Data Reporting Interface (CEDRI) that is accessed through EPA's Central Data Exchange (CDX) (*www.epa.gov/cdx*). However, if the reporting form specific to this subpart is not available in CEDRI at the time that the report is due, the written report must be submitted to the Administrator at the appropriate address listed in § 63.13.

[69 FR 33506, June 15, 2004, as amended at 75 FR 9677, Mar. 3, 2010; 78 FR 6705, Jan. 30, 2013]

§ 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) through (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 engine is used for the purposes specified in § 63.6640(f)(2)(ii) or (iii) or § 63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(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; 78 FR 6706, Jan. 30, 2013]

§ 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:

Alaska Railbelt Grid means the service areas of the six regulated public utilities that extend from Fairbanks to Anchorage and the Kenai Peninsula. These utilities are Golden Valley Electric Association; Chugach Electric Association; Matanuska Electric Association; Homer Electric Association; Anchorage Municipal Light & Power; and the City of Seward Electric System.

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.

Backup power for renewable energy means an engine that provides backup power to a facility that generates electricity from renewable energy resources, as that term is defined in Alaska Statute 42.45.045(l)(5) (incorporated by reference, see § 63.14).

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

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

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

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

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

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

(1) Fails to meet any requirement or obligation established by this subpart, including but not limited to any emission limitation or operating limitation;

(2) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(3) Fails to meet any emission limitation or operating limitation in this subpart during malfunction, regardless or whether or not such failure is permitted by this subpart.

(4) Fails to satisfy the general duty to minimize emissions established by § 63.6(e)(1)(i).

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

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

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

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

Emergency stationary RICE means any stationary reciprocating internal combustion engine that meets all of the criteria in paragraphs (1) through (3) of this definition. 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.

(1) The stationary RICE is operated to provide electrical power or mechanical work during an emergency situation. 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.

(2) The stationary RICE is operated under limited circumstances for situations not included in paragraph (1) of this definition, as specified in § 63.6640(f).

(3) The stationary RICE operates as part of a financial arrangement with another entity in situations not included in paragraph (1) of this definition only as allowed in § 63.6640(f)(2)(ii) or (iii) and § 63.6640(f)(4)(i) or (ii).

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(1) Emissions from any oil or gas exploration or production well (with its associated equipment (as defined in this section)) and emissions from any pipeline compressor station or pump station shall not be aggregated with emissions from other similar units, to determine whether such emission points or stations are major sources, even when emission points are in a contiguous area or under common control;

(2) For oil and gas production facilities, emissions from processes, operations, or equipment that are not part of the same oil and gas production facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated;

(3) For production field facilities, only HAP emissions from glycol dehydration units, storage vessel with the potential for flash emissions, combustion turbines and reciprocating internal combustion engines shall be aggregated for a major source determination; and

(4) Emissions from processes, operations, and equipment that are not part of the same natural gas transmission and storage facility, as defined in § 63.1271 of subpart HHH of this part, shall not be aggregated.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner which causes, or

has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

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

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

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

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

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

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

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

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

Propane means a colorless gas derived from petroleum and natural gas, with the molecular structure C_3H_8 .

Remote stationary RICE means stationary RICE meeting any of the following criteria:

(1) Stationary RICE located in an offshore area that is beyond the line of ordinary low water along that portion of the coast of the United States that is in direct contact with the open seas and beyond the line marking the seaward limit of inland waters.

(2) Stationary RICE located on a pipeline segment that meets both of the criteria in paragraphs (2)(i) and (ii) of this definition.

(i) A pipeline segment with 10 or fewer buildings intended for human occupancy and no buildings with four or more stories within 220 yards (200 meters) on either side of the centerline of any continuous 1-mile (1.6 kilometers) length of pipeline. Each separate dwelling unit in a multiple dwelling unit building is counted as a separate building intended for human occupancy.

(ii) The pipeline segment does not lie within 100 yards (91 meters) of either a building or a small, well-defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. The days and weeks need not be consecutive. The building or area is considered occupied for a full day if it is occupied for any portion of the day.

(iii) For purposes of this paragraph (2), the term pipeline segment means all parts of those physical facilities through which gas moves in transportation, including but not limited to pipe, valves, and other appurtenance attached to pipe, compressor units, metering stations, regulator stations, delivery stations, holders, and fabricated assemblies. Stationary RICE located within 50 yards (46 meters) of the pipeline segment providing power for equipment on a pipeline segment are part of the pipeline segment. Transportation of gas means the gathering, transmission, or distribution of gas by pipeline, or the storage of gas. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

(3) Stationary RICE that are not located on gas pipelines and that have 5 or fewer buildings intended for human occupancy and no buildings with four or more stories within a 0.25 mile radius around the engine. A building is intended for human occupancy if its primary use is for a purpose involving the presence of humans.

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

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

Rich burn engine means any four-stroke spark ignited engine where the manufacturer's recommended operating air/fuel ratio divided by the stoichiometric air/fuel ratio at full load conditions is less than or equal to 1.1. Engines originally manufactured as rich burn engines, but modified prior to December 19, 2002 with passive emission control technology for NO_X (such as pre-combustion chambers) will be considered lean burn engines. Also, existing engines where there are no manufacturer's recommendations regarding air/fuel ratio will be considered a rich burn engine if the excess oxygen content of the exhaust at full load conditions is less than or equal to 2 percent.

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

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

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

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

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

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

Subpart means 40 CFR part 63, subpart ZZZZ.

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

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

[69 FR 33506, June 15, 2004, as amended at 71 FR 20467, Apr. 20, 2006; 73 FR 3607, Jan. 18, 2008; 75 FR 9679, Mar. 3, 2010; 75 FR 51592, Aug. 20, 2010; 76 FR 12867, Mar. 9, 2011; 78 FR 6706, Jan. 30, 2013]

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

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

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	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	

[1]Sources 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 1b to Subpart ZZZZ of Part 63—Operating Limitations for Existing, New, and Reconstructed SI 4SRB Stationary RICE >500 HP Located at a Major Source of HAP Emissions

As stated in §§ 63.6600, 63.6603, 63.6630 and 63.6640, you must comply with the following operating limitations for existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions:

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

For each . . .	**You must meet the following operating limitation, except during periods of startup . . .**
1. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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 existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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;	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 b. maintain the temperature of your stationary RICE exhaust so that the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.[1]
2. existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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.
existing, new and reconstructed 4SRB stationary RICE >500 HP located at a major source of HAP emissions 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.	

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

[78 FR 6706, Jan. 30, 2013]

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_2until 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	
	b. Limit concentration of formaldehyde in the stationary RICE exhaust to 580 ppbvd or less at 15 percent O_2	

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

[75 FR 9680, Mar. 3, 2010]

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI 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 CI Stationary RICE >500 HP

As stated in §§ 63.6600, 63.6601, 63.6603, 63.6630, and 63.6640, you must comply with the following operating limitations for new and reconstructed 2SLB and CI 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; and existing CI stationary RICE >500 HP:

Table 2b to Subpart ZZZZ of Part 63—Operating Limitations for New and Reconstructed 2SLB and CI 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 CI Stationary RICE >500 HP

For each . . .	**You must meet the following operating limitation, except during periods of startup . . .**
1. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and using an oxidation catalyst; and New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde 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. Existing CI stationary RICE >500 HP complying with the requirement to limit or reduce 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 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]
3. New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to reduce CO emissions and not using an oxidation catalyst; and	Comply with any operating limitations approved by the Administrator.

For each . . .	You must meet the following operating limitation, except during periods of startup . . .
New and reconstructed 2SLB and CI stationary RICE >500 HP located at a major source of HAP emissions and new and reconstructed 4SLB stationary RICE ≥250 HP located at a major source of HAP emissions complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; and	
existing CI stationary RICE >500 HP complying with the requirement to limit or reduce the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst.	

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

[78 FR 6707, Jan. 30, 2013]

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

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

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

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, and replace as necessary; 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, and replace as necessary; 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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
4. Non-Emergency, non-black start CI stationary RICE 300>HP≤500." is corrected to read "4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500.	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; 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, and replace as necessary;	
	c. Inspect all hoses and belts every 1,440 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 . . .
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, and replace as necessary;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2.	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2.	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2.	
12. Non-emergency, non-black start stationary RICE 100≤HP≤500 which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Limit concentration of CO in the stationary RICE exhaust to 177 ppmvd or less at 15 percent O_2.	

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

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

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

[78 FR 6708, Jan. 30, 2013, as amended at 78 FR 14457, Mar. 6, 2013]

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

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

Table 2d to Subpart ZZZZ of Part 63—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] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	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.
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.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
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 replace as necessary; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
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 replace as necessary; 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 replace as necessary; 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 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 replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
9. Non-emergency, non-black start 4SLB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install an oxidation catalyst to reduce HAP emissions from the stationary RICE.	

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
10. 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 replace as necessary; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
11. Non-emergency, non-black start 4SRB remote stationary RICE >500 HP	a. Change oil and filter every 2,160 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 2,160 hours of operation or annually, whichever comes first, and replace as necessary; and	
	c. Inspect all hoses and belts every 2,160 hours of operation or annually, whichever comes first, and replace as necessary.	
12. Non-emergency, non-black start 4SRB stationary RICE >500 HP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Install NSCR to reduce HAP emissions from the stationary RICE.	
13. Non-emergency, non-black start stationary RICE which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	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 replace as necessary; 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.	

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

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

[78 FR 6709, Jan. 30, 2013]

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:

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

For each . . .	Complying with the requirement to . . .	You must . . .
1. New or reconstructed 2SLB stationary RICE >500 HP located at major sources; new or reconstructed 4SLB stationary RICE ≥250 HP located at major sources; and new or reconstructed CI stationary RICE >500 HP located at major sources	Reduce CO emissions and not using a CEMS	Conduct subsequent performance tests semiannually.[1]
2. 4SRB stationary RICE ≥5,000 HP located at major sources	Reduce formaldehyde emissions	Conduct subsequent performance tests semiannually.[1]
3. Stationary RICE >500 HP located at major sources and new or reconstructed 4SLB stationary RICE 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 >500 HP that are not limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 3 years, whichever comes first.
5. Existing non-emergency, non-black start CI stationary RICE >500 HP that are limited use stationary RICE	Limit or reduce CO emissions and not using a CEMS	Conduct subsequent performance tests every 8,760 hours or 5 years, whichever comes first.

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

[78 FR 6711, Jan. 30, 2013]

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:

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

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_2at 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 D6522-00 (Reapproved 2005).[a c]	(a) Measurements to determine O_2must 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) ASTM D6522-00 (Reapproved 2005) [a b c]or Method 10 of 40 CFR part 60, appendix A	(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.
		ii. Measure O_2at 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 D6522-00 (Reapproved 2005).[a]	(a) measurements to determine O_2concentration must be made at the same time as the measurements for formaldehyde or THC 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]	(a) measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or THC concentration.
		iv. If demonstrating compliance with the formaldehyde percent reduction requirement, 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,[a]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.

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
		v. If demonstrating compliance with the THC percent reduction requirement, measure THC at the inlet and the outlet of the control device	(1) Method 25A, reported as propane, of 40 CFR part 60, appendix A	(a) THC 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_2concentration 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 (Reapproved 2005).[a]	(a) measurements to determine O_2concentration must be made at the same time and location as the measurements for formaldehyde or CO 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]	(a) measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde or CO concentration.
		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,[a]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 c]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348-03.[a]	(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 or longer runs.

[a] Incorporated by reference, see 40 CFR 63.14. You may also obtain copies from University Microfilms International, 300 North Zeeb Road, Ann Arbor, MI 48106.

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

[c] ASTM-D6522-00 (2005) may be used to test both CI and SI stationary RICE.

[78 FR 6711, Jan. 30, 2013]

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

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:

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

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, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	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. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, using oxidation catalyst, and using a CPMS	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
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, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	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.
4. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and not using oxidation catalyst	i. The average CO concentration determined from the initial performance test is less than or equal to the CO emission limitation; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the requirements in § 63.6625(b); and
		iii. You have recorded the approved operating parameters (if any) during the initial performance test.
5. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at both the inlet and outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average reduction of CO calculated using § 63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
6. Non-emergency stationary CI RICE >500 HP located at a major source of HAP, and existing non-emergency stationary CI RICE >500 HP located at an area source of HAP	a. Limit the concentration of CO, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O_2or CO_2at the outlet of the oxidation catalyst according to the requirements in § 63.6625(a); and

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and
		iii. The average concentration of CO calculated using § 63.6620 is less than or equal to the CO emission limitation. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average concentration measured during the 4-hour period.
7. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction, or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; and
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b); and
		iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
8. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction or the average reduction of emissions of THC determined from the initial performance test is equal to or greater than 30 percent; 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 . . .
9. 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 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. 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.
10. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP 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. 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.
11. 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 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.
12. Existing non-emergency stationary RICE 100≤HP≤500 located at a major source of HAP, and existing non-emergency stationary CI RICE 300<HP≤500 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.
13. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2;

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1350 °F.
14. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. You have conducted an initial compliance demonstration as specified in § 63.6630(e) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more;
		ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in § 63.6625(b), or you have installed equipment to automatically shut down the engine if the catalyst inlet temperature exceeds 1250 °F.

[78 FR 6712, Jan. 30, 2013]

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

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:

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, and Other Requirements

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

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved, or to demonstrate that the average reduction of emissions of THC determined from the performance test is equal to or greater than 30 percent.[a]
7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit [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 . . .
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 stationary SI RICE located at an area source of HAP which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, 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, and existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are remote stationary RICE	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and using oxidation catalyst	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to § 63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary RICE	a. Reduce CO emissions, or limit the concentration of CO in the stationary RICE exhaust, and not using oxidation catalyst	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	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and using an oxidation catalyst	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

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
13. Existing limited use CI stationary RICE >500 HP	a. Reduce CO emissions or limit the concentration of CO in the stationary RICE exhaust, and not using an oxidation catalyst	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.
14. Existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install an oxidation catalyst	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 93 percent or more, or the average CO concentration is less than or equal to 47 ppmvd at 15 percent O_2; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than 450 °F and less than or equal to 1350 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1350 °F.

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
15. Existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that are operated more than 24 hours per calendar year	a. Install NSCR	i. Conducting annual compliance demonstrations as specified in § 63.6640(c) to show that the average reduction of emissions of CO is 75 percent or more, the average CO concentration is less than or equal to 270 ppmvd at 15 percent O_2, or the average reduction of emissions of THC is 30 percent or more; and either ii. Collecting the catalyst inlet temperature data according to § 63.6625(b), reducing these data to 4-hour rolling averages; and maintaining the 4-hour rolling averages within the limitation of greater than or equal to 750 °F and less than or equal to 1250 °F for the catalyst inlet temperature; or iii. Immediately shutting down the engine if the catalyst inlet temperature exceeds 1250 °F.

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

[78 FR 6715, Jan. 30, 2013]

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:

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

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
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; 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	Compliance report	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	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.
		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	i. Semiannually according to the requirements in § 63.6650(b).
		c. If you had a malfunction during the reporting period, the information in § 63.6650(c)(4).	i. Semiannually according to the requirements in § 63.6650(b).
2. New or reconstructed non-emergency stationary RICE that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis	Report	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	i. Annually, according to the requirements in § 63.6650.

For each . . .	You must submit a . . .	The report must contain . . .	You must submit the report . . .
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.
3. Existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that are not remote stationary RICE and that operate more than 24 hours per calendar year	Compliance report	a. The results of the annual compliance demonstration, if conducted during the reporting period.	i. Semiannually according to the requirements in § 63.6650(b)(1)-(5).
4. Emergency stationary RICE that operate or are contractually obligated to be available for more than 15 hours per year for the purposes specified in § 63.6640(f)(2)(ii) and (iii) or that operate for the purposes specified in § 63.6640(f)(4)(ii)	Report	a. The information in § 63.6650(h)(1)	i. annually according to the requirements in § 63.6650(h)(2)-(3).

[78 FR 6719, Jan. 30, 2013]

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

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

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

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

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

General provisions citation	Subject of citation	Applies to subpart	Explanation
		Except that § 63.9(b) only applies as specified in § 63.6645.	
§ 63.9(c)	Request for compliance extension	Yes	Except that § 63.9(c) only applies as specified in § 63.6645.
§ 63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that § 63.9(d) only applies as specified in § 63.6645.
§ 63.9(e)	Notification of performance test	Yes	Except that § 63.9(e) only applies as specified in § 63.6645.
§ 63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(1)	Notification of performance evaluation	Yes	Except that § 63.9(g) only applies as specified in § 63.6645.
§ 63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§ 63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that § 63.9(g) only applies as specified in § 63.6645.	
§ 63.9(h)(1)-(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. § 63.9(h)(4) is reserved.
			Except that § 63.9(h) only applies as specified in § 63.6645.
§ 63.9(i)	Adjustment of submittal deadlines	Yes.	
§ 63.9(j)	Change in previous information	Yes.	
§ 63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§ 63.10(b)(1)	Record retention	Yes	Except that the most recent 2 years of data do not have to be retained on site.
§ 63.10(b)(2)(i)-(v)	Records related to SSM	No.	

General provisions citation	Subject of citation	Applies to subpart	Explanation
§ 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.	
§ 63.15	Availability of information	Yes.	

[75 FR 9688, Mar. 3, 2010, as amended at 78 FR 6720, Jan. 30, 2013]

Appendix A—Protocol for Using an Electrochemical Analyzer to Determine Oxygen and Carbon Monoxide Concentrations From Certain Engines

1.0 SCOPE AND APPLICATION. WHAT IS THIS PROTOCOL?

This protocol is a procedure for using portable electrochemical (EC) cells for measuring carbon monoxide (CO) and oxygen (O_2) concentrations in controlled and uncontrolled emissions from existing stationary 4-stroke lean burn and 4-stroke rich burn reciprocating internal combustion engines as specified in the applicable rule.

1.1 Analytes. What does this protocol determine?

This protocol measures the engine exhaust gas concentrations of carbon monoxide (CO) and oxygen (O_2).

Analyte	**CAS No.**	**Sensitivity**
Carbon monoxide (CO)	630-08-0	Minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.
Oxygen (O_2)	7782-44-7	

1.2 Applicability. When is this protocol acceptable?

This protocol is applicable to 40 CFR part 63, subpart ZZZZ. Because of inherent cross sensitivities of EC cells, you must not apply this protocol to other emissions sources without specific instruction to that effect.

1.3 Data Quality Objectives. How good must my collected data be?

Refer to Section 13 to verify and document acceptable analyzer performance.

1.4 Range. What is the targeted analytical range for this protocol?

The measurement system and EC cell design(s) conforming to this protocol will determine the analytical range for each gas component. The nominal ranges are defined by choosing up-scale calibration gas concentrations near the maximum anticipated flue gas concentrations for CO and O_2 , or no more than twice the permitted CO level.

1.5 Sensitivity. What minimum detectable limit will this protocol yield for a particular gas component?

The minimum detectable limit depends on the nominal range and resolution of the specific EC cell used, and the signal to noise ratio of the measurement system. The minimum detectable limit should be 2 percent of the nominal range or 1 ppm, whichever is less restrictive.

2.0 SUMMARY OF PROTOCOL

In this protocol, a gas sample is extracted from an engine exhaust system and then conveyed to a portable EC analyzer for measurement of CO and O_2 gas concentrations. This method provides measurement system performance specifications and sampling protocols to ensure reliable data. You may use additions to, or modifications of vendor supplied measurement systems (e.g., heated or unheated sample lines, thermocouples, flow meters, selective gas scrubbers, etc.) to meet the design specifications of this protocol. Do not make changes to the measurement system from the as-verified configuration (Section 3.12).

3.0 DEFINITIONS

3.1 Measurement System. The total equipment required for the measurement of CO and O_2 concentrations. The measurement system consists of the following major subsystems:

3.1.1 Data Recorder. A strip chart recorder, computer or digital recorder for logging measurement data from the analyzer output. You may record measurement data from the digital data display manually or electronically.

3.1.2 Electrochemical (EC) Cell. A device, similar to a fuel cell, used to sense the presence of a specific analyte and generate an electrical current output proportional to the analyte concentration.

3.1.3 Interference Gas Scrubber. A device used to remove or neutralize chemical compounds that may interfere with the selective operation of an EC cell.

3.1.4 Moisture Removal System. Any device used to reduce the concentration of moisture in the sample stream so as to protect the EC cells from the damaging effects of condensation and to minimize errors in measurements caused by the scrubbing of soluble gases.

3.1.5 Sample Interface. The portion of the system used for one or more of the following: sample acquisition; sample transport; sample conditioning or protection of the EC cell from any degrading effects of the engine exhaust effluent; removal of particulate matter and condensed moisture.

3.2 Nominal Range. The range of analyte concentrations over which each EC cell is operated (normally 25 percent to 150 percent of up-scale calibration gas value). Several nominal ranges can be used for any given cell so long as the calibration and repeatability checks for that range remain within specifications.

3.3 Calibration Gas. A vendor certified concentration of a specific analyte in an appropriate balance gas.

3.4 Zero Calibration Error. The analyte concentration output exhibited by the EC cell in response to zero-level calibration gas.

3.5 Up-Scale Calibration Error. The mean of the difference between the analyte concentration exhibited by the EC cell and the certified concentration of the up-scale calibration gas.

3.6 Interference Check. A procedure for quantifying analytical interference from components in the engine exhaust gas other than the targeted analytes.

3.7 Repeatability Check. A protocol for demonstrating that an EC cell operated over a given nominal analyte concentration range provides a stable and consistent response and is not significantly affected by repeated exposure to that gas.

3.8 Sample Flow Rate. The flow rate of the gas sample as it passes through the EC cell. In some situations, EC cells can experience drift with changes in flow rate. The flow rate must be monitored and documented during all phases of a sampling run.

3.9 Sampling Run. A timed three-phase event whereby an EC cell's response rises and plateaus in a sample conditioning phase, remains relatively constant during a measurement data phase, then declines during a refresh phase. The sample conditioning phase exposes the EC cell to the gas sample for a length of time sufficient to reach a constant response. The measurement data phase is the time interval during which gas sample measurements can be made that meet the acceptance criteria of this protocol. The refresh phase then purges the EC cells with CO-free air. The refresh phase replenishes requisite O_2 and moisture in the electrolyte reserve and provides a mechanism to de-gas or desorb any interference gas scrubbers or filters so as to enable a stable CO EC cell response. There are four primary types of sampling runs: pre- sampling calibrations; stack gas sampling; post-sampling calibration checks; and

measurement system repeatability checks. Stack gas sampling runs can be chained together for extended evaluations, providing all other procedural specifications are met.

3.10 Sampling Day. A time not to exceed twelve hours from the time of the pre-sampling calibration to the post-sampling calibration check. During this time, stack gas sampling runs can be repeated without repeated recalibrations, providing all other sampling specifications have been met.

3.11 Pre-Sampling Calibration/Post-Sampling Calibration Check. The protocols executed at the beginning and end of each sampling day to bracket measurement readings with controlled performance checks.

3.12 Performance-Established Configuration. The EC cell and sampling system configuration that existed at the time that it initially met the performance requirements of this protocol.

4.0 INTERFERENCES.

When present in sufficient concentrations, NO and NO_2 are two gas species that have been reported to interfere with CO concentration measurements. In the likelihood of this occurrence, it is the protocol user's responsibility to employ and properly maintain an appropriate CO EC cell filter or scrubber for removal of these gases, as described in Section 6.2.12.

5.0 SAFETY. [RESERVED]

6.0 EQUIPMENT AND SUPPLIES.

6.1 What equipment do I need for the measurement system?

The system must maintain the gas sample at conditions that will prevent moisture condensation in the sample transport lines, both before and as the sample gas contacts the EC cells. The essential components of the measurement system are described below.

6.2 Measurement System Components.

6.2.1 Sample Probe. A single extraction-point probe constructed of glass, stainless steel or other non-reactive material, and of length sufficient to reach any designated sampling point. The sample probe must be designed to prevent plugging due to condensation or particulate matter.

6.2.2 Sample Line. Non-reactive tubing to transport the effluent from the sample probe to the EC cell.

6.2.3 Calibration Assembly (optional). A three-way valve assembly or equivalent to introduce calibration gases at ambient pressure at the exit end of the sample probe during calibration checks. The assembly must be designed such that only stack gas or calibration gas flows in the sample line and all gases flow through any gas path filters.

6.2.4 Particulate Filter (optional). Filters before the inlet of the EC cell to prevent accumulation of particulate material in the measurement system and extend the useful life of the components. All filters must be fabricated of materials that are non-reactive to the gas mixtures being sampled.

6.2.5 Sample Pump. A leak-free pump to provide undiluted sample gas to the system at a flow rate sufficient to minimize the response time of the measurement system. If located upstream of the EC cells, the pump must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.8 Sample Flow Rate Monitoring. An adjustable rotameter or equivalent device used to adjust and maintain the sample flow rate through the analyzer as prescribed.

