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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: October 4, 2011

RE: Federal – Mogul Corporation / 141-30201-00065

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07

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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

Minor Source Operating Permit Renewal
OFFICE OF AIR QUALITY

Federal-Mogul Corporation
3605 West Cleveland Road
South Bend, Indiana 46628

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

This permit is issued to the above mentioned company under the provisions of 326 IAC 2-1.1, 326 IAC 2-6.1 and 40 CFR 52.780, with conditions listed on the attached pages.

Indiana statutes from IC 13 and rules from 326 IAC, quoted 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 MSOP under 326 IAC 2-6.1.

Operation Permit No.: M141-30201-00065	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: October 4, 2011 Expiration Date: October 4, 2021

TABLE OF CONTENTS

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 and A.2 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 2-5.1-3(c)][326 IAC 2-6.1-4(a)]

The Permittee owns and operates a stationary aluminum foundry operation manufacturing automotive pistons.

Source Address:	3605 West Cleveland Road, South Bend, Indiana 46628
General Source Phone Number:	574-271-5908
SIC Code:	3592 (Carburetors, Pistons, Piston Rings, and Valves)
County Location:	St. Joseph
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Minor Source Operating Permit Program Minor Source, under PSD and Emission Offset Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories (Secondary Metal Foundry)

A.2 Emission Units and Pollution Control Equipment Summary

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

(a) One (1) reverberatory melt furnace, identified as RF1, constructed in 1994, and modified in 2002, with a maximum metal throughput rate of 5,600 pounds per hour, a maximum ladle dross and bath dross flux usage rate of 120 pounds per day and a maximum maintenance wall flux usage rate of 8.0 pounds per day, equipped with three (3) natural gas-fired burners with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour each, exhausting through one (1) stack (ID No. R9#2);

(b) Fourteen (14) permanent mold/die casting cells, identified as CC1 through CC14, with CC1 through CC3 constructed in 1987, CC4 and CC5 constructed in 1988, CC6 and CC7 constructed in 1989, CC8 through CC13 constructed in 1994, and CC14 constructed in 2001, with CC1 through CC8 each equipped with three (3) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT1 through DT16), CC9 through CC13 each equipped with two (2) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT17 through DT26), and CC14 equipped with four (4) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT27 and DT28), all exhausting through seven (7) area roof vents (ID Nos. R4#2, R4#3, R4#4, R4#6, R4#9, R8#2, and R8#3). CC1 through CC8 and CC10 through CC13 can also melt aluminum at a maximum combined throughput rate of 5,186.16 pounds per hour, and CC9 and CC14 can also melt aluminum at a maximum combined throughput rate of 1,728.72 pounds per hour. All casting cells combined have a maximum flux usage rate of 282 pounds per day.

(c) Eight (8) natural gas-fired heat treat ovens, identified as HT1, HT2, HT3, HT5, HT6, HT7, HT8, and HT9, with HT1 through HT3 and HT5 through HT7 constructed in 1994, and HT8 and HT9 constructed in 2001, with HT1 through HT3 and HT5 through HT7 each having a maximum heat input capacity of 0.75 MMBtu per hour and HT8 and HT9 each having a

maximum heat input capacity of 0.80 MMBtu per hour, each exhausting through one (1) stack (ID Nos. R3#33, R7#11, R7#10, R7#8, R7#9, R7#7, R7#53, and R3#34, respectively);

(d) Two (2) rapid prototype operations, identified as RPT, for research and development, consisting of two (2) electric resistance furnaces, each with a maximum metal throughput of 54 pounds per day, and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu/hr, and one (1) prototype shell/core machine (PT) with a maximum resin coated sand usage rate of 500 pounds per year, equipped with one (1) natural gas-fired heater with a maximum heat input capacity of 0.06 MMBtu per hour, exhausting through one (1) duct exhaust wall fan (ID No. RPTW-1);

(e) Two (2) die prep tables, identified as DP1 and DP2, constructed in 1987, each equipped with one (1) natural gas-fired heater each with a maximum heat input capacity of 0.40 MMBtu per hour, exhausting through one (1) wall fan (ID No. DPW-1);

(f) Ten (10) machine lines, identified as MCL-1 through MCL-10, with MCL-1 and MCL-2 constructed in 1987, MCL-3 constructed in 1989, MCL-4 constructed in 1990, MCL-5 and MCL-6 constructed in 1995, MCL-7 constructed in 1994, MCL-8 and MCL-9 constructed in 2001, and MCL-10 constructed in 2004, with MCL-1 through MCL-9 having a maximum aged piston throughput rate of 533.3 pounds per hour, and MCL-10 having a maximum aged piston throughput rate of 450 pounds per hour, all using a water based coolant during machining, all exhausting through general plant ventilation;

(g) One (1) Niagra phosphate wash line, identified as PWL-2, constructed in 1999, equipped with four (4) natural gas-fired stage heaters, identified as Stage 1, Stage 2, Stage 4, and Stage 6 heaters, with maximum heat input capacities of 0.83, 0.235, 0.44, and 0.235 MMBtu per hour, respectively, and one (1) natural gas-fired drying oven, identified as the Drying Oven, with a maximum heat input capacity of 0.4 MMBtu per hour, processing a maximum of 1200 pistons per hour, with Stage 1, 2, 4, and 6 heaters exhausting through stack R7#51, and the drying oven exhausting through stack R7#50. There is an additional stack exhaust for system water vapor (ID R7#52);

(h) One (1) Prototype screen print skirt coat line, identified as Prototype, constructed in 1999, utilizing a flow coating application method, coating a maximum of 120 pistons per hour;

(i) One (1) Niagra phosphate wash line, identified as PWL-3, constructed in 2002, equipped with one (1) natural gas-fired boiler and one (1) natural gas-fired drying oven, with maximum heat input capacities of 1.3 and 0.4 MMBtu per hour, respectively, processing a maximum of 1200 pistons per hour, with the boiler exhausting through stack R13#7, the drying oven exhausting through stack R13#9, and the wash line exhausting through stack R13#6;

(j) Two (2) screen print skirt coat lines, identified as SC-3 and SC-4, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.4 and 0.8 MMBtu per hour, respectively, exhausting through three (3) stacks (ID Nos. R13#10, R13#11, and R13#12);

(k) One (1) Niagra phosphate wash line, identified as PWL-4, constructed in 2002, equipped with one (1) natural gas-fired boiler and one (1) natural gas-fired drying oven, with maximum heat input capacities of 1.3 and 0.4 MMBtu per hour, respectively, processing a maximum of 1200 pistons per hour, with the boiler exhausting through stack R13#7, the drying oven exhausting through stack R13#14, and the wash line exhausting through stack R13#13;

(l) Two (2) skirt coat lines, identified as SC-5 and SC-6, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.4 and 0.8 MMBtu per hour, respectively, exhausting through three (3) stacks (ID Nos. R13#15, R13#16, and R13#17);

(m) Two (2) screen print skirt coat lines, identified as SC-7 and SC-8, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with a maximum heat input capacity of 0.4 and 0.8 MMBtu/hr, respectively, exhausting through three (3) stacks;

(n) Three (3) anodizing lines, identified as A6, A7, and A8, constructed in 2004, each using a caustic soda (alkaline) wash and a sulfuric/oxalic acid solution, each exhausting through one (1) stack (ID Nos.R13#18, R13#19, and R13#20), with each processing a maximum of 600 pistons per hour.

(o) One (1) Manual Assembly Line 1 pin fit and piston marking operation, identified as Manual Line 1, constructed in 1995, consisting of the pin fit marking process and the ink jet marking process. The pin fit process utilizes a manual coating application method, coating a maximum of 40 pistons per hour, exhausting to the general plant ventilation;

(p) Two (2) 30 gallon parts washers with lids for skirt coat equipment clean-up, identified as PW1 and PW2, constructed in 1994, with a combined VOC solvent throughput rate of 240 gallons per year, and two (2) 30 gallon maintenance parts washers with lids, identified as PW3 and PW4, constructed in 1996, with a mineral spirit cleaning agent throughput rate of 180 gallons per year and an alkaline cleaning agent throughput rate of 180 gallons per year. The one (1) parts washer for the skirt coat equipment clean-up, PW1, has a remote solvent reservoir and the other three (3) parts washers do not have a remote solvent reservoir;

(q) One (1) assembly line, identified as Assembly Line 2, constructed in 1999, consisting of conveyor, pin and groove oiling system, ring installers, wrist pin inserter, quality control/inspection equipment (ring, pin, and visual) and tray loader robot, processing a maximum of 750 pistons per hour, exhausting to the general plant ventilation;

(r) One (1) assembly line, identified as Assembly Line 3, constructed in 2001, consisting of ring expanders, inspection areas, wrist pin installation, ink marker, pin lube, and one (1) video jet ink marker, processing a maximum of 770 pistons per hour, exhausting to the general plant ventilation;

(s) One (1) assembly line, identified as Assembly Line 5, constructed in 2004, consisting of a tray conveyor, tray wrist pin loader (2 stations), quality control inspection station and tray label system (label laser printer), processing a maximum of 600 pistons per hour, exhausting to the general plant ventilation;

(t) One (1) assembly line, identified as Assembly Line 6, constructed in 2003, consisting of inspection areas, wrist pin installation, processing a maximum of 600 pistons per hour, exhausting to the general plant ventilation;

(u) One (1) assembly line, identified as Assembly Line 7, constructed in 2007, consisting of ring expanders, inspection areas, wrist pin installation, ink marker, pin lube, processing a maximum of 770 pistons per hour, exhausting to the general plant ventilation;

(v) One (1) manual video ink jet, processing a maximum 360 pistons per hour, exhausting to the general plant ventilation;

(w) Two (2) natural gas-fired sanitary water heaters, identified as WH1 and WH2, constructed in 1993, each with a maximum heat input capacity of 0.199 MMBtu per hour;

(x) Two (2) natural gas-fired makeup air units, identified as 87-MAU and 87-MAU2, constructed in 1987, with 87-MAU having a maximum heat input capacity of 0.6 MMBtu per hour and 87-MAU2 having a maximum heat input capacity of 3.17 MMBtu per hour;

(y) Four (4) natural gas-fired building heaters, identified as 87-RTU1a through 87-RTU4a, constructed in 1987, with 87-RTU1a having a maximum heat input capacity of 0.235 MMBtu per hour, 87-RTU2a having a maximum heat input capacity of 0.074 MMBtu per hour, 87-RTU3a having a maximum heat input capacity of 0.48 MMBtu per hour, and 87-RTU4a having a maximum heat input capacity of 0.231 MMBtu per hour;

(z) Four (4) natural gas-fired building heaters, identified as 87-RTU1, 87-RTU3, 87-RTU4, and 87-RTU5, constructed in 1987, with 87-RTU1 having a maximum heat input capacity of 0.36 MMBtu per hour and 87-RTU3 through 87-RTU5 each having a maximum heat input capacity of 0.5 MMBtu per hour;

(aa) Five (5) natural gas-fired air handling units, identified as 94-AHU1 through 94-AHU5, constructed in 1994, each with a maximum heat input capacity of 0.777 MMBtu per hour;

(bb) One (1) natural gas-fired makeup air unit, identified as 94-MAU1, constructed in 1994, with a maximum heat input capacity of 6.5 MMBtu per hour;

(cc) Ten (10) natural gas-fired building heaters, identified as 94-UH10 through 94-UH19, constructed in 1994, each with a maximum heat input capacity of 0.1 MMBtu per hour;

(dd) Three (3) natural gas-fired building heaters, identified as 93-UH7 through 93-UH9, constructed in 1993, with 93-UH7 having a maximum heat input capacity of 0.09 MMBtu per hour and 93-UH8 and 93-UH9 each having a maximum heat input capacity of 0.13 MMBtu per hour;

(ee) Eight (8) natural gas-fired building heaters, identified as 00-RTU1 through 00-RTU8, constructed in 2000, with 00-RTU1 through 00-RTU4 each having a maximum heat input capacity of 0.636 MMBtu per hour, 00-RTU5 and 00-RTU6 each having a maximum heat input capacity of 0.328 MMBtu per hour, and 00-RTU7 and 00-RTU8 each having a maximum heat input capacity of 0.2 MMBtu per hour,

(ff) One (1) natural gas-fired building heater, identified as 00-MAU2, constructed in 2000, with a maximum heat input capacity of 4.95 MMBtu per hour;

(gg) One (1) polycarbonate bead blasting unit, identified as Blast 1, installed in 2006, processing pistons at a maximum rate of 26.4 pounds per hour, with particulate emissions controlled by a HEPA filtration system, exhausting to the general plant ventilation.

(hh) The following storage tanks:

(1) One (1) virgin coolant make-up tank, with a maximum storage capacity of 3500 gallons, constructed in 2002;
(2) One (1) dirty process water tank, with a maximum storage capacity of 6400 gallons;
(3) One (1) recovered coolant tank, with a maximum storage capacity of 1000 gallons;
(4) Four (4) oil tanks, each with a maximum storage capacity of 500 gallons;
(5) One (1) equalization tank, T1, with a maximum storage capacity of 9,297 gallons;
(6) One (1) spent acid tank, T2, with a maximum storage capacity of 6,470 gallons;

(7) One (1) bulk sodium hydroxide tank, T6, with a maximum storage capacity of 6,470 gallons;
(8) One (1) spent alkaline tank, T3, with a maximum storage capacity of 6,464 gallons;
(9) One (1) spare conical bottom tank, T4, with a maximum storage capacity of 1,183 gallons;
(10) One (1) wastewater treatment filter effluent transfer tank, T5, with a maximum storage capacity of 175 gallons;
(11) Four (4) reagent tanks, each with a maximum storage capacity of 500 gallons;
(12) Two (2) pH adjust tanks, N1 and N2, each with a maximum storage capacity of 2,094 gallons;
(13) One (1) polymer add tank, F1, with a maximum storage capacity of 454 gallons;
(14) One (1) sludge thickener tank with a maximum storage capacity of 5,911 gallons; and
(15) One (1) final pH adjust tank, N3, with a maximum storage capacity of 1,885 gallons.

(ii One (1) 80 gallon parts washer with lids for skirt coat equipment clean-up, identified as Skirt Coat Parts Washer, with a VOC solvent throughput rate of 240 gallons per year.

(jj) One (1) natural gas-fired emergency generator, identified as GEN1, constructed in 2005, with a maximum heat input capacity of 0.4029 MMBtu per hour, and rated at 158 HP;

Under 40 CFR 63, Subpart ZZZZ, this generator is considered an affected facility.

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

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 2-1.1-1) shall prevail.

B.2 Permit Term [326 IAC 2-6.1-7(a)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, M141-30201-00065, is issued for a fixed term of ten (10) 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, 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

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

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

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

B.7 Duty to Provide Information

(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 Annual Notification [326 IAC 2-6.1-5(a)(5)]

(a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this permit.

(b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

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

(c) The notification 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.

B.9 Preventive Maintenance Plan [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 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.

(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.10 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to M141-30201-00065 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

(b) All previous registrations and permits are superseded by this permit.

B.11 Termination of Right to Operate [326 IAC 2-6.1-7(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 one hundred twenty (120) days prior to the date of expiration of the source’s existing permit, consistent with 326 IAC 2-6.1-7.

B.12 Permit Renewal [326 IAC 2-6.1-7]

(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 2-6.1-7. Such information shall be included in the application for each emission unit at this source. The renewal application does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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 one hundred twenty (120) days 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 2-6.1 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 2-6.1-4(b), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.13 Permit Amendment or Revision [326 IAC 2-5.1-3(e)(3)][326 IAC 2-6.1-6]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-6.1-6 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

(c) The Permittee shall notify the OAQ no later than thirty (30) calendar days of implementing a notice-only change. [326 IAC 2-6.1-6(d)]

B.14 Source Modification Requirement

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

B.15 Inspection and Entry
[326 IAC 2-5.1-3(e)(4)(B)][326 IAC 2-6.1-5(a)(4)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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 permitted 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, at reasonable times, 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, at reasonable times, 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, at reasonable times, 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.16 Transfer of Ownership or Operational Control [326 IAC 2-6.1-6]

(a) The Permittee must comply with the requirements of 326 IAC 2-6.1-6 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

The application which shall be submitted by the Permittee does require an affirmation that the statements in the application are true and complete by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement notice-only changes addressed in the request for a notice-only change immediately upon submittal of the request. [326 IAC 2-6.1-6(d)(3)]

B.17 Annual Fee Payment [326 IAC 2-1.1-7]

(a) The Permittee shall pay annual fees due no later than thirty (30) calendar days of receipt of a bill from IDEM, OAQ,.