6.2.9 Sample Gas Manifold (optional). A manifold to divert a portion of the sample gas stream to the analyzer and the remainder to a by-pass discharge vent. The sample gas manifold may also include provisions for introducing calibration gases directly to the analyzer. The manifold must be constructed of a material that is non-reactive to the gas mixtures being sampled.

6.2.10 EC cell. A device containing one or more EC cells to determine the CO and O_2 concentrations in the sample gas stream. The EC cell(s) must meet the applicable performance specifications of Section 13 of this protocol.

6.2.11 Data Recorder. A strip chart recorder, computer or digital recorder to make a record of analyzer output data. The data recorder resolution (i.e., readability) must be no greater than 1 ppm for CO; 0.1 percent for O_2 ; and one degree (either °C or °F) for temperature. Alternatively, you may use a digital or analog meter having the same resolution to observe and manually record the analyzer responses.

6.2.12 Interference Gas Filter or Scrubber. A device to remove interfering compounds upstream of the CO EC cell. Specific interference gas filters or scrubbers used in the performance-established configuration of the analyzer must continue to be used. Such a filter or scrubber must have a means to determine when the removal agent is exhausted. Periodically replace or replenish it in accordance with the manufacturer's recommendations.

7.0 REAGENTS AND STANDARDS. WHAT CALIBRATION GASES ARE NEEDED?

7.1 Calibration Gases. CO calibration gases for the EC cell must be CO in nitrogen or CO in a mixture of nitrogen and O_2. Use CO calibration gases with labeled concentration values certified by the manufacturer to be within ± 5 percent of the label value. Dry ambient air (20.9 percent O_2) is acceptable for calibration of the O_2 cell. If needed, any lower percentage O_2 calibration gas must be a mixture of O_2 in nitrogen.

7.1.1 Up-Scale CO Calibration Gas Concentration. Choose one or more up-scale gas concentrations such that the average of the stack gas measurements for each stack gas sampling run are between 25 and 150 percent of those concentrations. Alternatively, choose an up-scale gas that does not exceed twice the concentration of the applicable outlet standard. If a measured gas value exceeds 150 percent of the up-scale CO calibration gas value at any time during the stack gas sampling run, the run must be discarded and repeated.

7.1.2 Up-Scale O 2 Calibration Gas Concentration.

Select an O_2 gas concentration such that the difference between the gas concentration and the average stack gas measurement or reading for each sample run is less than 15 percent O_2 . When the average exhaust gas O_2 readings are above 6 percent, you may use dry ambient air (20.9 percent O_2) for the up-scale O_2 calibration gas.

7.1.3 Zero Gas. Use an inert gas that contains less than 0.25 percent of the up-scale CO calibration gas concentration. You may use dry air that is free from ambient CO and other combustion gas products (e.g., CO_2).

8.0 SAMPLE COLLECTION AND ANALYSIS

8.1 Selection of Sampling Sites.

8.1.1 Control Device Inlet. Select a sampling site sufficiently downstream of the engine so that the combustion gases should be well mixed. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.1.2 Exhaust Gas Outlet. Select a sampling site located at least two stack diameters downstream of any disturbance (e.g., turbocharger exhaust, crossover junction or recirculation take-off) and at least one-half

stack diameter upstream of the gas discharge to the atmosphere. Use a single sampling extraction point near the center of the duct (e.g., within the 10 percent centroidal area), unless instructed otherwise.

8.2 Stack Gas Collection and Analysis. Prior to the first stack gas sampling run, conduct that the pre-sampling calibration in accordance with Section 10.1. Use Figure 1 to record all data. Zero the analyzer with zero gas. Confirm and record that the scrubber media color is correct and not exhausted. Then position the probe at the sampling point and begin the sampling run at the same flow rate used during the up-scale calibration. Record the start time. Record all EC cell output responses and the flow rate during the “sample conditioning phase” once per minute until constant readings are obtained. Then begin the “measurement data phase” and record readings every 15 seconds for at least two minutes (or eight readings), or as otherwise required to achieve two continuous minutes of data that meet the specification given in Section 13.1. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until several minute-to-minute readings of consistent value have been obtained. For each run use the “measurement data phase” readings to calculate the average stack gas CO and O_2 concentrations.

8.3 EC Cell Rate. Maintain the EC cell sample flow rate so that it does not vary by more than ± 10 percent throughout the pre-sampling calibration, stack gas sampling and post-sampling calibration check. Alternatively, the EC cell sample flow rate can be maintained within a tolerance range that does not affect the gas concentration readings by more than ± 3 percent, as instructed by the EC cell manufacturer.

9.0 Quality Control (Reserved)

10.0 Calibration and Standardization

10.1 Pre-Sampling Calibration. Conduct the following protocol once for each nominal range to be used on each EC cell before performing a stack gas sampling run on each field sampling day. Repeat the calibration if you replace an EC cell before completing all of the sampling runs. There is no prescribed order for calibration of the EC cells; however, each cell must complete the measurement data phase during calibration. Assemble the measurement system by following the manufacturer's recommended protocols including for preparing and preconditioning the EC cell. Assure the measurement system has no leaks and verify the gas scrubbing agent is not depleted. Use Figure 1 to record all data.

10.1.1 Zero Calibration. For both the O_2 and CO cells, introduce zero gas to the measurement system (e.g., at the calibration assembly) and record the concentration reading every minute until readings are constant for at least two consecutive minutes. Include the time and sample flow rate. Repeat the steps in this section at least once to verify the zero calibration for each component gas.

10.1.2 Zero Calibration Tolerance. For each zero gas introduction, the zero level output must be less than or equal to ± 3 percent of the up-scale gas value or ± 1 ppm, whichever is less restrictive, for the CO channel and less than or equal to ± 0.3 percent O_2 for the O_2 channel.

10.1.3 Up-Scale Calibration. Individually introduce each calibration gas to the measurement system (e.g., at the calibration assembly) and record the start time. Record all EC cell output responses and the flow rate during this “sample conditioning phase” once per minute until readings are constant for at least two minutes. Then begin the “measurement data phase” and record readings every 15 seconds for a total of two minutes, or as otherwise required. Finally, perform the “refresh phase” by introducing dry air, free from CO and other combustion gases, until readings are constant for at least two consecutive minutes. Then repeat the steps in this section at least once to verify the calibration for each component gas. Introduce all gases to flow through the entire sample handling system (i.e., at the exit end of the sampling probe or the calibration assembly).

10.1.4 Up-Scale Calibration Error. The mean of the difference of the “measurement data phase” readings from the reported standard gas value must be less than or equal to ± 5 percent or ± 1 ppm for CO or ± 0.5

percent O_2 , whichever is less restrictive, respectively. The maximum allowable deviation from the mean measured value of any single "measurement data phase" reading must be less than or equal to ± 2 percent or ± 1 ppm for CO or ± 0.5 percent O_2 , whichever is less restrictive, respectively.

10.2 Post-Sampling Calibration Check. Conduct a stack gas post-sampling calibration check after the stack gas sampling run or set of runs and within 12 hours of the initial calibration. Conduct up-scale and zero calibration checks using the protocol in Section 10.1. Make no changes to the sampling system or EC cell calibration until all post-sampling calibration checks have been recorded. If either the zero or up-scale calibration error exceeds the respective specification in Sections 10.1.2 and 10.1.4 then all measurement data collected since the previous successful calibrations are invalid and re-calibration and re-sampling are required. If the sampling system is disassembled or the EC cell calibration is adjusted, repeat the calibration check before conducting the next analyzer sampling run.

11.0 Analytical Procedure

The analytical procedure is fully discussed in Section 8.

12.0 Calculations and Data Analysis

Determine the CO and O_2 concentrations for each stack gas sampling run by calculating the mean gas concentrations of the data recorded during the "measurement data phase".

13.0 Protocol Performance

Use the following protocols to verify consistent analyzer performance during each field sampling day.

13.1 Measurement Data Phase Performance Check. Calculate the mean of the readings from the "measurement data phase". The maximum allowable deviation from the mean for each of the individual readings is ± 2 percent, or ± 1 ppm, whichever is less restrictive. Record the mean value and maximum deviation for each gas monitored. Data must conform to Section 10.1.4. The EC cell flow rate must conform to the specification in Section 8.3.

Example: A measurement data phase is invalid if the maximum deviation of any single reading comprising that mean is greater than ± 2 percent *or ± 1 ppm (the default criteria). For example, if the mean = 30 ppm, single readings of below 29 ppm and above 31 ppm are disallowed*).

13.2 Interference Check. Before the initial use of the EC cell and interference gas scrubber in the field, and semi-annually thereafter, challenge the interference gas scrubber with NO and NO_2 gas standards that are generally recognized as representative of diesel-fueled engine NO and NO_2 emission values. Record the responses displayed by the CO EC cell and other pertinent data on Figure 1 or a similar form.

13.2.1 Interference Response. The combined NO and NO_2 interference response should be less than or equal to ± 5 percent of the up-scale CO calibration gas concentration.

13.3 Repeatability Check. Conduct the following check once for each nominal range that is to be used on the CO EC cell within 5 days prior to each field sampling program. If a field sampling program lasts longer than 5 days, repeat this check every 5 days. Immediately repeat the check if the EC cell is replaced or if the EC cell is exposed to gas concentrations greater than 150 percent of the highest up-scale gas concentration.

13.3.1 Repeatability Check Procedure. Perform a complete EC cell sampling run (all three phases) by introducing the CO calibration gas to the measurement system and record the response. Follow Section 10.1.3. Use Figure 1 to record all data. Repeat the run three times for a total of four complete runs. During the four repeatability check runs, do not adjust the system except where necessary to achieve the correct calibration gas flow rate at the analyzer.

13.3.2 Repeatability Check Calculations. Determine the highest and lowest average "measurement data phase" CO concentrations from the four repeatability check runs and record the results on Figure 1 or a similar form. The absolute value of the difference between the maximum and minimum average values recorded must not vary more than ± 3 percent or ± 1 ppm of the up-scale gas value, whichever is less restrictive.

15.0 Waste Management (Reserved)

16.0 Alternative Procedures (Reserved)

17.0 References

(1) "Development of an Electrochemical Cell Emission Analyzer Test Protocol", Topical Report, Phil Juneau, Emission Monitoring, Inc., July 1997.

(2) "Determination of Nitrogen Oxides, Carbon Monoxide, and Oxygen Emissions from Natural Gas-Fired Engines, Boilers, and Process Heaters Using Portable Analyzers", EMC Conditional Test Protocol 30 (CTM-30), Gas Research Institute Protocol GRI-96/0008, Revision 7, October 13, 1997.

(3) "ICAC Test Protocol for Periodic Monitoring", EMC Conditional Test Protocol 34 (CTM-034), The Institute of Clean Air Companies, September 8, 1999.

(4) "Code of Federal Regulations", Protection of Environment, 40 CFR, Part 60, Appendix A, Methods 1-4; 10.

TABLE 1: APPENDIX A—SAMPLING RUN DATA.

Facility_____ Engine I.D._____ Date_____				
Run Type:	(_)	(_)	(_)	(_)
(X)	Pre-Sample Calibration	Stack Gas Sample	Post-Sample Cal. Check	Repeatability Check

Run #	1	1	2	2	3	3	4	4	Time	Scrub. OK	Flow- Rate
Gas	O_2	CO	O_2	CO	O_2	CO	O_2	CO			
Sample Cond. Phase											
"											
"											
"											
"											
Measurement Data Phase											
"											
"											
"											
"											
"											
"											
"											
"											
"											
"											
Mean											
Refresh Phase											
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[78 FR 6721, Jan. 30, 2013]

Attachment B

Title 40: Protection of Environment

PART 63—NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES (CONTINUED)

Subpart ZZZZZZ—National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries

Source: 74 FR 30393, June 25, 2009, unless otherwise noted.

Applicability and Compliance Dates

§ 63.11544 Am I subject to this subpart?

(a) You are subject to this subpart if you own or operate an aluminum foundry, copper foundry, or other nonferrous foundry as defined in §63.11556, “What definitions apply to this subpart?” that is an area source of hazardous air pollutant (HAP) emissions as defined in §63.2 and meets the criteria specified in paragraphs (a)(1) through (4) of this section. Once you are subject to this subpart, you must remain subject to this subpart even if you subsequently do not meet the criteria in paragraphs (a)(1) through (4) of this section.

(1) Your aluminum foundry uses material containing aluminum foundry HAP, as defined in §63.11556, “What definitions apply to this subpart?”; or

(2) Your copper foundry uses material containing copper foundry HAP, as defined in §63.11556, “What definitions apply to this subpart?”; or

(3) Your other nonferrous foundry uses material containing other nonferrous foundry HAP, as defined in §63.11556, “What definitions apply to this subpart?”.

(4) Your aluminum foundry, copper foundry, or other nonferrous foundry has an annual metal melt production (for existing affected sources) or an annual metal melt capacity (for new affected sources) of at least 600 tons per year (tpy) of aluminum, copper, and other nonferrous metals, including all associated alloys. You must determine the annual metal melt production and capacity for the time period as described in paragraphs (a)(4)(i) through (iv) of this section. The quantity of ferrous metals melted in iron or steel melting operations and the quantity of nonferrous metal melted in non-foundry melting operations are not included in determining the annual metal melt production for existing affected sources or the annual metal melt capacity for new affected sources.

(i) If you own or operate a melting operation at an aluminum, copper or other nonferrous foundry as of February 9, 2009, you must determine if you are subject to this rule based on your facility's annual metal melt production for calendar year 2010.

(ii) If you construct or reconstruct a melting operation at an aluminum, copper or other nonferrous foundry after February 9, 2009, you must determine if you are subject to this rule based on your facility's annual metal melt capacity at startup.

(iii) If your foundry with an existing melting operation increases production after calendar year 2010 such that the annual metal melt production equals or exceeds 600 tpy, you must submit a written notification of

applicability to the Administrator within 30 days after the end of the calendar year and comply within 2 years after the date of the notification.

(iv) If your foundry with a new melting operation increases capacity after startup such that the annual metal melt capacity equals or exceeds 600 tpy, you must submit a written notification of applicability to the Administrator within 30 days after the capacity increase year and comply at the time of the capacity increase.

(b) This subpart applies to each new or existing affected source located at an aluminum, copper or other nonferrous foundry that is an area source as defined by §63.2. The affected source is the collection of all melting operations located at an aluminum, copper, or other nonferrous foundry.

(c) An affected source is an existing source if you commenced construction or reconstruction of the affected source on or before February 9, 2009.

(d) An affected source is a new source if you commenced construction or reconstruction of the affected source after February 9, 2009.

(e) This subpart does not apply to research or laboratory facilities, as defined in section 112(c)(7) of the Clean Air Act.

(f) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise 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.

[74 FR 30393, June 25, 2009, as amended at 74 FR 46495, Sept. 10, 2009]

§ 63.11545 What are my compliance dates?

(a) If you own or operate an existing affected source, you must achieve compliance with the applicable provisions of this subpart no later than June 27, 2011.

(b) If you start up a new affected source on or before June 25, 2009, you must achieve compliance with the provisions of this subpart no later than June 25, 2009.

(c) If you start up a new affected source after June 25, 2009, you must achieve compliance with the provisions of this subpart upon startup of your affected source.

Standards and Compliance Requirements

§ 63.11550 What are my standards and management practices?

(a) If you own or operate new or existing affected sources at an aluminum foundry, copper foundry, or other nonferrous foundry that is subject to this subpart, you must comply with the requirements in paragraphs (a)(1) through (3) of this section.

(1) Cover or enclose each melting furnace that is equipped with a cover or enclosure during the melting operation to the extent practicable (e.g., except when access is needed; including, but not limited to charging, alloy addition, and tapping).

(2) Purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundry HAP (as applicable) in the materials charged to the melting furnace, except metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting. This requirement does not apply to material that is not scrap (e.g., ingots, alloys, sows) or to materials that are not purchased (e.g., internal scrap, customer returns).

(3) Prepare and operate pursuant to a written management practices plan. The management practices plan must include the required management practices in paragraphs (a)(1) and (2) of this section and may include any other management practices that are implemented at the facility to minimize emissions from melting furnaces. You must inform your appropriate employees of the management practices that they must follow. You may use your standard operating procedures as the management practices plan provided the standard operating procedures include the required management practices in paragraphs (a)(1) and (2) of this section.

(b) If you own or operate a new or existing affected source that is located at a large foundry as defined in §63.11556, you must comply with the additional requirements in paragraphs (b)(1) and (2) of this section.

(1) For existing affected sources located at a large foundry, you must achieve a particulate matter (PM) control efficiency of at least 95.0 percent or emit no more than an outlet PM concentration limit of 0.034 grams per dry standard cubic meter (g/dscm) (0.015 grains per dry standard cubic feet (gr/dscf)).

(2) For new affected sources located at a large foundry, you must achieve a PM control efficiency of at least 99.0 percent or emit no more than an outlet PM concentration limit of at most 0.023 g/dscm (0.010 gr/dscf).

(c) If you own or operate an affected source at a small foundry that subsequently becomes a large foundry after the applicable compliance date, you must meet the requirements in paragraphs (c)(1) through (3) of this section.

(1) You must notify the Administrator within 30 days after the capacity increase or the production increase, whichever is appropriate;

(2) You must modify any applicable permit limits within 30 days after the capacity increase or the production increase to reflect the current production or capacity, if not done so prior to the increase;

(3) You must comply with the PM control requirements in paragraph (b) of this section no later than 2 years from the date of issuance of the permit for the capacity increase or production increase, or in the case of no permit issuance, the date of the increase in capacity or production, whichever occurs first.

(d) These standards apply at all times.

§ 63.11551 What are my initial compliance requirements?

(a) Except as specified in paragraph (b) of this section, you must conduct a performance test for existing and new sources at a large copper or other nonferrous foundry that is subject to §63.11550(b). You must conduct the test within 180 days of your compliance date and report the results in your Notification of Compliance Status according to §63.9(h).

(b) If you own or operate an existing affected source at a large copper or other nonferrous foundry that is subject to §63.11550(b), you are not required to conduct a performance test if a prior performance test was conducted within the past 5 years of the compliance date using the same methods specified in paragraph (c) of this section and you meet either of the following two conditions:

(1) No process changes have been made since the test; or

(2) You demonstrate to the satisfaction of the permitting authority that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process changes.

(c) You must conduct each performance test according to the requirements in §63.7 and the requirements in paragraphs (c)(1) and (2) of this section.

(1) You must determine the concentration of PM (for the concentration standard) or the mass rate of PM in pounds per hour at the inlet and outlet of the control device (for the percent reduction standard) according to the following test methods:

(i) Method 1 or 1A (40 CFR part 60, appendix A–1) to select sampling port locations and the number of traverse points in each stack or duct. If you are complying with the concentration provision in §63.11550(b), sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere. If you are complying with the percent reduction provision in §63.11550(b), sampling sites must be located at the inlet and outlet of the control device and prior to any releases to the atmosphere.

(ii) Method 2, 2A, 2C, 2D, 2F (40 CFR part 60, appendix A–1), or Method 2G (40 CFR part 60, appendix A–2) to determine the volumetric flow rate of the stack gas.

(iii) Method 3, 3A, or 3B (40 CFR part 60, appendix A–2) to determine the dry molecular weight of the stack gas. You may use ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses” (incorporated by reference—see §63.14) as an alternative to EPA Method 3B.

(iv) Method 4 (40 CFR part 60, appendix A–3) to determine the moisture content of the stack gas.

(v) Method 5 or 5D (40 CFR part 60, appendix A–3) or Method 17 (40 CFR part 60, appendix A–6) to determine the concentration of PM or mass rate of PM (front half filterable catch only). If you choose to comply with the percent reduction PM standard, you must determine the mass rate of PM at the inlet and outlet in pounds per hour and calculate the percent reduction in PM.

(2) Three valid test runs are needed to comprise a performance test. Each run must cover at least one production cycle (charging, melting, and tapping).

(3) For a source with a single control device exhausted through multiple stacks, you must ensure that three runs are performed by a representative sampling of the stacks satisfactory to the Administrator or his or her delegated representative. You must provide data or an adequate explanation why the stack(s) chosen for testing are representative.

§ 63.11552 What are my monitoring requirements?

(a) You must record the information specified in §63.11553(c)(2) to document conformance with the management practices plan required in §63.11550(a).

(b) Except as specified in paragraph (b)(3) of this section, if you own or operate an existing affected source at a large foundry, you must conduct visible emissions monitoring according to the requirements in paragraphs (b)(1) and (2) of this section.

(1) You must conduct visual monitoring of the fabric filter discharge point(s) (outlets) for any VE according to the schedule specified in paragraphs (b)(1)(i) and (ii) of this section.

(i) You must perform a visual determination of emissions once per day, on each day the process is in operation, during melting operations.

(ii) If no VE are detected in consecutive daily visual monitoring performed in accordance with paragraph (b)(1)(i) of this section for 30 consecutive days or more of operation of the process, you may decrease the frequency of visual monitoring to once per calendar week of time the process is in operation, during melting operations. If VE are detected during these inspections, you must resume daily visual monitoring of that operation during each day that the process is in operation, in accordance with paragraph (b)(1)(i) of this section until you satisfy the criteria of this section to resume conducting weekly visual monitoring.

(2) If the visual monitoring reveals the presence of any VE, you must initiate procedures to determine the cause of the emissions within 1 hour of the initial observation and alleviate the cause of the emissions within 3 hours of initial observation by taking whatever corrective action(s) are necessary. You may take more than 3 hours to alleviate a specific condition that causes VE if you identify in the monitoring plan this specific condition as one that could lead to VE in advance, you adequately explain why it is not feasible to alleviate this condition within 3 hours of the time the VE occurs, and you demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) As an alternative to the monitoring requirements for an existing affected source in paragraphs (b)(1) and (2) of this section, you may install, operate, and maintain a bag leak detection system for each fabric filter according to the requirements in paragraph (c) of this section.

(c) If you own or operate a new affected source located at a large foundry subject to the PM requirements in §63.11550(b)(2) that is equipped with a fabric filter, you must install, operate, and maintain a bag leak detection system for each fabric filter according to paragraphs (c)(1) through (4) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (c)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per actual cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. You must continuously record the output from the bag leak detection system using electronic or other means (e.g., using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (c)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, you must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, you must not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority, except as provided in paragraph (c)(1)(vi) of this section.

(vi) Once per quarter, you may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (c)(2) of this section.

(vii) You must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) You must prepare a site-specific monitoring plan for each bag leak detection system. You must operate and maintain each bag leak detection system according to the plan at all times. Each monitoring plan must describe the items in paragraphs (c)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point and alarm delay time will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (c)(3) of this section.

(3) Except as provided in paragraph (c)(4) of this section, you must initiate procedures to determine the cause of every alarm from a bag leak detection system within 1 hour of the alarm and alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to, the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

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

(iv) Sealing off a defective fabric filter compartment;

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

(4) You may take more than 3 hours to alleviate a specific condition that causes an alarm if you identify in the monitoring plan this specific condition as one that could lead to an alarm, adequately explain why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrate that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(d) If you use a control device other than a fabric filter for new or existing affected sources subject to §63.11550(b), you must submit a request to use an alternative monitoring procedure as required in §63.8(f)(4).

§ 63.11553 What are my notification, reporting, and recordkeeping requirements?

(a) You must submit the Initial Notification required by §63.9(b)(2) no later than 120 calendar days after June 25, 2009 or within 120 days after the source becomes subject to the standard. The Initial Notification must include the information specified in paragraphs (a)(1) through (3) of this section and may be combined with the Notification of Compliance Status required in paragraph (b) of this section.

(1) The name and address of the owner or operator;

(2) The address (i.e., physical location) of the affected source; and

(3) An identification of the relevant standard, or other requirement, that is the basis of the notification and source's compliance date.

(b) You must submit the Notification of Compliance Status required by §63.9(h) no later than 120 days after the applicable compliance date specified in §63.11545 unless you must conduct a performance test. If you must conduct a performance test, you must submit the Notification of Compliance Status within 60 days of completing the performance test. Your Notification of Compliance Status must indicate if you are a small or large foundry as defined in §63.11556, the production amounts as the basis for the determination, and if you are a large foundry, whether you elect to comply with the control efficiency requirement or PM concentration limit in §63.11550(b). In addition to the information required in §63.9(h)(2) and §63.11551, your notification must include the following certification(s) of compliance, as applicable, and signed by a responsible official:

(1) “This facility will operate in a manner that minimizes HAP emissions from the melting operations to the extent possible. This includes at a minimum that the owners and/or operators of the affected source will cover or enclose each melting furnace that is equipped with a cover or enclosure during melting operations to the extent practicable as required in 63.11550(a)(1).”

(2) “This facility agrees to purchase only metal scrap that has been depleted (to the extent practicable) of aluminum foundry HAP, copper foundry HAP, or other nonferrous foundries HAP (as applicable) in the materials charged to the melting furnace, except for metal scrap that is purchased specifically for its HAP metal content for use in alloying or to meet specifications for the casting as required by 63.11550(a)(2).”

(3) “This facility has prepared and will operate by a written management practices plan according to §63.11550(a)(3).”

(4) If the owner or operator of an existing affected source at a large foundry is certifying compliance based on the results of a previous performance test: “This facility complies with §63.11550(b) based on a previous performance test in accordance with §63.11551(b).”

(5) This certification of compliance is required by the owner or operator that installs bag leak detection systems: “This facility has installed a bag leak detection system in accordance with §63.11552(b)(3) or (c), has prepared a bag leak detection system monitoring plan in accordance with §63.11552(c), and will operate each bag leak detection system according to the plan.”

(c) You must keep the records specified in paragraphs (c)(1) through (5) of this section.

(1) As required in §63.10(b)(2)(xiv), you must keep a copy of each notification that you submitted to comply with this subpart and all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted.

(2) You must keep records to document conformance with the management practices plan required by §63.11550 as specified in paragraphs (c)(2)(i) and (ii) of this section.

(i) For melting furnaces equipped with a cover or enclosure, records must identify each melting furnace equipped with a cover or enclosure and document that the procedures in the management practices plan were followed during the monthly inspections. These records may be in the form of a checklist.

(ii) Records documenting that you purchased only metal scrap that has been depleted of HAP metals (to the extent practicable) charged to the melting furnace. If you purchase scrap metal specifically for the HAP metal content for use in alloying or to meet specifications for the casting, you must keep records to document that the HAP metal is included in the material specifications for the cast metal product.

(3) You must keep the records of all performance tests, inspections and monitoring data required by §§63.11551 and 63.11552, and the information identified in paragraphs (c)(3)(i) through (vi) of this section for each required inspection or monitoring.

(i) The date, place, and time of the monitoring event;

(ii) Person conducting the monitoring;

(iii) Technique or method used;

(iv) Operating conditions during the activity;

(v) Results, including the date, time, and duration of the period from the time the monitoring indicated a problem (e.g., VE) to the time that monitoring indicated proper operation; and

(vi) Maintenance or corrective action taken (if applicable).

(4) If you own or operate a new or existing affected source at a small foundry that is not subject to §63.11550(b), you must maintain records to document that your facility melts less than 6,000 tpy total of copper, other nonferrous metal, and all associated alloys (excluding aluminum) in each calendar year.

(5) If you use a bag leak detection system, you must keep the records specified in paragraphs (c)(5)(i) through (iii) of this section.

(i) Records of the bag leak detection system output.

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings.

(iii) The date and time of all bag leak detection system alarms, and for each valid alarm, the time you initiated corrective action, the corrective action taken, and the date on which corrective action was completed.

(d) Your records must be in a form suitable and readily available for expeditious review, according to §63.10(b)(1). As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each recorded action. For records of annual metal melt production, you must keep the records for 5 years from the end of the calendar year. You must keep each record onsite for at least 2 years after the date of each recorded action according to §63.10(b)(1). You may keep the records offsite for the remaining 3 years.

(e) If a deviation occurs during a semiannual reporting period, you must submit a compliance report to your permitting authority according to the requirements in paragraphs (e)(1) and (2) of this section.

(1) The first reporting period covers the period beginning on the compliance date specified in §63.11545 and ending on June 30 or December 31, whichever date comes first after your compliance date. Each subsequent reporting period covers the semiannual period from January 1 through June 30 or from July 1 through December 31. Your compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date comes first after the end of the semiannual reporting period.

(2) A compliance report must include the information in paragraphs (e)(2)(i) through (iv) of this section.

(i) Company name and address.

(ii) Statement by a responsible official, with the official's name, title, and signature, certifying the truth, accuracy and completeness of the content of the report.

(iii) Date of the report and beginning and ending dates of the reporting period.

(iv) Identification of the affected source, the pollutant being monitored, applicable requirement, description of deviation, and corrective action taken.

[74 FR 30393, June 25, 2009, as amended at 74 FR 46495, Sept. 10, 2009]

Other Requirements and Information

§ 63.11555 What General Provisions apply to this subpart?

Table 1 to this subpart shows which parts of the General Provisions in §§63.1 through 63.16 apply to you.

§ 63.11556 What definitions apply to this subpart?

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

Aluminum foundry means a facility that melts aluminum and pours molten aluminum into molds to manufacture aluminum castings (except die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten aluminum to produce simple shapes such as sows, ingots, bars, rods, or billets.

Aluminum foundry HAP means any compound of the following metals: beryllium, cadmium, lead, manganese, or nickel, or any of these metals in the elemental form.

Annual copper and other nonferrous foundry metal melt capacity means, for new affected sources, the lower of the copper and other nonferrous metal melting operation capacity, assuming 8,760 operating hours per year or, if applicable, the maximum permitted copper and other nonferrous metal melting operation production rate for the melting operation calculated on an annual basis. Unless otherwise specified in the permit, permitted copper and other nonferrous metal melting operation rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the melting operation(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted copper and other nonferrous metal melt production rate. The annual copper and other nonferrous metal melt capacity does not include the melt capacity for ferrous metal melted in iron or steel foundry melting operations that are co-located with copper or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Annual copper and other nonferrous foundry metal melt production means, for existing affected sources, the quantity of copper and other nonferrous metal melted in melting operations at the foundry in a given

calendar year. For the purposes of this subpart, metal melt production is determined on the basis of the quantity of metal charged to the melting operations. The annual copper and nonferrous metal melt production does not include the melt production of ferrous metal melted in iron or steel foundry melting operations that are co-located with copper and other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Annual metal melt capacity, for new affected sources, means the lower of the aluminum, copper, and other nonferrous metal melting operation capacity, assuming 8,760 operating hours per year or, if applicable, the maximum permitted aluminum, copper, and other nonferrous metal melting operation production rate for the melting operation calculated on an annual basis. Unless otherwise specified in the permit, permitted aluminum, copper, and other nonferrous metal melting operation rates that are not specified on an annual basis must be annualized assuming 24 hours per day, 365 days per year of operation. If the permit limits the operating hours of the melting operation(s) or foundry, then the permitted operating hours are used to annualize the maximum permitted aluminum, copper, and other nonferrous metal melt production rate. The annual metal melt capacity does not include the melt capacity for ferrous metal melted in iron or steel foundry melting operations that are co-located with aluminum, copper, or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Annual metal melt production means, for existing affected sources, the quantity of aluminum, copper, and other nonferrous metal melted in melting operations at the foundry in a given calendar year. For the purposes of this subpart, annual metal melt production is determined on the basis of the quantity of metal charged to the melting operations. The annual metal melt production does not include the melt production of ferrous metal melted in iron or steel foundry melting operations that are co-located with aluminum, copper, or other nonferrous melting operations or the nonferrous metal melted in non-foundry melting operations.

Bag leak detection system means a system that is capable of continuously monitoring relative PM (*i.e.,* dust) loadings in the exhaust of a baghouse to detect bag leaks and other upset conditions. A bag leak detection system includes, but is not limited to, an instrument that operates on triboelectric, light scattering, light transmittance, or other effect to continuously monitor relative PM loadings.

Copper foundry means a foundry that melts copper or copper-based alloys and pours molten copper or copper-based alloys into molds to manufacture copper or copper-based alloy castings (excluding die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten copper to produce simple shapes such as sows, ingots, billets, bars, anode copper, rods, or copper cake.

Copper foundry HAP means any compound of any of the following metals: lead, manganese, or nickel, or any of these metals in the elemental form.

Deviation means any instance where 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 emissions limitation or work practice standard;

(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 emissions limitation in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

Die casting means operations classified under the North American Industry Classification System codes 331521 (Aluminum Die-Casting Foundries) and 331522 (Nonferrous (except Aluminum) Die-Casting Foundries) and comprises establishments primarily engaged in introducing molten aluminum, copper, and other nonferrous metal, under high pressure, into molds or dies to make die-castings.

Large foundry means, for an existing affected source, a copper or other nonferrous foundry with an annual metal melt production of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater. For a new affected source, *large foundry* means a copper or other nonferrous foundry with an annual metal melt capacity of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of 6,000 tons or greater.

Material containing aluminum foundry HAP means a material containing one or more aluminum foundry HAP. Any material that contains beryllium, cadmium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing aluminum foundry HAP.

Material containing copper foundry HAP means a material containing one or more copper foundry HAP. Any material that contains lead or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), or contains manganese in amounts greater than or equal to 1.0 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing copper foundry HAP.

Material containing other nonferrous foundry HAP means a material containing one or more other nonferrous foundry HAP. Any material that contains chromium, lead, or nickel in amounts greater than or equal to 0.1 percent by weight (as the metal), as shown in formulation data provided by the manufacturer or supplier, such as the Material Safety Data Sheet for the material, is considered to be a material containing other nonferrous foundry HAP.

Melting operations (the affected source) means the collection of furnaces (*e.g.,* induction, reverberatory, crucible, tower, dry hearth) used to melt metal ingot, alloyed ingot and/or metal scrap to produce molten metal that is poured into molds to make castings. Melting operations dedicated to melting ferrous metal at an iron and steel foundry are not included in this definition and are not part of the affected source.

Other nonferrous foundry means a facility that melts nonferrous metals other than aluminum, copper, or copper-based alloys and pours the nonferrous metals into molds to manufacture nonferrous metal castings (excluding die casting) that are complex shapes. For purposes of this subpart, this definition does not include primary or secondary metal producers that cast molten nonferrous metals to produce simple shapes such as sows, ingots, bars, rods, or billets.

Other nonferrous foundry HAP means any compound of the following metals: chromium, lead, and nickel, or any of these metals in the elemental form.

Small foundry means, for an existing affected source, a copper or other nonferrous foundry with an annual metal melt production of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of less than 6,000 tons. For a new affected source, *small foundry* means a copper or other nonferrous foundry with an annual metal melt capacity of copper, other nonferrous metals, and all associated alloys (excluding aluminum) of less than 6,000 tons.

§ 63.11557 Who implements and enforces this subpart?

(a) This subpart can be 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 has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if 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 listed in paragraphs (c)(1) through (4) of this section.

(1) Approval of alternatives to the applicability requirements in §63.11544, the compliance date requirements in §63.11545, and the applicable standards in §63.11550.

(2) Approval of an alternative nonopacity emissions standard under §63.6(g).

(3) Approval of a major change to a test method under §63.7(e)(2)(ii) and (f). A “major change to test method” is defined in §63.90(a).

(4) Approval of a major change to monitoring under §63.8(f). A “major change to monitoring” is defined in §63.90(a).

(5) Approval of a waiver of recordkeeping or reporting requirements under §63.10(f), or another major change to recordkeeping/reporting. A “major change to recordkeeping/reporting” is defined in §63.90(a).

§ 63.11558 [Reserved]

Table 1 to Subpart ZZZZZZ of Part 63—Applicability of General Provisions to Aluminum, Copper, and Other Nonferrous Foundries Area Sources

As required in §63.11555, “What General Provisions apply to this subpart?,” you must comply with each requirement in the following table that applies to you.

Citation	Subject	Applies to subpart ZZZZZZ?	Explanation
§63.1(a)(1), (a)(2), (a)(3), (a)(4), (a)(6), (a)(10)–(a)(12), (b)(1), (b)(3), (c)(1), (c)(2), (c)(5), (e)	Applicability	Yes	§63.11544(f) exempts affected sources from the obligation to obtain a title V operating permit.
§63.1(a)(5), (a)(7)–(a)(9), (b)(2), (c)(3), (c)(4), (d)	Reserved	No	
§63.2	Definitions	Yes	
§63.3	Units and Abbreviations	Yes	
§63.4	Prohibited Activities and Circumvention	Yes	

Citation	Subject	Applies to subpart ZZZZZZ?	Explanation
§63.5	Preconstruction Review and Notification Requirements	Yes	
§63.6(a), (b)(1)–(b)(5), (b)(7), (c)(1), (c)(2), (c)(5), (e)(1), (e)(3)(i), (e)(3)(iii)–(e)(3)(ix), (f)(2), (f)(3), (g), (i), (j)	Compliance with Standards and Maintenance Requirements	Yes	
§63.6(f)(1)	Compliance with Nonopacity Emission Standards	No	Subpart ZZZZZZ requires continuous compliance with all requirements in this subpart.
§63.6(h)(1), (h)(2), (h)(5)–(h)(9)	Compliance with Opacity and Visible Emission Limits	No	Subpart ZZZZZZ does not contain opacity or visible emission limits.
§63.6(b)(6), (c)(3), (c)(4), (d), (e)(2), (e)(3)(ii), (h)(3), (h)(5)(iv)	Reserved	No	
§63.7	Applicability and Performance Test Dates	Yes	
§63.8(a)(1), (b)(1), (f)(1)–(5), (g)	Monitoring Requirements	Yes	
§63.8(a)(2), (a)(4), (b)(2)–(3), (c), (d), (e), (f)(6), (g)	Continuous Monitoring Systems	No	Subpart ZZZZZZ does not require a flare or CPMS, COMS or CEMS.
§63.8(a)(3)	[Reserved]	No	
§63.9(a), (b)(1), (b)(2)(i)–(iii), (b)(5), (c), (d), (e), (h)(1)–(h)(3), (h)(5), (h)(6), (j)	Notification Requirements	Yes	Subpart ZZZZZZ requires submission of Notification of Compliance Status within 120 days of compliance date unless a performance test is required.
§63.9(b)(2)(iv)–(v), (b)(4), (f), (g), (i)	No		
§63.9(b)(3), (h)(4)	Reserved	No	
§63.10(a), (b)(1), (b)(2)(i)–(v), (vii), (vii)(C), (viii), (ix), (b)(3), (d)(1)–(2), (d)(4), (d)(5), (f)	Recordkeeping and Reporting Requirements	Yes	

Citation	Subject	Applies to subpart ZZZZZZ?	Explanation
§63.10(b)(2)(vi), (b)(2)(vii)(A)–(B), (c), (d)(3), (e)	No	Subpart ZZZZZZ does not require a CPMS, COMS, CEMS, or opacity or visible emissions limit.	
§63.10(c)(2)–(c)(4), (c)(9)	Reserved	No	
§63.11	Control Device Requirements	No	
§63.12	State Authority and Delegations	Yes	
§§63.13–63.16	Addresses, Incorporations by Reference, Availability of Information, Performance Track Provisions	Yes	

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Significant Permit Modification

Source Description and Location

Source Name:	Diversified Machine Bristol, Inc.
Source Location:	51650 County Road 133, Bristol, IN 46507
County:	Elkhart
SIC Code:	3714 (Motor Vehicle Parts and Accessories)
Operation Permit Renewal No.:	T039-29816-00191
Operation Permit Issuance Date:	November 2, 2011
Significant Source Modification No.:	039-34030-00191
Significant Permit Modification No.:	039-34082-00191
Permit Reviewer:	Heath Hartley

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T039-29816-00191 on November 2, 2011. There have been no subsequent approvals issued.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Unclassifiable or attainment effective July 20, 2012, for the 2008 8-hour ozone standard.[1]
$PM_{2.5}$	Unclassifiable or attainment effective April 5, 2005, for the annual PM2.5 standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour PM2.5 standard.
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.

[1]Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.

(a) Ozone Standards

Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Elkhart 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) $PM_{2.5}$

Elkhart 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. On May 4, 2011, the air pollution control board issued an emergency rule establishing the direct $PM_{2.5}$ significant level at ten (10) tons per year. This rule became effective June 28, 2011. Therefore, direct $PM_{2.5}$, SO_2, and NOx

emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

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

Fugitive Emissions

Since this source is classified as a secondary metal production plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are 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:

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Modification (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
020: Reverberatory Furnace C (melting) 021: Reverberatory Furnace D (melting)	98.90	97.32	97.32	47.35	39.98	10.52	--	--	5.75	2.73 (HCl)
022: Reverberatory Furnace E (melting)	24.24	12.59	12.59	8.42	7.11	1.87	--	--	5.60	2.73 (HCl)
023: Reverberatory Furnace F (melting) 024: Reverberatory Furnace G (melting)	24.60	14.33	14.33	9.59	8.09	2.13	--	--	5.60	2.73 (HCl)
020: Reverberatory Furnace C (NG combustion)	0.14	0.55	0.55	0.04	7.21	0.40	6.06	8,675	0.14	0.13 (hexane)
021: Reverberatory Furnace D (NG combustion)	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18 (hexane)
022: Reverberatory Furnace E (NG combustion) NG Combustion for 040A-D, 045A-C, 050	0.42	1.67	1.67	0.13	21.99	1.21	18.48	26,454	0.42	0.40 (hexane)
023: Reverberatory Furnace F (NG combustion)	0.10	0.39	0.39	0.03	5.15	0.28	4.33	6,196	0.10	0.09 (hexane)
024: Reverberatory Furnace G (NG combustion)	0.05	0.20	0.20	0.02	2.58	0.14	2.16	3,098	0.05	0.05 (hexane)
101: Semi-Permanent Molding Operation	57.82	84.53	84.53	0.22	0.11	24.90	--	--	4.03	HAP breakdown not reported***
200: Sand Silo #5	19.97	0.43	0.43	--	--	--	--	--	--	--
210: Core Making Operation	1.66	0.04	0.04	--	--	3.83	--	--	--	--
350: Mold Blasting Room	24.88	14.89	232.32	--	--	--	--	--	--	--

Process/ Emission Unit	Potential To Emit of the Entire Source Prior to Modification (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Insignificant Activities										
Other Natural Gas Combustion	1.33	5.34	5.34	0.42	70.22	3.86	59.01	84,475	1.33	1.26 (hexane)
Propane Combustion	8.0E-4	2.8E-3	2.8E-3	6.0E-3	0.05	3.2E-3	0.03	51	negl.	negl.
Emergency Generator	4.9E-4	6.2E-4	6.2E-4	2.6E-4	0.03	2.6E-3	0.01	2	1.0E-3	7.1E-4 (formaldehyde)
Degreasing Operations	--	--	--	--	--	5.88	--	--	--	--
Welding/Brazing/Soldering/Cutting	6.22	6.22	6.22	--	--	--	--	not estimated	0.12	0.08 (Mn)
Blasting	7.45	0.74	7.45	--	--	--	--	--	--	--
Paved and Unpaved Roads	1.08	0.22	0.05	--	--	--	--	--	--	--
Other	5	5	5	--	--	3	--	--	--	--
Total PTE of Entire Source	**274.0**	**245.2**	**469.2**	**66.3**	**172.3**	**58.6**	**98.3**	**140,724**	**23.32**	**8.20 (HCl)**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000 CO_2e	NA	NA

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
***Single HAP emissions were not reported for the Semi-Permanent Molding Operation. The total HAP emissions from this process were estimated at 4.03 ton/year. It is assumed that these emissions are not the highest HAPs of HCl, Cl, or HF emissions, which come from fluxing operations. The next worst HAP would be hexane. Even if all the HAP from the Semi-Permanent Molding Operation was hexane, the total hexane PTE would still be less than ten (10) tons per year, and therefore the source would still be considered an area source.

(a) This existing source is a major stationary source, under PSD (326 IAC 2-2), because a regulated pollutant is emitted at a rate of 100 tons per year or more, emissions of GHGs are equal to or greater than one hundred thousand (100,000) tons of CO_2 equivalent emissions (CO_2e) per year and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(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 Part 70 Operating Permit Renewal No. T039-29816-00191.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed a modification application, submitted by Diversified Machine Bristol, Inc. on December 23, 2013, relating to the addition of a Semi-permanent molding operation (Unit 101A) and Reverberatory Furnace H (Unit 025). The following is a list of the proposed emission units:

(a) One (1) melting and combustion operation, identified as Unit 025, approved for construction in 2014, consisting of one (1) reverberatory furnace H processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 40 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 025). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an affected source.

(b) One (1) stationary and prototype semi-permanent molding operation, identified as Unit 101A, approved for construction in 2014, processing aluminum at a maximum rate of 2.0 tons per hour, and exhausting indoors to general plant ventilation.

Enforcement Issues

There are no pending enforcement actions related to this modification.

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.

Process/ Emission Unit	Increase in PTE Before Controls of the Modification (tons/year)									
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
025: Reverberatory Furnace H (melting)	10.81	10.81	10.81	23.65	19.97	5.26	0	0	6.04	3.63 (HF)
025: Reverberatory Furnace H (NG combustion)	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18 (hexane)
101A: Semi-Permanent Molding Operation	3.77	3.77	3.77	0.18	0.09	12.79	0	0	3.22	HAP breakdown not reported
Total for Modification	**14.8**	**15.3**	**15.3**	**23.9**	**29.8**	**18.6**	**8.2**	**11,773**	**9.45**	**3.63 (HF)**

*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

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

This source modification is subject to 326 IAC 2-7-10.5(g)(4) since the potential to emit of NOx is greater than 25 tons per year. 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 there is a case-by-case determination of an emission limit.

Permit Level Determination – 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 source/permit modification, and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/ Emission Unit	Potential To Emit of 2014 Modification After Issuance (tons/year)								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	GHGs	Lead
025: Reverberatory Furnace H (melting)	5.14	5.14	5.14	11.29	9.53	2.51	0	0	0.0013 (Lead)
025: Reverberatory Furnace H (NG combustion)	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	negl. (Lead)
101A: Semi-Permanent Molding Operation	3.77	3.77	3.77	0.18	0.09	12.79	0	0	HAP breakdown not reported
Total for Modification	**9.1**	**9.7**	**9.7**	**11.5**	**19.4**	**15.8**	**8.2**	**11,773**	**0.0013 (Lead)**
PSD Significant Level	25	15	10	40	40	40	100	75,000 CO_2e	0.6

negl. = negligible
*Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.

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 fifteen (15) tons of PM_{10} per year and ten (10) tons of $PM_{2.5}$ per year, this source has elected to limit the potential to emit of this modification.

(a) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for the units installed in 2014, the Permittee shall comply with the following:

(1) The throughput of metal to reverberatory furnace H (unit 025) shall be less than 25,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The throughput of solid flux to reverberatory furnace H (unit 025) shall be less than 83.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

(3) PM_{10} emissions from melting in reverberatory furnace H (unit 025) shall be less than 0.41 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

(4) $PM_{2.5}$ emissions from melting in reverberatory furnace H (unit 025) shall be less than 0.41 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

Compliance with these limits shall limit the potential to emit of PM, PM_{10} and $PM_{2.5}$ from the 2014 modification to less than twenty-five (25), fifteen (15) and ten (10) tons per twelve (12)

consecutive month period, respectively, and render 326 IAC 2-2 not applicable for the 2014 modification.

PTE of the Entire Source After Issuance of Modification

The table below summarizes the potential to emit of the entire source, with updated emissions shown as **bold** values and previous emissions shown as ~~strikethrough~~ values.

Note: The PTE of HAPs for Furnace Units 20, 21, 22, 23 and 24 have been revised based on emission factors obtained from a June 27, 2006, stack test, with a safety factor of 1.8 applied. See Appendix A of this TSD for detailed calculations.