(b) 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.18 Credible Evidence [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 2-6.1-5(a)(1)]

C.1 Permit Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation of Permits), this permit to operate may be revoked for any of the following causes:

(a) Violation of any conditions of this permit.

(b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this permit.

(c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this permit shall not require revocation of this permit.

(d) Noncompliance with orders issued pursuant to 326 IAC 1-5 (Episode Alert Levels) to reduce emissions during an air pollution episode.

(e) For any cause which establishes in the judgment of IDEM, the fact that continuance of this permit is not consistent with purposes of this article.

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 thirty percent (30%) 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).

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

Indiana Department of Environmental Management
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.

(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 2-6.1-5(a)(2)]

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

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

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.

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date.

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

Compliance Monitoring Requirements [326 IAC 2-6.1-5(a)(2)]

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

Compliance with applicable requirements shall be documented as required by this permit. The Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. All monitoring and record keeping requirements not already legally required shall be implemented when operation begins.

C.10 Instrument Specifications [326 IAC 2-1.1-11]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

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

Corrective Actions and Response Steps

C.11 Response to Excursions or Exceedances

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

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

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

(3) any necessary follow-up actions to return operation to normal or usual manner of operation.

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

(1) monitoring results;

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

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

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

(e) The Permittee shall record the reasonable response steps taken.

C.12 Actions Related to Noncompliance Demonstrated by a Stack Test

(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.

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

C.13 Malfunctions Report [326 IAC 1-6-2]

Pursuant to 326 IAC 1-6-2 (Records; Notice of Malfunction):

(a) A record of all malfunctions, including startups or shutdowns of any facility or emission control equipment, which result in violations of applicable air pollution control regulations or applicable emission limitations shall be kept and retained for a period of three (3) years and shall be made available to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) or appointed representative upon request.

(b) When a malfunction of any facility or emission control equipment occurs which lasts more than one (1) hour, said condition shall be reported to OAQ, using the Malfunction Report Forms (2 pages). Notification shall be made by telephone or facsimile, as soon as practicable, but in no event later than four (4) daytime business hours after the beginning of said occurrence.

(c) Failure to report a malfunction of any emission control equipment shall constitute a violation of 326 IAC 1-6, and any other applicable rules. Information of the scope and expected duration of the malfunction shall be provided, including the items specified in 326 IAC 1-6-2(a)(1) through (6).

(d) Malfunction is defined as any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner. [326 IAC 1-2-39]

C.14 General Record Keeping Requirements [326 IAC 2-6.1-5]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.15 General Reporting Requirements [326 IAC 2-1.1-11] [326 IAC 2-6.1-2] [IC 13-14-1-13]

(a) Reports required by conditions in Section D of 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

(b) 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.

(c) 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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) reverberatory melt furnace, identified as RF1, constructed in 1994, and modified in 2002, with a maximum metal throughput rate of 5,600 pounds per hour, a maximum ladle dross and bath dross flux usage rate of 120 pounds per day and a maximum maintenance wall flux usage rate of 8.0 pounds per day, equipped with three (3) natural gas-fired burners with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour each, exhausting through one (1) stack (ID No. R9#2);

(b) Fourteen (14) permanent mold/die casting cells, identified as CC1 through CC14, with CC1 through CC3 constructed in 1987, CC4 and CC5 constructed in 1988, CC6 and CC7 constructed in 1989, CC8 through CC13 constructed in 1994, and CC14 constructed in 2001, with CC1 through CC8 each equipped with three (3) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT1 through DT16), CC9 through CC13 each equipped with two (2) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT17 through DT26), and CC14 equipped with four (4) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT27 and DT28), all exhausting through seven (7) area roof vents (ID Nos. R4#2, R4#3, R4#4, R4#6, R4#9, R8#2, and R8#3). CC1 through CC8 and CC10 through CC13 can also melt aluminum at a maximum combined throughput rate of 5,186.16 pounds per hour, and CC9 and CC14 can also melt aluminum at a maximum combined throughput rate of 1,728.72 pounds per hour. All casting cells combined have a maximum flux usage rate of 282 pounds per day.

(c) Eight (8) natural gas-fired heat treat ovens, identified as HT1, HT2, HT3, HT5, HT6, HT7, HT8, and HT9, with HT1 through HT3 and HT5 through HT7 constructed in 1994, and HT8 and HT9 constructed in 2001, with HT1 through HT3 and HT5 through HT7 each having a maximum heat input capacity of 0.75 MMBtu per hour and HT8 and HT9 each having a maximum heat input capacity of 0.80 MMBtu per hour, each exhausting through one (1) stack (ID Nos. R3#33, R7#11, R7#10, R7#8, R7#9, R7#7, R7#53, and R3#34, respectively);

(d) Two (2) rapid prototype operations, identified as RPT, for research and development, consisting of two (2) electric resistance furnaces, each with a maximum metal throughput of 54 pounds per day, and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu/hr, and one (1) prototype shell/core machine (PT) with a maximum resin coated sand usage rate of 500 pounds per year, equipped with one (1) natural gas-fired heater with a maximum heat input capacity of 0.06 MMBtu per hour, exhausting through one (1) duct exhaust wall fan (ID No. RPTW-1);

(e) Two (2) die prep tables, identified as DP1 and DP2, constructed in 1987, each equipped with one (1) natural gas-fired heater each with a maximum heat input capacity of 0.40 MMBtu per hour, exhausting through one (1) wall fan (ID No. DPW-1);

(f) Ten (10) machine lines, identified as MCL-1 through MCL-10, with MCL-1 and MCL-2 constructed in 1987, MCL-3 constructed in 1989, MCL-4 constructed in 1990, MCL-5 and MCL-6 constructed in 1995, MCL-7 constructed in 1994, MCL-8 and MCL-9 constructed in 2001, and MCL-10 constructed in 2004, with MCL-1 through MCL-9 having a maximum aged piston throughput rate of 533.3 pounds per hour, and MCL-10 having a maximum aged piston throughput rate of 450 pounds per hour, all using a water based coolant during machining, all exhausting through general plant ventilation.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.1.1 Particulate Matter (PM) Limitations [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the following shall apply:

(a) Emissions of PM emissions from the reverberatory melt furnace, RF1, shall not exceed 0.912 pound per ton of metal and flux combined throughput, at a maximum capacity of 5,605 pounds per hour, which is 2.8025 tons per hour.

(b) Emissions of PM10 from the reverberatory melt furnace, RF1, furnace shall not exceed 0.9856 pound per ton of metal and flux combined throughput, at a maximum capacity of 5,605 pounds per hour, which is 2.8025 tons per hour.

(c) Emissions of PM2.5 from the reverberatory melt furnace, RF1, furnace shall not exceed 0.9856 pound per ton of metal and flux combined throughput, at a maximum capacity of 5,605 pounds per hour, which is 2.8025 tons per hour.

D.1.2 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a)(Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the reverberatory melt furnace (RF1), each of the casting cells (CC1 through CC14), each of the heat treat ovens (HT1 through HT3 and HT5 through HT9), the rapid prototype operation (RPT), and the polycarbonate bead blasting unit (Blast 1) shall not exceed 0.03 grain per dry standard cubic foot of exhaust air.

D.1.3 Secondary Aluminum NESHAP [40 CFR 63, Subpart RRR]

The reverberatory melt furnace and the casting cells shall only melt clean charge, customer returns, or internal scrap as defined under 40 CFR 63.1503. Therefore, the requirements of 40 CFR 63, Subpart RRR do not apply.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g) One (1) Niagra phosphate wash line, identified as PWL-2, constructed in 1999, equipped with four (4) natural gas-fired stage heaters, identified as Stage 1, Stage 2, Stage 4, and Stage 6 heaters, with maximum heat input capacities of 0.83, 0.235, 0.44, and 0.235 MMBtu per hour, respectively, and one (1) natural gas-fired drying oven, identified as the Drying Oven, with a maximum heat input capacity of 0.4 MMBtu per hour, processing a maximum of 1200 pistons per hour, with Stage 1, 2, 4, and 6 heaters exhausting through stack R7#51, and the drying oven exhausting through stack R7#50. There is an additional stack exhaust for system water vapor (ID R7#52);

(h) One (1) Prototype screen print skirt coat line, identified as Prototype, constructed in 1999, utilizing a flow coating application method, coating a maximum of 120 pistons per hour;

(i) One (1) Niagra phosphate wash line, identified as PWL-3, constructed in 2002, equipped with one (1) natural gas-fired boiler and one (1) natural gas-fired drying oven, with maximum heat input capacities of 1.3 and 0.4 MMBtu per hour, respectively, processing a maximum of 1200 pistons per hour, with the boiler exhausting through stack R13#7, the drying oven exhausting through stack R13#9, and the wash line exhausting through stack R13#6;

(j) Two (2) screen print skirt coat lines, identified as SC-3 and SC-4, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.4 and 0.8 MMBtu per hour, respectively, exhausting through three (3) stacks (ID Nos. R13#10, R13#11, and R13#12);

(k) One (1) Niagra phosphate wash line, identified as PWL-4, constructed in 2002, equipped with one (1) natural gas-fired boiler and one (1) natural gas-fired drying oven, with maximum heat input capacities of 1.3 and 0.4 MMBtu per hour, respectively, processing a maximum of 1200 pistons per hour, with the boiler exhausting through stack R13#7, the drying oven exhausting through stack R13#14, and the wash line exhausting through stack R13#13;

(l) Two (2) skirt coat lines, identified as SC-5 and SC-6, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.4 and 0.8 MMBtu per hour, respectively, exhausting through three (3) stacks (ID Nos. R13#15, R13#16, and R13#17);

(m) Two (2) screen print skirt coat lines, identified as SC-7 and SC-8, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with a maximum heat input capacity of 0.4 and 0.8 MMBtu/hr, respectively, exhausting through three (3) stacks;

(n) Three (3) anodizing lines, identified as A6, A7, and A8, constructed in 2004, each using a caustic soda (alkaline) wash and a sulfuric/oxalic acid solution, each exhausting through one (1) stack (ID Nos.R13#18, R13#19, and R13#20), with each processing a maximum of 600 pistons per hour.

(o) One (1) Manual Assembly Line 1 pin fit and piston marking operation, identified as Manual Line 1, constructed in 1995, consisting of the pin fit marking process and the ink jet marking process. The pin fit process utilizes a manual coating application method, coating a maximum of 40 pistons per hour, exhausting to the general plant ventilation.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a)(Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the Niagara phosphate wash lines, PWL-2, PWL-3, PWL-4; the Prototype Screen Print Skirt Lines, Proto; the two (2) Screen Print Skirt Lines SC-3 and SC-4; the two (2) Screen Print Skirt Lines SC-5 and SC-6; the two (2) Screen Print Skirt Lines SC-7 and SC-8; the three (3) anodizing lines, identified as A6, A7, and A8, and the piston marking operation, identified as WPS-1, shall each not exceed 0.03 grain per dry standard cubic foot of exhaust air.

D.2.2 Particulate [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate Emission Limitations for Sources of Indirect Heating) the particulate matter emissions from each of the heat input boilers for the phosphate wash lines shall not exceed 0.6 pounds per MMBtu heat input, each.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(p) Two (2) 30 gallon parts washers with lids for skirt coat equipment clean-up, identified as PW1 and PW2, constructed in 1994, with a combined VOC solvent throughput rate of 240 gallons per year, and two (2) 30 gallon maintenance parts washers with lids, identified as PW3 and PW4, constructed in 1996, with a mineral spirit cleaning agent throughput rate of 180 gallons per year and an alkaline cleaning agent throughput rate of 180 gallons per year. The one (1) parts washer for the skirt coat equipment clean-up, PW1, has a remote solvent reservoir and the other three (3) parts washers do not have a remote solvent reservoir;

(q) One (1) assembly line, identified as Assembly Line 2, constructed in 1999, consisting of conveyor, pin and groove oiling system, ring installers, wrist pin inserter, quality control/inspection equipment (ring, pin, and visual) and tray loader robot, processing a maximum of 750 pistons per hour, exhausting to the general plant ventilation;

(r) One (1) assembly line, identified as Assembly Line 3, constructed in 2001, consisting of ring expanders, inspection areas, wrist pin installation, ink marker, pin lube, and one (1) video jet ink marker, processing a maximum of 770 pistons per hour, exhausting to the general plant ventilation;

(s) One (1) assembly line, identified as Assembly Line 5, constructed in 2004, consisting of a tray conveyor, tray wrist pin loader (2 stations), quality control inspection station and tray label system (label laser printer), processing a maximum of 600 pistons per hour, exhausting to the general plant ventilation;

(t) One (1) assembly line, identified as Assembly Line 6, constructed in 2003, consisting of inspection areas, wrist pin installation, processing a maximum of 600 pistons per hour, exhausting to the general plant ventilation;

(u) One (1) assembly line, identified as Assembly Line 7, constructed in 2007, consisting of ring expanders, inspection areas, wrist pin installation, ink marker, pin lube, processing a maximum of 770 pistons per hour, exhausting to the general plant ventilation;

(v) One (1) manual video ink jet, processing a maximum 360 pistons per hour, exhausting to the general plant ventilation;

(w) Two (2) natural gas-fired sanitary water heaters, identified as WH1 and WH2, constructed in 1993, each with a maximum heat input capacity of 0.199 MMBtu per hour;

(x) Two (2) natural gas-fired makeup air units, identified as 87-MAU and 87-MAU2, constructed in 1987, with 87-MAU having a maximum heat input capacity of 0.6 MMBtu per hour and 87-MAU2 having a maximum heat input capacity of 3.17 MMBtu per hour;

(y) Four (4) natural gas-fired building heaters, identified as 87-RTU1a through 87-RTU4a, constructed in 1987, with 87-RTU1a having a maximum heat input capacity of 0.235 MMBtu per hour, 87-RTU2a having a maximum heat input capacity of 0.074 MMBtu per hour, 87-RTU3a having a maximum heat input capacity of 0.48 MMBtu per hour, and 87-RTU4a having a maximum heat input capacity of 0.231 MMBtu per hour;

(z) Four (4) natural gas-fired building heaters, identified as 87-RTU1, 87-RTU3, 87-RTU4, and 87-RTU5, constructed in 1987, with 87-RTU1 having a maximum heat input capacity of 0.36 MMBtu per hour and 87-RTU3 through 87-RTU5 each having a maximum heat input capacity of 0.5 MMBtu per hour;

(aa) Five (5) natural gas-fired air handling units, identified as 94-AHU1 through 94-AHU5, constructed in 1994, each with a maximum heat input capacity of 0.777 MMBtu per hour;

(bb) One (1) natural gas-fired makeup air unit, identified as 94-MAU1, constructed in 1994, with a maximum heat input capacity of 6.5 MMBtu per hour;

(cc) Ten (10) natural gas-fired building heaters, identified as 94-UH10 through 94-UH19, constructed in 1994, each with a maximum heat input capacity of 0.1 MMBtu per hour;

(dd) Three (3) natural gas-fired building heaters, identified as 93-UH7 through 93-UH9, constructed in 1993, with 93-UH7 having a maximum heat input capacity of 0.09 MMBtu per hour and 93-UH8 and 93-UH9 each having a maximum heat input capacity of 0.13 MMBtu per hour;

(ee) Eight (8) natural gas-fired building heaters, identified as 00-RTU1 through 00-RTU8, constructed in 2000, with 00-RTU1 through 00-RTU4 each having a maximum heat input capacity of 0.636 MMBtu per hour, 00-RTU5 and 00-RTU6 each having a maximum heat input capacity of 0.328 MMBtu per hour, and 00-RTU7 and 00-RTU8 each having a maximum heat input capacity of 0.2 MMBtu per hour,

(ff) One (1) natural gas-fired building heater, identified as 00-MAU2, constructed in 2000, with a maximum heat input capacity of 4.95 MMBtu per hour;

(gg) One (1) polycarbonate bead blasting unit, identified as Blast 1, installed in 2006, processing pistons at a maximum rate of 26.4 pounds per hour, with particulate emissions controlled by a HEPA filtration system, exhausting to the general plant ventilation.