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Modification (tons/year)									
	PM	PM_{10}(1)	$PM_{2.5}$(2)	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
020: Reverberatory Furnace C (melting) (4) 021: Reverberatory Furnace D (melting) (4)	98.90	97.32	97.32	47.35	39.98	10.52	--	--	~~5.75~~ **3.36**	~~2.73 (HCl)~~ **1.90 (HF)**
022: Reverberatory Furnace E (melting) (4)	24.24	12.59	12.59	8.42	7.11	1.87	--	--	~~5.60~~ **3.21**	~~2.73 (HCl)~~ **1.90 (HF)**
023: Reverberatory Furnace F (melting) (4) 024: Reverberatory Furnace G (melting) (4)	24.60	14.33	14.33	9.59	8.09	2.13	--	--	~~5.60~~ **3.21**	~~2.73 (HCl)~~ **1.90 (HF)**
020: Reverberatory Furnace C (NG combustion)	0.14	0.55	0.55	0.04	7.21	0.40	6.06	8,675	0.14	0.13 (hexane)
021: Reverberatory Furnace D (NG combustion)	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18 (hexane)
022: Reverberatory Furnace E (NG combustion) NG Combustion for 040A-D, 045A-C, 050	0.42	1.67	1.67	0.13	21.99	1.21	18.48	26,454	0.42	0.40 (hexane)
023: Reverberatory Furnace F (NG combustion)	0.10	0.39	0.39	0.03	5.15	0.28	4.33	6,196	0.10	0.09 (hexane)
024: Reverberatory Furnace G (NG combustion)	0.05	0.20	0.20	0.02	2.58	0.14	2.16	3,098	0.05	0.05 (hexane)
025: Reverberatory Furnace H (melting)	**5.14**	**5.14**	**5.14**	**11.29**	**9.53**	**2.51**	**0**	**0**	**2.88**	**1.73 (HF)**
025: Reverberatory Furnace H (NG combustion)	**0.19**	**0.74**	**0.74**	**0.06**	**9.79**	**0.54**	**8.22**	**11,773**	**0.18**	**0.18 (hexane)**
101: Semi-Permanent Molding Operation	57.82	84.53	84.53	0.22	0.11	24.90	--	--	4.03	HAP breakdown not reported(3)
101A: Semi-Permanent Molding Operation	**3.77**	**3.77**	**3.77**	**0.18**	**0.09**	**12.79**	**0**	**0**	**3.22**	**HAP breakdown not reported(3)**
200: Sand Silo #5	19.97	0.43	0.43	--	--	--	--	--	--	--
210: Core Making Operation	1.66	0.04	0.04	--	--	3.83	--	--	--	--

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Modification (tons/year)									
	PM	PM_{10}[1]	$PM_{2.5}$[2]	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
350: Mold Blasting Room	24.88	14.89	232.32	--	--	--	--	--	--	--
Insignificant Activities										
Other Natural Gas Combustion	1.33	5.34	5.34	0.42	70.22	3.86	59.01	84,475	1.33	1.26 (hexane)
Propane Combustion	8.0E-4	2.8E-3	2.8E-3	6.0E-3	0.05	3.2E-3	0.03	51	negl.	negl.
Emergency Generator	4.9E-4	6.2E-4	6.2E-4	2.6E-4	0.03	2.6E-3	0.01	2	1.0E-3	7.1E-4 (formaldehyde)
Degreasing Operations	--	--	--	--	--	5.88	--	--	--	--
Welding/Brazing/Soldering/Cutting	6.22	6.22	6.22	--	--	--	--	not estimated	0.12	0.08 (Mn)
Blasting	7.45	0.74	7.45	--	--	--	--	--	--	--
Paved and Unpaved Roads	1.08	0.22	0.05	--	--	--	--	--	--	--
Other	5	5	5	--	--	3	--	--	--	--
Total PTE of Entire Source	~~274.0~~ **283.1**	~~245.2~~ **254.9**	~~469.2~~ **478.8**	~~66.3~~ **77.8**	~~172.3~~ **191.7**	~~58.6~~ **74.4**	~~98.3~~ **106.5**	~~140,724~~**52,497**	~~23.32~~ **22.42**	~~8.20 (HCl)~~ **7.44 (HF)**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000 CO_2e	NA	NA

negl. = negligible
[1]Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
[2]$PM_{2.5}$ listed is direct $PM_{2.5}$.
[3]Single HAP emissions were not reported for the Semi-Permanent Molding Operation. The total HAP emissions from this process were estimated at 4.03 ton/year. It is assumed that these emissions are not the highest HAPs of HCl, Cl, or HF emissions, which come from fluxing operations. The next worst HAP would be hexane. Even if all the HAP from the Semi-Permanent Molding Operation was hexane, the total hexane PTE would still be less than ten (10) tons per year, and therefore the source would still be considered an area source.
[4]Emission Factors for Furnace HAPs have been revised based on stack test results. These changes ensure that after the 2014 modification, the source remains an Area Source of HAPs.

The table below summarizes the potential to emit of the entire source after issuance of this revision, reflecting all limits, of the emission units. Any control equipment is considered federally enforceable only after issuance of this FESOP permit revision, and only to the extent that the effect of the control equipment is made practically enforceable in the permit. (Note: the table below was generated from the above table, with bold text un-bolded and strikethrough text deleted)

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Modification (tons/year)									
	PM	PM_{10}(1)	$PM_{2.5}$(2)	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
020: Reverberatory Furnace C (melting) 021: Reverberatory Furnace D (melting)	98.90	97.32	97.32	47.35	39.98	10.52	--	--	3.36	1.90 (HF)
022: Reverberatory Furnace E (melting)	24.24	12.59	12.59	8.42	7.11	1.87	--	--	3.21	1.90 (HF)
023: Reverberatory Furnace F (melting) 024: Reverberatory Furnace G (melting)	24.60	14.33	14.33	9.59	8.09	2.13	--	--	3.21	1.90 (HF)
020: Reverberatory Furnace C (NG combustion)	0.14	0.55	0.55	0.04	7.21	0.40	6.06	8,675	0.14	0.13 (hexane)
021: Reverberatory Furnace D (NG combustion)	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18 (hexane)
022: Reverberatory Furnace E (NG combustion) NG Combustion for 040A-D, 045A-C, 050	0.42	1.67	1.67	0.13	21.99	1.21	18.48	26,454	0.42	0.40 (hexane)
023: Reverberatory Furnace F (NG combustion)	0.10	0.39	0.39	0.03	5.15	0.28	4.33	6,196	0.10	0.09 (hexane)
024: Reverberatory Furnace G (NG combustion)	0.05	0.20	0.20	0.02	2.58	0.14	2.16	3,098	0.05	0.05 (hexane)
025: Reverberatory Furnace H (melting)	5.14	5.14	5.14	11.29	9.53	2.51	0	0	2.88	1.73 (HF)
025: Reverberatory Furnace H (NG combustion)	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18 (hexane)
101: Semi-Permanent Molding Operation	57.82	84.53	84.53	0.22	0.11	24.90	--	--	4.03	HAP breakdown not reported(3)
101A: Semi-Permanent Molding Operation	3.77	3.77	3.77	0.18	0.09	12.79	0	0	3.22	HAP breakdown not reported(3)
200: Sand Silo #5	19.97	0.43	0.43	--	--	--	--	--	--	--
210: Core Making Operation	1.66	0.04	0.04	--	--	3.83	--	--	--	--
350: Mold Blasting Room	24.88	14.89	232.32	--	--	--	--	--	--	--
Insignificant Activities										
Other Natural Gas Combustion	1.33	5.34	5.34	0.42	70.22	3.86	59.01	84,475	1.33	1.26 (hexane)
Propane Combustion	8.0E-4	2.8E-3	2.8E-3	6.0E-3	0.05	3.2E-3	0.03	51	negl.	negl.
Emergency Generator	4.9E-4	6.2E-4	6.2E-4	2.6E-4	0.03	2.6E-3	0.01	2	1.0E-3	7.1E-4 (formaldehyde)
Degreasing Operations	--	--	--	--	--	5.88	--	--	--	--

Process/ Emission Unit	Potential To Emit of the Entire Source After Issuance of Modification (tons/year)									
	PM	PM_{10}[(1)]	$PM_{2.5}$[(2)]	SO_2	NO_x	VOC	CO	GHGs	Total HAPs	Worst Single HAP
Welding/Brazing/Soldering/Cutting	6.22	6.22	6.22	--	--	--	--	not estimated	0.12	0.08 (Mn)
Blasting	7.45	0.74	7.45	--	--	--	--	--	--	--
Paved and Unpaved Roads	1.08	0.22	0.05	--	--	--	--	--	--	--
Other	5	5	5	--	--	3	--	--	--	--
Total PTE of Entire Source	**283.1**	**254.9**	**478.8**	**77.8**	**191.7**	**74.4**	**106.5**	**152,497**	**22.42**	**7.44 (HF)**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000 CO_2e	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000 CO_2e	NA	NA

negl. = negligible
[(1)]Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".
[(2)]$PM_{2.5}$ listed is direct $PM_{2.5}$.
[(3)]Single HAP emissions were not reported for the Semi-Permanent Molding Operation. The total HAP emissions from this process were estimated at 4.03 ton/year. It is assumed that these emissions are not the highest HAPs of HCl, Cl, or HF emissions, which come from fluxing operations. The next worst HAP would be hexane. Even if all the HAP from the Semi-Permanent Molding Operation was hexane, the total hexane PTE would still be less than ten (10) tons per year, and therefore the source would still be considered an area source.

Federal Rule Applicability Determination

The following federal rules are applicable to the source due to this modification:

NSPS:

(a) 40 CFR 60, Subpart S: Standards of Performance for Primary Aluminum Reduction Plants
The requirements of 40 CFR 60, Subpart S (326 IAC 12) are not included in this permit because the operations at this source do not meet the definition of a primary aluminum reduction plant per 40 CFR 60.191.

(b) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this proposed modification.

NESHAP:

(c) 40 CFR 63.840, Subpart LL: National Emission Standards for Hazardous Air Pollutants for Primary Aluminum Reduction Plants
The provisions of 40 CFR 63, Subpart LL (326 IAC 20-24) are not included in this permit because the operations at this source do not meet the definition of a primary aluminum reduction plant per 40 CFR 63.842.

(d) 40 CFR 63, Subpart RRR: National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production
The requirements of 40 CFR 63, Subpart RRR (326 IAC 20-70) are not are not included in this permit because the operations at the source do not meet the definition of a secondary aluminum production facility as defined in 40 CFR 63.1503. Pursuant to the definition, aluminum die casting facilities, aluminum foundries, and aluminum extrusion facilities are not considered to be secondary aluminum production facilities if the only materials they melt are clean charge, customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delaquering kilns/decoating kilns. This source only melts clean charge,

customer returns, or internal scrap and does not operate sweat furnaces, thermal chip dryers, or scrap dryers/delaquering kilns/decoating kilns; therefore, it is not a secondary aluminum production facility as defined in the rule. In addition, the source is not a major source of HAPs.

(e) 40 CFR 63, Subpart EEEEE: National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Iron and Steel Foundries
The requirements of the 40 CFR 63, Subpart EEEEE (326 IAC 20-92), are not included in the permit, since this source is not an iron or steel foundry and is not a major source of HAPs.

(f) 40 CFR 63, Subpart TTTTTT: National Emission Standards for Hazardous Air Pollutants for Secondary Nonferrous Metals Processing Area Sources
The requirements of 40 CFR 63, Subpart TTTTTT are not are not included in this permit because the source does not meet the definition of a secondary nonferrous metals processing facility per 40 CFR 63.11472.

(g) 40 CFR 63, Subpart ZZZZZZ: National Emission Standards for Hazardous Air Pollutants: Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries
The melting and combustion operation Unit 025, consisting of one (1) reverberatory furnace H, is subject to the requirements of 40 CFR 63, Subpart ZZZZZZ because the source is an aluminum foundry and an area source of HAPs, the aluminum foundry uses material containing aluminum foundry HAP, and the annual metal melt rate for production exceeds 600 tons per year. One of the aluminum alloys processed (A319) contains greater than 0.1% Nickel; therefore, the aluminum foundry uses material containing aluminum foundry HAP, as defined in 40 CFR 63.11556. Unit 025 is considered a new affected source because construction commenced after February 9, 2009.

Unit 025 is subject to the following provisions of 40 CFR 63, Subpart ZZZZZZ:

(1) 40 CFR 63.11544(a), (b), (c)
(2) 40 CFR 63.11545(a)
(3) 40 CFR 63.11550(a), (d)
(4) 40 CFR 63.11552(a)
(5) 40 CFR 63.11553
(6) 40 CFR 63.11555
(7) 40 CFR 63.11556
(8) 40 CFR 63.11557
(9) Table 1 to Subpart ZZZZZZ of 40 CFR Part 63

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the source except as otherwise specified in 40 CFR 63, Subpart ZZZZZZ.

(h) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to new or modified emission units that involve a pollutant-specific emission unit and meet the following criteria:

(1) has a potential to emit before controls equal to or greater than the Part 70 major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

The requirements of 40 CFR Part 64, CAM are not applicable to any of the new and modified units as part of this modification because these units do not use a control device.

State Rule Applicability Determination

The following state rules are applicable to the source due to the modification:

326 IAC 2-2 (PSD)
PSD applicability is discussed under the Permit Level Determination – PSD section.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The operation of Unit 025 and Unit 101A will each emit less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)
Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially. The next report is due no later than July 1, 2016, and subsequent reports are due every three (3) years thereafter. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

326 IAC 12 (New Source Performance Standards)
See Federal Rule Applicability Section of this TSD.

326 IAC 20 (Hazardous Air Pollutants)
See Federal Rule Applicability Section of this TSD.

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)
Unit 025 and Unit 101A are not subject to 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating), because, pursuant to 326 IAC 1-2-19, they do not meet the definition of an indirect heating unit.

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b), the requirements of 326 IAC 6-3-2 are applicable to each of the units listed below, since each of these units has potential particulate emissions greater than five hundred fifty-one thousandths (0.551) pound per hour. Pursuant to 326 IAC 6-3-2, the particulate matter (PM) shall not exceed the pounds per hour limit listed in the table below:

(a) 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

Process / Emission Unit	P (ton/hr)	E (lb/hr)	Uncontrolled PTE PM (lb/hr)	Is a Control Device Needed to Comply with 326 IAC 6-3-2?
Reverberatory Furnace H (025)	6.02	13.65	2.47	No
Stationary and Prototype Semi-Permanent Molding Operation (101A)	2.0	6.52	0.86	No

The Reverberatory Furnace H (025) and Unit 101A can comply with these limits without the use of a control device.

The natural gas-fired combustion unit is exempt from the requirements of 326 IAC 6-3, because, pursuant to 326 IAC 1-2-59, liquid and gaseous fuels and combustion air are not considered as part of the process weight.

326 IAC 7-1.1 Sulfur Dioxide Emission Limitations
Unit 025 and Unit 101A are not subject to 326 IAC 326 IAC 7-1.1 because SO_2 PTE (or limited SO_2 PTE) for each unit is less than 25 tons/year and 10 pounds/hour.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)
Unit 025 and Unit 101A are not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each unit are each less than twenty-five (25) tons per year.

326 IAC 9-1 (Carbon Monoxide Emission Limits)
The provisions of 326 IAC 9-1 are applicable for stationary sources of carbon monoxide commencing operation after March 21, 1972, and for which an emission limit has been established in 326 IAC 9-1-2. Unit 025 is for aluminum and not ferrous metal and has a capacity of less than ten tons per year; therefore, it is not subject to 326 IAC 9-1.

326 IAC 11-1 (Existing Foundries)
326 IAC 11-1 establishes emission limitations for particulate matter from foundries. Pursuant to 326 IAC 11-1-1, particulate emissions from all foundries in operation on or before December 6, 1968 shall comply with the requirements in 326 IAC 11-1-2. All foundries beginning operation after December 6, 1968 shall comply with 326 IAC 6-3-2. Since this source began operation in 1984, the source shall comply with the requirements of 326 IAC 6-3.

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.

There are no Compliance Determination Requirements or Compliance Monitoring Requirements beyond what is required by NSPS or NESHAPs.

For the reverberatory furnace H (unit 025), PM, PM10, and PM2.5 emission factors are based on stack test results for similar reverberatory furnace operation at a sister facility in Montague, MI conducted August 2012, under operating conditions expected to best represent furnace H. The stack test results showed a maximum average particulate emission rate of 0.203 lb/ton. For the reverberatory furnace H (unit 025), a 2.0 (100%) safety factor is being applied, resulting in a particulate emission factor of 0.41 lb/ton. IDEM OAQ has determined that verification testing of reverberatory furnace H (unit 025) will not be required at this time. Although IDEM has determined that testing is not required at this time, IDEM retains the authority to require testing at a later time.

Proposed Changes

The changes listed below have been made to Part 70 Operating Permit No. T039-29816-00191. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

Change 1. Addition of new units (Reverberatory Furnace H (Unit 025) and Unit 101A):

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

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

***

(j) One (1) melting and combustion operation, identified as Unit 025, approved for construction in 2014, consisting of one (1) reverberatory furnace H processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 40 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 025). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an affected source.

(k) One (1) stationary and prototype semi-permanent molding operation, identified as Unit 101A, approved for construction in 2014, processing aluminum at a maximum rate of 2.0 tons per hour, and exhausting indoors to general plant ventilation.

***

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:
***

(j) One (1) melting and combustion operation, identified as Unit 025, approved for construction in 2014, consisting of one (1) reverberatory furnace H processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 40 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 025). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an affected source.

Insignificant Activities:

***

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

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

***

(d) In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable for the units installed in 2014, the Permittee shall comply with the following:

(1) The throughput of metal to reverberatory furnace H (unit 025) shall be less than 25,000 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.

(2) The throughput of solid flux to reverberatory furnace H (unit 025) shall be less than 83.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month;

(3) PM_{10} emissions from melting in reverberatory furnace H (unit 025) shall be less than 0.41 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

(4) $PM_{2.5}$ emissions from melting in reverberatory furnace H (unit 025) shall be less than 0.41 pounds per ton of combined metal and solid flux throughput averaged over three (3) hours.

Compliance with these limits shall limit the potential to emit of PM, PM_{10} and $PM_{2.5}$ from the 2014 modification to less than twenty-five (25), fifteen (15) and ten (10) tons per twelve (12) consecutive month period, respectively, and render 326 IAC 2-2 not applicable for the 2014 modification.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from the facilities listed below shall be limited as follows:

Emission Unit ID	Process Weight Rate, tons/hr	Allowable Particulate Emissions, lb/hr
Reverberatory Furnace C (020)	6.04	13.68
Reverberatory Furnace D (021)	6.04	13.68
Reverberatory Furnace E (022)	3.02	8.60
Reverberatory Furnace F (023)	3.02	8.60
Reverberatory Furnace G (024)	1.51	5.40
Reverberatory Furnace H (025)	**6.02**	**13.65**

***

D.1.6 Record Keeping Requirements

***

(e) To document the compliance status with Condition D.1.1(d)(1) and (2), the Permittee shall maintain records of the monthly combined metal throughput and solid flux throughput to reverberatory furnace H.

~~(e)~~**(f)** To document the compliance status with Condition D.1.5, the Permittee shall maintain daily records of the visible emission notations of the reverberatory furnaces C, D, E, F, and G stack exhausts (Stacks 020-024). The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g., the process did not operate that day).

~~(f)~~**(g)** Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

D.1.7 Reporting Requirements

~~A q~~**Q**uarterly summar**ies**~~y~~ of the information to document the compliance status with Conditions D.1.1(a)(1) and (2), D.1.1(b)(1), (2) and (5), ~~and~~ D.1.1(c)(1) and (2) **and D.1.1(d)(1) and (2)** shall be submitted using the reporting forms located at the end of this permit, or their equivalent, no later than thirty (30) days after the end of the quarter being reported. Section C – General Reporting Requirements contains the Permittee's obligation with regard to the reporting required

by this condition. The report**s** submitted by the Permittee do~~es~~ 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(~~3~~4**35**).

***

SECTION D.2 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-7-5(14)]:
***

(k) One (1) stationary and prototype semi-permanent molding operation, identified as Unit 101A, approved for construction in 2014, processing aluminum at a maximum rate of 2.0 tons per hour, and exhausting indoors to general plant ventilation.

***

***

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the facilities listed below shall be limited as follows:

Emission Unit ID	Process Weight Rate, tons/hr	Allowable Particulate Emissions, lb/hr
Stationary and Prototype Semi-Permanent Molding Operation (101)	2.5	7.58
Sand Silo #5 (200)	3.0	8.56
Prototype Core Making Operation (210)	0.25	1.62
Mold Blast Room (350)	34.2	41.12
Stationary and Prototype Semi-Permanent Molding Operation (101A)	**2.0**	**6.52**

***

SECTION E.2 FACILITY OPERATION CONDITIONS - 40 CFR 63, Subpart ZZZZZZ

Facility Description [326 IAC 2-7-5(14)]:
***

(j) One (1) melting and combustion operation, identified as Unit 025, approved for construction in 2014, consisting of one (1) reverberatory furnace H processing aluminum, with a maximum melt rate of 6.0 tons per hour, with a maximum flux usage rate of 40 pounds per hour, with a maximum heat input capacity of 22.8 MMBtu per hour, combusting natural gas, and exhausting to one (1) stack (Stack 025). Under 40 CFR 63, Subpart ZZZZZZ, this facility is considered an affected source.

***

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

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

Pursuant to 40 CFR 63.11555, the Permittee shall comply with the provisions of 40 CFR 63, Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-1-~~1~~, as

specified in Table 1 of 40 CFR 63, Subpart ZZZZZZ in accordance with the schedule in 40 CFR 63, Subpart ZZZZZZ.

E.2.2 Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries NESHAP [40 CFR 63, Subpart ZZZZZZ]

The Permittee, which operates an aluminum foundry, is subject to the following portions of 40 CFR 63, Subpart ZZZZZZ (included as Attachment B to the permit), with a compliance date of June 27, 2011:

(1) 40 CFR 63.11544(a), (b), (c)
(2) 40 CFR 63.11545(a)
(3) 40 CFR 63.11550(a), (d)
(4) 40 CFR 63.11552(a)
(5) 40 CFR 63.11553
(6) 40 CFR 63.11555
(7) 40 CFR 63.11556
(8) 40 CFR 63.11557
(9) Table 1 to Subpart ZZZZZZ of 40 CFR Part 63

***

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

Part 70 Quarterly Report

Source Name: **Diversified Machine Bristol, Inc.**
Source Address: **51650 County Road 133, Bristol, Indiana 46507**
Part 70 Permit No.: **T039-29816-00191**
Facility: **reverberatory furnace H (unit 025)**
Parameter: **metal and solid flux throughput**
Limit: **(a)** **The combined throughput of metal to reverberatory furnace H (unit 025) shall be less than 25,000 tons per twelve (12) consecutive month period, with compliance demonstrated at the end of each month.**
(b) **The combined throughput of solid flux to reverberatory furnace H (unit 025) shall be less than 83.3 tons per twelve (12) consecutive month period, with compliance determined at the end of each month.**

YEAR:_____

Month	Column 1	Column 1a	Column 2	Column 2a	Column 1 + Column 2	Column 1a + Column 2a
	Metal Throughput This Month (tons)	Solid Flux Throughput This Month (tons)	Metal Throughput Previous 11 Months (tons)	Solid Flux Throughput Previous 11 Months (tons)	12 Month Total Metal Throughput (tons)	12 Month Total Solid Flux Throughput (tons)
Month 1						
Month 2						

Month 3						

☐ **No deviation occurred in this quarter.**
☐ **Deviation/s occurred in this quarter.**
Deviation has been reported on: _____

☐ **No deviation occurred in this quarter.**

☐ **Deviation/s occurred in this quarter.**
Deviation has been reported on:

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Other Changes

The changes listed below have been made to Part 70 Operating Permit No. T039-29816-00191. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. On November 3, 2011, the Indiana Air Pollution Control Board issued a revision to 326 IAC 2. The revision resulted in a change to the rule site of the "responsible official" definition. The rule site for responsible official has changed from 326 IAC 2-7-1 (34) to 326 IAC 2-7-1 (35).

2. On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions resulted in changes to the rule sites listed in the permit. These changes are not changes to the underlining provisions. The change is only to site of these rules in Section B - Preventative Maintenance Plan.

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

***

3. On October 27, 2010, the Indiana Air Pollution Control Board issued revisions to 326 IAC 2. These revisions included the incorporation of the U.S. EPA's definition of reasonable possibility. The permit previously sited to the EPA definition. Also, the revisions resulted in changes to other rule sites listed in the permit. Neither of these changes are changes to the underlining provisions. The change is only to site of these rules in Section C - General Reporting and Section C - General Recordkeeping.

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]

***

(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)~~ **326 IAC 2-2-8 (b)(6)(A), 326 IAC 2-2-8 (b)(6)(B), 326 IAC 2-3-2 (l)(6)(A), and/or 326 IAC 2-3-2 (l)(6)(B)**) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the

Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

***

(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)~~ **326 IAC 2-2-8 (b)(6)(A) and/or 326 IAC 2-3-2 (l)(6)(A)**) that a "project" (as defined in 326 IAC 2-2-1(oo) and/or 326 IAC 2-3-1(jj)) 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(dd) and/or 326 IAC 2-3-1(y)) may result in significant emissions increase and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1(pp) and/or 326 IAC 2-3-1(kk)), the Permittee shall comply with following:

***

4. IDEM, OAQ has clarified the Permittee's responsibility with regards to record keeping. IDEM added "where applicable" to the lists in Section C - General Record Keeping Requirements to more closely match the underlying rule.

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. **Support information includes the following, where applicable:**

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

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

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

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

***

5. IDEM, OAQ has decided to clarify the Permittee's responsibility under CAM.

C.10 Compliance Monitoring [326 IAC 2-7-5(3)][326 IAC 2-7-6(1)] **[40 CFR 64][326 IAC 3-8]**

(a) 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~~**35**).

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.

(b) **For monitoring required by CAM, at all times, the Permittee shall maintain the monitoring, including but not limited to, maintaining necessary parts for routine repairs of the monitoring equipment.**

(c) **For monitoring required by CAM, except for, as applicable, monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), the Permittee shall conduct all monitoring in continuous operation (or shall collect data at all required intervals) at all times that the pollutant-specific emissions unit is operating. Data recorded during monitoring malfunctions, associated repairs, and required quality assurance or control activities shall not be used for purposes of this part, including data averages and calculations, or fulfilling a minimum data availability requirement, if applicable. The owner or operator shall use all the data collected during all other periods in assessing the operation of the control device and associated control system. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.**

***

C.14 Response to Excursions or Exceedances **[40 CFR 64][326 IAC 3-8]** [326 IAC 2-7-5] [326 IAC 2-7-6]

(I) Upon detecting an excursion where a response step is required by the D Section, or an exceedance of a limitation, not subject to CAM, 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.