(hh) The following storage tanks:

(1) One (1) virgin coolant make-up tank, with a maximum storage capacity of 3500 gallons, constructed in 2002;
(2) One (1) dirty process water tank, with a maximum storage capacity of 6400 gallons;
(3) One (1) recovered coolant tank, with a maximum storage capacity of 1000 gallons;
(4) Four (4) oil tanks, each with a maximum storage capacity of 500 gallons;
(5) One (1) equalization tank, T1, with a maximum storage capacity of 9,297 gallons;
(6) One (1) spent acid tank, T2, with a maximum storage capacity of 6,470 gallons;
(7) One (1) bulk sodium hydroxide tank, T6, with a maximum storage capacity of 6,470 gallons;
(8) One (1) spent alkaline tank, T3, with a maximum storage capacity of 6,464 gallons;
(9) One (1) spare conical bottom tank, T4, with a maximum storage capacity of 1,183 gallons;
(10) One (1) wastewater treatment filter effluent transfer tank, T5, with a maximum storage capacity of 175 gallons;
(11) Four (4) reagent tanks, each with a maximum storage capacity of 500 gallons;
(12) Two (2) pH adjust tanks, N1 and N2, each with a maximum storage capacity of 2,094 gallons;
(13) One (1) polymer add tank, F1, with a maximum storage capacity of 454 gallons;
(14) One (1) sludge thickener tank with a maximum storage capacity of 5,911 gallons; and
(15) One (1) final pH adjust tank, N3, with a maximum storage capacity of 1,885 gallons.

(ii) One (1) 80 gallon parts washer with lids for skirt coat equipment clean-up, identified as Skirt Coat Parts Washer, with a VOC solvent throughput rate of 240 gallons per year.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(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 operating 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 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));

(B) the solvent is agitated; or

(C) the solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at

thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.3.3 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a)(Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the one (1) polycarbonate bead blasting unit, identified as Blast 1, shall each not exceed 0.03 grain per dry standard cubic foot of exhaust air.

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(jj) One (1) natural gas-fired emergency generator, identified as GEN1, constructed in 2005, with a maximum heat input capacity of 0.4029 MMBtu per hour, and rated at 158 HP;

Under 40 CFR 63, Subpart ZZZZ, this generator is considered an affected facility.

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

Emission Limitations and Standards [326 IAC 2-6.1-5(a)(1)]

E.1.1 General Provisions Relating to National Emissions Standards for Hazardous Air Pollutant (NESHAP)[326 IAC 20] [40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of 40 CFR Part 63 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 20, except as otherwise specified in 40 CFR Part 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63, the Permittee shall submit all required notifications and reports 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

E.1.2 National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines [40 CFR Part 63 Subpart ZZZZ] [326 IAC 20]

Pursuant to 40 CFR 63, the Permittee shall comply with the provisions of National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR Part 63 Subpart ZZZZ, which are incorporated by reference as 326 IAC 20, as specified as follows. The provisions of 40 CFR 63, Subpart ZZZZ are shown in their entirety in Attachment A of this permit.

(a) 63.6585(a)(c)(d)
(b) 63.6590
(c) 63.6595
(d) 63.6600
(e) 63.6603
(f) 63.6605
(g) 63.6612 (testing)
(h) 63.6615 (subsequent testing)
(i) 63.6620
(j) 63.6625
(k) 63.6630
(l) 63.6645
(m) 63.6650
(n) 63.6655
(o) 63.6660
(p) 63.6670
(q) 63.6675
(r) Table 2d
(s) Table 3

E.1.3 Testing Requirements [326 IAC 2-1.1-11]

The Permittee shall perform the stack testing as required under NESHAP 40 CFR 63, Subpart ZZZZ, utilizing methods as approved by the Commissioner to document compliance with Condition E.1.2. These tests shall be repeated at least every five (5) years from the date of the last valid compliance demonstration. Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition.

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

MINOR SOURCE OPERATING PERMIT
ANNUAL NOTIFICATION

This form should be used to comply with the notification requirements under 326 IAC 2-6.1-5(a)(5).

Company Name:	Federal-Mogul Corporation
Address:	3605 West Cleveland Road
City:	South Bend, Indiana 46628
Phone #:	574-271-5908
MSOP #:	M141-30201-00065

I hereby certify that Federal-Mogul Corporation is:
- ☐ still in operation.
- ☐ no longer in operation.

I hereby certify that Federal-Mogul Corporation is:
- ☐ in compliance with the requirements of MSOP M141-30201-00065.
- ☐ not in compliance with the requirements of MSOP M141-30201-00065.

Authorized Individual (typed):
Title:
Signature:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

MALFUNCTION REPORT

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
FAX NUMBER: (317) 233-6865

This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

THIS FACILITY MEETS THE APPLICABILITY REQUIREMENTS BECAUSE IT HAS POTENTIAL TO EMIT 25 TONS/YEAR PARTICULATE MATTER ?_____, 25 TONS/YEAR SULFUR DIOXIDE ?_____, 25 TONS/YEAR NITROGEN OXIDES?_____, 25 TONS/YEAR VOC ?_____, 25 TONS/YEAR HYDROGEN SULFIDE ?_____, 25 TONS/YEAR TOTAL REDUCED SULFUR ?_____, 25 TONS/YEAR REDUCED SULFUR COMPOUNDS ?_____, 25 TONS/YEAR FLUORIDES ?_____, 100 TONS/YEAR CARBON MONOXIDE ?_____, 10 TONS/YEAR ANY SINGLE HAZARDOUS AIR POLLUTANT ?_____, 25 TONS/YEAR ANY COMBINATION HAZARDOUS AIR POLLUTANT ?_____, 1 TON/YEAR LEAD OR LEAD COMPOUNDS MEASURED AS ELEMENTAL LEAD ?_____, OR IS A SOURCE LISTED UNDER 326 IAC 2-5.1-3(2) ?_____. EMISSIONS FROM MALFUNCTIONING CONTROL EQUIPMENT OR PROCESS EQUIPMENT CAUSED EMISSIONS IN EXCESS OF APPLICABLE LIMITATION _____.

THIS MALFUNCTION RESULTED IN A VIOLATION OF: 326 IAC _____ OR, PERMIT CONDITION # _____ AND/OR PERMIT LIMIT OF _____

THIS INCIDENT MEETS THE DEFINITION OF "MALFUNCTION" AS LISTED ON REVERSE SIDE ? Y N

THIS MALFUNCTION IS OR WILL BE LONGER THAN THE ONE (1) HOUR REPORTING REQUIREMENT ? Y N

COMPANY:_____PHONE NO. ( )_____
LOCATION: (CITY AND COUNTY)_____
PERMIT NO. _____ AFS PLANT ID: _____ AFS POINT ID: _____ INSP:_____
CONTROL/PROCESS DEVICE WHICH MALFUNCTIONED AND REASON:_____
_____

DATE/TIME MALFUNCTION STARTED: _____/_____/ 20____ _____ AM / PM

ESTIMATED HOURS OF OPERATION WITH MALFUNCTION CONDITION: _____

DATE/TIME CONTROL EQUIPMENT BACK-IN SERVICE_____/_____/ 20____ _____ AM/PM

TYPE OF POLLUTANTS EMITTED: TSP, PM-10, SO2, VOC, OTHER:_____

ESTIMATED AMOUNT OF POLLUTANT EMITTED DURING MALFUNCTION: _____
_____

MEASURES TAKEN TO MINIMIZE EMISSIONS:_____
_____

REASONS WHY FACILITY CANNOT BE SHUTDOWN DURING REPAIRS:

CONTINUED OPERATION REQUIRED TO PROVIDE ESSENTIAL* SERVICES:_____
CONTINUED OPERATION NECESSARY TO PREVENT INJURY TO PERSONS:_____
CONTINUED OPERATION NECESSARY TO PREVENT SEVERE DAMAGE TO EQUIPMENT:_____
INTERIM CONTROL MEASURES: (IF APPLICABLE)_____
_____
_____

MALFUNCTION REPORTED BY:_____TITLE:_____
(SIGNATURE IF FAXED)

MALFUNCTION RECORDED BY:_____DATE:_____TIME:_____
*SEE PAGE 2

Please note - This form should only be used to report malfunctions applicable to Rule 326 IAC 1-6 and to qualify for the exemption under 326 IAC 1-6-4.

326 IAC 1-6-1 Applicability of rule

Sec. 1. This rule applies to the owner or operator of any facility required to obtain a permit under 326 IAC 2-5.1 or 326 IAC 2-6.1.

326 IAC 1-2-39 "Malfunction" definition

Sec. 39. Any sudden, unavoidable failure of any air pollution control equipment, process, or combustion or process equipment to operate in a normal and usual manner.

***Essential services** are interpreted to mean those operations, such as, the providing of electricity by power plants. Continued operation solely for the economic benefit of the owner or operator shall not be sufficient reason why a facility cannot be shutdown during a control equipment shutdown.

If this item is checked on the front, please explain rationale:

_____
_____

Subpart ZZZZ—National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines

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

What This Subpart Covers

§ 63.6580 What is the purpose of subpart ZZZZ?

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

[73 FR 3603, Jan. 18, 2008]

§ 63.6585 Am I subject to this subpart?

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

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

(b) A major source of HAP emissions is a plant site that emits or has the potential to emit any single HAP at a rate of 10 tons (9.07 megagrams) or more per year or any combination of HAP at a rate of 25 tons (22.68 megagrams) or more per year, except that for oil and gas production facilities, a major source of HAP emissions is determined for each surface site.

(c) An area source of HAP emissions is a source that is not a major source.

(d) If you are an owner or operator of an area source subject to this subpart, your status as an entity subject to a standard or other requirements under this subpart does not subject you to the obligation to obtain a permit under 40 CFR part 70 or 71, provided you are not required to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a) for a reason other than your status as an area source under this subpart. Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart as applicable.

(e) If you are an owner or operator of a stationary RICE used for national security purposes, you may be eligible to request an exemption from the requirements of this subpart as described in 40 CFR part 1068, subpart C.

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

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

This subpart applies to each affected source.

(a) *Affected source.* An affected source is any existing, new, or reconstructed stationary RICE located at a major or area source of HAP emissions, excluding stationary RICE being tested at a stationary RICE test cell/stand.

(1) *Existing stationary RICE.*

(i) For stationary RICE with a site rating of more than 500 brake horsepower (HP) located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before December 19, 2002.

(ii) For stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iii) For stationary RICE located at an area source of HAP emissions, a stationary RICE is existing if you commenced construction or reconstruction of the stationary RICE before June 12, 2006.

(iv) A change in ownership of an existing stationary RICE does not make that stationary RICE a new or reconstructed stationary RICE.

(2) *New stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is new if you commenced construction of the stationary RICE on or after June 12, 2006.

(3) *Reconstructed stationary RICE.* (i) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after December 19, 2002.

(ii) A stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(iii) A stationary RICE located at an area source of HAP emissions is reconstructed if you meet the definition of reconstruction in §63.2 and reconstruction is commenced on or after June 12, 2006.

(b) *Stationary RICE subject to limited requirements.* (1) An affected source which meets either of the criteria in paragraphs (b)(1)(i) through (ii) of this section does not have to meet the requirements of this subpart and of subpart A of this part except for the initial notification requirements of §63.6645(f).

(i) The stationary RICE is a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(ii) The stationary RICE is a new or reconstructed limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(2) A new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions which combusts landfill or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis must meet the initial notification requirements of §63.6645(f) and the requirements of §§63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

(3) The following stationary RICE do not have to meet the requirements of this subpart and of subpart A of this part, including initial notification requirements:

(i) Existing spark ignition 2 stroke lean burn (2SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(ii) Existing spark ignition 4 stroke lean burn (4SLB) stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iii) Existing emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(iv) Existing limited use stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions;

(v) Existing stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that combusts landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis;

(vi) Existing residential emergency stationary RICE located at an area source of HAP emissions;

(vii) Existing commercial emergency stationary RICE located at an area source of HAP emissions; or

(viii) Existing institutional emergency stationary RICE located at an area source of HAP emissions.

(c) *Stationary RICE subject to Regulations under 40 CFR Part 60.* An affected source that meets any of the criteria in paragraphs (c)(1) through (7) of this section must meet the requirements of this part by meeting the requirements of 40 CFR part 60 subpart IIII, for compression ignition engines or 40 CFR part 60 subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under this part.

(1) A new or reconstructed stationary RICE located at an area source;

(2) A new or reconstructed 2SLB stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(3) A new or reconstructed 4SLB stationary RICE with a site rating of less than 250 brake HP located at a major source of HAP emissions;

(4) A new or reconstructed spark ignition 4 stroke rich burn (4SRB) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

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

(6) A new or reconstructed emergency or limited use stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions;

(7) A new or reconstructed compression ignition (CI) stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

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

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

(a) *Affected sources.* (1) If you have an existing stationary RICE, excluding existing non-emergency CI stationary RICE, with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than June 15, 2007. If you have an existing non-emergency CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions,

an existing stationary CI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary CI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013. If you have an existing stationary SI RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, or an existing stationary SI RICE located at an area source of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than October 19, 2013.

(2) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart no later than August 16, 2004.

(3) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions after August 16, 2004, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(4) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(5) If you start up your new or reconstructed stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(6) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions before January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart no later than January 18, 2008.

(7) If you start up your new or reconstructed stationary RICE located at an area source of HAP emissions after January 18, 2008, you must comply with the applicable emission limitations and operating limitations in this subpart upon startup of your affected source.

(b) *Area sources that become major sources.* If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, the compliance dates in paragraphs (b)(1) and (2) of this section apply to you.

(1) Any stationary RICE for which construction or reconstruction is commenced after the date when your area source becomes a major source of HAP must be in compliance with this subpart upon startup of your affected source.

(2) Any stationary RICE for which construction or reconstruction is commenced before your area source becomes a major source of HAP must be in compliance with the provisions of this subpart that are applicable to RICE located at major sources within 3 years after your area source becomes a major source of HAP.

(c) If you own or operate an affected source, you must meet the applicable notification requirements in §63.6645 and in 40 CFR part 63, subpart A.

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

Emission and Operating Limitations

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

Compliance with the numerical emission limitations established in this subpart is based on the results of testing the

average of three 1-hour runs using the testing requirements and procedures in §63.6620 and Table 4 to this subpart.

(a) If you own or operate an existing, new, or reconstructed spark ignition 4SRB stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 1a to this subpart and the operating limitations in Table 1b to this subpart which apply to you.

(b) If you own or operate a new or reconstructed 2SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, a new or reconstructed 4SLB stationary RICE with a site rating of more than 500 brake HP located at major source of HAP emissions, or a new or reconstructed CI stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must comply with the emission limitations in Table 2a to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

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

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

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

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

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

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

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

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

[75 FR 51589, Aug. 20, 2010]

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

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

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart and the operating limitations in Table 2b to this subpart which apply to you.

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

[75 FR 9675, Mar. 3, 2010, as amended at 75 FR 51589, Aug. 20, 2010]

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

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

[75 FR 51589, Aug. 20, 2010]

General Compliance Requirements

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

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

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

[75 FR 9675, Mar. 3, 2010]

Testing and Initial Compliance Requirements

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

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

(a) You must conduct the initial performance test or other initial compliance demonstrations in Table 4 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, you must

demonstrate initial compliance with either the proposed emission limitations or the promulgated emission limitations no later than February 10, 2005 or no later than 180 days after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(c) If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004 and own or operate stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions, and you chose to comply with the proposed emission limitations when demonstrating initial compliance, you must conduct a second performance test to demonstrate compliance with the promulgated emission limitations by December 13, 2007 or after startup of the source, whichever is later, according to §63.7(a)(2)(ix).

(d) An owner or operator is not required to conduct an initial performance test on units for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (d)(1) through (5) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

(5) The test must be conducted at any load condition within plus or minus 10 percent of 100 percent load.

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

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

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

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

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

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

(a) You must conduct any initial performance test or other initial compliance demonstration according to Tables 4 and 5 to this subpart that apply to you within 180 days after the compliance date that is specified for your stationary RICE in §63.6595 and according to the provisions in §63.7(a)(2).

(b) An owner or operator is not required to conduct an initial performance test on a unit for which a performance test has been previously conducted, but the test must meet all of the conditions described in paragraphs (b)(1) through (4) of this section.

(1) The test must have been conducted using the same methods specified in this subpart, and these methods must have been followed correctly.

(2) The test must not be older than 2 years.

(3) The test must be reviewed and accepted by the Administrator.

(4) Either no process or equipment changes must have been made since the test was performed, or the owner or operator must be able to demonstrate that the results of the performance test, with or without adjustments, reliably demonstrate compliance despite process or equipment changes.

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

§ 63.6615 When must I conduct subsequent performance tests?

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

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

(a) You must conduct each performance test in Tables 3 and 4 of this subpart that applies to you.

(b) Each performance test must be conducted according to the requirements that this subpart specifies in Table 4 to this subpart. If you own or operate a non-operational stationary RICE that is subject to performance testing, you do not need to start up the engine solely to conduct the performance test. Owners and operators of a non-operational engine can conduct the performance test when the engine is started up again.

(c) [Reserved]

(d) You must conduct three separate test runs for each performance test required in this section, as specified in §63.7(e)(3). Each test run must last at least 1 hour.