(II)

(a) CAM *Response to excursions or exceedances.*

(1) Upon detecting an excursion or exceedance, subject to CAM, the Permittee shall restore operation of the pollutant-specific emissions unit (including the control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions. 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). Such actions may include initial inspection and evaluation, recording that operations returned to normal without operator action (such as through response by a computerized distribution control system), or 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.

(2) 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, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

(b) If the Permittee identifies a failure to achieve compliance with an emission limitation, subject to CAM, or standard, subject to CAM, for which the approved monitoring did not provide an indication of an excursion or exceedance while providing valid data, or the results of compliance or performance testing document a need to modify the existing indicator ranges or designated conditions, the Permittee shall promptly notify the IDEM, OAQ and, if necessary, submit a proposed significant permit

modification to this permit to address the necessary monitoring changes. Such a modification may include, but is not limited to, reestablishing indicator ranges or designated conditions, modifying the frequency of conducting monitoring and collecting data, or the monitoring of additional parameters.

(c) Based on the results of a determination made under paragraph (II)(a)(2) of this condition, the EPA or IDEM, OAQ may require the Permittee to develop and implement a QIP. The Permittee shall develop and implement a QIP if notified to in writing by the EPA or IDEM, OAQ.

(d) Elements of a QIP:
The Permittee shall maintain a written QIP, if required, and have it available for inspection. The plan shall conform to 40 CFR 64.8 b (2).

(e) If a QIP is required, the Permittee shall develop and implement a QIP as expeditiously as practicable and shall notify the IDEM, OAQ if the period for completing the improvements contained in the QIP exceeds 180 days from the date on which the need to implement the QIP was determined.

(f) Following implementation of a QIP, upon any subsequent determination pursuant to paragraph (II)(a)(2) of this condition the EPA or the IDEM, OAQ may require that the Permittee make reasonable changes to the QIP if the QIP is found to have:

(1) Failed to address the cause of the control device performance problems; or

(2) Failed to provide adequate procedures for correcting control device performance problems as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.

(g) Implementation of a QIP shall not excuse the Permittee from compliance with any existing emission limitation or standard, or any existing monitoring, testing, reporting or recordkeeping requirement that may apply under federal, state, or local law, or any other applicable requirements under the Act.

(h) *CAM recordkeeping requirements.*

(1) The Permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to paragraph (II)(a)(2) of this condition and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under this condition (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions). Section C - General Record Keeping Requirements of this permit contains the Permittee's obligations with regard to the records required by this condition.

(2) Instead of paper records, the owner or operator may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] **[40 CFR 64][326 IAC 3-8]**

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of this paragraph**. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that a deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(~~34~~**35**). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

On and after the date by which the Permittee must use monitoring that meets the requirements of 40 CFR Part 64 and 326 IAC 3-8, the Permittee shall submit CAM reports to the IDEM, OAQ.

A report for monitoring under 40 CFR Part 64 and 326 IAC 3-8 shall include, at a minimum, the information required under paragraph (a) of this condition and the following information, as applicable:

(1) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(2) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(3) A description of the actions taken to implement a QIP during the reporting period as specified in Section C-Response to Excursions or Exceedances. Upon completion of a QIP, the owner or operator shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

The Permittee may combine the Quarterly Deviation and Compliance Monitoring Report and a report pursuant to 40 CFR 64 and 326 IAC 3-8.

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The Quarterly Deviation and Compliance Monitoring Report

This report shall be submitted quarterly based on a calendar year. **Proper notice submittal under Section B –Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting**. Any deviation from the requirements of this permit, 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".

***

6. IDEM clarified the following condition to indicate that the analog instrument must be capable of measuring the parameters outside the normal range.

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. **The analog instrument shall be capable of measuring values outside of the normal range.**

***

Conclusion and Recommendation

The construction and operation of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 039-34030-00191 and Significant Permit Modification 039-34082-00191. The staff recommends to the Commissioner that this Part 70 Significant Source Modification and Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Heath Hartley 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) 232-8217 or toll free at 1-800-451-6027 extension 2-8217.

(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

TSD Apendix A: Emission Calculations
Modification Summary

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

		Unrestricted Potential to Emit (ton/yr)										
Unit ID	Unit Description	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs (CO2e)	Total HAPs	Single HAP	HAP
025	Reverberatory Furnace H	10.81	10.81	10.81	23.73	20.04	5.27	0	0	6.04	3.63	HF
	NG Combustion for 025	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11773	0.18	0.18	Hexane
101A	Semi-Permanent Molding Operation	3.77	3.77	3.77	0.18	0.09	12.79	0	0	3.22	*	*HAP breakdown not reported
	Total:	14.8	15.3	15.3	24.0	29.9	18.6	8.2	11773	9.45	3.63	HF

		Limited Potential to Emit										
Unit ID	Unit Description	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs (CO2e)	Total HAPs	Single HAP	HAP
025	Reverberatory Furnace H	5.14	5.14	5.14	11.29	9.53	2.51	0.00	0	2.88	1.73	HF
	NG Combustion for 025	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11773	0.18	0.18	Hexane
101A	Semi-Permanent Molding Operation*	3.77	3.77	3.77	0.18	0.09	12.79	0.00	0	3.22	*	*HAP breakdown not reported
	Total:	9.1	9.7	9.7	11.5	19.4	15.8	8.2	11773	6.28	1.73	HF

TSD Apendix A: Emission Calculations
Summary - All Units After Modification

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

		Unrestricted Potential to Emit (ton/yr)										
Unit ID	Unit Description	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs (CO2e)	Total HAPs	Single HAP	HAP
020	Reverberatory Furnace C	49.72	48.92	48.92	23.65	19.97	5.26	0	0	11.39	6.80	HF
	NG Combustion for 020	0.14	0.55	0.55	0.04	7.21	0.40	6.06	8,675	0.14	0.13	Hexane
021	Reverberatory Furnace D	49.72	48.92	48.92	23.65	19.97	5.26	0	0	11.39	6.80	HF
	NG Combustion for 021	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18	Hexane
022	Reverberatory Furnace E	34.11	17.72	17.72	11.83	9.99	2.63	0	0	5.71	3.40	HF
	NG Combustion for 022	0.31	1.22	1.22	0.10	16.10	0.89	13.53	19,363	0.30	0.29	Hexane
023	Reverberatory Furnace F	30.41	17.72	17.72	11.83	9.99	2.63	0	0	5.71	3.40	HF
	NG Combustion for 023	0.10	0.39	0.39	0.03	5.15	0.28	4.33	6,196	0.10	0.09	Hexane
024	Reverberatory Furnace G	15.21	8.86	8.86	5.91	4.99	1.31	0	0	2.85	1.70	HF
	NG Combustion for 024	0.05	0.20	0.20	0.02	2.58	0.14	2.16	3,098	0.05	0.05	Hexane
025	Reverberatory Furnace H	10.81	10.81	10.81	23.73	20.04	5.27	0.00	0	6.04	3.63	HF
	NG Combustion for 025	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18	Hexane
101	Semi-Permanent Molding Operation	57.82	84.53	84.53	0.22	0.11	24.90	0	0	4.03	*	*HAP breakdown not reported
101A	Semi-Permanent Molding Operation	3.77	3.77	3.77	0.18	0.09	12.79	0.00	0	3.22	*	*HAP breakdown not reported
200	Sand Silo #5	19.97	0.43	0.43	0	0	0	0	0	0	0	
210	Core Making Operation	1.66	0.04	0.04	0	0	3.83	0	0	0	0	
350	Mold Blasting Room	2323.15	232.32	232.32	0	0	0	0	0	0	0	
Insignificant Activities												
	Natural Gas Combustion	1.66	6.62	6.62	0.52	87.09	4.79	73.18	104,763	1.64	1.57	Hexane
	Propane Combustion	8.0E-04	2.8E-03	2.8E-03	6.0E-03	0.05	3.2E-03	0.03	51	**	**	**Not estimated - expected to be negligible
	Emergency Generator	4.9E-04	6.2E-04	6.2E-04	2.6E-04	0.03	2.6E-03	0.01	2	1.0E-03	7.1E-04	Formaldehyde
	Degreasing Operations	0	0	0	0	0	5.88	0	0	0	0	
	Welding/Brazing/Soldering /Cutting	6.22	6.22	6.22	0	0	0	0	***	0.12	0.08	Manganese
	Blasting	74.46	7.45	7.45	0	0	0	0	0	0	0	
	Paved and Unpaved Roads	1.08	0.22	0.05	0	0	0	0	0	0	0	
	Other	5	5	5	0	0	3	0	0	0	0	
	Total:	2685.72	503.39	503.22	101.83	222.93	80.34	115.76	165,694	53.08	25.73	HF

		Controlled Potential to Emit										
Unit ID	Unit Description	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs (CO2e)	Total HAPs	Single HAP	HAP
020	Reverberatory Furnace C	49.72	48.92	48.92	23.65	19.97	5.26	0	0	11.39	6.80	HF
	NG Combustion for 020	0.14	0.55	0.55	0.04	7.21	0.40	6.06	8,675	0.14	0.13	Hexane
021	Reverberatory Furnace D	49.72	48.92	48.92	23.65	19.97	5.26	0	0	11.39	6.80	HF
	NG Combustion for 021	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18	Hexane
022	Reverberatory Furnace E	34.11	17.72	17.72	11.83	9.99	2.63	0	0	5.71	3.40	HF
	NG Combustion for 022	0.31	1.22	1.22	0.10	16.10	0.89	13.53	19,363	0.30	0.29	Hexane
023	Reverberatory Furnace F	30.41	17.72	17.72	11.83	9.99	2.63	0	0	5.71	3.40	HF
	NG Combustion for 023	0.10	0.39	0.39	0.03	5.15	0.28	4.33	6,196	0.10	0.09	Hexane
024	Reverberatory Furnace G	15.21	8.86	8.86	5.91	4.99	1.31	0	0	2.85	1.70	HF
	NG Combustion for 024	0.05	0.20	0.20	0.02	2.58	0.14	2.16	3,098	0.05	0.05	Hexane
025	Reverberatory Furnace H	10.81	10.81	10.81	23.73	20.04	5.27	0.00	0	6.04	3.63	HF
	NG Combustion for 025	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18	Hexane
101	Semi-Permanent Molding Operation	57.82	84.53	84.53	0.22	0.11	24.90	0	0	4.03	*	*HAP breakdown not reported
101A	Semi-Permanent Molding Operation	3.77	3.77	3.77	0.18	0.09	12.79	0.00	0	3.22	*	*HAP breakdown not reported
200	Sand Silo #5	13.48	0.29	0.29	0	0	0	0	0	0	0	
210	Core Making Operation	1.66	0.04	0.04	0	0	3.83	0	0	0	0	
350	Mold Blasting Room	2.32	0.23	0.23	0	0	0	0	0	0	0	
Insignificant Activities												
	Natural Gas Combustion	1.66	6.62	6.62	0.52	87.09	4.79	73.18	104,763	1.64	1.57	Hexane
	Propane Combustion	8.0E-04	2.8E-03	2.8E-03	6.0E-03	5.2E-02	3.2E-03	3.0E-02	51	**	**	**Not estimated - expected to be negligible
	Emergency Generator	4.9E-04	6.2E-04	6.2E-04	2.6E-04	3.5E-02	2.6E-03	1.5E-02	2	1.0E-03	7.1E-04	Formaldehyde
	Degreasing Operations	0	0	0	0	0	5.88	0	0	0	0	
	Welding/Brazing/Soldering /Cutting	6.22	6.22	6.22	0	0	0	0	***	0.12	0.08	Manganese
	Blasting	0.07	0.01	0.01	0	0	0	0	0	0	0	
	Paved and Unpaved Roads	0.98	0.20	0.05	0	0	0	0	0	0	0	
	Other	5	5	5	0	0	3	0	0	0	0	
	Total:	283.91	263.70	263.55	101.83	222.93	80.34	115.76	165,694	53.08	25.73	HCl

		Limited Potential to Emit										
Unit ID	Unit Description	PM	PM10	PM2.5	SO2	NOx	VOC	CO	GHGs (CO2e)	Total HAPs	Single HAP	HAP
020	Reverberatory Furnace C	98.90	97.32	97.32	47.35	39.98	10.52	0	0	3.36	1.90	HF
021	Reverberatory Furnace D											
022	Reverberatory Furnace E	24.24	12.59	12.59	8.42	7.11	1.87	0	0	3.21	1.90	HF
023	Reverberatory Furnace F	24.60	14.33	14.33	9.59	8.09	2.13	0	0	3.21	1.90	HF
024	Reverberatory Furnace G											
025	Reverberatory Furnace H	5.14	5.14	5.14	11.29	9.53	2.51	0.00	0	2.88	1.73	HF
020	NG Combustion for 020	0.14	0.55	0.55	0.04	7.21	0.40	6.06	8,675	0.14	0.13	Hexane
021	NG Combustion for 021	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18	Hexane
022	NG Combustion for 022											
	NG Combustion for 040A-D, 045A-C, 050	0.42	1.67	1.67	0.13	21.99	1.21	18.48	26,454	0.42	0.40	Hexane
023	NG Combustion for 023	0.10	0.39	0.39	0.03	5.15	0.28	4.33	6,196	0.10	0.09	Hexane
024	NG Combustion for 024	0.05	0.20	0.20	0.02	2.58	0.14	2.16	3,098	0.05	0.05	Hexane
025	NG Combustion for 025	0.19	0.74	0.74	0.06	9.79	0.54	8.22	11,773	0.18	0.18	Hexane
101	Semi-Permanent Molding Operation	57.82	84.53	84.53	0.22	0.11	24.90	0	0	4.03	*	*HAP breakdown not reported
101A	Semi-Permanent Molding Operation	3.77	3.77	3.77	0.18	0.09	12.79	0.00	0	3.22	*	*HAP breakdown not reported
200	Sand Silo #5	19.97	0.43	0.43	0	0	0	0	0	0	0	
210	Core Making Operation	1.66	0.04	0.04	0	0	3.83	0	0	0	0	
350	Mold Blasting Room	24.88	14.89	232.32	0	0	0	0	0	0	0	
Insignificant Activities												
	Other Natural Gas Combustion	1.33	5.34	5.34	0.42	70.22	3.86	59.01	84,475	1.33	1.26	Hexane
	Propane Combustion	8.0E-04	2.8E-03	2.8E-03	6.0E-03	5.2E-02	3.2E-03	3.0E-02	51	**	**	**Not estimated - expected to be negligible
	Emergency Generator	4.9E-04	6.2E-04	6.2E-04	2.6E-04	3.5E-02	2.6E-03	1.5E-02	2	1.0E-03	7.1E-04	Formaldehyde
	Degreasing Operations	0	0	0	0	0	5.88	0	0	0	0	
	Welding/Brazing/Soldering /Cutting	6.22	6.22	6.22	0	0	0	0	***	0.12	0.08	Manganese
	Blasting	7.45	0.74	7.45	0	0	0	0	0	0	0	
	Paved and Unpaved Roads	1.08	0.22	0.05	0	0	0	0	0	0	0	
	Other	5	5	5	0	0	3	0	0	0	0	
	Total:	283.1	254.9	478.8	77.8	191.7	74.4	106.5	152,497	22.42	7.44	HF

***Not estimated

TSD Apendix A: Emission Calculations
Units 020 and 021: Furnaces C and D Melting Emissions

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Reverberatory Furnaces C and D (Units 020 and 021)
SCC# 3-04-001-03

	Maximum Throughput	
	LBS/HR	TON/HR
020 Maximum Metal Throughput	12000	6.00
021 Maximum Metal Throughput	12000	6.00
020 and 021 Limited Metal Throughput	24000	12.00
020 Maximum Flux Usage	75	0.04
021 Maximum Flux Usage	75	0.04
020 and 021 Limited Flux Usage	21	0.01

Control Device: NA
Control Efficiency: NA

TYPE OF MATERIAL						
Aluminum + Flux						
Emission Factor	**PM[1]** **(lbs/ton metal & flux charged)**	**PM10[1]** **(lbs/ton metal & flux charged)**	**SO2** **(lbs/ton metal charged)**	**NOx** **(lbs/ton metal charged)**	**VOC** **(lbs/ton metal charged)**	**CO** **(lbs/ton metal charged)**
	1.88	1.85	0.90	0.76	0.20	0.00
Potential Uncontrolled Emissions lbs/hr (020)	11.35	11.17	5.40	4.56	1.20	0.00
Potential Uncontrolled Emissions tons/year (020)	**49.72**	**48.92**	**23.65**	**19.97**	**5.26**	**0.00**
Potential Uncontrolled Emissions lbs/hr (021)	11.35	11.17	5.40	4.56	1.20	0.00
Potential Uncontrolled Emissions tons/year (021)	**49.72**	**48.92**	**23.65**	**19.97**	**5.26**	**0.00**
Combined Uncontrolled Emissions tons/yr (020 and 021)	**99.43**	**97.84**	**47.30**	**39.95**	**10.51**	**0.00**
Combined Limited Emissions lbs/hr (020 and 021)	22.58	22.22	10.81	9.13	2.40	0.00
Combined Limited Emissions tons/yr (020 and 021)	**98.90**	**97.32**	**47.35**	**39.98**	**10.52**	**0.00**

Note 1: PM and PM10 emission factors are based on 3 hour average emission factor of 0.99 lb/ton obtained from stack test conducted on 9/14/00 on reverberatory furnace C increased by a safety factor.

- Stack test results for the reverberatory furnace C conducted on 06/27/06 showed a PM emission rate of 1.00 lb/ton and PM10 emission rate of 1.07 lb/ton.
- Emission factor was obtained while fluxing was occurring in the furnace at a rate of 21 pounds per hour, therefore, emissions represent emissions from melting and fluxing at a maximum flux usage rate of 21 lbs/hr.

- Different safety factors were used for PM and PM10 emissions to allow the units to emit the maximum PM and PM10 emissions while maintaining source-wide PM and PM10 emissions from units installed in 1994 at less than 100 tons/yr to render PSD not applicable.

- Emission factor for VOC is from WebFIRE, Industrial Processes - Secondary Metal Production - Aluminum - Smelting Furnace/Reverberatory (SCC 3-04-001-03).

- According to Part 70 Operating Permit Renewal T039-18250-00191, issued on August 16, 2006, the SO2 and NOx emission factors were from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24. These emission factors are not currently listed in WebFIRE, but were kept for historical purposes.

TYPE OF MATERIAL							
Aluminum							
PM EF (lb/ton) = 1.88	Alumimun A356 Metal Chemistry						
	0.025% Pb	0.10% Mn	0.05% Cr	0.025% Ni			
Emission Factor	**Lead (lbs/ton metal charged)**	**Manganese (lbs/ton metal charged)**	**Chromium (lbs/ton metal charged)**	**Nickel (lbs/ton metal charged)**	**HCl (lbs/lb flux)**	**Chlorine (lbs/lb flux)**	**HF (lbs/lb flux)**
	0.0005	0.0019	0.0009	0.0005	0.0099	0.0038	0.0207
Potential Uncontrolled Emissions lbs/hr (020)	0.0028	0.0113	0.0056	0.0028	0.74	0.28	1.55
Potential Uncontrolled Emissions tons/year (020)	**0.0124**	**0.0494**	**0.0247**	**0.0124**	**3.25**	**1.24**	**6.80**
Potential Uncontrolled Emissions lbs/hr (021)	0.0028	0.0113	0.0056	0.0028	0.74	0.28	1.55
Potential Uncontrolled Emissions tons/year (021)	**0.0124**	**0.0494**	**0.0247**	**0.0124**	**3.25**	**1.24**	**6.80**
Combined Uncontrolled Emissions tons/yr (020 and 021)	**0.0247**	**0.0988**	**0.0494**	**0.0247**	**6.50**	**2.48**	**13.60**
Combined Limited Emissions lbs/hr (020 and 021)	0.0056	0.0226	0.0113	0.0056	0.21	0.08	0.43
Combined Limited Emissions tons/yr (020 and 021)	**0.0247**	**0.0988**	**0.0494**	**0.0247**	**0.91**	**0.35**	**1.90**

Metal HAP emission factors are based on PM emission factor and aluminum metal chemistry.
Alumimun A356 Metal Chemistry (0.05% Cr, 0.025% Pb, 0.10% Mn, 0.025% Ni)
Metal HAP Emission Factor (lb/ton) = PM Emission Factor (lb/ton) x % Metal
HCl, Cl and HF emission factors are based on 6/27/06 stack test. HCl was 0.0055 lb/lb flux, Cl was 0.0021 lb/lb flux, HF was 0.0115 lb/lb flux. These emission factors have been scaled up by a safety factor of 1.8.

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (lbs/hr) = Emission Factor (lbs/lb) x Throughput (lb/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr

TSD Apendix A: Emission Calculations
Unit 022: Furnace E Melting Emissions

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Reverberatory Furnace E (Unit 022)
SCC# 3-04-001-03

	Maximum Throughput	
	LBS/HR	TON/HR
Metal	6000	3.000
Flux	37.5	0.019
	Limited Throughput	
	LBS/HR	TON/HR
Metal	4269.41	2.135
Flux	21.00	0.011

Control Device: NA
Control Efficiency: NA

TYPE OF MATERIAL						
Aluminum + Flux						
Emission Factor	**PM[1] (lbs/ton metal & flux charged)**	**PM10[1] (lbs/ton metal & flux charged)**	**SO2 (lbs/ton metal charged)**	**NOx (lbs/ton metal charged)**	**VOC (lbs/ton metal charged)**	**CO (lbs/ton metal charged)**
	2.58	1.34	0.90	0.76	0.20	0.00
Potential Uncontrolled Emissions lbs/hr (022)	7.79	4.05	2.70	2.28	0.60	0.00
Potential Uncontrolled Emissions tons/year (022)	**34.11**	**17.72**	**11.83**	**9.99**	**2.63**	**0.00**
Limited Emissions lbs/hr (022)	5.53	2.87	1.92	1.62	0.43	0.00
Limited Emissions tons/yr (022)	**24.24**	**12.59**	**8.42**	**7.11**	**1.87**	**0.00**

Note 1: PM and PM10 emission factors are based on 3 hour average emission factor of 0.99 lb/ton obtained from stack test conducted on 9/14/00 on reverberatory furnace C increased by a safety factor.

- Stack test results for the reverberatory furnace C conducted on 06/27/06 had a PM emission rate of 1.00 lb/ton and PM10 emission rate of 1.07 lb/ton.
- Emission factor was obtained while fluxing was occurring in the furnace at a rate of 21 pounds per hour, therefore, emissions represent emissions from melting and fluxing at a maximum flux usage rate of 21 lbs/hr.
- Different safety factors were used for PM and PM10 emissions to allow the units to emit the maximum PM and PM10 emissions while maintaining source-wide PM and PM10 emissions from units installed in 1995 at less than 25 and 15 tons/yr, respectively, to render PSD not applicable.
- Emission factor for VOC is from and WebFIRE, Industrial Processes - Secondary Metal Production - Aluminum - Smelting Furnace/Reverberatory (SCC 3-04-001-03).
- According to Part 70 Operating Permit Renewal T039-18250-00191, issued on August 16, 2006, the SO2 and NOx emission factors were from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24. These emission factors are not currently listed in WebFIRE, but were kept for historical purposes.

TYPE OF MATERIAL							
Aluminum							
PM EF (lb/ton) =	Alumimun A356 Metal Chemistry						
2.58	0.025% Pb,	0.10% Mn,	0.05% Cr,	0.025% Ni			
Emission Factor	**Lead (lbs/ton metal charged)**	**Manganese (lbs/ton metal charged)**	**Chromium (lbs/ton metal charged)**	**Nickel (lbs/ton metal charged)**	**HCl (lbs/lb flux)**	**Chlorine (lbs/lb flux)**	**HF (lbs/lb flux)**
	0.0006	0.0026	0.0013	0.0006	0.0099	0.0038	0.0207
Potential Uncontrolled Emissions lbs/hr	1.9E-03	7.7E-03	3.9E-03	1.9E-03	0.4	0.1	0.8
Potential Uncontrolled Emissions tons/year	**8.5E-03**	**3.4E-02**	**1.7E-02**	**8.5E-03**	**1.63**	**0.62**	**3.40**
Limited Emissions lbs/hr	1.4E-03	5.5E-03	2.8E-03	1.4E-03	0.21	0.08	0.43
Limited Emissions tons/yr	**6.0E-03**	**2.4E-02**	**1.2E-02**	**6.0E-03**	**0.91**	**0.35**	**1.90**

Metal HAP emission factors are based on PM emission factor and aluminum metal chemistry.
Alumimun A356 Metal Chemistry (0.05% Cr, 0.025% Pb, 0.10% Mn, 0.025% Ni)
Metal HAP Emission Factor (lb/ton) = PM Emission Factor (lb/ton) x % Metal
HCl, Cl and HF emission factors are based on 6/27/06 stack test. HCl was 0.0055 lb/lb flux, Cl was 0.0021 lb/lb flux, HF was 0.0115 lb/lb flux. These emission factors have been scaled up by a safety factor of 1.8.