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

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

Where:

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

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

R = percent reduction of CO or formaldehyde emissions.

(2) You must normalize the carbon monoxide (CO) or formaldehyde concentrations at the inlet and outlet of the control device to a dry basis and to 15 percent oxygen, or an equivalent percent carbon dioxide (CO_2). If pollutant concentrations

are to be corrected to 15 percent oxygen and CO_2concentration is measured in lieu of oxygen concentration measurement, a CO_2correction factor is needed. Calculate the CO_2correction 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:

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

Where:

F_o= Fuel factor based on the ratio of oxygen volume to the ultimate CO_2volume 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_2produced to the gross calorific value of the fuel from Method 19, dsm^3 /J (dscf/10^6 Btu).

(ii) Calculate the CO_2correction factor for correcting measurement data to 15 percent oxygen, as follows:

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

Where:

X_{co2}= CO_2correction factor, percent.

5.9 = 20.9 percent O_2−15 percent O_2, the defined O_2correction value, percent.

(iii) Calculate the $NO_X$and SO_2gas concentrations adjusted to 15 percent O_2using CO_2as follows:

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

Where:

$\%CO_2$= Measured CO_2concentration measured, dry basis, percent.

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

test until after the petition has been approved by the Administrator.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) If you elect to install a CEMS as specified in Table 5 of this subpart, you must install, operate, and maintain a CEMS to monitor CO and either oxygen or CO_2at both the inlet and the outlet of the control device according to the requirements in paragraphs (a)(1) through (4) of this section.

(1) Each CEMS must be installed, operated, and maintained according to the applicable performance specifications of 40 CFR part 60, appendix B.

(2) You must conduct an initial performance evaluation and an annual relative accuracy test audit (RATA) of each CEMS according to the requirements in §63.8 and according to the applicable performance specifications of 40 CFR part 60, appendix B as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.

(3) As specified in §63.8(c)(4)(ii), each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period. You must have at least two data points, with each representing a different 15-minute period, to have a valid hour of data.

(4) The CEMS data must be reduced as specified in §63.8(g)(2) and recorded in parts per million or parts per billion (as appropriate for the applicable limitation) at 15 percent oxygen or the equivalent CO_2concentration.

(b) If you are required to install a continuous parameter monitoring system (CPMS) as specified in Table 5 of this subpart, you must install, operate, and maintain each CPMS according to the requirements in paragraphs (b)(1) through (8) of this section.

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

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

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

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

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

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

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

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

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

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

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

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

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

(8) You must operate and maintain the CPMS in continuous operation according to the site-specific monitoring plan.

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

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

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

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

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

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

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

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

(6) An existing non-emergency, non-black start landfill or digester gas stationary RICE located at an area source of HAP emissions;

(7) An existing non-emergency, non-black start 4SLB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(8) An existing non-emergency, non-black start 4SRB stationary RICE with a site rating less than or equal to 500 HP located at an area source of HAP emissions;

(9) An existing, non-emergency, non-black start 4SLB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year; and

(10) An existing, non-emergency, non-black start 4SRB stationary RICE with a site rating greater than 500 HP located at an area source of HAP emissions that is operated 24 hours or less per calendar year.

(f) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions or an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(g) If you own or operate an existing non-emergency, non-black start CI engine greater than or equal to 300 HP that is not equipped with a closed crankcase ventilation system, you must comply with either paragraph (g)(1) or paragraph (g)(2) of this section. Owners and operators must follow the manufacturer's specified maintenance requirements for operating and maintaining the open or closed crankcase ventilation systems and replacing the crankcase filters, or can request the Administrator to approve different maintenance requirements that are as protective as manufacturer requirements. Existing CI engines located at area sources in areas of Alaska not accessible by the FAHS do not have to meet the requirements of paragraph (g) of this section.

(1) Install a closed crankcase ventilation system that prevents crankcase emissions from being emitted to the atmosphere, or

(2) Install an open crankcase filtration emission control system that reduces emissions from the crankcase by filtering the exhaust stream to remove oil mist, particulates, and metals.

(h) If you operate a new, reconstructed, or existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Tables 1a, 2a, 2c, and 2d to this subpart apply.

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

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

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

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

(2) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 1.0 percent of the temperature value, whichever is larger, for a noncryogenic temperature range.

(3) Use a temperature sensor with a minimum tolerance of 2.8 degrees Celsius (5 degrees Fahrenheit), or 2.5 percent of the temperature value, whichever is larger, for a cryogenic temperature range.

(4) Conduct a temperature measurement device calibration check at least every 3 months.

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

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

(a) You must demonstrate initial compliance with each emission and operating limitation that applies to you according to Table 5 of this subpart.

(b) During the initial performance test, you must establish each operating limitation in Tables 1b and 2b of this subpart that applies to you.

(c) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in §63.6645.

Continuous Compliance Requirements

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

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

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

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

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

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Tables 1a and 1b, Tables 2a and 2b, Table 2c, and Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

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

(c) [Reserved]

(d) For new, reconstructed, and rebuilt stationary RICE, deviations from the emission or operating limitations that occur during the first 200 hours of operation from engine startup (engine burn-in period) are not violations. Rebuilt stationary RICE means a stationary RICE that has been rebuilt as that term is defined in 40 CFR 94.11(a).

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

(f) *Requirements for emergency stationary RICE.* (1) If you own or operate an existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions, a new or reconstructed emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed on or after June 12, 2006, or an existing emergency stationary RICE located at an area source of HAP emissions, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1)(i) through (iii) of this section. Any operation other than emergency operation, maintenance and testing, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1)(i) through (iii) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

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

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by Federal, State or local government, the manufacturer, the vendor, or the insurance company associated with the engine. Maintenance checks and readiness testing of such units is limited to 100 hours per year. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that Federal, State, or local standards require maintenance and testing of emergency RICE beyond 100 hours per year.

(iii) You may operate your emergency stationary RICE up to 50 hours per year in non-emergency situations, but those 50 hours are counted towards the 100 hours per year provided for maintenance and testing. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity; except that owners and operators may operate the emergency engine for a maximum of 15 hours per year as part of a demand response program if the regional transmission organization or equivalent balancing authority and transmission operator has determined there are emergency conditions that could lead to a potential electrical blackout, such as unusually low frequency, equipment overload, capacity or energy deficiency, or unacceptable voltage level. The engine may not be operated for more than 30 minutes prior to the time when the emergency condition is expected to occur, and the engine operation must be terminated immediately after the facility is notified that the emergency condition is no longer imminent. The 15 hours per year of demand response operation are counted as part of the 50 hours of operation per year provided for non-emergency situations. The supply of emergency power to another entity or entities pursuant to financial arrangement is not limited by this paragraph (f)(1)(iii), as long as the power provided by the financial arrangement is limited to emergency power.

(2) If you own or operate an emergency stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions that was installed prior to June 12, 2006, you must operate the engine according to the conditions described in paragraphs (f)(2)(i) through (iii) of this section. If you do not operate the engine according to the requirements in paragraphs (f)(2)(i) through (iii) of this section, the engine will not be considered an emergency engine under this subpart and will need to meet all requirements for non-emergency engines.

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

(ii) You may operate your emergency stationary RICE for the purpose of maintenance checks and readiness testing, provided that the tests are recommended by the manufacturer, the vendor, or the insurance company associated with the engine. Required testing of such units should be minimized, but there is no time limit on the use of emergency stationary RICE in emergency situations and for routine testing and maintenance.

(iii) You may operate your emergency stationary RICE for an additional 50 hours per year in non-emergency situations. The 50 hours per year for non-emergency situations cannot be used for peak shaving or to generate income for a facility to supply power to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

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

Notifications, Reports, and Records

§ 63.6645 What notifications must I submit and when?

(a) You must submit all of the notifications in §§63.7(b) and (c), 63.8(e), (f)(4) and (f)(6), 63.9(b) through (e), and (g) and (h) that apply to you by the dates specified if you own or operate any of the following;

(1) An existing stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions.

(2) An existing stationary RICE located at an area source of HAP emissions.

(3) A stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions.

(4) A new or reconstructed 4SLB stationary RICE with a site rating of greater than or equal to 250 HP located at a major source of HAP emissions.

(5) This requirement does not apply if you own or operate an existing stationary RICE less than 100 HP, an existing stationary emergency RICE, or an existing stationary RICE that is not subject to any numerical emission standards.

(b) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart, you must submit an Initial Notification not later than December 13, 2004.

(c) If you start up your new or reconstructed stationary RICE with a site rating of more than 500 brake HP located at a major source of HAP emissions on or after August 16, 2004, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(d) As specified in §63.9(b)(2), if you start up your stationary RICE with a site rating of equal to or less than 500 brake HP located at a major source of HAP emissions before the effective date of this subpart and you are required to submit an initial notification, you must submit an Initial Notification not later than July 16, 2008.

(e) If you start up your new or reconstructed stationary RICE with a site rating of equal to or less than 500 brake HP

located at a major source of HAP emissions on or after March 18, 2008 and you are required to submit an initial notification, you must submit an Initial Notification not later than 120 days after you become subject to this subpart.

(f) If you are required to submit an Initial Notification but are otherwise not affected by the requirements of this subpart, in accordance with §63.6590(b), your notification should include the information in §63.9(b)(2)(i) through (v), and a statement that your stationary RICE has no additional requirements and explain the basis of the exclusion (for example, that it operates exclusively as an emergency stationary RICE if it has a site rating of more than 500 brake HP located at a major source of HAP emissions).

(g) If you are required to conduct a performance test, you must submit a Notification of Intent to conduct a performance test at least 60 days before the performance test is scheduled to begin as required in §63.7(b)(1).

(h) If you are required to conduct a performance test or other initial compliance demonstration as specified in Tables 4 and 5 to this subpart, you must submit a Notification of Compliance Status according to §63.9(h)(2)(ii).

(1) For each initial compliance demonstration required in Table 5 to this subpart that does not include a performance test, you must submit the Notification of Compliance Status before the close of business on the 30th day following the completion of the initial compliance demonstration.

(2) For each initial compliance demonstration required in Table 5 to this subpart that includes a performance test conducted according to the requirements in Table 3 to this subpart, you must submit the Notification of Compliance Status, including the performance test results, before the close of business on the 60th day following the completion of the performance test according to §63.10(d)(2).

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

§ 63.6650 What reports must I submit and when?

(a) You must submit each report in Table 7 of this subpart that applies to you.

(b) Unless the Administrator has approved a different schedule for submission of reports under §63.10(a), you must submit each report by the date in Table 7 of this subpart and according to the requirements in paragraphs (b)(1) through (b)(9) of this section.

(1) For semiannual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on June 30 or December 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in §63.6595.

(2) For semiannual Compliance reports, the first Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date follows the end of the first calendar half after the compliance date that is specified for your affected source in §63.6595.

(3) For semiannual Compliance reports, each subsequent Compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) For semiannual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each stationary RICE that is subject to permitting regulations pursuant to 40 CFR part 70 or 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6 (a)(3)(iii)(A), you may submit the first and subsequent Compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (b)(4) of this section.

(6) For annual Compliance reports, the first Compliance report must cover the period beginning on the compliance date that is specified for your affected source in §63.6595 and ending on December 31.

(7) For annual Compliance reports, the first Compliance report must be postmarked or delivered no later than January 31 following the end of the first calendar year after the compliance date that is specified for your affected source in §63.6595.

(8) For annual Compliance reports, each subsequent Compliance report must cover the annual reporting period from January 1 through December 31.

(9) For annual Compliance reports, each subsequent Compliance report must be postmarked or delivered no later than January 31.

(c) The Compliance report must contain the information in paragraphs (c)(1) through (6) of this section.

(1) Company name and address.

(2) Statement by a responsible official, with that official's name, title, and signature, certifying the accuracy of the content of the report.

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

(4) If you had a malfunction during the reporting period, the compliance report must include the number, duration, and a brief description for each type of malfunction which occurred during the reporting period and which caused or may have caused any applicable emission limitation to be exceeded. The report must also include a description of actions taken by an owner or operator during a malfunction of an affected source to minimize emissions in accordance with §63.6605(b), including actions taken to correct a malfunction.

(5) If there are no deviations from any emission or operating limitations that apply to you, a statement that there were no deviations from the emission or operating limitations during the reporting period.

(6) If there were no periods during which the continuous monitoring system (CMS), including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), a statement that there were no periods during which the CMS was out-of-control during the reporting period.

(d) For each deviation from an emission or operating limitation that occurs for a stationary RICE where you are not using a CMS to comply with the emission or operating limitations in this subpart, the Compliance report must contain the information in paragraphs (c)(1) through (4) of this section and the information in paragraphs (d)(1) and (2) of this section.

(1) The total operating time of the stationary RICE at which the deviation occurred during the reporting period.

(2) Information on the number, duration, and cause of deviations (including unknown cause, if applicable), as applicable, and the corrective action taken.

(e) For each deviation from an emission or operating limitation occurring for a stationary RICE where you are using a CMS to comply with the emission and operating limitations in this subpart, you must include information in paragraphs (c)(1) through (4) and (e)(1) through (12) of this section.

(1) The date and time that each malfunction started and stopped.

(2) The date, time, and duration that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out-of-control, including the information in §63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period, and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to control equipment problems, process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMS downtime during the reporting period, and the total duration of CMS downtime as a percent of the total operating time of the stationary RICE at which the CMS downtime occurred during that reporting period.

(8) An identification of each parameter and pollutant (CO or formaldehyde) that was monitored at the stationary RICE.

(9) A brief description of the stationary RICE.

(10) A brief description of the CMS.

(11) The date of the latest CMS certification or audit.

(12) A description of any changes in CMS, processes, or controls since the last reporting period.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6 (a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a Compliance report pursuant to Table 7 of this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the Compliance report includes all required information concerning deviations from any emission or operating limitation in this subpart, submission of the Compliance report shall be deemed to satisfy any obligation to report the same deviations in the semiannual monitoring report. However, submission of a Compliance report shall not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you are operating as a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must submit an annual report according to Table 7 of this subpart by the date specified unless the Administrator has approved a different schedule, according to the information described in paragraphs (b)(1) through (b)(5) of this section. You must report the data specified in (g)(1) through (g)(3) of this section.

(1) Fuel flow rate of each fuel and the heating values that were used in your calculations. You must also demonstrate that the percentage of heat input provided by landfill gas or digester gas is equivalent to 10 percent or more of the total fuel consumption on an annual basis.

(2) The operating limits provided in your federally enforceable permit, and any deviations from these limits.

(3) Any problems or errors suspected with the meters.

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

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.,* process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(b) For each CEMS or CPMS, you must keep the records listed in paragraphs (b)(1) through (3) of this section.

(1) Records described in §63.10(b)(2)(vi) through (xi).

(2) Previous (*i.e.,* superseded) versions of the performance evaluation plan as required in §63.8(d)(3).

(3) Requests for alternatives to the relative accuracy test for CEMS or CPMS as required in §63.8(f)(6)(i), if applicable.

(c) If you are operating a new or reconstructed stationary RICE which fires landfill gas or digester gas equivalent to 10 percent or more of the gross heat input on an annual basis, you must keep the records of your daily fuel usage monitors.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance with each emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

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

(2) An existing stationary emergency RICE.

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraphs (f)(1) or (2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engines are used for demand response operation, the owner or operator must keep records of the notification of the emergency situation, and the time the engine was operated as part of demand response.

(1) An existing emergency stationary RICE with a site rating of less than or equal to 500 brake HP located at a major source of HAP emissions that does not meet the standards applicable to non-emergency engines.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

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

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

(a) Your records must be in a form suitable and readily available for expeditious review according to §63.10(b)(1).

(b) As specified in §63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record readily accessible in hard copy or electronic form for at least 5 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to §63.10(b)(1).

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

Other Requirements and Information

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

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

[75 FR 9678, Mar. 3, 2010]

§ 63.6670 Who implements and enforces this subpart?

(a) This subpart is implemented and enforced by the U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out whether this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities contained in paragraph (c) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(c) The authorities that will not be delegated to State, local, or tribal agencies are:

(1) Approval of alternatives to the non-opacity emission limitations and operating limitations in §63.6600 under §63.6(g).

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

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

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

(5) Approval of a performance test which was conducted prior to the effective date of the rule, as specified in §63.6610(b).

§ 63.6675 What definitions apply to this subpart?

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

gas production.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Stationary RICE test cell/stand means an engine test cell/stand, as defined in subpart 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]

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

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

For each . . .	You must meet the following emission limitation, except during periods of startup . . .	During periods of startup you must . . .
1. 4SRB stationary RICE	a. Reduce formaldehyde emissions by 76 percent or more. If you commenced construction or reconstruction between December 19, 2002 and June 15, 2004, you may reduce formaldehyde emissions by 75 percent or more until June 15, 2007 or	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[1]
	b. Limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent O_2	

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

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

For each . . .	You must meet the following operating limitation . . .
1. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or	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

more, if applicable) and using NSCR; or	the pressure drop across the catalyst measured during the initial performance test and
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent $O_2$and using NSCR; or	b. maintain the termperature of your stationary RICE exhaust so the catalyst inlet temperature is greater than or equal to 750 °F and less than or equal to 1250 °F.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent $O_2$and using NSCR.	
2. 4SRB stationary RICE complying with the requirement to reduce formaldehyde emissions by 76 percent or more (or by 75 percent or more, if applicable) and not using NSCR; or	Comply with any operating limitations approved by the Administrator.
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 350 ppbvd or less at 15 percent $O_2$and not using NSCR; or	
4SRB stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd or less at 15 percent $O_2$and using NSCR.	

[75 FR 51592, Aug. 20, 2010]

Table 2ato 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	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

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

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

For each . . .	You must meet the following operating limitation . . .
1. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the	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

stationary RICE exhaust and using an oxidation catalyst	and less than or equal to 1350 °F.[1]
2. 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to reduce CO emissions and not using an oxidation catalyst; or 2SLB and 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of formaldehyde in the stationary RICE exhaust and not using an oxidation catalyst; or 4SLB stationary RICE and CI stationary RICE complying with the requirement to limit the concentration of CO in the stationary RICE exhaust and not using an oxidation catalyst	Comply with any operating limitations approved by the Administrator.

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

[75 FR 51593, Aug. 20, 2010]

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

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

For each . . .	You must meet the following requirement, except during periods of startup . . .	During periods of startup you must . . .
1. Emergency stationary CI RICE and black start stationary CI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2] b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	Minimize the engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply.[3]
2. Non-Emergency, non-black start stationary CI RICE <100 HP	a. Change oil and filter every 1,000 hours of operation or annually, whichever comes	

	first;[2]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
3. Non-Emergency, non-black start CI stationary RICE 100≤HP≤300 HP	Limit concentration of CO in the stationary RICE exhaust to 230 ppmvd or less at 15 percent O_2	
4. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
5. Non-Emergency, non-black start stationary CI RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd or less at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
6. Emergency stationary SI RICE and black start stationary SI RICE.[1]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.[3]	

7. Non-Emergency, non-black start stationary SI RICE <100 HP that are not 2SLB stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
8. Non-Emergency, non-black start 2SLB stationary SI RICE <100 HP	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[2]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first;	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.[3]	
9. Non-emergency, non-black start 2SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 225 ppmvd or less at 15 percent O_2	
10. Non-emergency, non-black start 4SLB stationary RICE 100≤HP≤500	Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd or less at 15 percent O_2	
11. Non-emergency, non-black start 4SRB stationary RICE 100≤HP≤500	Limit concentration of formaldehyde in the stationary RICE exhaust to 10.3 ppmvd or less at 15 percent O_2	
12. Non-emergency, non-black start landfill or	Limit concentration of CO in the stationary RICE exhaust to	

digester gas-fired stationary RICE 100≤HP≤500	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) 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.

[75 FR 51593, Aug. 20, 2010]

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

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

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

2. Non-Emergency, non-black start CI stationary RICE 300<HP≤500	a. Limit concentration of CO in the stationary RICE exhaust to 49 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
3. Non-Emergency, non-black start CI stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 23 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 70 percent or more.	
4. Emergency stationary CI RICE and black start stationary CI RICE.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]	
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.	
5. Emergency stationary SI RICE; black start stationary SI RICE; non-emergency, non-black start 4SLB stationary RICE >500 HP that operate 24 hours or less per calendar year; non-emergency, non-black start 4SRB stationary RICE >500 HP that operate 24 hours or less per calendar year.[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1] b. Inspect spark plugs every 1,000 hours of operation or annually, whichever comes first; and c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first,	

	and replace as necessary.	
6. Non-emergency, non-black start 2SLB stationary RICE	a. Change oil and filter every 4,320 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 4,320 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 4,320 hours of operation or annually, whichever comes first, and replace as necessary.	
7. Non-emergency, non-black start 4SLB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
8. Non-emergency, non-black start 4SLB stationary RICE >500 HP	a. Limit concentration of CO in the stationary RICE exhaust to 47 ppmvd at 15 percent O_2; or	
	b. Reduce CO emissions by 93 percent or more.	
9. Non-emergency, non-black start 4SRB stationary RICE ≤500 HP	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	

	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	
10. Non-emergency, non-black start 4SRB stationary RICE >500 HP	a. Limit concentration of formaldehyde in the stationary RICE exhaust to 2.7 ppmvd at 15 percent O_2; or	
	b. Reduce formaldehyde emissions by 76 percent or more.	
11. Non-emergency, non-black start landfill or digester gas-fired stationary RICE	a. Change oil and filter every 1,440 hours of operation or annually, whichever comes first;[1]	
	b. Inspect spark plugs every 1,440 hours of operation or annually, whichever comes first; and	
	c. Inspect all hoses and belts every 1,440 hours of operation or annually, whichever comes first, and replace as necessary.	

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

[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.

[75 FR 51595, Aug. 20, 2010]

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

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

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

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

[75 FR 51596, Aug. 20, 2010]

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

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

For each . . .	Complying with the requirement to . . .	You must . . .	Using . . .	According to the following requirements . . .
1. 2SLB, 4SLB, and CI stationary RICE	a. Reduce CO emissions	i. Measure the O_2at the inlet and outlet of the control device; and	(1) Portable CO and O_2analyzer	(a) Using ASTM D6522–00 (2005)[a](incorporated by reference, see §63.14). 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) Portable CO and O_2analyzer	(a) Using ASTM D6522–00 (2005)[ab](incorporated by reference, see §63.14) or Method 10 of 40 CFR appendix A. The CO concentration must be at 15 percent O_2, dry basis.
2. 4SRB stationary RICE	a. Reduce formaldehyde emissions	i. Select the sampling port location and the number of traverse points; and	(1) Method 1 or 1A of 40 CFR part 60, appendix A §63.7(d)(1)(i)	(a) Sampling sites must be located at the inlet and outlet of the control device.
		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 D6522–00m (2005)	(a) Measurements to determine O_2concentration must be made at the same time as the measurements for formaldehyde concentration.
		iii. Measure moisture content at the inlet and outlet of the control device; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the inlet and the outlet	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results

		of the control device	03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	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 (2005)	(a) Measurements to determine O_2concentration must be made at the same time and location as the measurements for formaldehyde concentration.
		iii. Measure moisture content of the stationary RICE exhaust at the sampling port location; and	(1) Method 4 of 40 CFR part 60, appendix A, or Test Method 320 of 40 CFR part 63, appendix A, or ASTM D 6348–03	(a) Measurements to determine moisture content must be made at the same time and location as the measurements for formaldehyde concentration.
		iv. Measure formaldehyde at the exhaust of the stationary RICE; or	(1) Method 320 or 323 of 40 CFR part 63, appendix A; or ASTM D6348–03,[c]provided in ASTM D6348–03 Annex A5 (Analyte Spiking Technique), the percent R must be greater than or equal to 70 and less than or equal to 130	(a) Formaldehyde concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour or longer runs.
		v. Measure CO at the exhaust of the stationary RICE	(1) Method 10 of 40 CFR part 60, appendix A, ASTM Method D6522–00 (2005),[a]Method 320 of 40 CFR part 63, appendix A, or ASTM D6348–03	(a) CO Concentration must be at 15 percent O_2, dry basis. Results of this test consist of the average of the three 1-hour longer runs.

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

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

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

[75 FR 51597, Aug. 20, 2010]

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

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

For each . . .	Complying with the requirement to . . .	You have demonstrated initial compliance if . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions and using oxidation catalyst, and using a CPMS	i. The average reduction of emissions of CO determined from the initial performance test achieves the required CO percent reduction; and ii. You have installed a CPMS to continuously monitor catalyst inlet temperature according to the requirements in §63.6625(b); and iii. You have recorded the catalyst pressure drop and catalyst inlet temperature during the initial performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and	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

existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year		operating parameters (if any) during the initial performance test.
3. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP located at an area source of HAP, and existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce CO emissions, and using a CEMS	i. You have installed a CEMS to continuously monitor CO and either O2 or CO2 at both the inlet and outlet of the oxidation catalyst according to the requirements in §63.6625(a); and ii. You have conducted a performance evaluation of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B; and iii. The average reduction of CO calculated using §63.6620 equals or exceeds the required percent reduction. The initial test comprises the first 4-hour period after successful validation of the CEMS. Compliance is based on the average percent reduction achieved during the 4-hour period.
4. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	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; 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.
5. Non-emergency 4SRB stationary RICE >500 HP located at a major source of HAP, and existing non-emergency 4SRB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	a. Reduce formaldehyde emissions and not using NSCR	i. The average reduction of emissions of formaldehyde determined from the initial performance test is equal to or greater than the required formaldehyde percent reduction; and ii. You have installed a CPMS to continuously monitor operating parameters approved by the Administrator (if any) according to the

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

[75 FR 51598, Aug. 20, 2010]

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

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

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by . . .
1. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a] and ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
2. New or reconstructed non-emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, and new or reconstructed non-emergency CI stationary RICE >500 HP located at a major source of HAP	a. Reduce CO emissions and not using an oxidation catalyst, and using a CPMS	i. Conducting semiannual performance tests for CO to demonstrate that the required CO percent reduction is achieved;[a] and ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and iii. Reducing these data to 4-hour rolling averages; and iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.
3. New or reconstructed non-	a. Reduce CO emissions	i. Collecting the monitoring data

emergency 2SLB stationary RICE >500 HP located at a major source of HAP, new or reconstructed non-emergency 4SLB stationary RICE ≥250 HP located at a major source of HAP, new or reconstructed non-emergency stationary CI RICE >500 HP located at a major source of HAP, existing non-emergency stationary CI RICE >500 HP, existing non-emergency 4SLB stationary RICE >500 HP located at an area source of HAP that are operated more than 24 hours per calendar year	and using a CEMS	according to §63.6625(a), reducing the measurements to 1-hour averages, calculating the percent reduction of CO emissions according to §63.6620; and ii. Demonstrating that the catalyst achieves the required percent reduction of CO emissions over the 4-hour averaging period; and iii. Conducting an annual RATA of your CEMS using PS 3 and 4A of 40 CFR part 60, appendix B, as well as daily and periodic data quality checks in accordance with 40 CFR part 60, appendix F, procedure 1.
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.
6. Non-emergency 4SRB stationary RICE with a brake HP ≥5,000 located at a major source of HAP	a. Reduce formaldehyde emissions	Conducting semiannual performance tests for formaldehyde to demonstrate that the required formaldehyde percent reduction is achieved.[a]

7. New or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP	a. Limit the concentration of formaldehyde in the stationary RICE exhaust and using oxidation catalyst or NSCR	i. Conducting semiannual performance tests for formaldehyde to demonstrate that your emissions remain at or below the formaldehyde concentration limit;[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.
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	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

source of HAP, existing non-emergency stationary CI RICE≤300 HP located at an area source of HAP, existing non-emergency 2SLB stationary RICE located at an area source of HAP, existing non-emergency landfill or digester gas stationary SI RICE located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE ≤500 HP located at an area source of HAP, existing non-emergency 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate 24 hours or less per calendar year		to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions.
10. Existing stationary CI RICE >500 HP that are not limited use stationary RICE, and existing 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year and are not limited use stationary RICE	a. Reduce CO or formaldehyde emissions, or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 3 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the catalyst inlet temperature data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the catalyst inlet temperature; and
		v. Measuring the pressure drop across the catalyst once per month and demonstrating that the pressure drop across the catalyst is within the operating limitation established during the performance test.
11. Existing stationary CI RICE >500 HP that are not limited use stationary	a. Reduce CO or formaldehyde emissions,	i. Conducting performance tests every 8,760 hours or 3 years, whichever

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

13. Existing limited use CI stationary RICE >500 HP and existing limited use 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP that operate more than 24 hours per calendar year	a. Reduce CO or formaldehyde emissions or limit the concentration of formaldehyde or CO in the stationary RICE exhaust, and using an oxidation catalyst or NSCR	i. Conducting performance tests every 8,760 hours or 5 years, whichever comes first, for CO or formaldehyde, as appropriate, to demonstrate that the required CO or formaldehyde, as appropriate, percent reduction is achieved or that your emissions remain at or below the CO or formaldehyde concentration limit; and
		ii. Collecting the approved operating parameter (if any) data according to §63.6625(b); and
		iii. Reducing these data to 4-hour rolling averages; and
		iv. Maintaining the 4-hour rolling averages within the operating limitations for the operating parameters established during the performance test.

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

[75 FR 51600, Aug. 20, 2010]

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

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

For each ...	You must submit a ...	The report must contain ...	You must submit the report ...
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,	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	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

non-black start stationary CI RICE >300 HP located at an area source of HAP; existing non-emergency, non-black start 4SLB and 4SRB stationary RICE >500 HP located at an area source of HAP and operated more than 24 hours per calendar year; new or reconstructed non-emergency stationary RICE >500 HP located at a major source of HAP; and new or reconstructed non-emergency 4SLB stationary RICE 250≤HP≤500 located at a major source of HAP		§63.8(c)(7), a statement that there were not periods during which the CMS was out-of-control during the reporting period; or b. If you had a deviation from any emission limitation or operating limitation during the reporting period, the information in §63.6650(d). If there were periods during which the CMS, including CEMS and CPMS, was out-of-control, as specified in §63.8(c)(7), the information in §63.6650(e); or c. If you had a malfunction during the reporting period, the information in §63.6650(c)(4)	§63.6650(b)(6)–(9) for engines that are limited use stationary RICE subject to numerical emission limitations. i. Semiannually according to the requirements in §63.6650(b). i. Semiannually according to the requirements in §63.6650(b).
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.
		b. The operating limits provided in your federally enforceable permit, and any deviations from these limits; and	i. See item 2.a.i.
		c. Any problems or errors suspected with the meters.	i. See item 2.a.i.

[75 FR 51603, Aug. 20, 2010]

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

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

General provisions citation	Subject of citation	Applies to subpart	Explanation
§63.1	General applicability of the	Yes.	

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

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

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

§63.9(b)(1)–(5)	Initial notifications	Yes	Except that §63.9(b)(3) is reserved.
		Except that §63.9(b) only applies as specified in §63.6645.	
§63.9(c)	Request for compliance extension	Yes	Except that §63.9(c) only applies as specified in §63.6645.
§63.9(d)	Notification of special compliance requirements for new sources	Yes	Except that §63.9(d) only applies as specified in §63.6645.
§63.9(e)	Notification of performance test	Yes	Except that §63.9(e) only applies as specified in §63.6645.
§63.9(f)	Notification of visible emission (VE)/opacity test	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(1)	Notification of performance evaluation	Yes	Except that §63.9(g) only applies as specified in §63.6645.
§63.9(g)(2)	Notification of use of COMS data	No	Subpart ZZZZ does not contain opacity or VE standards.
§63.9(g)(3)	Notification that criterion for alternative to RATA is exceeded	Yes	If alternative is in use.
		Except that §63.9(g) only applies as specified in §63.6645.	
§63.9(h)(1)–(6)	Notification of compliance status	Yes	Except that notifications for sources using a CEMS are due 30 days after completion of performance evaluations. §63.9(h)(4) is reserved.
			Except that §63.9(h) only applies as specified in §63.6645.
§63.9(i)	Adjustment of submittal deadlines	Yes.	
§63.9(j)	Change in previous information	Yes.	