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (lbs/hr) = Emission Factor (lbs/lb) x Throughput (lb/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr

TSD Apendix A: Emission Calculations
Units 023 and 024: Furnaces F and G Melting Emissions

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Reverberatory Furnaces F and G (Unit 023 & 024)
SCC# 3-04-001-03

Control Device: NA
Control Efficiency: NA

	Maximum Throughput	
	LBS/HR	TON/HR
023 Maximum Metal Throughput	6000	3.000
024 Maximum Metal Throughput	3000	1.500
023 and 024 Combined Limited Metal Throughput	4863	2.432
023 Maximum Flux Usage	37.5	0.019
024 Maximum Flux Usage	18.75	0.009
023 and 024 Combined Limited Flux Usage	21.00	0.011

TYPE OF MATERIAL						
Aluminum + Flux						
Emission Factor	**PM[1]** **(lbs/ton metal & flux charged)**	**PM10[1]** **(lbs/ton metal & flux charged)**	**SO2** **(lbs/ton metal charged)**	**NOx** **(lbs/ton metal charged)**	**VOC** **(lbs/ton metal charged)**	**CO** **(lbs/ton metal charged)**
	2.3	1.34	0.90	0.76	0.20	0.00
Potential Uncontrolled Emissions lbs/hr (023)	6.94	4.05	2.70	2.28	0.60	0.00
Potential Uncontrolled Emissions tons/year (023)	**30.41**	**17.72**	**11.83**	**9.99**	**2.63**	**0.00**
Potential Uncontrolled Emissions lbs/hr (024)	3.47	2.02	1.35	1.14	0.30	0.00
Potential Uncontrolled Emissions tons/year (024)	**15.21**	**8.86**	**5.91**	**4.99**	**1.31**	**0.00**
Combined Uncontrolled Emissions tons/yr (023 and 024)	**45.62**	**26.58**	**17.74**	**14.98**	**3.94**	**0.00**
Limited Emissions lbs/hr (023 & 024)	5.62	3.27	2.19	1.85	0.49	0.00
Limited Emissions tons/yr (023 and 024)	**24.60**	**14.33**	**9.59**	**8.09**	**2.13**	**0.00**

Note 1: PM and PM10 emission factors are based on 3 hour average emission factor of 0.99 lb/ton obtained from stack test conducted on 9/14/00 on reverberatory furnace C increased by a safety factor.

- Stack test results for the reverberatory furnace C conducted on 06/27/06 had a PM emission rate of 1.00 lb/ton and PM10 emission rate of 1.07 lb/ton.
- Emission factor was obtained while fluxing was occurring in the furnace at a rate of 21 pounds per hour, therefore, emissions represent emissions from melting and fluxing at a maximum flux usage rate of 21 lbs/hr.
- Different safety factors were used for PM and PM10 emissions to allow the units to emit the maximum PM and PM10 emissions while maintaining source-wide PM and PM10 emissions from units installed in 2001 at less than 25 and 15 tons/yr, respectively, to render PSD not applicable.
- Emission factor for VOC is from and WebFIRE, Industrial Processes - Secondary Metal Production - Aluminum - Smelting Furnace/Reverberatory (SCC 3-04-001-03).
- According to Part 70 Operating Permit Renewal T039-18250-00191, issued on August 16, 2006, the SO2 and NOx emission factors were from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24. These emission factors are not currently listed in WebFIRE, but were kept for historical purposes.

TYPE OF MATERIAL							
Aluminum							
PM EF (lb/ton) =	Alumimun A356 Metal Chemistry						
2.3	0.025% Pb,	0.10% Mn,	0.05% Cr,	0.025% Ni			
Emission Factor	**Lead (lbs/ton metal charged)**	**Manganese (lbs/ton metal charged)**	**Chromium (lbs/ton metal charged)**	**Nickel (lbs/ton metal charged)**	**HCl (lbs/lb flux)**	**Chlorine (lbs/lb flux)**	**HF (lbs/lb flux)**
	0.0006	0.0023	0.0012	0.0006	0.0099	0.0038	0.0207
Potential Uncontrolled Emissions lbs/hr (023)	0.0017	0.0069	0.0035	0.0017	0.37	0.14	0.78
Potential Uncontrolled Emissions tons/year (023)	**0.0076**	**0.0302**	**0.0151**	**0.0076**	**1.63**	**0.62**	**3.40**
Potential Uncontrolled Emissions lbs/hr (024)	0.0009	0.0035	0.0017	0.0009	0.19	0.07	0.39
Potential Uncontrolled Emissions tons/year (024)	**0.0038**	**0.0151**	**0.0076**	**0.0038**	**0.81**	**0.31**	**1.70**
Combined Uncontrolled Emissions tons/year (023 & 024)	**0.0113**	**0.0453**	**0.0227**	**0.0113**	**2.44**	**0.93**	**5.10**
Limited Emissions lbs/hr (023 & 024)	0.0014	0.0056	0.0028	0.0014	0.21	0.08	0.43
Limited Emissions tons/yr (023 & 024)	**0.0061**	**0.0245**	**0.0122**	**0.0061**	**0.91**	**0.35**	**1.90**

Metal HAP emission factors are based on PM emission factor and aluminum metal chemistry.
Alumimun A356 Metal Chemistry (0.05% Cr, 0.025% Pb, 0.10% Mn, 0.025% Ni)
Metal HAP Emission Factor (lb/ton) = PM Emission Factor (lb/ton) x % Metal
HCl, Cl and HF emission factors are based on 6/27/06 stack test. HCl was 0.0055 lb/lb flux, Cl was 0.0021 lb/lb flux, HF was 0.0115 lb/lb flux. These emission factors have been scaled up by a safety factor of 1.8.

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (lbs/hr) = Emission Factor (lbs/lb) x Throughput (lb/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr

TSD Apendix A: Emission Calculations
Unit 025: Reverb Furnace H Melting Emissions

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Reverberatory Furnace H (Unit 025)
SCC# 3-04-001-03

	Maximum Throughput	
	TON/HR	TON/YR
Maximum Metal Throughput	6	52,560
Maximum Flux Usage	0.02	175.2
Limited Metal Throughput	3	25,000
Limited Flux Usage	0.01	83.3

Control Device: NA
Control Eff: NA

TYPE OF MATERIAL							
Aluminum + Flux							
Emission Factor	**PM[1]**	**PM10[1]**	**PM2.5[1]**	**SO2**	**NOx**	**VOC**	**CO**
	(lbs/ton metal & flux charged)	**(lbs/ton metal & flux charged)**	**(lbs/ton metal & flux charged)**	**(lbs/ton metal charged)**	**(lbs/ton metal charged)**	**(lbs/ton metal charged)**	**(lbs/ton metal charged)**
	0.41	0.41	0.41	0.90	0.76	0.20	0.00
Potential Uncontrolled Emissions lbs/hr (025)	2.47	2.47	2.47	5.42	4.58	1.20	0.00
Potential Uncontrolled Emissions tons/yr (025)	**10.81**	**10.81**	**10.81**	**23.73**	**20.04**	**5.27**	**0.00**
Limited Emissions lbs/hr (025)	**1.17**	**1.17**	**1.17**	**2.58**	**2.18**	**0.57**	**0.00**
Limited Emissions tons/yr (025)	**5.14**	**5.14**	**5.14**	**11.29**	**9.53**	**2.51**	**0.00**

Note 1: PM, PM-10 & PM-2.5 emission factors are based on stack test results for similar reverberatory furnace operation at a sister facility in Montague, MI conducted August 2012, under operating conditions expected to best represent furnace H. Maximum average emission rate was 0.203 lb/ton. A 2.0 (100%) safety factor is being applied for a factor of 0.41 lb/ton.

Emission factor for VOC is from and WebFIRE, Industrial Processes - Secondary Metal Production - Aluminum - Smelting Furnace/Reverberatory (SCC 3-04-001-03). According to Part 70 Operating Permit Renewal T039-18250-00191, issued on August 16, 2006, the SO2 and NOx emission factors were from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24. These emission factors are not currently listed in WebFIRE, but were kept for historical purposes.

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (Aluminum + flux) (ton/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr

TYPE OF MATERIAL								
Aluminum								
PM EF (lb/ton) =	Alumimun A356 Metal Chemistry							
0.41	0.025% Pb,	0.10% Mn,	0.05% Cr,	0.025% Ni				
Emission Factor	**Lead (lbs/ton metal charged)**	**Manganese (lbs/ton metal charged)**	**Chromium (lbs/ton metal charged)**	**Nickel (lbs/ton metal charged)**	**HCl (lbs/lb flux)**	**Chlorine (lbs/lb flux)**	**HF (lbs/lb flux)**	**Total HAPs**
	0.0001	0.0004	0.0002	0.0001	0.0099	0.0038	0.0207	ton/yr
Potential Uncontrolled Emissions lbs/hr (025)	0.0006	0.0025	0.0012	0.0006	0.40	0.15	0.83	1.38
Potential Uncontrolled Emissions tons/yr (025)	**0.0027**	**0.0108**	**0.0054**	**0.0027**	**1.73**	**0.66**	**3.63**	6.04
Limited Emissions lbs/hr (025)	0.0003	0.0012	0.0006	0.0003	0.00	0.00	0.00	0.00
Limited Emissions tons/yr (025)	**0.0013**	**0.0051**	**0.0026**	**0.0013**	**0.83**	**0.32**	**1.73**	2.88

Metal HAP emission factors are based on PM emission factor and aluminum metal chemistry.
Alumimun A356 Metal Chemistry (0.05% Cr, 0.025% Pb, 0.10% Mn, 0.025% Ni)
Metal HAP Emission Factor (lb/ton) = PM Emission Factor (lb/ton) x % Metal

HCl, Cl and HF emission factors are based on 6/27/06 stack test. HCl was 0.0055 lb/lb flux, Cl was 0.0021 lb/lb flux, HF was 0.0115 lb/lb flux. These emission factors have been scaled up by a safety factor of 1.8.

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Aluminum Throughput (ton/hr)
Potential Emissions (lbs/hr) = Emission Factor (lbs/lb) x Flux Throughput (lb/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr

TSD Apendix A: Emission Calculations
Furrnace Natural Gas Combustion (Units 020 - 024)

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

			Criteria Pollutants							GHGs				
			PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
	Emission Factor (lb/MMCF)		1.9	7.6	7.6	0.6	100.0	5.5	84.0	120000	0.64	2.3		
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)											
020 Combustion (Furance C)	16.8	144.3	0.137	0.548	0.548	0.043	7.211	0.397	6.060	8656.94	0.05	0.17	8657.2	8674.7
021 Combustion (Furnace D)	22.8	195.8	0.186	0.744	0.744	0.059	9.787	0.538	8.224	11748.71	0.06	0.23	11749.0	11772.9
022 Combustion (Furnace E)	37.5	322.1	0.306	1.224	1.224	0.097	16.097	0.886	13.526	19323.53	0.10	0.37	19324.0	19363.3
023 Combustion (Furnace F)	12	103.1	0.098	0.392	0.392	0.031	5.151	0.283	4.328	6183.53	0.03	0.12	6183.7	6196.2
024 Combustion (Furnace G)	6	51.5	0.049	0.196	0.196	0.015	2.575	0.142	2.164	3091.76	0.02	0.06	3091.8	3098.1
025 Combustion (Furnace H) NEW	22.8	195.8	0.186	0.744	0.744	0.059	9.787	0.538	8.224	11748.71	0.06	0.23	11749.0	11772.9
Limited NG Usage for 022, and Insignificant Activities: 040A-D, 045A-C, 050		440.0	0.418	1.672	1.672	0.132	21.991	1.210	18.480	26400.00	0.14	0.51	26400.6	26454.3

Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2. NOx EF based on uncontrolled emissions for small boilers.

*PM is filterable only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.

			HAPs - Organics					HAPs - Metals					Total HAPs
			Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Nickel	
	Emission Factor (lb/MMCF)		2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	1.8880
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)										
020 Combustion (Furance C)	16.8	144.3	1.5E-04	8.7E-05	5.4E-03	1.3E-01	2.5E-04	3.6E-05	7.9E-05	1.0E-04	2.7E-05	1.5E-04	1.4E-01
021 Combustion (Furnace D)	22.8	195.8	2.1E-04	1.2E-04	7.3E-03	1.8E-01	3.3E-04	4.9E-05	1.1E-04	1.4E-04	3.7E-05	2.1E-04	1.8E-01
022 Combustion (Furnace E)	37.5	322.1	3.4E-04	1.9E-04	1.2E-02	2.9E-01	5.5E-04	8.1E-05	1.8E-04	2.3E-04	6.1E-05	3.4E-04	3.0E-01
023 Combustion (Furnace F)	12	103.1	1.1E-04	6.2E-05	3.9E-03	9.3E-02	1.8E-04	2.6E-05	5.7E-05	7.2E-05	2.0E-05	1.1E-04	9.7E-02
024 Combustion (Furnace G)	6	51.5	5.4E-05	3.1E-05	1.9E-03	4.6E-02	8.8E-05	1.3E-05	2.8E-05	3.6E-05	9.8E-06	5.4E-05	4.9E-02
025 Combustion (Furnace H) NEW	22.8	195.8	2.1E-04	1.2E-04	7.3E-03	1.8E-01	3.3E-04	4.9E-05	1.1E-04	1.4E-04	3.7E-05	2.1E-04	1.8E-01
Limited NG Usage for 022, and Insignificant Activities: 040A-D, 045A-C, 050		440.0	4.6E-04	2.6E-04	1.7E-02	4.0E-01	7.5E-04	1.1E-04	2.4E-04	3.1E-04	8.4E-05	4.6E-04	4.2E-01

Emission Factors are from AP-42, Tables 1.4-3 and 1.4-4.

The five highest organic and metal HAPs emission factors are provided above. Additional HAPs are available in the AP-42 tables referenced above.

Total HAPs is the sum of all HAP emission factors listed in AP-42 Tables 1.4-3 and 1.4-4.

Methodology

Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu

Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

GHGs:

GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)

$$CO2e = \sum_{i=1}^{n} GHG_i \bullet GWP_i$$

Where: CO2e = carbon dioxide equivalent (ton/yr)
GHGi = mass emission rate of each greenhouse gas (ton/yr)
GWPi = global waming potential for each greenhouse gas
n = number of greenhouse gases emitted
GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO2, 21 for CH4, 310 for N2O

TSD Apendix A: Emission Calculations
Semi-Permanent Molding Operations

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Stationary and Prototype Semi-Permanent Molding and Pouring/Casting (Unit 101)
SCC# 3-04-001-14
This is a casting process which utilizes permanent steel molds and one-time resin-set sand cores.

	Maximum Throughput			
	LBS/HR	TON/HR	Control Device:	N/A
101 Maximum Metal Throughput		2.500	Control Efficiency:	N/A
101 Limited Metal Throughput	5000	2.500		

TYPE OF MATERIAL								
Aluminum								
Emission Factor	**PM * (lb/ton metal)**	**PM10 (lb/ton metal)**	**PM2.5 (lb/ton metal)**	**SO2 (lb/ton metal)**	**NOx (lb/ton metal)**	**VOC (lb/ton metal)**	**CO (lb/ton metal)**	**Total HAPs (lb/ton metal)**
	5.28	7.72	7.72	0.02	0.01	2.274	0.00	0.368
Potential Uncontrolled Emissions lbs/hr (101)	13.20	19.30	19.30	0.05	0.03	5.69	0.00	0.92
Potential Uncontrolled Emissions tons/year (101)	**57.82**	**84.53**	**84.53**	**0.22**	**0.11**	**24.90**	**0.00**	**4.03**
Limited Uncontrolled Emissions tons/year (101)	**57.82**	**84.53**	**84.53**	**0.22**	**0.11**	**24.90**	**0.00**	**4.03**

- PM and PM10 emissions are based on the maximum allowable PM and PM10 emission limits.
- VOC emission factor based on 1.71 lb/ton obtained from 1994 stack test increased to 2.274 lbs/ton to allow the unit to emit the maximum VOC emissions while maintaining source-wide emissions from units installed in 1984 at less than 100 tons/yr to render 326 IAC 2-2 (PSD) not applicable and to ensure that VOC emissions from this unit are less than 25 tons/yr to render 326 IAC 8-1-6 not applicable.
- Stack test results for Unit 101 conducted on 06/06/07 had a PM emission rate of 0.31 lb/ton, PM10 emission rate of 0.34 lb/ton, VOC emission rate of 1.46 lb/ton metal.
- The emission factors for PM and PM10 have been scaled up for a conservative analysis and are set in order to render 326 IAC 2-2 not applicable.
- Emission factors for SO2 and NOx are from and WebFIRE, Industrial Processes - Secondary Metal Production - Aluminum - Pouring/Casting (SCC 3-04-001-14).
- Emission factor for Total HAPs from: *Organic Hazardous Air Pollutant Emission Factors for Iron Foundries* , Jamies Schifo, Air Quality Committee, American Foundry Society, June 17, 2007.

HF emissions, which come from fluxing operations. The next worst HAP would be hexane. Even if all the HAP from the Semi-Permanent Molding Operation was hexane, the total hexane PTE would still be less than ten (10) tons per year, and therefore the source would still be considered an area source.

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr
Note: PM10 Emission factor from 2001 stack test.

NEW Stationary and Prototype Semi-Permanent Molding and Pouring/Casting (Unit 101A)
SCC# 3-04-001-14
This is a casting process which utilizes permanent steel molds and one-time resin-set sand cores.

	Maximum Throughput			
	TON/HR	TON/YR	Control Device:	N/A
101 Maximum Metal Throughput	2.0	17520	Control Efficiency:	N/A

TYPE OF MATERIAL								
Aluminum								
Emission Factor	**PM * (lb/ton metal)**	**PM10 (lb/ton metal)**	**PM2.5 (lb/ton metal)**	**SO2 (lb/ton metal)**	**NOx (lb/ton metal)**	**VOC (lb/ton metal)**	**CO (lb/ton metal)**	**Total HAPs (lb/ton metal)**
	0.43	0.43	0.43	0.02	0.01	1.460	0.00	0.368
Potential Uncontrolled Emissions lbs/hr (101A)	0.86	0.86	0.86	0.04	0.02	2.92	0.00	0.74
Potential Uncontrolled Emissions tons/year (101A)	**3.77**	**3.77**	**3.77**	**0.18**	**0.09**	**12.79**	**0.0**	**3.22**

- Stack test results for Unit 101 conducted on 06/06/07 had a PM emission rate of 0.31 lb/ton, PM10 emission rate of 0.34 lb/ton, VOC emission rate of 1.46 lb/ton metal.
- The emission factors for PM and PM10 have been scaled up for a conservative analysis.
- Emission factors for SO2 and NOx are from and WebFIRE, Industrial Processes - Secondary Metal Production - Aluminum - Pouring/Casting (SCC 3-04-001-14).
- Emission factor for Total HAPs from: *Organic Hazardous Air Pollutant Emission Factors for Iron Foundries* , Jamies Schifo, Air Quality Committee, American Foundry Society, June 17, 2007.

HF emissions, which come from fluxing operations. The next worst HAP would be hexane. Even if all the HAP from the Semi-Permanent Molding Operation was hexane, the total hexane PTE would still be less than ten (10) tons per year, and therefore the source would still be considered an area source.

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr

TSD Apendix A: Emission Calculations
Unit 200: Sand Silo #5 and Unit 210: Sand Silo

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Core Sand Silos (Units 200 and 210)

	Maximum Throughput	
	LBS/HR	TON/HR
Unit 200	6000	3.000
Unit 210	500	0.250

Unit 200 Control Device: Dust Collector
Control Efficiency: 98.90%

TYPE OF MATERIAL						
Sand						
Emission Factor	**PM (lbs/ton sand)**	**PM10 (lbs/ton sand)**	**SOx (lbs/ton sand)**	**NOx (lbs/ton sand)**	**VOC (lbs/ton sand)**	**CO (lbs/ton sand)**
	0.5	0.011	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions lbs/hr (200)	1.50	0.03	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year (200)	**6.57**	**0.14**	**0.00**	**0.00**	**0.00**	**0.00**
Potential Controlled Emissions lbs/hr (200)	0.02	3.6E-04	0.00	0.00	0.00	0.00
Potential Controlled Emissions tons/year (200)	**0.07**	**1.6E-03**	**0.00**	**0.00**	**0.00**	**0.00**
Potential Uncontrolled Emissions lbs/hr (210)	0.13	2.8E-03	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year (210)	**0.55**	**0.01**	**0.00**	**0.00**	**0.00**	**0.00**
Combined Uncontrolled Emissions tons/year (200 and 210)	**7.12**	**0.16**	**0.00**	**0.00**	**0.00**	**0.00**

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr
According to Part 70 Operating Permit Renewal T039-18250-00191, issued on August 16, 2006, the PM emission factor is based on those for similar processes at other sources and best engineering judgement and the PM10 emission factor based on sieve test results.

Core Sand Handling (Units 200 and 210)

	Maximum Throughput	
	LBS/HR	TON/HR
Unit 200	6000	3.000
Unit 210	500	0.250

Control Device: N/A
Control Efficiency: N/A

TYPE OF MATERIAL						
Sand						
Emission Factor	**PM (lbs/ton sand)**	**PM10 (lbs/ton sand)**	**SOx (lbs/ton sand)**	**NOx (lbs/ton sand)**	**VOC (lbs/ton sand)**	**CO (lbs/ton sand)**
	1.02	0.022	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions lbs/hr (200)	3.06	0.07	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year (200)	**13.40**	**0.29**	**0.00**	**0.00**	**0.00**	**0.00**
Potential Uncontrolled Emissions lbs/hr (210)	0.26	0.01	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year (210)	**1.12**	**0.02**	**0.00**	**0.00**	**0.00**	**0.00**
Combined Uncontrolled Emissions tons/yr (200 and 210)	**14.52**	**0.31**	**0.00**	**0.00**	**0.00**	**0.00**

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr
Note: PM emission factor based on a January, 1972 article in Modern Casting titled "An inventory of foundry emissions" by Bernard S. Gutow and best engineering judgement.
PM10 emission factor based on sieve test results.

TSD Apendix A: Emission Calculations
Unit 350: Mold Blast Room

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Mold Blast Room (Unit 350)
SCC# 3-04-003-40

	Maximum Throughput		Control Device:	Control Efficiency:
	LBS/HR	TON/HR		
Unit 350	62400	31.200	baghouse for 350 (DC-12)	99.90%

TYPE OF MATERIAL						
Sand						
Emission Factor	**PM (lbs/ton sand)**	**PM10 (lbs/ton sand)**	**SOx (lbs/ton sand)**	**NOx (lbs/ton sand)**	**VOC (lbs/ton sand)**	**CO (lbs/ton sand)**
	17	1.7	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions lbs/hr (350)	530.40	53.04	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year (350)	**2323.15**	**232.32**	**0.00**	**0.00**	**0.00**	**0.00**
Potential Controlled Emissions lbs/hr (350)	0.53	0.05	0.00	0.00	0.00	0.00
Potential Controlled Emissions tons/year (350)	**2.32**	**0.23**	**0.00**	**0.00**	**0.00**	**0.00**
Limited Emissions tons/yr (350)	**24.88**	**14.89**	**N/A**	**N/A**	**N/A**	**N/A**

Methodology
Potential Emissions (lbs/hr) = Emission factor (lb/ton) x Throughput (ton/hr)
Potential Emissions (ton/yr) = Potential Emissions (lbs/hr) / 2000 (lbs/ton) x 8760 hrs/yr
Emission factors for PM and PM10 are from and WebFIRE, IIndustrial Processes - Secondary Metal Production - Grey Iron Foundries - Grinding/Cleaning (SCC 3-04-003-40).
Limited Emissions established in order to render 326 IAC 2-2 (PSD) not applicable.