§63.10(a)	Administrative provisions for recordkeeping/reporting	Yes.	
§63.10(b)(1)	Record retention	Yes.	
§63.10(b)(2)(i)–(v)	Records related to SSM	No.	
§63.10(b)(2)(vi)–(xi)	Records	Yes.	
§63.10(b)(2)(xii)	Record when under waiver	Yes.	
§63.10(b)(2)(xiii)	Records when using alternative to RATA	Yes	For CO standard if using RATA alternative.
§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]

Browse Next

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Minor Source Operating Permit Renewal

Source Background and Description

Source Name:	**Federal-Mogul Corporation**
Source Location:	**3605 West Cleveland Rd., South Bend, Indiana 46628**
County:	**St. Joseph**
SIC Code:	**3592 (Carburetors, Pistons, Piston Rings, and Valves)**
Permit Renewal No.:	**M141-30201-00065**
Permit Reviewer:	**Jack Harmon**
Source Status:	**1 of 28 Source Categories**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Federal-Mogul Corporation relating to the operation of a stationary secondary aluminum foundry operation manufacturing automotive pistons. On February 11, 2011, Federal-Mogul Corporation submitted an application to the OAQ requesting to renew its operating permit. Federal-Mogul Corporation was issued a Minor Source Operating Permit (MSOP) No. 141-13714-00065 on June 9, 2006. There have been no other approvals since the issuance of the MSOP. Additional information was received on June 24, 2011.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units:

(a) One (1) reverberatory melt furnace, identified as RF1, constructed in 1994, and modified in 2002, with a maximum metal throughput rate of 5,600 pounds per hour, a maximum ladle dross and bath dross flux usage rate of 120 pounds per day and a maximum maintenance wall flux usage rate of 8.0 pounds per day, equipped with three (3) natural gas-fired burners with a maximum heat input capacity of 2.0 million British thermal units (MMBtu) per hour each, exhausting through one (1) stack (ID No. R9#2);

(b) Fourteen (14) permanent mold/die casting cells, identified as CC1 through CC14, with CC1 through CC3 constructed in 1987, CC4 and CC5 constructed in 1988, CC6 and CC7 constructed in 1989, CC8 through CC13 constructed in 1994, and CC14 constructed in 2001, with CC1 through CC8 each equipped with three (3) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT1 through DT16), CC9 through CC13 each equipped with two (2) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT17 through DT26), and CC14 equipped with four (4) electric resistance furnaces and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu per hour (DT27 and DT28), all exhausting through seven (7) area roof vents (ID Nos. R4#2, R4#3, R4#4, R4#6, R4#9, R8#2, and R8#3). CC1 through CC8 and CC10 through CC13 can also melt aluminum at a maximum combined throughput rate of 5,186.16 pounds per hour, and CC9 and CC14 can also melt aluminum at a maximum combined throughput rate of 1,728.72 pounds per hour. All casting cells combined have a maximum flux usage rate of 282 pounds per day.

(c) Eight (8) natural gas-fired heat treat ovens, identified as HT1, HT2, HT3, HT5, HT6, HT7, HT8, and HT9, with HT1 through HT3 and HT5 through HT7 constructed in 1994, and HT8

and HT9 constructed in 2001, with HT1 through HT3 and HT5 through HT7 each having a maximum heat input capacity of 0.75 MMBtu per hour and HT8 and HT9 each having a maximum heat input capacity of 0.80 MMBtu per hour, each exhausting through one (1) stack (ID Nos. R3#33, R7#11, R7#10, R7#8, R7#9, R7#7, R7#53, and R3#34, respectively);

(d) Two (2) rapid prototype operations, identified as RPT, for research and development, consisting of two (2) electric resistance furnaces, each with a maximum metal throughput of 54 pounds per day, and two (2) natural gas-fired mold heaters each with a maximum heat input capacity of 0.394 MMBtu/hr, and one (1) prototype shell/core machine (PT) with a maximum resin coated sand usage rate of 500 pounds per year, equipped with one (1) natural gas-fired heater with a maximum heat input capacity of 0.06 MMBtu per hour, exhausting through one (1) duct exhaust wall fan (ID No. RPTW-1);

(e) Two (2) die prep tables, identified as DP1 and DP2, constructed in 1987, each equipped with one (1) natural gas-fired heater each with a maximum heat input capacity of 0.40 MMBtu per hour, exhausting through one (1) wall fan (ID No. DPW-1);

(f) Ten (10) machine lines, identified as MCL-1 through MCL-10, with MCL-1 and MCL-2 constructed in 1987, MCL-3 constructed in 1989, MCL-4 constructed in 1990, MCL-5 and MCL-6 constructed in 1995, MCL-7 constructed in 1994, MCL-8 and MCL-9 constructed in 2001, and MCL-10 constructed in 2004, with MCL-1 through MCL-9 having a maximum aged piston throughput rate of 533.3 pounds per hour, and MCL-10 having a maximum aged piston throughput rate of 450 pounds per hour, all using a water based coolant during machining, all exhausting through general plant ventilation;

(g) One (1) Niagra phosphate wash line, identified as PWL-2, constructed in 1999, equipped with four (4) natural gas-fired stage heaters, identified as Stage 1, Stage 2, Stage 4, and Stage 6 heaters, with maximum heat input capacities of 0.83, 0.235, 0.44, and 0.235 MMBtu per hour, respectively, and one (1) natural gas-fired drying oven, identified as the Drying Oven, with a maximum heat input capacity of 0.4 MMBtu per hour, processing a maximum of 1200 pistons per hour, with Stage 1, 2, 4, and 6 heaters exhausting through stack R7#51, and the drying oven exhausting through stack R7#50. There is an additional stack exhaust for system water vapor (ID R7#52);

(h) One (1) Prototype screen print skirt coat line, identified as Prototype, constructed in 1999, utilizing a flow coating application method, coating a maximum of 120 pistons per hour;

(i) One (1) Niagra phosphate wash line, identified as PWL-3, constructed in 2002, equipped with one (1) natural gas-fired boiler and one (1) natural gas-fired drying oven, with maximum heat input capacities of 1.3 and 0.4 MMBtu per hour, respectively, processing a maximum of 1200 pistons per hour, with the boiler exhausting through stack R13#7, the drying oven exhausting through stack R13#9, and the wash line exhausting through stack R13#6;

(j) Two (2) screen print skirt coat lines, identified as SC-3 and SC-4, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.4 and 0.8 MMBtu per hour, respectively, exhausting through three (3) stacks (ID Nos. R13#10, R13#11, and R13#12);

(k) One (1) Niagra phosphate wash line, identified as PWL-4, constructed in 2002, equipped with one (1) natural gas-fired boiler and one (1) natural gas-fired drying oven, with maximum heat input capacities of 1.3 and 0.4 MMBtu per hour, respectively, processing a maximum of 1200 pistons per hour, with the boiler exhausting through stack R13#7, the

drying oven exhausting through stack R13#14, and the wash line exhausting through stack R13#13;

(l) Two (2) skirt coat lines, identified as SC-5 and SC-6, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.4 and 0.8 MMBtu per hour, respectively, exhausting through three (3) stacks (ID Nos. R13#15, R13#16, and R13#17);

(m) Two (2) screen print skirt coat lines, identified as SC-7 and SC-8, constructed in 2002, utilizing a flow coating application method, coating a maximum of 600 pistons per hour each, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with a maximum heat input capacity of 0.4 and 0.8 MMBtu/hr, respectively, exhausting through three (3) stacks;

(n) Three (3) anodizing lines, identified as A6, A7, and A8, constructed in 2004, each using a caustic soda (alkaline) wash and a sulfuric/oxalic acid solution, each exhausting through one (1) stack (ID Nos.R13#18, R13#19, and R13#20), with each processing a maximum of 600 pistons per hour.

(o) One (1) Manual Assembly Line 1 pin fit and piston marking operation, identified as Manual Line 1, constructed in 1995, consisting of the pin fit marking process and the ink jet marking process. The pin fit process utilizes a manual coating application method, coating a maximum of 40 pistons per hour, exhausting to the general plant ventilation;

(p) Two (2) 30 gallon parts washers with lids for skirt coat equipment clean-up, identified as PW1 and PW2, constructed in 1994, with a combined VOC solvent throughput rate of 240 gallons per year, and two (2) 30 gallon maintenance parts washers with lids, identified as PW3 and PW4, constructed in 1996, with a mineral spirit cleaning agent throughput rate of 180 gallons per year and an alkaline cleaning agent throughput rate of 180 gallons per year. The one (1) parts washer for the skirt coat equipment clean-up, PW1, has a remote solvent reservoir and the other three (3) parts washers do not have a remote solvent reservoir;

(q) One (1) assembly line, identified as Assembly Line 2, constructed in 1999, consisting of conveyor, pin and groove oiling system, ring installers, wrist pin inserter, quality control/inspection equipment (ring, pin, and visual) and tray loader robot, processing a maximum of 750 pistons per hour, exhausting to the general plant ventilation;

(r) One (1) assembly line, identified as Assembly Line 3, constructed in 2001, consisting of ring expanders, inspection areas, wrist pin installation, ink marker, pin lube, and one (1) video jet ink marker, processing a maximum of 770 pistons per hour, exhausting to the general plant ventilation;

(s) One (1) assembly line, identified as Assembly Line 5, constructed in 2004, consisting of a tray conveyor, tray wrist pin loader (2 stations), quality control inspection station and tray label system (label laser printer), processing a maximum of 600 pistons per hour, exhausting to the general plant ventilation;

(t) One (1) assembly line, identified as Assembly Line 6, constructed in 2003, consisting of inspection areas, wrist pin installation, processing a maximum of 600 pistons per hour, exhausting to the general plant ventilation;

(u) One (1) assembly line, identified as Assembly Line 7, constructed in 2007, consisting of ring expanders, inspection areas, wrist pin installation, ink marker, pin lube, processing a maximum of 770 pistons per hour, exhausting to the general plant ventilation;

(v) One (1) manual video ink jet, processing a maximum 360 pistons per hour, exhausting to the general plant ventilation;

(w) Two (2) natural gas-fired sanitary water heaters, identified as WH1 and WH2, constructed in 1993, each with a maximum heat input capacity of 0.199 MMBtu per hour;

(x) Two (2) natural gas-fired makeup air units, identified as 87-MAU and 87-MAU2, constructed in 1987, with 87-MAU having a maximum heat input capacity of 0.6 MMBtu per hour and 87-MAU2 having a maximum heat input capacity of 3.17 MMBtu per hour;

(y) Four (4) natural gas-fired building heaters, identified as 87-RTU1a through 87-RTU4a, constructed in 1987, with 87-RTU1a having a maximum heat input capacity of 0.235 MMBtu per hour, 87-RTU2a having a maximum heat input capacity of 0.074 MMBtu per hour, 87-RTU3a having a maximum heat input capacity of 0.48 MMBtu per hour, and 87-RTU4a having a maximum heat input capacity of 0.231 MMBtu per hour;

(z) Four (4) natural gas-fired building heaters, identified as 87-RTU1, 87-RTU3, 87-RTU4, and 87-RTU5, constructed in 1987, with 87-RTU1 having a maximum heat input capacity of 0.36 MMBtu per hour and 87-RTU3 through 87-RTU5 each having a maximum heat input capacity of 0.5 MMBtu per hour;

(aa) Five (5) natural gas-fired air handling units, identified as 94-AHU1 through 94-AHU5, constructed in 1994, each with a maximum heat input capacity of 0.777 MMBtu per hour;

(bb) One (1) natural gas-fired makeup air unit, identified as 94-MAU1, constructed in 1994, with a maximum heat input capacity of 6.5 MMBtu per hour;

(cc) Ten (10) natural gas-fired building heaters, identified as 94-UH10 through 94-UH19, constructed in 1994, each with a maximum heat input capacity of 0.1 MMBtu per hour;

(dd) Three (3) natural gas-fired building heaters, identified as 93-UH7 through 93-UH9, constructed in 1993, with 93-UH7 having a maximum heat input capacity of 0.09 MMBtu per hour and 93-UH8 and 93-UH9 each having a maximum heat input capacity of 0.13 MMBtu per hour;

(ee) Eight (8) natural gas-fired building heaters, identified as 00-RTU1 through 00-RTU8, constructed in 2000, with 00-RTU1 through 00-RTU4 each having a maximum heat input capacity of 0.636 MMBtu per hour, 00-RTU5 and 00-RTU6 each having a maximum heat input capacity of 0.328 MMBtu per hour, and 00-RTU7 and 00-RTU8 each having a maximum heat input capacity of 0.2 MMBtu per hour,

(ff) One (1) natural gas-fired building heater, identified as 00-MAU2, constructed in 2000, with a maximum heat input capacity of 4.95 MMBtu per hour;

(gg) One (1) polycarbonate bead blasting unit, identified as Blast 1, installed in 2006, processing pistons at a maximum rate of 26.4 pounds per hour, with particulate emissions controlled by a HEPA filtration system, exhausting to the general plant ventilation.

(hh) The following storage tanks:

(1) One (1) virgin coolant make-up tank, with a maximum storage capacity of 3500 gallons, constructed in 2002;
(2) One (1) dirty process water tank, with a maximum storage capacity of 6400 gallons;

(3) One (1) recovered coolant tank, with a maximum storage capacity of 1000 gallons;
(4) Four (4) oil tanks, each with a maximum storage capacity of 500 gallons;
(5) One (1) equalization tank, T1, with a maximum storage capacity of 9,297 gallons;
(6) One (1) spent acid tank, T2, with a maximum storage capacity of 6,470 gallons;
(7) One (1) bulk sodium hydroxide tank, T6, with a maximum storage capacity of 6,470 gallons;
(8) One (1) spent alkaline tank, T3, with a maximum storage capacity of 6,464 gallons;
(9) One (1) spare conical bottom tank, T4, with a maximum storage capacity of 1,183 gallons;
(10) One (1) wastewater treatment filter effluent transfer tank, T5, with a maximum storage capacity of 175 gallons;
(11) Four (4) reagent tanks, each with a maximum storage capacity of 500 gallons;
(12) Two (2) pH adjust tanks, N1 and N2, each with a maximum storage capacity of 2,094 gallons;
(13) One (1) polymer add tank, F1, with a maximum storage capacity of 454 gallons;
(14) One (1) sludge thickener tank with a maximum storage capacity of 5,911 gallons; and
(15) One (1) final pH adjust tank, N3, with a maximum storage capacity of 1,885 gallons.

(ii) One (1) 80 gallon parts washer with lids for skirt coat equipment clean-up, identified as Skirt Coat Parts Washer, with a VOC solvent throughput rate of 240 gallons per year.

(jj) One (1) natural gas-fired emergency generator, identified as GEN1, constructed in 2005, with a maximum heat input capacity of 0.4029 MMBtu per hour, and rated at 158 HP;

Under 40 CFR 63, Subpart ZZZZ, this generator is considered an affected facility.

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

There are no emission units that were constructed and/or are operating without a permit.

Emission Units and Pollution Control Equipment Removed From the Source

The source has removed the following emission units:

(a) One (1) Belco phosphate wash line, identified as PWL-1, constructed in 1993, equipped with four (4) natural gas-fired stage heaters, identified as Stage 1, Stage 3, Stage 4, and Stage 6 heaters, with maximum heat input capacities of 0.70, 0.40, 1.3, and 0.30 MMBtu per hour, respectively, and one (1) natural gas-fired drying oven, identified as the Drying Oven, with a maximum heat input capacity of 0.8 MMBtu per hour, processing a maximum of 1200 pistons per hour, with Stage 1 heater exhausting through stack R7#49, Stage 3 heater exhausting through stack R7#45, Stage 4 heater exhausting through stack R7#46, Stage 6 heater exhausting through stack R7#44, and the drying oven exhausting through stack R7#42;

(b) One (1) pad print skirt coat line, identified as SPC-1, constructed in 1993, utilizing a roll coating application method, coating a maximum of 900 pistons per hour, equipped with one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.5 and 0.8 MMBtu per hour, respectively, exhausting through four (4) stacks (ID Nos. R7#35, R7#34, R7#33, and R7#32);

(c) From its Prototype line, one (1) natural gas-fired preheat oven and one (1) natural gas-fired cure oven, with maximum heat input capacities of 0.4 and 0.8 MMBtu per hour, respectively, exhausting through three (3) stacks (ID Nos. R7#39, R7#38, and R7#37);

(d) One (1) anodizing lines, identified as A5, constructed in 2002, using a caustic soda (alkaline) wash and a sulfuric/oxalic acid solution, exhausting through one (1) stack (ID Nos. R13#5). Line A5 processes a maximum of 480 pistons per hour.

(e) One (1) Assembly Line 1 pin fit and piston marking operation, identified as WPS-1, constructed in 1995, consisting of the pin fit marking process and the ink jet marking process, processing 600 pistons per hour and 360 pistons per hour, respectively.

(e) One (1) assembly line, identified as Assembly Line 4, constructed in 2001, consisting of inspection areas, wrist pin installation, piston data marker, pin lube, and a pin marker, processing a maximum of 770 pistons per hour, exhausting to the general plant ventilation.

(f) One (1) Tin plate line, identified as TP-1, constructed in 1989, processing pistons at a maximum rate of 1300 pounds per hour, using an alkaline piston prep solution bath and sodium stannate solution bath, exhausting through one (1) stack (ID No. TPS-1) and equipped with one (1) natural gas-fired hot water heater, identified as WBH-1, with a maximum heat input capacity of 0.225 MMBtu per hour, exhausting through one (1) stack (ID No. TPS-2).

Existing Approvals

Since the issuance of the MSOP (141-13714-00065) on June 9, 2006, there have been no additional approvals.

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

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in St. Joseph County.

Pollutant	Designation
SO_2	Better than national standards
CO	Unclassifiable or attainment effective November 15, 1990.
O_3	Attainment effective July 19, 2007, for the 8-hour ozone standard.[1]
PM_{10}	Unclassifiable effective November 15, 1990.
NO_2	Cannot be classified or better than national standards.
Pb	Not designated.
[1]Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including St. Joseph County, and is a maintenance area for the 1-hour ozone National	

Ambient Air Quality Standards (NAAQS) for purposes of 40CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.
Unclassifiable or attainment effective April 5, 2005, for PM2.5.

(a) Ozone Standards
Volatile organic compounds (VOC) and Nitrogen Oxides (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. St. Joseph 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) $PM_{2.5}$
St. Joseph County has been classified as attainment for $PM_{2.5}$. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for $PM_{2.5}$ emissions. These rules became effective on July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions until 326 IAC 2-2 is revised.

(c) Other Criteria Pollutants
St. Joseph 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 foundry, 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.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Unrestricted Potential Emissions	
Pollutant	Tons/year
PM	52.34
PM_{10}	55.86
$PM_{2.5}$	55.86
SO_2	3.86
NO_x	27.15
VOC	28.31
CO	22.58
GHG as CO_2e	32,458.19
Single HAP	0.48

Unrestricted Potential Emissions	
Pollutant	Tons/year
Total HAP	1.91

HAPs	**tons/year**
Hexane	0.48
HF	0.37
Glycol Ethers	0.20
Total	**1.91**

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

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all regulated pollutants is less than 100 tons per year. However, PM10, PM2.5, and NOx are equal to or greater than twenty-five (25) tons per year. The source is not subject to the provisions of 326 IAC 2-7. Therefore, the source will be issued an MSOP Renewal.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and/or the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, the source will be issued an MSOP Renewal.

(c) Pursuant to 326 IAC 2-7-1(39), starting July 1, 2011, greenhouse gases (GHGs) emissions are subject to regulation at a source with a potential to emit 100,000 tons per year or more of CO2 equivalent emissions (CO2e). Therefore, CO2e emissions have been calculated for this source. Based on the calculations the unlimited potential to emit greenhouse gases from the entire source is less than 100,000 tons of CO2e per year (see ATSD Appendix A for detailed calculations). This did not require any changes to the permit.

Potential to Emit After Issuance

The table below summarizes the unrestricted potential to emit. Any control equipment is considered enforceable only after issuance of this MSOP 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 the Entire Source After Issuance of Renewal (tons/year)**									
	PM	PM10	PM2.5*	SO_2	NOx	VOC	CO	GHG as CO2e**	Total HAPs	Worst Single HAP
Natural Gas Combustion	0.51	2.04	2.04	0.16	26.88	1.48	22.58	32,458.19	0.51	(Hexane) 0.48
Foundry Operations	44.65	46.64	46.64	0.55	0.27	6.34	0.00	0.00	0.87	(HF) 0.37
Anodizing Line	2.51	2.51	2.51	3.15	0.00	0.00	0.00	0.00	0.00	0.00
Surface Coating	0.00	0.00	0.00	0.00	0.00	18.88	0.00	0.00	0.53	(Glycol Ethers) 0.20
Parts Washers	0.00	0.00	0.00	0.00	0.00	1.61	0.00	0.00	0.00	0.00
Abrasive Blasting	4.67	4.67	4.67	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total PTE of Entire Source	**52.34**	**55.86**	**55.86**	**3.86**	**27.15**	**28.31**	**22.58**	**32,458.19**	**1.91**	**(Hexane) 0.48**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	100,000	25	10
PSD Major Source Thresholds	100	100	100	100	100	100	100	100,000	NA	NA

*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".
** The 100,000 CO_2e threshold represents the Title V and PSD subject to regulation thresholds for GHGs in order to determine whether a source's emissions are a regulated NSR pollutant under Title V and PSD.

Federal Rule Applicability

Compliance Assurance Monitoring (CAM)

(a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

New Source Performance Standards (NSPS)

(b) The requirements of the New Source Performance Standard (NSPS), 326 IAC 12, (40 CFR 60, Subpart S (Primary Aluminum Reduction) are not included in the permit because the source does not perform primary aluminum reduction as defined in 40 CFR 60.191.

(c) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60, Subpart Kb) are not included in the permit for the storage tanks, all constructed after July 23, 1984, because each of the storage tanks at this source have maximum storage capacities of less than 75 cubic meters.

(d) The requirements of the New Source Performance Standard (NSPS), 326 IAC 12, (40 CFR 60, Subpart IIII (Internal Combustion Engines) are not included in the permit because the generator was installed new in 2005, and the applicability dates for this subpart are after that date.

(e) The requirements of the New Source Performance Standard (NSPS), 326 IAC 12, (40 CFR 60, Subpart JJJJ (Spark Ignition Internal Combustion Engines) are not included in the permit because the generator was installed new in 2005, and the applicability dates for this subpart are after that date.

(f) There are no other New Source Performance Standards (NSPS) applicable to this source.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Aluminum Production, 40 CFR 63.1500 through 63.1519, Subpart RRR, are not included in the permit because this source is not a secondary aluminum production facility as defined in 40 CFR 63.1503. Pursuant to 40 CFR 63.1503, 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/delacquering 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/delacquering kilns/decoating kilns, therefore, it is not a secondary aluminum production facility as defined in the rule.

(h) The emergency generator, identified as GEN1, is subject to the requirements of National Emissions Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines, 40 CFR 63, Subpart ZZZZ, because it is a stationary reciprocating internal combustion engine.

Applicable portions of 40 CFR 63, Subpart ZZZZ include the following:

(1) 63.6585(a)(c)(d)
(2) 63.6590
(3) 63.6595
(4) 63.6600
(5) 63.6603
(6) 63.6605
(7) 63.6612 (testing)
(8) 63.6615 (subsequent testing)
(9) 63.6620
(10) 63.6625
(11) 63.6630
(12) 63.6645
(13) 63.6650
(14) 63.6655
(15) 63.6660
(16) 63.6670
(17) 63.6675
(18) Table 2d
(19) Table 3

(i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP), 326 IAC 20, (40 CFR 63.460 through 63.468, Subpart T) are not included in the permit for the parts washers because these units do not use a halogenated HAP cleaning solvent.

(j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Primary Aluminum Reduction Facilities, (40 CFR 63, Subpart LL), are not included in the permit because these units do not meet the definition of a primary aluminum reduction facility.

(k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Miscellaneous Metal Parts, (40 CFR 63, Subpart MMMM), are not included in the permit because this source is not a major source of HAPs.

(l) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Primary Nonferrous Metals Area Sources, (40 CFR 63, Subpart GGGGGG), are not included in the permit because these units do not use or produce zinc, cadmium, or beryllium.

(m) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Paint Stripping and Miscellaneous Surface Coating for Area Sources, (40 CFR 63, Subpart HHHHHH), are not included in the permit because this source does not perform paint stripping.

(n) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Secondary Nonferrous Metal Processing at Area Sources, (40 CFR 63, Subpart TTTTTT), are not included in the permit because this facility does not melt brass, bronze, magnesium, or zinc to produce product, and, therefore, does not meet the definition, as shown in 40 CFR 63.11472.

(o) There are no other National Emission Standards for Hazardous Air Pollutants (NESHAP) applicable to this source.

State Rule Applicability - Entire Source

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

This secondary aluminum production source, which is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, is not subject to the requirements of 326 IAC 2-2 (PSD). The potential to emit of all pollutants are less than 100 tons per year, therefore, this source is not a major PSD source. However, existing limits will be carried over from the previous permit for the reverberatory furnace to ensure that the PM, PM2.5 and PM10 emissions from the source do not exceed 100 tons per year, and to verify emission factors, pursuant to IDEM Nonrule Policy Document NRP-014. Since the limits are based on maximum capacity of metal throughput, combined with maximum flux usage, there is no need for recordkeeping or reporting requirements.

(a) Emissions of PM from the reverberatory melt furnace shall not exceed 0.912 pound per ton of metal and flux combined throughput, at a maximum capacity of 5,605 pounds per hour, which is 2.8025 tons per hour.

(b) Emissions of PM10 from the reverberatory melt furnace shall not exceed 0.9856 pound per ton of metal and flux combined throughput, at a maximum capacity of 5,605 pounds per hour, which is 2.8025 tons per hour.

(c) Emissions of PM2.5 from the reverberatory melt furnace shall not exceed 0.9856 pound per ton of metal and flux combined throughput, at a maximum capacity of 5,605 pounds per hour, which is 2.8025 tons per hour.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake or Porter counties, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1-2 (Opacity Limitations)

Pursuant to 326 IAC 5-1-1, because this source is located in St. Joseph County in the area north of Kern Road and east of Pine Road, it is subject to 326 IAC 5-1-2(2). Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in this permit:

(a) Opacity shall not exceed an average of thirty percent (30%) 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 non-overlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

326 IAC 6-4 (Fugitive Dust Emissions)

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

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). Each of the facilities at this source that have been constructed and/or permitted after July 27, 1997, have potential HAP emissions of less than

10 tons per year of any single HAP and less than 25 tons per year of any combination of HAPs, therefore, the requirements of 326 IAC 2-4.1-1 do not apply.

State Rule Applicability – Individual Facilities

326 IAC 6.5-1-2 (Particulate Emission Limitations)

Pursuant to 326 IAC 6.5-1-1, this source is subject to the limitations in 326 IAC 6.5-1-2 of this rule because it is located in St. Joseph county and actual particulate matter emissions are greater than 10 tons per year and it is not a specifically listed source in the rule.

Pursuant to 326 IAC 6.5-1-2(a), particulate matter emissions from facilities not limited by subsections (b), (c), (d), (e), (f), or (g) of 326 IAC 6.5-1-2 shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf). Therefore, particulate matter emissions from each facility emitting particulate matter shall not exceed 0.03 gr/dscf. This includes the reverbatory melt furnace, identified as RF1, the fourteen (14) permanent mold/die casting cells, identified as CC1 through CC14, each of the heat treat ovens (HT1 through HT3 and HT5 through HT9), the rapid prototype operation (RPT), the three (3) anodizing lines, identified as A6, A7, and A8, the piston marking operation, identified as WPS-1, and the polycarbonate bead blasting unit, identified as Blast 1.

The two (2) natural gas-fired boilers for the phosphate wash lines identified as PWL-3 and PWL-4, the one (1) natural gas-fired hot water heater, identified as WBH-1, and the two (2) natural gas-fired process water heaters, identified as WH1 and WH2, do not meet the definition of a fuel combustion steam generator as defined in 326 IAC 6.5-1-1.5 since they are only used to heat water for their associated processes and are not used to produce steam. Therefore, they are not subject to the particulate matter emission limitation in 326 IAC 6.5-1-2(b).

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The two (2) natural gas-fired boilers for the phosphate wash lines identified as PWL-3 and PWL-4, which were constructed after September 21, 1983, are subject to 326 IAC 6-2-4. Pursuant to this rule, particulate emissions from indirect heating facilities constructed after September 21, 1983, shall be limited by the following equation:

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

Where: Pt = pounds of particulate matter emitted per million Btu heat input
Q = Total source maximum operating capacity rating in million Btu per hour heat input.

For the two (2) boilers for the phosphate wash lines, constructed in 2002, Pt is calculated as 0.85 pound particulate matter per million Btu heat input where Q is equal to 2.6 MMBtu per hour.

However, pursuant to 326 IAC 6-2-4(a), for Q less than 10 MMBtu per hour, Pt shall not exceed 0.6 pound particulate matter per million Btu heat input. Therefore, particulate matter emissions from each of the boilers for the phosphate wash lines shall not exceed 0.6 pound per million Btu heat input.

Based on the emission calculations in Appendix A, potential particulate matter emissions from each of these facilities is less than the allowable emissions and these units are in compliance with this rule.

326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-1(c)(3), none of units at this source are subject to the provisions of 326 IAC 6-3-2 because these units are already subject to the provisions of 326 IAC 6.5. Therefore, these units are not subject to 326 AIC 6-3-2.

326 IAC 8-1-6 (New Facilities, General Reduction Requirements)

This rule applies to new facilities which have potential emissions of 25 tons or more per year of VOC that were constructed after January 1, 1980. None of the facilities at this source have potential VOC emissions of 25 tons per year or greater. Therefore, they are not subject to this rule.

326 IAC 8-2-9 (Miscellaneous Metal Coating)

The four (4) skirt coating lines, identified as Prototype, SC-3 and SC-4, SC-5 and SC-6, and SC-7 and SC-8, are not subject to the requirements of this rule because they have potential VOC emissions of less than 15 pounds per day. Therefore, the requirements of 326 IAC 8-2-9 do not apply.

The other operations that use materials containing VOCs, consisting of the three Niagara Phosphate Wash Lines (PWL-2, PWL-3, and PWL-4), Prototype Niagara Phosphate Wash Line, Manual Assembly Line 1, Assembly Lines 2, 3, 5, 6, and 7, Manual Video Ink Jet operation, PW1 and PW2 Maintenance operations, PW3 Prototype operation, and Skirt Coats Parts Washer, are not subject to the requirements of 326 IAC 8-2-9 because the VOC emissions from each of these operations are less than fifteen (15) pounds VOC per day. Therefore, the provisions of 326 IAC 8-2-9 do not apply.

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

The three (3) parts washers, identified as PW2 through PW4, are subject to this rule since they are cold cleaning operations which were constructed after January 1, 1980. 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 operating 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.

326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

The three (3) parts washers, PW2 through PW4 are subject to this rule because they are cold cleaner degreasers without a remote solvent reservoir.

(a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:

(1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

(A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF));

(B) the solvent is agitated; or

(C) the solvent is heated.

(2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.

(3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).

(4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.

(5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38EC) (one hundred degrees Fahrenheit (100EF)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9EC) (one hundred twenty degrees Fahrenheit (120EF)):

(A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.

(B) A water cover when solvent used is insoluble in, and heavier than, water.

(C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

(b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

(1) Close the cover whenever articles are not being handled in the degreaser.

(2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.

(3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Testing Requirements

On November 29, 2007, a stack test was performed on the reverberatory melt furnace for PM and PM10 emissions to verify emission factors for PM and PM10. The results obtained from the test, which was performed while fluxing the furnace at the maximum rate of 5 pounds per hour, which represent the worst case scenario for the operation of the reverberatory furnace, showed that the source was in compliance with these limits. This furnace has no emission controls, so these results were uncontrolled emissions. This furnace is limited in the MSOP to using only clean charge, and has had no changes to the process since the most recent compliant stack test. Therefore, repeat stack testing on this unit will not be required at this time. However, if the source

changes its process, adds a control device, melts materials other than clean charge, as defined in 40 CFR 63.1503, or makes other changes that could potentially impact emissions, it must notify IDEM, OAQ prior to the changes. IDEM, OAQ will evaluate those changes and may change the testing requirements for the reverberatory furnace at that time.

This determination was made after an internal consultation with OAQ's Compliance Data Section at the time of the processing of this MSOP Renewal.

Stack testing is not required for any other emission units at this source because they do not meet the criteria to require stack testing.

Compliance Determination and Monitoring Requirements

There are no compliance determination or monitoring requirements for this MSOP.

Recommendation

The staff recommends to the Commissioner that the MSOP Renewal be approved. This recommendation is based on the following facts and conditions:

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant.

An application for the purposes of this review was received on February 9, 2011. Additional information was received on June 24, 2011.

Conclusion

The operation of this stationary secondary aluminum foundry operation manufacturing automotive pistons shall be subject to the conditions of the attached MSOP Renewal No. 141-30201-00065.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Jack Harmon at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 233-4228 or toll free at 1-800-451-6027 extension 3-4228.