TSD Apendix A: Emission Calculations
Unit 210: Core Making - VOC and HAPs

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Machine	Date of Construction	Capacity (tons cores/hr)	Maximum Resin Content (%)	VOC Emission Factor from Resin Evaporation (lb/ton cores)	Max Catalyst Usage (lb catalyst/ton cores)	Potential VOC Emissions from resin evap (ton/yr)	Potential VOC Emissions from Catalyst Usage (ton/yr)	Total Potential VOC Emissions (ton/yr)
Phenolic Urethane No Bake Core Making								
Prototype Core Making*	1984	0.25	1.8%	1.8	2	1.97	1.86	3.83
Total						1.97	1.86	3.83

* Catalyst used in Prototype Core Making is not a TEA catalyst. It contains a maximum of 85% VOC.
Potential VOC Emissions from resin evap (ton/yr) = Capacity (ton core/hr) x VOC Emission Factor from Resin Evaporation (lb/ton core) x (8760 hr/yr) x (1 ton/2000 lb)
Potential VOC Emissions from Catalyst Usage (ton/yr) = Capacity (ton cores/hr) x Maximum Catalyst Usage (lb catalyst/ton core) x Wt% VOC in catalyst x (8760 hr/yr) x (1 ton/2000 lb)

Material	Maximum Usage (lb/hr)	Weight % MDI	Weight % Phenol	MDI Emissions (ton/yr)	Phenol Emissions (ton/yr)	Total HAPs (ton/yr)
Phenolic Urethane No Bake Core Making (Unit 210)						
Part I Binder	2.50	0.00%	4.30%	0.00	0.00	0.00
Part II Binder	2.00	39.76%	0.00%	0.00	0.00	0.00
Catalyst	0.50	0.00%	0.00%	0.00	0.00	0.00
			Total:	0.00	0.00	0.00

Release Rates of HAPs During the Core Making Process

Pollutant	Phenolic Urethane No Bake Part I % Released	Phenolic Urethane No Bake Part II % Released
Phenol	0.00%	N/A
MDI	N/A	0.00%
Formaldehyde	2.00%	N/A
Xylene	5.85%	5.85%
Naphthalene	5.85%	5.85%
Cumene	5.85%	5.85%
1,2,4 Trimethylbenzene	5.85%	5.85%

Methodology
Max. Hourly Resin Usage Rate = Max. Annual Resin Usage rate (lbs/yr) / 8,760 (hrs/yr)
HAP Emissions from Resins (ton/yr) = Max. Hourly Usage Rate * % HAP * % Released * 8760 hrs/yr * 1 ton/2000 lbs
% Released obtained from *Form R Reporting of Binder Chemicals Used in Foundries, 4th Ed* , American Foundry Society and Casting Industry Suppliers Association, 2007. This is the amount of HAP released during the core making process.

TSD Apendix A: Emission Calculations
Insignificant Activities: Natural Gas Combustion

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

			Criteria Pollutants							GHGs				
			PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
		Emission Factor (lb/MMCF)	1.9	7.6	7.6	0.6	100.0	5.5	84.0	120000	0.64	2.3		
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)											
003A-G Holding Furnaces (7)	16.8	144.3	0.137	0.548	0.548	0.043	7.211	0.397	6.060	8656.94	0.05	0.17	8657.2	8674.7
040A-D Solution Heat Treat Furnaces (4)	24.21	207.9	0.198	0.790	0.790	0.062	10.392	0.572	8.733	12475.27	0.07	0.24	12475.6	12500.9
045A-C Aging Heat Treating Furnaces (3)	4.1	35.2	0.033	0.134	0.134	0.011	1.760	0.097	1.479	2112.71	0.01	0.04	2112.8	2117.0
050 Heat Treat Quench Tank Tube Burners (6)	10.98	94.3	0.090	0.358	0.358	0.028	4.713	0.259	3.961	5657.93	0.03	0.11	5658.1	5669.6
040E Heat Treat Solution & Aging Furnace (1)	9.5	81.6	0.078	0.310	0.310	0.024	4.078	0.224	3.427	4895.29	0.03	0.09	4895.4	4905.4
060A-E Air Make Up Units (5)	25	214.7	0.204	0.816	0.816	0.064	10.731	0.590	9.018	12882.35	0.07	0.25	12882.7	12908.8
060F-K Air Make Up Units (6)	30	257.6	0.245	0.979	0.979	0.077	12.877	0.709	10.821	15458.82	0.08	0.30	15459.2	15490.6
060L-Q Air Make Up Units (6)	30	257.6	0.245	0.979	0.979	0.077	12.877	0.709	10.821	15458.82	0.08	0.30	15459.2	15490.6
060R-V Air Make Up Units (5)	25	214.7	0.204	0.816	0.816	0.064	10.731	0.590	9.018	12882.35	0.07	0.25	12882.7	12908.8
060W-Y Air Make Up Units (3)	15	128.8	0.122	0.490	0.490	0.039	6.439	0.354	5.411	7729.41	0.04	0.15	7729.6	7745.3
070 Mold Heating Units (46)	11.5	98.8	0.094	0.375	0.375	0.030	4.936	0.272	4.148	5925.88	0.03	0.11	5926.0	5938.1
380 Fluorescent Penetrant Inspection Station	0.8	6.9	0.007	0.026	0.026	0.002	0.343	0.019	0.289	412.24	0.00	0.01	412.2	413.1
		Total:	1.66	6.62	6.62	0.52	87.09	4.79	73.18	104548.02	0.56	2.00	104550.58	104762.96

Emission Factors are from AP-42, Tables 1.4-1 and 1.4-2. NOx EF based on uncontrolled emissions for small boilers.
*PM is filterable only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.

			HAPs - Organics					HAPs - Metals					Total HAPs
			Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	Lead	Cadmium	Chromium	Manganese	Nickel	
		Emission Factor (lb/MMCF)	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	1.8880
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Potential Emissions (tons/yr)										
003A-G Holding Furnaces (7)	16.8	144.3	1.5E-04	8.7E-05	5.4E-03	1.3E-01	2.5E-04	3.6E-05	7.9E-05	1.0E-04	2.7E-05	1.5E-04	1.4E-01
040A-D Solution Heat Treat Furnaces (4)	24.21	207.9	2.2E-04	1.2E-04	7.8E-03	1.9E-01	3.5E-04	5.2E-05	1.1E-04	1.5E-04	4.0E-05	2.2E-04	2.0E-01
045A-C Aging Heat Treating Furnaces (3)	4.1	35.2	3.7E-05	2.1E-05	1.3E-03	3.2E-02	6.0E-05	8.8E-06	1.9E-05	2.5E-05	6.7E-06	3.7E-05	3.3E-02
050 Heat Treat Quench Tank Tube Burners (6)	10.98	94.3	9.9E-05	5.7E-05	3.5E-03	8.5E-02	1.6E-04	2.4E-05	5.2E-05	6.6E-05	1.8E-05	9.9E-05	8.9E-02
040E Heat Treat Solution & Aging Furnace (1)	9.5	81.6	8.6E-05	4.9E-05	3.1E-03	7.3E-02	1.4E-04	2.0E-05	4.5E-05	5.7E-05	1.6E-05	8.6E-05	7.7E-02
060A-E Air Make Up Units (5)	25	214.7	2.3E-04	1.3E-04	8.1E-03	1.9E-01	3.7E-04	5.4E-05	1.2E-04	1.5E-04	4.1E-05	2.3E-04	2.0E-01
060F-K Air Make Up Units (6)	30	257.6	2.7E-04	1.5E-04	9.7E-03	2.3E-01	4.4E-04	6.4E-05	1.4E-04	1.8E-04	4.9E-05	2.7E-04	2.4E-01
060L-Q Air Make Up Units (6)	30	257.6	2.7E-04	1.5E-04	9.7E-03	2.3E-01	4.4E-04	6.4E-05	1.4E-04	1.8E-04	4.9E-05	2.7E-04	2.4E-01
060R-V Air Make Up Units (5)	25	214.7	2.3E-04	1.3E-04	8.1E-03	1.9E-01	3.7E-04	5.4E-05	1.2E-04	1.5E-04	4.1E-05	2.3E-04	2.0E-01
060W-Y Air Make Up Units (3)	15	128.8	1.4E-04	7.7E-05	4.8E-03	1.2E-01	2.2E-04	3.2E-05	7.1E-05	9.0E-05	2.4E-05	1.4E-04	1.2E-01
070 Mold Heating Units (46)	11.5	98.8	1.0E-04	5.9E-05	3.7E-03	8.9E-02	1.7E-04	2.5E-05	5.4E-05	6.9E-05	1.9E-05	1.0E-04	9.3E-02
380 Fluorescent Penetrant Inspection Station	0.8	6.9	7.2E-06	4.1E-06	2.6E-04	6.2E-03	1.2E-05	1.7E-06	3.8E-06	4.8E-06	1.3E-06	7.2E-06	6.5E-03
		Total:	1.8E-03	1.0E-03	6.5E-02	1.6E+00	3.0E-03	4.4E-04	9.6E-04	1.2E-03	3.3E-04	1.8E-03	1.6E+00

Emission Factors are from AP-42, Tables 1.4-3 and 1.4-4.
The five highest organic and metal HAPs emission factors are provided above. Additional HAPs are available in the AP-42 tables referenced above.
Total HAPs is the sum of all HAP emission factors listed in AP-42 Tables 1.4-3 and 1.4-4.

Methodology
Heating Value of Natural Gas is assumed to be 1020 MMBtu/MMCF
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,020 MMBtu
Potential Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) * (1 ton/2,000 lb)

GHGs:
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)

$$CO2e = \sum_{i=1}^{n} GHG_i \bullet GWP_i$$

Where: CO2e = carbon dioxide equivalent (ton/yr)
GHGi = mass emission rate of each greenhouse gas (ton/yr)
GWPi = global waming potential for each greenhouse gas
n = number of greenhouse gases emitted
GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO2, 21 for CH4, 310 for N2O

TSD Apendix A: Emission Calculations
Insignificant Activities: Propane Combustion

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

			Criteria Pollutants							GHGs				
			PM*	PM10*	PM2.5*	SO2**	NOx	VOC	CO	CO2	N2O	CH4	GHG Mass-Based	CO2e
		Emission Factor (lb/kgal)	0.2	0.7	0.7	1.5	13.0	0.8	7.5	12500	0.9	0.2		
Emission Unit	Heat Input Capacity (MMBtu/hr)	Potential Throughput (kgal/yr)	Potential Emissions (tons/yr)											
Propane-Fired GMAW Stations (2)	0.08144	7.8	0.001	0.003	0.003	0.006	0.051	0.003	0.029	48.73	0.004	0.001	48.7	49.8
Propane-Fired Pressure Washer (1)	0.022905	0.2	0.00002	0.00007	0.00007	0.00015	0.001	0.000	0.001	1.23	0.00009	0.00002	1.2	1.3
		Total:	0.001	0.003	0.003	0.006	0.05	0.003	0.03	49.96	0.004	0.001	49.96	51.09

Emission Factors are from AP-42, Table 1.5-1.
*PM is filterable only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.
**SO2 emission factor is 0.1S, S = sulfur content = 15 gr/100 scf (from Gas Processors Association Engineering Data Book, 9th Ed., 1972 for commercial propane)

Methodology
Heating Value of Propane is assumed to be 91.5 MMBtu/kgal
Potential Throughput (kgal/yr) = Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 kgal/91.5 MMBtu
Potential Emission (tons/yr) = Throughput (kgal/yr) * Emission Factor (lb/kgal) * (1 ton/2,000 lb)

GHGs:
GHG Mass-Based (ton/yr) = CO2 (ton/yr) + N2O (ton/yr) + CH4 (ton/yr)

$$CO2e = \sum_{i=1}^{n} GHG_i \bullet GWP_i$$

Where: CO2e = carbon dioxide equivalent (ton/yr)
GHGi = mass emission rate of each greenhouse gas (ton/yr)
GWPi = global waming potential for each greenhouse gas
n = number of greenhouse gases emitted
GWPs from 40 CFR 98, Subpart A, Table A-1: 1 for CO2, 21 for CH4, 310 for N2O

TSD Apendix A: Emission Calculations
Insignificant Activities: Emergency Back-Up Generator

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

			Criteria Pollutants							HAPs		GHGs				
			PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO	Worst (Formalde-hyde)	Total HAPs	CO2	N2O	CH4	GHG Mass-Based	CO2e
Emission Factor (lb/MMBtu)			0.03840	0.0483	0.0483	0.02	2.7	0.2	1.16	0.0552	0.0795	110	0.001	0.6		
Emission Unit	Site Rating (kW)	Max Capacity (MMBtu/hr)	Potential Emissions (tons/yr)													
Emergency NG Fire Pump	15	0.1	0.0005	0.001	0.001	0.0003	0.035	0.003	0.015	0.0007	0.0010	1.408	0.00001	0.008	1.4	1.6

Emission Factors for NOx, CO, VOC, SO2, CO2, and CH4 are from AP-42, Table 3.4-1. For the SO2 emission factor, it was assumed that the % sulfur in diesel is 0.4% and the % sulfur in natural gas is negligible based on AP-42 Appendix A.

Emission Factors for PM, PM10, PM2.5, and total HAPs are from AP-42, Table 3.2-1.

Emission Factor for N2O from AP-42, Table 1.4-1

*PM is filterable only. PM10 and PM2.5 emission factors are filterable and condensable PM combined.

Max Capacity (MMBtu/hr) = Site Rating (kW) x 0.003413 MMBtu/hr/kW
Potential Emissions (ton/yr) = Max Capacity (MMBtu/hr) x Emission Factor (lb/MMBtu) x (500 hr/yr) x (1 ton/2000 lb)

TSD Apendix A: Emission Calculations
Insignificant Activities: Cold Cleaner Degreasing Units

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Cold Cleaner Description (Activities Commenced in 1984)	Emission Unit ID	Solvent Used *	Actual Usage *	Units	Use Factor **
Cold Cleaner - Tool Room	390A	Crystal Clean 142+ Mineral Spirits	120	Gal/Yr	25%
Cold Cleaner - Maintenance	390B	Crystal Clean 142+ Mineral Spirits	20	Gal/Yr	4%
Cold Cleaner - Portable	390C	Crystal Clean 142+ Mineral Spirits	0	Gal/Yr	0%
Totals					

* Based on 2010 purchasing and unit service records. Appr 20 gallons charged per active unit every two months.
** Tool Room Unit active through 2010, potential based off of typical unit use during operation, estimated at 25%.
When active, Maintenance and Portable units similar size and use characteristics as Tool Room unit.

Description and Date	Maximum Usage	Units	Density (Lb/Gal)	Weight Percent VOCs	Potential VOC Emissions	Units
Cold Cleaner - Tool Room - 1984	480	Gal/Yr	8.173	100%	1.962	Tons/Yr
Cold Cleaner - Maintenance - 1984	480	Gal/Yr	8.173	100%	1.962	Tons/Yr
Cold Cleaner - Portable - 1984	480	Gal/Yr	8.173	100%	1.962	Tons/Yr
		Total Potential VOCs - Cold Cleaners:			5.885	Tons/Yr

Methodology
* Crystal Clean Premium 142+ Mineral Spirits MSDS:
100% Distillates (petroleum), aliphatic, CAS 64742-47-8, 100%
Percent VOC: 100%. No listed HAPs
Specific Gravity 0.78 - 0.98 lb/gal (use max in emissions calculation)
Calculated Density: (8.34 lb/gal x 0.98) = 8.173 lb/gal
Maximum Usage (gal/yr) = actual usage (gal/yr) / Use Factor
Potential VOC Emssions (ton/yr) = Maximum Usage (gal/yr) x Density (lb/gal) x Wt.% VOC x (1 ton/2000 lb)

TSD Apendix A: Emission Calculations
Insignificant Activities: Welding, Brazing, Soldering, and Cutting

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Process WELDING, BRAZING, SOLDERING	Number of Stations	Max. Electrode Consumption per Station (lbs/hr)		EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				HAPS (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
SMAW	3	2		0.0184	0.001030	0.000002	0.000006	0.110400	0.006180	0.000012	0.000036	0.006228
GMAW	3	2		0.0055	0.000300	0.000001	0.000001	0.033000	0.001800	0.000006	0.000006	0.001812
MIG	5	2		0.0055	0.000300	0.000001	0.000001	0.055000	0.003000	0.000010	0.000010	0.003020
TIG (Speciality Metals)	2	2		0.0055	0.000250	0.000250	0.000500	0.022000	0.001000	0.001000	0.002000	0.004000
TIG (Aluminum)	3	5		0.0055	0.000019	0.000007	0.000000	0.082500	0.000289	0.000103	0.000000	0.000392
FCAW	1	2		0.057	0.000704	0.000102	0.000969	0.114000	0.001408	0.000204	0.001938	0.003550
Stick	1	2		0.0211	0.000900	0.000005	0.000005	0.042200	0.001800	0.000010	0.000010	0.001820
Brazing	1	2		0.0055	0.000300	0.000001	0.000001	0.011000	0.000600	0.000002	0.000002	0.000604
Soldering	1	1		0	0	0	0	0	0	0	0	0
TORCH CUTTING	Number of Stations	Max. Metal Thickness Cut (in)	Max. Metal Cutting Rate (in/min)	EMISSION FACTORS * (lb pollutant / 1,000 in cut, 1" thick)				EMISSIONS (lb/hr)				HAPS (lb/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
Oxyacetylene	13	0.5	15	0.1622	0.0005	0.0001	0.0003	0.94887	0.002925	0.000585	0.001755	0.005265
Total (lb/hr)								1.419	0.019	0.002	0.006	0.027
Total (ton/yr)								6.215	0.083	0.008	0.025	0.117

Methodology

Unless otherwise specified, welding emission factors are values for carbon steel, which represents the most commonly used rod/wire/electrodes.
SMAW (Shielded Metal Arc Welding): AP 42, Table 12.19.1-2; E7018 Electrode
GMAW (Gas Metal Arc Welding - General): AP 42, Table 12.19.1-2; E70s Electrode
MIG (Metal Inert Gas, a form of GMAW): AP 42, Table 12.19.1-2; E70s Electrode
TIG (Tungsten Inert Gas, or Gas Tunsten Arc Welding): Average of factors in AP 42, Table 12.19.1-2 for carbon steel & various speciality metals.
TIG Aluminum: Production Welding using TIG PM factor and mazimum percent Mn, Ni and Cr in processed aluminum alloy castings.
FCAW (Flux Cored Arc Welding): AP 42, Table 12.19.1-2; E11018 Electrode
Stick: Published representative emission factors from AP-42 & AWS guidance for E7018 carbon steel electrodes
Welding Emissions (lb/hr) = (# of stations) x (max. lbs of electrode used/hr/station) x (emission factor, lb pollutant/lb of electrode used)
Brazing: Use similar emissions as TIG for carbon steel and various specialty metals.
Soldering: Published Emission Factors Not Available. Reference published guidance document by San Diego Air Pollution Control District indicating that particulate/fume emissions from soldering are assumed to be negligible based on the anticipated difference between the boiler point of the solder material and the actual operating temerature.
Cutting emission factor obtained from Amercian Welding Society (AWS) reference.
Cutting emissions (lb/hr) = (# of stations) x (max. metal thickness, in) x (max cutting rate in/min) x (60 min/hr) x (emission factor, lb pollutant / 1000 in cut, 1" thick)
Emissions (tons/yr) = emissions (lb/hr) x 8760 hr/year x 1 ton / 2000 lb

TSD Apendix A: Emission Calculations
Insignificant Activities: Blasting

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Uncontrolled Grinding Emission Factors (lb/ton Al 319)

PM	PM-10	PM2.5	CrC	PbC	MnC	NiC
17	1.7	1.7	0	0	0	0

Aluminum A319 Grinding
Aluminum A356 Grinding
Shot Blasting (Steel Shot)
* Source for PM: EPA AP-42, Chapter 12-10 / SCC 3-04-003-40 & Related Ref.
(Casting Cleaning/Finishing; includes Grinding and Shot Blasting operations)
Steel shot is 100% carbon steel, no listed HAPs on MSDS.
Control Efficiency: 99.9%
(Overall Control Efficiency, Minimum Manufacturer Specifications)

Uncontrolled Potential to Emit

Description	Emission Unit ID	Maximum Throughput	PM	PM10	PM2.5	CrC	PbC	MnC	NiC	Total HAPs
		(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Steel Chill Shot Blast Station	330	8760.00	74.46	7.45	7.45	0.00	0.00	0.00	0.00	0.00
Totals			74.46	7.45	7.45	0.00	0.00	0.00	0.00	0.00

Controlled Potential to Emit

Description	Emission Unit ID	Maximum Throughput	PM	PM10	PM2.5	CrC	PbC	MnC	NiC	Total HAPs
		(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)	(ton/yr)
Steel Chill Shot Blast Station	330	8760.00	0.074	0.007	0.007	0.000	0.000	0.000	0.000	0.000
Totals			0.074	0.007	0.007	0.0000	0.0000	0.0000	0.0000	0.0000

Maximum throughput (ton/yr) = Capacity (ton/hr) x 8760 (hr/yr).
Uncontrolled Potential to Emit (ton/yr) = Max Throughput (ton/yr) x Emission Factor (lb/ton) x (1 ton/2000 lb)
Controlled Potential to Emit (ton/yr) = Uncontrolled Potential to Emit (ton/yr) x (1 - Control Efficiency)

Limited Potential to Emit

Description	Emission Unit ID	PM	PM10	PM	PM10
		(lb/hr)	(lb/hr)	(ton/yr)	(ton/yr)
Steel Chill Shot Blast Station	330	1.70	0.17	7.45	0.74
Totals		1.70	0.17	7.45	0.74

TSD Apendix A: Emission Calculations
Insignificant Activities: Paved and Unpaved Roads

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Unpaved Roads
The following calculations determine the amount of emissions created by unpaved roads, based on AP-42, Ch 13.2.2 (11/2006)

Parameter		PM	PM10	PM2.5	Source/Method
Ef =	particulate emission factor (lb/VMT)	6.58	1.75	0.18	= k*[(s/12)^a]*[(W/3)^b], Ch. 13.2.2, eqn (1a)
k =	empirical constant (lb/VMT)	4.9	1.5	0.15	Table 13.2.2-2
a =	empirical constant	0.7	0.9	0.9	Table 13.2.2-2
b =	empirical constant	0.45	0.45	0.45	Table 13.2.2-2
s =	surface material silt content (%)	6	6	6	Table 13.2.2-1 (for iron and steel production)
W =	mean weight of vehicles traveling the road (tons)	17.0	17.0	17.0	Provided by the source
VMT/yr =	vehicle miles traveled per year	10	10	10	Provided by the source
PTE =	Potential to Emit (ton/yr)	0.033	0.009	0.001	= Ef (lb/VMT) x VMT/yr x (1 ton/2000 lb)

Taking natural mitigation due to precipitation into consideration:

Parameter		PM	PM10	PM2.5	Source/Method
Eext =	particulate emission factor extrapolated for natural mitigation (lb/VMT)	4.33	1.15	0.12	= Ef*[(365-P)/365], Ch. 13.2.2, eqn (2)
P =	number of days in a year with at least 0.01 in of precipitation	125	125	125	Based on Figure 13.2.2-1
PTE =	Potential to Emit (ton/yr)	0.022	0.006	0.001	= Eext (lb/VMT) x VMT/yr x (1 ton/2000 lb)

Paved Roads
The following calculations determine the amount of emissions created by paved roads, based on AP-42, Ch 13.2.1 (1/2011)

Parameter		PM	PM10	PM2.5	Source/Method
Ef =	particulate emission factor (lb/VMT)	1.63	0.33	0.08	= k*(sL^0.91)*(W^1.02), Ch. 13.2.1, eqn (1)
k =	particle size multiplier (lb/VMT)	0.011	0.0022	0.00054	Table 13.2.1-1
sL =	road surface silt loading (g/m2)	9.7	9.7	9.7	Table 13.2.1-4 (for iron and steel production)
W =	average weight of vehicles traveling the road (tons)	17.7	17.7	17.7	Provided by the source
VMT/yr =	vehicle miles traveled per year	1288	1288	1288	Provided by the source
PTE =	Potential to Emit (ton/yr)	1.05	0.21	0.05	= Ef (lb/VMT) x VMT/yr x (1 ton/2000 lb)

Taking natural mitigation due to precipitation into consideration:

Parameter		PM	PM10	PM2.5	Source/Method
Eext =	particulate emission factor extrapolated for natural mitigation (lb/VMT)	1.49	0.30	0.07	= Ef*[1 - (P/4N)], Ch. 13.2.1, eqn (2)
P =	number of days in a year with at least 0.01 in of precipitation	125	125	125	Based on Figure 13.2.1-2
N =	number of days in a year	365	365	365	
PTE =	Potential to Emit (ton/yr)	0.96	0.19	0.05	= Eext (lb/VMT) x VMT/yr x (1 ton/2000 lb)

TSD Apendix A: Emission Calculations
PSD Minor Limits

Company Name: Diversified Machine Bristol, Inc.
Source Location: 51650 County Road 133, Bristol, IN 46507
Source Modification/Permit Modification No.: SSM 039-34030-00191 and SPM 039-34082-00191
Permit Reviewer: Heath Hartley

Background

The PTE from Diversified Machines Bristol, Inc. was limited in the First Part 70 Operating Permit Renewal (T039-18250-00191) such that the PTE from units still existing from the original construction of the source in 1984 were less than the PSD major source threshold of 100 tons per year for each pollutant. A project occurring in 1994 was limited such that the PTE of the project was less than the PSD major source threshold of 100 tons per year for each pollutant. Subsequent projects were limited to less than the PSD significant levels where appropriate. During the review of this second Part 70 Operating Permit Renewal, it was determined that some limits may need to be adjusted and new limits may need to be added to ensure that the PTE is below the desired levels to render 326 IAC 2-2 (PSD) not applicable. This evaluation will show the PTE with existing limits, conservative estimate of actual emissions, and the new limited PTE. A conservative approach to estimating actual emissions will show that PSD would not have been triggered.

1984 - Original Source Construction

Existing Limited PTE - 1984 Original Source Construction

The first Part 70 Operating Permit Renewal (T039-18250-00191) adjusted PSD minor limits for the original construction project based on the units that were still existing and operating. Below is a summary of these units with the limited PTE. Note that some units are controlled, but these controls were not taken into account if they weren't part of a federally enforceable limit.

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1984	101	Molding Operation	57.82	84.53	0.22	0.11	24.90	0	Metal throughput limit of 21,900 ton/yr; PM < 7.147 lb/ton metal; PM10 < 7.74 lb/ton metal; VOC < 2.274 lb/ton metal
	200	Sand Silo #5	19.97	0.43	0	0	0	0	Unlimited / Uncontrolled
	210	Core Making Operation	1.66	0.04	0	0	0	0	Unlimited
	003A-G	7 Al NG Holding Furnaces	0.14	0.55	0.04	7.21	0.40	6.06	Unlimited
	060A-E	5 Make Up Air Units	0.20	0.82	0.06	10.73	0.59	9.02	Unlimited
	070	46 Mold Heating Units	0.09	0.38	0.03	4.94	0.27	4.15	Unlimited
	309A-C	3 Degreasing Units	0	0	0	0	5.88	0	Unlimited
	401A-C	3 SMAW Stations	0.48	0.48	0	0	0	0	Unlimited
	402A-B	3 GMAW Stations	0.14	0.14	0	0	0	0	Unlimited
	403A-E	5 MIG Welding Stations	0.24	0.24	0	0	0	0	Unlimited
	404A-B	2 TIG Welding Stations	0.10	0.10	0	0	0	0	Unlimited
	405A-C	3 TIG Welding Stations	0.36	0.36	0	0	0	0	Unlimited
	406A	1 FCAW Station	0.50	0.50	0	0	0	0	Unlimited
	407A	1 Stick Welding Operation	0.18	0.18	0	0	0	0	Unlimited
	408A	1 Brazing Operation	0.05	0.05	0	0	0	0	Unlimited
	409A	1 Soldering Operation	0	0	0	0	0	0	Unlimited
	410A-M	13 Flame Cutting Torches	4.16	4.16	0	0	0	0	Unlimited
	290A-B	2 Grinding Stations	297.84	29.78	0	0	0	0	Unlimited / Uncontrolled (Note: these units have now been removed)
	300A-C	3 Grinding Stations	446.76	44.68	0	0	0	0	Unlimited / Uncontrolled (Note: these units have now been removed)
	310 and 320	2 Shot Blast Units	595.68	59.57	0	0	0	0	Unlimited / Uncontrolled (Note: these units have now been removed)
	330	1 Shot Blast Unit	74.46	7.45	0	0	0	0	Unlimited / Uncontrolled
		Paved and Unpaved Roads	1.08	0.22	0	0	0	0	Unlimited
		Misc Other Insignificant Activities (estimate)	5.00	5.00	0	0	3	0	Estimate
		1984 Total:	**1506.93**	**239.65**	**0.36**	**22.99**	**32.04**	**19.23**	
		PSD Major Source Threshold:	100	100	100	100	100	100	

Since the limited PTE exceeds the PSD major source threshold, additional evaluation of actual emissions is needed.

Conservative Estimate of Actual Emissions - 1984 Original Source Construction

The table below provides a conservative estimate of actual emissions based on stack test results of emission rates, limited throughput rates, and conservative controlled values. Note that actual emissions may be even less year-to-year based on actual melt rates and control of Sand Silo #5.

			Conservative Estimate of Actual Emissions (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1984	101	Molding Operation	3.39	3.72	0.22	0.11	15.99	0	Metal throughput limit of 21,900 ton/yr; PM = 0.31 lb/ton metal (stack test); PM10 = 0.34 lb/ton metal (stack test); VOC =1.46 lb/ton metal (stack test)
	200	Sand Silo #5	19.97	0.43	0	0	0	0	Unlimited / Uncontrolled
	210	Core Making Operation	1.66	0.04	0	0	0	0	Unlimited
	003A-G	7 Al NG Holding Furnaces	0.14	0.55	0.04	7.21	0.40	6.06	Unlimited
	060A-E	5 Make Up Air Units	0.20	0.82	0.06	10.73	0.59	9.02	Unlimited
	070	46 Mold Heating Units	0.09	0.38	0.03	4.94	0.27	4.15	Unlimited
	309A-C	3 Degreasing Units	0.00	0.00	0.00	0.00	5.88	0.00	Unlimited
	401A-C	3 SMAW Stations	0.48	0.48	0.00	0.00	0.00	0.00	Unlimited
	402A-B	3 GMAW Stations	0.14	0.14	0.00	0.00	0.00	0.00	Unlimited
	403A-E	5 MIG Welding Stations	0.24	0.24	0.00	0.00	0.00	0.00	Unlimited
	404A-B	2 TIG Welding Stations	0.10	0.10	0.00	0.00	0.00	0.00	Unlimited
	405A-C	3 TIG Welding Stations	0.36	0.36	0.00	0.00	0.00	0.00	Unlimited
	406A	1 FCAW Station	0.50	0.50	0.00	0.00	0.00	0.00	Unlimited
	407A	1 Stick Welding Operation	0.18	0.18	0.00	0.00	0.00	0.00	Unlimited
	408A	1 Brazing Operation	0.05	0.05	0.00	0.00	0.00	0.00	Unlimited
	409A	1 Soldering Operation	0.00	0.00	0.00	0.00	0.00	0.00	Unlimited
	410A-M	13 Flame Cutting Torches	4.16	4.16	0.00	0.00	0.00	0.00	Unlimited
	290A-B	2 Grinding Stations	11.91	1.19	0	0	0	0	PTE Assuming 96% Control (Estimated actual control is 99.9%)
	300A-C	3 Grinding Stations	17.87	1.79	0	0	0	0	PTE Assuming 96% Control (Estimated actual control is 99.9%)
	310 and 320	2 Shot Blast Units	23.83	2.38	0	0	0	0	PTE Assuming 96% Control (Estimated actual control is 99.9%)
	330	1 Shot Blast Unit	2.98	0.30	0	0	0	0	PTE Assuming 96% Control (Estimated actual control is 99.9%)
		Paved and Unpaved Roads	1.08	0.22	0	0	0	0	Unlimited
		Misc Other Insignificant Activities (estimate)	5.00	5.00	0	0	3	0	Estimate
		1984 Total:	**94.35**	**23.03**	**0.36**	**22.99**	**26.13**	**19.23**	
		PSD Major Source Threshold:	100	100	100	100	100	100	

Based on the above conservative analysis, the source did not exceed the PSD major source threshold. Therefore, the requirements of 326 IAC 2-2 are not applicable to these units.

TSD Apendix A: Emission Calculations
PSD Minor Limits

New Limited PTE - 1984 Original Source Construction

The table below provides the new limited PTE for the units existing from the 1984 original source construction. Some of the units have been removed from the source and are no longer included below (grinding stations 290A-B, grinding stations 300A-C, and shot blast units 310 and 320). The PM and PM10 limits for the molding operation have been adjusted from the existing limit and new PM and PM10 limits have been established for the blasting unit (330).

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1984	101	Molding Operation	57.82	84.53	0.22	0.11	24.90	0.00	Metal throughput limit of 21,900 ton/yr; PM < 5.28 lb/ton metal; PM10 < 7.72 lb/ton metal; VOC < 2.274 lb/ton metal
	200	Sand Silo #5	19.97	0.43	0.00	0.00	0.00	0.00	Unlimited / Uncontrolled
	210	Core Making Operation	1.66	0.04	0.00	0.00	0.00	0.00	Unlimited
	003A-G	7 Al NG Holding Furnaces	0.14	0.55	0.04	7.21	0.40	6.06	Unlimited
	060A-E	5 Make Up Air Units	0.20	0.82	0.06	10.73	0.59	9.02	Unlimited
	070	46 Mold Heating Units	0.09	0.38	0.03	4.94	0.27	4.15	Unlimited
	309A-C	3 Degreasing Units	0.00	0.00	0.00	0.00	5.88	0.00	Unlimited
	401A-C	3 SMAW Stations	0.48	0.48	0.00	0.00	0.00	0.00	Unlimited
	402A-B	3 GMAW Stations	0.14	0.14	0.00	0.00	0.00	0.00	Unlimited
	403A-E	5 MIG Welding Stations	0.24	0.24	0.00	0.00	0.00	0.00	Unlimited
	404A-B	2 TIG Welding Stations	0.10	0.10	0.00	0.00	0.00	0.00	Unlimited
	405A-C	3 TIG Welding Stations	0.36	0.36	0.00	0.00	0.00	0.00	Unlimited
	406A	1 FCAW Station	0.50	0.50	0.00	0.00	0.00	0.00	Unlimited
	407A	1 Stick Welding Operation	0.18	0.18	0.00	0.00	0.00	0.00	Unlimited
	408A	1 Brazing Operation	0.05	0.05	0.00	0.00	0.00	0.00	Unlimited
	409A	1 Soldering Operation	0.00	0.00	0.00	0.00	0.00	0.00	Unlimited
	410A-M	13 Flame Cutting Torches	4.16	4.16	0.00	0.00	0.00	0.00	Unlimited
	330	1 Shot Blast Unit	7.45	0.74	0.00	0.00	0.00	0.00	PM < 1.70 lb/hr (assumes 90% control); PM10 < 0.17 lb/hr (assumes 90% control)
		Paved and Unpaved Roads	1.08	0.22	0.00	0.00	0.00	0.00	Unlimited
		Misc Other Insignificant Activities (estimate)	5.00	5.00	0.00	0.00	3.00	0.00	Estimate
		1984 Total:	**99.63**	**98.92**	**0.36**	**22.99**	**35.04**	**19.23**	
		PSD Major Source Threshold:	100	100	100	100	100	100	

1993 Project

In 1993, 6 new make up air units were installed. The table below shows that the sum of the new limited PTE from the 1984 equipment and the 1993 project still is below the PSD major source thresholds and therefore, the source would have still been a minor source under PSD. No limits are required for the 1993 project.

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1993	060F-K	6 Make Up Air Units	0.24	0.98	0.08	12.88	0.71	10.82	Unlimited
		1993 Project Total:	**0.24**	**0.98**	**0.08**	**12.88**	**0.71**	**10.82**	
	Sourcewide Total After Project (New Limited PTE):		99.88	99.90	0.43	35.87	35.75	30.05	(1993 Project Total + New Limited PTE from 1984 Original Source Construction)

1994 Project

In 1994, two reverberatory furnaces were installed along with 6 make up air units. This project was considered the "second bite of the apple" for PSD and was intended to be limited to less than the PSD major source threshold of 100 tons per year to render 326 IAC 2-2 not applicable.

Existing Limited PTE - 1994 Project

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1994	020	Reverberatory Furnace C	98.90	97.32	47.35	39.98	10.52	0	Metal throughput limit of 105,120 ton/yr; Flux throughput limit of 91.98 ton/yr; PM < 1.892 lb/ton metal and flux; PM10 < 1.87 lb/ton metal and flux
	021	Reverberatory Furnace D							
	020	NG Comustion for 020	0.14	0.55	0.04	7.21	0.40	6.06	Unlimited
	021	NG Comustion for 021	0.19	0.74	0.06	9.79	0.54	8.22	Unlimited
	060L-Q	6 Make Up Air Units	0.24	0.98	0.08	12.88	0.71	10.82	Unlimited
		1994 Project Total:	**99.47**	**99.59**	**47.52**	**69.86**	**12.16**	**25.11**	
		PSD Major Source Threshold:	100	100	100	100	100	100	

Since the limited PTE exceeds the PSD major source threshold for PM and PM10, additional evaluation of actual emissions is needed.

Conservative Estimate of Actual Emissions - 1994 Project

The table below provides a conservative estimate of actual emissions based on stack test results of emission rates and limited throughput rates. Note that actual emissions may be even less year-to-year based on actual melt rates.

			Conservative Estimate of Actual Emissions (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1994	020	Reverberatory Furnace C	52.61	56.29	47.35	39.98	10.52	0.00	Metal throughput limit of 105,120 ton/yr; Flux throughput limit of 91.98 ton/yr; PM = 1.0 lb/ton metal and flux (stack test); PM10 < 1.07 lb/ton metal and flux (stack test)
	021	Reverberatory Furnace D							
	020	NG Comustion for 020	0.14	0.55	0.04	7.21	0.40	6.06	Unlimited
	021	NG Comustion for 021	0.19	0.74	0.06	9.79	0.54	8.22	Unlimited
	060L-Q	6 Make Up Air Units	0.24	0.98	0.08	12.88	0.71	10.82	Unlimited
		1994 Project Total:	**53.17**	**58.56**	**47.52**	**69.86**	**12.16**	**25.11**	
		PSD Major Source Threshold:	100	100	100	100	100	100	

Based on the above conservative analysis, the source did not exceed the PSD major source threshold for the 1994 project. Therefore, the requirements of 326 IAC 2-2 are not applicable to these units.

New Limited PTE - 1994 Project

The table below provides the new limited PTE for the 1994 project. The PM and PM10 limits for the reverberatory furnaces C and D have been adjusted from the existing limits.

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1994	020	Reverberatory Furnace C	98.90	97.32	47.35	39.98	10.52	0.00	Metal throughput limit of 105,120 ton/yr; Flux throughput limit of 91.98 ton/yr; PM < 1.88 lb/ton metal and flux; PM10 < 1.85 lb/ton metal and flux
	021	Reverberatory Furnace D							
	020	NG Comustion for 020	0.14	0.55	0.04	7.21	0.40	6.06	Unlimited
	021	NG Comustion for 021	0.19	0.74	0.06	9.79	0.54	8.22	Unlimited
	060L-Q	6 Make Up Air Units	0.24	0.98	0.08	12.88	0.71	10.82	Unlimited
		1994 Project Total:	**99.47**	**99.59**	**47.52**	**69.86**	**12.16**	**25.11**	
		PSD Major Source Threshold:	100	100	100	100	100	100	
		Sourcewide Total After Project (New Limited PTE):	199.34	199.49	47.96	105.72	47.92	55.15	

The source would be considered a major source under PSD after the 1994 project. Therefore, future projects would have to be limited to less than the significant levels to remain minor for PSD.

TSD Apendix A: Emission Calculations
PSD Minor Limits

1995 Project
In 1995, one reverberatory furnace was installed along with some other small natural gas fired units. This project was intended to be limited to less than the PSD significant levels to render 326 IAC 2-2 not applicable.

Existing Limited PTE - 1995 Project

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1995	022	Reverberatory Furnace E	24.24	12.59	8.42	7.11	1.87	0	Metal throughput limit of 23,109 ton/yr; Flux throughput limit of 91.98 ton/yr; PM < 2.138 lb/ton metal and flux; PM10 < 1.25 lb/ton metal and flux
		NG Comustion for 022	0.31	1.22	0.10	16.10	0.89	13.53	Unlimited
	040A-D	4 Solution Heat Treat Furnaces	0.20	0.79	0.06	10.39	0.57	8.73	Unlimited
	045A-C	3 Aging Heat Treat Furnaces	0.03	0.13	0.01	1.76	0.10	1.48	Unlimited
	050	6 Heat Treat Quench Tank Tube Burners	0.09	0.36	0.03	4.71	0.26	3.96	Unlimited
	060R-V	5 Make Up Air Units	0.20	0.82	0.06	10.73	0.59	9.02	Unlimited
		1995 Project Total:	**25.07**	**15.91**	**8.68**	**50.80**	**4.27**	**36.72**	
		PSD Significant Level:	25	15	40	40	40	100	

Since the limited PTE exceeds the PSD significant levels for PM, PM10, and NOx, additional evaluation of actual emissions is needed.

Conservative Estimate of Actual Emissions - 1995 Project
The table below provides the actual PTE based on stack test results of emission rates, limited throughput rates, and maximum actual natural gas usage. Note that actual emissions may be even less year-to-year based on actual melt rates.

			Conservative Estimate of Actual Emissions (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1995	022	Reverberatory Furnace E	4.26	4.56	3.79	3.20	0.84	0.00	Maximum actual annual metal throughput from 1995-2010 = 8,433 ton/yr; Flux throughput limit of 91.98 ton/yr; PM = 1.0 lb/ton metal and flux (stack test); PM10 = 1.07 lb/ton metal and flux (stack test)
		NG Comustion for 022	0.06	0.25	0.02	3.25	0.18	2.73	Maximum annual actual use of natural gas for these units combined from 1995 to 2010 is 65 MMCF/yr.
	040A-D	4 Solution Heat Treat Furnaces							
	045A-C	3 Aging Heat Treat Furnaces							
	050	6 Heat Treat Quench Tank Tube Burners							
	060R-V	5 Make Up Air Units	0.01	0.05	0.00	0.65	0.04	0.55	Maximum annual actual use of natural gas for these units combined from 1995 to 2010 is 13 MMCF/yr.
		1995 Project Total:	**4.34**	**4.86**	**3.82**	**7.10**	**1.06**	**3.28**	
		PSD Significant Level:	25	15	40	40	40	100	

Based on the above conservaitve analysis, the source did not exceed the PSD significant levels for the 1995 project. Therefore, the requirements of 326 IAC 2-2 are not applicable to these units.

New Limited PTE - 1995 Project
The table below provides the new limited PTE for the 1995 project. The PM and PM10 limits for the reverberatory furnace E have been adjusted from the existing limits and a natural gas throughput limit has been added for the reverberatory furnace E, the solution heat treat furances (040A-D), the aging heat treat furnaces (045A-C), and the heat treat quench tank tube burners (050).

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1995	022	Reverberatory Furnace E	24.24	12.59	3.07	2.59	0.68	0.00	Metal throughput limit of 18,700 ton/yr; Flux throughput limit of 91.98 ton/yr; PM < 2.58 lb/ton metal and flux; PM10 < 1.34 lb/ton metal and flux
		NG Comustion for 022	0.42	1.67	0.13	22.00	1.21	18.48	NG usage limited to: 440 MMCF/ 12 consecutive month period
	040A-D	4 Solution Heat Treat Furnaces							
	045A-C	3 Aging Heat Treat Furnaces							
	050	6 Heat Treat Quench Tank Tube Burners							
	060R-V	5 Make Up Air Units	0.01	0.05	0.00	0.65	0.04	0.55	Unlimited
		1995 Project Total:	**24.67**	**14.31**	**3.21**	**25.24**	**1.93**	**19.03**	
		PSD Significant Level:	25	15	40	40	40	100	

1997 Project
In 1997, the mold blasting room was installed. This project was limited to less than the PSD significant levels to render 326 IAC 2-2 not applicable.

Existing Limited PTE - 1997 Project

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1997	350	Mold Blasting Room	24.88	14.89	0	0	0	0	PM < 5.68 lb/hr; PM10 < 3.40 lb/hr
		1997 Project Total:	**24.88**	**14.89**	**0.00**	**0.00**	**0.00**	**0.00**	
		PSD Significant Level:	25	15	40	40	40	100	

The existing limits are adequate to stay below the PSD significant levels and render 326 IAC 2-2 not applicable to this project.

1998 Project
In 1998, 3 make up air units were installed. It was not necessary to limit this project since the unlimited PTE was less than the PSD significant levels.

Unlimited PTE - 1998 Project

			Unlimited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
1998	060W-Y	3 Make Up Air Units	0.12	0.49	0.04	6.44	0.35	5.41	Unlimited
		1998 Project Total:	**0.12**	**0.49**	**0.04**	**6.44**	**0.35**	**5.41**	
		PSD Significant Level:	25	15	40	40	40	100	

TSD Apendix A: Emission Calculations
PSD Minor Limits

2001 Project
In 2001, two reverberatory furnaces were installed. This project was limited to less than the PSD significant levels to render 326 IAC 2-2 not applicable.

Existing Limited PTE - 2001 Project

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
2001	023	Reverberatory Furnace F	24.75	14.30	9.59	8.09	2.13	0	Metal throughput limit of 22,785 ton/yr; Flux throughput limit of 91.98 ton/yr; PM < 2.164 lb/ton metal and flux; PM10 < 1.25 lb/ton metal and flux
	024	Reverberatory Furnace G							
	023	NG Comustion for 024	0.10	0.39	0.03	5.15	0.28	4.33	Unlimited
	024	NG Comustion for 023	0.05	0.20	0.02	2.58	0.14	2.16	Unlimited
		2001 Project Total:	**24.90**	**14.89**	**9.63**	**15.82**	**2.56**	**6.49**	
		PSD Significant Level:	25	15	40	40	40	100	

The existing limits are adequate to stay below the PSD significant levels and render 326 IAC 2-2 not applicable to this project. However, in order to remove the testing requirement, the PM10 limit shall be increased to 1.34 lb/ton. Therefore, the metal throughput limit will need to be decreased.

New Limited PTE - 2001 Project

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
2001	023	Reverberatory Furnace F	24.60	14.33	8.96	7.57	1.99	0	Metal throughput limit of 21,300 ton/yr; Flux throughput limit of 91.98 ton/yr; PM < 2.3 lb/ton metal and flux; PM10 < 1.34 lb/ton metal and flux
	024	Reverberatory Furnace G							
	023	NG Comustion for 024	0.10	0.39	0.03	5.15	0.28	4.33	Unlimited
	024	NG Comustion for 023	0.05	0.20	0.02	2.58	0.14	2.16	Unlimited
		2001 Project Total:	**24.75**	**14.92**	**9.01**	**15.29**	**2.42**	**6.49**	
		PSD Significant Level:	25	15	40	40	40	100	

The existing limits are adequate to stay below the PSD significant levels and render 326 IAC 2-2 not applicable to this project. However, in order to remove the testing requirement, the PM10 limit shall be increased to 1.34 lb/ton. Therefore, the metal throughput limit will need to be decreased.

2002 Project
In 2002, a heat treat solution and aging furnace was installed. It was not necessary to limit this project since the unlimited PTE was less than the PSD significant levels.

Unlimited PTE - 2002 Project

			Unlimited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
2002	040E	1 Heat Treat Solution and Aging Furnace	0.08	0.31	0.02	4.08	0.22	3.43	Unlimited
		2002 Project Total:	**0.08**	**0.31**	**0.02**	**4.08**	**0.22**	**3.43**	
		PSD Significant Level:	25	15	40	40	40	100	

2006 Project
In 2006, a sand blasting unit was installed. This project was limited to less than the PSD significant levels to render 326 IAC 2-2 not applicable.

Existing Limited PTE - 2006 Project

			Limited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
2006	370	Sand Blast - Mold Prep Room	24.97	14.98	0	0	0	0	PM < 5.7 lb/hr; PM10 < 3.42 lb/hr
		2006 Project Total:	**24.97**	**14.98**	**0.00**	**0.00**	**0.00**	**0.00**	
		PSD Significant Level:	25	15	40	40	40	100	

The existing limits are adequate to stay below the PSD significant levels and render 326 IAC 2-2 not applicable to this project. Note that this unit has been removed from the source.

2010 Project
In 2010, a fluorescent penetrant inspection station was installed. It was not necessary to limit this project since the unlimited PTE was less than the PSD significant levels.

Unlimited PTE - 2010 Project

			Unlimited PTE (ton/yr)						
Year	Unit ID	Unit Description	PM	PM10	SO2	NOx	VOC	CO	Limit / Comment
2010	380	Fluorescent Penetrant Inspection Station	0.007	0.026	0.002	0.343	0.019	0.289	Unlimited
		2010 Project Total:	**0.007**	**0.026**	**0.002**	**0.343**	**0.019**	**0.289**	
		PSD Significant Level:	25	15	40	40	40	100	

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Governor

Thomas W. Easterly
Commissioner

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TO: Doug Forbes
Diversified Machine Bristol, Inc.
51650 Country Road 133
Bristol, IN 46507

DATE: April 3, 2014

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

SUBJECT: Final Decision
Significant Permit Modification to a Part 70 Operating Permit
039-34082-00191

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:
Brad Saunders, ARCADIS
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 6/13/2013

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Michael R. Pence
Governor

Thomas W. Easterly
Commissioner

April 3, 2014

TO: Bristol Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: Diversified Machine Bristol, Inc.
Permit Number: 039-34082-00191

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 6/13/2013

Mail Code 61-53

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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**	

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3		Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 *(Health Department)*									
4		Bristol Town Council and Town Manager P.O. Box 122 Bristol IN 46507 *(Local Official)*									
5		Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 *(Local Official)*									
6		Mr. Brad Saunders ARCADIS 10559 Citation Drive Suite 100 Brighton MI 48116 *(Consultant)*									
7		Bristol Washington Township Public Library 505 West Vistula Street Bristol IN 46507-0789 *(Library)*									
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