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

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Appendix A: Emission Calculations

Company Name: Federal-Mogul Corporation
Address City IN Zip: 3605 West Cleveland Road, South Bend, IN 46628
Minor Source Operating Permit: 141-30201-00065
Plt ID: 141-00065
Reviewer: Jack Harmon

Uncontrolled Potential Emissions (tons/year)

	Emissions Generating Activity						
Pollutant	Natural Gas Combustion	Foundry Operations	Anodizing Line	Surface Coating	Parts Washers	Abrasive Blasting	**TOTAL**
PM	0.51	44.65	2.51	0.00	0.00	4.67	52.34
PM10	2.04	46.64	2.51	0.00	0.00	4.67	55.86
PM2.5	2.04	46.64	2.51	0.00	0.00	4.67	55.86
SO2	0.16	0.55	3.15	0.00	0.00	0.00	3.86
NOx	26.88	0.27	0.00	0.00	0.00	0.00	27.15
VOC	1.48	6.34	0.00	15.46	1.61	0.00	24.89
CO	22.58	0.00	0.00	0.00	0.00	0.00	22.58
CO2e	32,458.19	0.00	0.00	0.00	0.00	0.00	32,458.19
total HAPs	0.51	0.87	0.00	0.53	0.00	0.00	1.91
worst case single HAP	(Hexane) 0.48	(HF) 0.37	0.00	(Glycol Ethers) 0.20	0.00	0.00	(Hexane) 0.48

Total emissions based on rated capacity at 8,760 hours/year

Controlled Potential Emissions (tons/year)

	Emissions Generating Activity						
Pollutant	Natural Gas Combustion	Foundry Operations	Anodizing Line	Surface Coating	Parts Washers	Abrasive Blasting	**TOTAL**
PM	0.51	44.65	2.51	0.00	0.00	4.67	52.34
PM10	2.04	46.64	2.51	0.00	0.00	4.67	55.86
PM2.5	2.04	46.64	2.51	0.00	0.00	4.67	55.86
SO2	0.16	0.55	3.15	0.00	0.00	0.00	3.86
NOx	26.88	0.27	0.00	0.00	0.00	0.00	27.15
VOC	1.48	6.34	0.00	15.46	1.61	0.00	24.89
CO	22.58	0.00	0.00	0.00	0.00	0.00	22.58
CO2e	32,458.19	0.00	0.00	0.00	0.00	0.00	32,458.19
total HAPs	0.51	0.87	0.00	0.53	0.00	0.00	1.91
worst case single HAP	(Hexane) 0.48	(HF) 0.37	0.00	(Glycol Ethers) 0.20	0.00	0.00	(Hexane) 0.48

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: Federal-Mogul Corporation
Address City IN Zip: 3605 West Cleveland Road, South Bend, IN 46628
Minor Source Operating Permit: 141-30201-00065
Plt ID: 141-00065
Reviewer: Jack Harmon

Associated Equipment	Natural Gas-fired Furnaces ID Number	Year Constructed	Number of Units	Heat Input Capacity per unit MMBtu/hr	Heat Input Capacity Total MMBtu/hr	Potential Throughput MMCF/yr
Reverbatory Furnaces	RF1	1994	3	2.000	6.000	52.560
Permanent Mold/ Die Casting Cells	DT1- DT16	1987	16	0.394	6.304	55.223
	DT17-DT26	1994	10	0.394	3.940	34.514
	DT27, DT28	2001	2	0.394	0.788	6.903
Heat Treat Ovens	HT1, HT2, HT3, HT5,HT6, HT7	1994	6	0.750	4.500	39.420
	HT8, HT9	2001	2	0.750	1.500	13.140
Prototype (RPT)	RPT1, RPT2		2	0.394	0.788	6.903
Prototype Shell Machines	RPTW-1		1	0.060	0.060	0.526
Die Prep Tables	DP1, DP2	1987	1	0.400	0.400	3.504
Niagara Phosphate Wash Line (PWL-2)	Stage 1 Heater	1999	1	0.830	0.830	7.271
	Stage 2 Heater	1999	1	0.235	0.235	2.059
	Stage 4 Heater	1999	1	0.440	0.440	3.854
	Stage 6 Heater	1999	1	0.235	0.235	2.059
	Drying Oven	1999	1	0.400	0.400	3.504
Niagara Phosphate Wash Line (PWL-3)	Boiler	2002	1	1.300	1.300	11.388
	Drying Oven	2002	1	0.400	0.400	3.504
ScreenPrint Skirt Coat Lines (SC-3, SC-4)	Preheat Oven	2002	1	0.400	0.400	3.504
	Cure Oven	2002	1	0.800	0.800	7.008
Niagara Phosphate Wash Line (PWL-4)	Boiler	2002	1	1.300	1.300	11.388
	Drying Oven	2002	1	0.400	0.400	3.504
ScreenPrint Skirt Coat Lines (SC-5, SC-6)	Preheat Oven	2002	1	0.400	0.400	3.504
	Cure Oven	2002	1	0.800	0.800	7.008
ScreenPrint Skirt Coat Lines (SC-7, SC-8)	Preheat Oven	2002	1	0.400	0.400	3.504
	Cure Oven	2002	1	0.800	0.800	7.008
Tin Plate Line (TP-1)	Hot Water Heater (WBH-1)	1989	1	0.225	0.225	1.971
Sanitary Water Heaters	WH1, WH2	1993	2	0.199	0.398	3.486
Make-up Air Units	87-MAU	1987	1	0.600	0.600	5.256
	87-MAU2	1987	1	3.170	3.170	27.769
Building Heaters	87-RTU1a	1987	1	0.235	0.235	2.059
	87-RTU2a	1987	1	0.074	0.074	0.648
	87-RTU3a	1987	1	0.480	0.480	4.205
	87-RTU4a	1987	1	0.231	0.231	2.024
Building Heaters	87-RTU1	1987	1	0.360	0.360	3.154
	87RTU3 through 87-RTU5	1987	3	0.500	1.500	13.140
Air Handling Units	94-AHU1 through 94-AHU5	1987	5	0.777	3.885	34.033
Make-up Air Units	94-MAU1	1994	1	6.500	6.500	56.940
Building Heaters	94-UH10 through 94-UH19	1994	10	0.100	1.000	8.760
Building Heaters	93-UH7	1993	1	0.090	0.090	0.788
Building Heaters	94-UH8, 94-UH9	1994	2	0.130	0.260	2.278
Building Heaters	00-RTU1 through 00-RTU4	2000	4	0.636	2.544	22.285
	00-RTU5, 00-RTU6	2000	2	0.328	0.656	5.747
	00-RTU7, 00-RTU8	2000	2	0.200	0.400	3.504
Building Heaters	00-MAU2	2000	1	4.950	4.950	43.362
Emergency Generator	GEN	2005	1	0.403	0.403	3.530
Total					**61.381**	**537.70**

	PM*	PM10*	SO2	NOx**	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr	0.51	2.04	0.16	26.88	1.48	22.58

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

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions

Company Name: Federal-Mogul Corporation
Address City IN Zip: 3605 West Cleveland Road, South Bend, IN 46628
Minor Source Operating Permit: 141-30201-00065
Plt ID: 141-00065
Reviewer: Jack Harmon

HAPs - Organics

	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	5.646E-04	3.226E-04	2.016E-02	4.839E-01	9.141E-04

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	Total
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.344E-04	2.957E-04	3.764E-04	1.022E-04	5.646E-04	**0.51**

Methodology is the same as page 2.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

	Greenhouse Gas		
	CO2	CH4	N2O
Emission Factor in lb/MMcf	120000	2.3	2.2
Potential Emission in tons/yr	32261.85	0.618	0.591
Summed Potential Emissions in tons/yr	32263.06		
CO2e Total in tons/yr	32,458.19		

Methodology
The N2O Emission Factor for uncontrolled is 2.2. The N2O Emission Factor for low Nox burner is 0.64.
Emission Factors are from AP 42, Table 1.4-2 SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03.
Greenhouse Warming Potentials (GWP) from Table A-1 of 40 CFR Part 98 Subpart A.
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
CO2e (tons/yr) = CO2 Potential Emission ton/yr x CO2 GWP (1) + CH4 Potential Emission ton/yr x CH4 GWP (21) + N2O Potential Emission ton/yr x N2O GWP (310).

Appendix A: Secondary Metal Production
Aluminum

Company Name: Federal-Mogul Corporation
Address City IN Zip: 3605 West Cleveland Road, South Bend, IN 46628
Minor Source Operating Permit No.: 141-30201-00065
Plt ID: 141-00065
Reviewer: Jack Harmon

SCC# 3-04-001-03
Smelting Furnace/Reverberatory (Reverberatory Furnace)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum + Flux	Maximum:	5605	2000	2.8025		
(5,600 lbs alum + 5 lb flux)						
	PM ** lbs/ton Produced	**PM10 ** lbs/ton Produced**	**SOx lbs/ton Produced**	**NOx lbs/ton Produced**	**VOC * lbs/ton Produced**	**CO lbs/tons Produced**
	0.912	0.9856	--	--	0.2	--
Potential Emissions lbs/hr	2.56	2.76	--	--	0.6	--
Potential Emissions lbs/day	61.34	66.29	--	--	13.5	--
Potential Emissions tons/year	**11.19**	**12.10**	--	--	2.5	--

SCC# 3-04-001-02
Smelting Furnace/crucible (Casting Cells and Rapid Prototype Operation)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum	Maximum:	6926.63	2000	3.463315		
(5186.16+1728.72+11.75)						
	PM * lbs/ton Produced	**PM10 * lbs/ton Produced**	**SOx lbs/ton Produced**	**NOx lbs/ton Produced**	**VOC * lbs/ton Produced**	**CO lbs/tons Produced**
	1.9	1.7	--	--	--	--
Potential Emissions lbs/hr	6.58	5.89	--	--	--	--
Potential Emissions lbs/day	157.93	141.30	--	--	--	--
Potential Emissions tons/year	**28.82**	**25.79**	--	--	--	--

* Note: Emission factor is from FIRE version 6.24.

**Note: PM and PM-10 emission factors for reverberatory furnace are based on determination in MSOP 141-13714-00065, issued June 9, 2006, and confrimed via stack test November 29, 2007.

Stack tests showed 2.789 lb/hr with throughput 2.8 tons per hour = 0.996 lb/ton. Previous permit based on .912 lb/ton

Appendix A: Secondary Metal Production
Aluminum

Company Name: Federal-Mogul Corporation
Address City IN Zip: 3605 West Cleveland Road, South Bend, IN 46628
Minor Source Operating Permit No.: 141-30201-00065
Plt ID: 141-00065
Reviewer: Jack Harmon

SCC# 3-04-001-14
Pouring/Casting

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Aluminum	Maximum:	12526.63	2000	6.263315

	PM lbs/ton metal charged	PM10 lbs/ton metal charged	SOx * lbs/ton metal charged	NOx * lbs/ton metal charged	VOC * lbs/ton metal charged	CO lbs/tons metal charged
			0.02	0.01	0.14	--
Potential Emissions lbs/hr	0.00	0.00	0.13	0.06	0.88	--
Potential Emissions lbs/day	--	--	3.01	1.50	21.04	--
Potential Emissions tons/year	**0.00**	**0.00**	0.55	0.27	3.84	--

SCC# 3-04-001-04
Flux Usage in Casting Cells

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR
SF270FM flux	Maximum:	11.75	2000	0.005875

	PM** lbs/ton flux used	PM10** lbs/ton flux used	SOx lbs/ton chlorine used	NOx lbs/ton chlorine used	VOC lbs/ton chlorine used	CO lbs/ton chlorine used
	180	340	--	--	--	--
Potential Emissions lbs/hr	1.06	2.00	--	--	--	--
Potential Emissions lbs/day	25.38	47.94	--	--	--	--
Potential Emissions tons/year	**4.63**	**8.75**	--	--	--	--

TOTALS	**44.65**	**46.64**

* Note: Emission factor is from FIRE version 6.24
** Note: PM and PM10 emission factors are from stack test performed on casting cells on April 6-7, 2005.
PM-10 includes filterable and condensible particulate matter.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations and Parts Washers

Company Name: Federal-Mogul Corporation
Address City IN Zip: 3605 West Cleveland Road, South Bend, IN 46628
Minor Source Operating Permit No.: 141-30201-00065
Plt ID: 141-00065
Reviewer: Jack Harmon

Material	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency
Prototype Screen Print Skirt																
AV-11D	9.59	50.00%	0.0%	50.0%	0.0%	50.00%	0.00006	120	4.80	4.80	0.03	0.83	0.15	0.00	9.59	100%
AV-15	10.43	48.00%	0.0%	48.0%	0.0%	52.00%	0.00006	120	5.00	5.00	0.04	0.86	0.16	0.00	9.62	100%
E724-G75	11.15	24.09%	0.0%	24.1%	0.0%	75.91%	0.00005	120	2.69	2.69	0.02	0.39	0.07	0.00	3.54	100%
Screen Print Skirt Coat Line SC3																
AV-11D	9.59	50.00%	0.0%	50.0%	0.0%	50.00%	0.00006	600	4.80	4.80	0.17	4.14	0.76	0.00	9.59	100%
AV-15	10.43	48.00%	0.0%	48.0%	0.0%	52.00%	0.00006	600	5.00	5.00	0.18	4.32	0.79	0.00	9.62	100%
E724-G75	11.15	24.09%	0.0%	24.1%	0.0%	75.91%	0.00004	600	2.69	2.69	0.07	1.62	0.30	0.00	3.54	100%
Screen Print Skirt Coat Line SC4																
AV-11D	9.59	50.00%	0.0%	50.0%	0.0%	50.00%	0.00006	600	4.80	4.80	0.17	4.14	0.76	0.00	9.59	100%
AV-15	10.43	48.00%	0.0%	48.0%	0.0%	52.00%	0.00006	600	5.00	5.00	0.18	4.32	0.79	0.00	9.62	100%
E724-G75	11.15	24.09%	0.0%	24.1%	0.0%	75.91%	0.00004	600	2.69	2.69	0.07	1.62	0.30	0.00	3.54	100%
Screen Print Skirt Coat Line SC5																
AV-11D	9.59	50.00%	0.0%	50.0%	0.0%	50.00%	0.00006	600	4.80	4.80	0.17	4.14	0.76	0.00	9.59	100%
AV-15	10.43	48.00%	0.0%	48.0%	0.0%	52.00%	0.00006	600	5.00	5.00	0.18	4.32	0.79	0.00	9.62	100%
E724-G75	11.15	24.09%	0.0%	24.1%	0.0%	75.91%	0.00004	600	2.69	2.69	0.07	1.62	0.30	0.00	3.54	100%
Screen Print Skirt Coat Line SC6																
AV-11D	9.59	50.00%	0.0%	50.0%	0.0%	50.00%	0.00006	600	4.80	4.80	0.17	4.14	0.76	0.00	9.59	100%
AV-15	10.43	48.00%	0.0%	48.0%	0.0%	52.00%	0.00006	600	5.00	5.00	0.18	4.32	0.79	0.00	9.62	100%
E724-G75	11.15	24.09%	0.0%	24.1%	0.0%	75.91%	0.00004	600	2.69	2.69	0.07	1.62	0.30	0.00	3.54	100%
Screen Print Skirt Coat Line SC7																
AV-11D	9.59	50.00%	0.0%	50.0%	0.0%	50.00%	0.00006	600	4.80	4.80	0.17	4.14	0.76	0.00	9.59	100%
AV-15	10.43	48.00%	0.0%	48.0%	0.0%	52.00%	0.00006	600	5.00	5.00	0.18	4.32	0.79	0.00	9.62	100%
E724-G75	11.15	24.09%	0.0%	24.1%	0.0%	75.91%	0.00004	600	2.69	2.69	0.07	1.62	0.30	0.00	3.54	100%
Screen Print Skirt Coat Line SC8																
AV-11D	9.59	50.00%	0.0%	50.0%	0.0%	50.00%	0.00006	600	4.80	4.80	0.17	4.14	0.76	0.00	9.59	100%
AV-15	10.43	48.00%	0.0%	48.0%	0.0%	52.00%	0.00006	600	5.00	5.00	0.18	4.32	0.79	0.00	9.62	100%
E724-G75	11.15	24.09%	0.0%	24.1%	0.0%	75.91%	0.00004	600	2.69	2.69	0.07	1.62	0.30	0.00	3.54	100%
Niagra Phosphate Wash Line PWL-2																
Ridolene 412	10.01	0.00%	0.0%	0.0%	0.0%	30.00%	4.2E-04	1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Niagra Phosphate Wash Line PWL-3																
Ridolene 212	9.92	0.00%	0.0%	0.0%	0.0%	27.00%	4.2E-04	1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Alodine 300	10.43	70.00%	70.0%	0.0%	70.0%	0.00%	2.9E-04	1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Parcolene 99x	8.53	0.10%	0.0%	0.1%	0.0%	6.60%	2.5E-05	1200	0.01	0.01	0.00	0.01	0.00	0.00	0.13	100%
Niagra Phosphate Wash Line PWL-4							0.00042									
Ridolene 212	9.92	0.00%	0.0%	0.0%	0.0%	27.00%	5.0E-04	1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Alodine 300	10.43	70.00%	70.0%	0.0%	70.0%	0.00%	3.2E-04	1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%
Parcolene 99x	8.53	0.10%	0.0%	0.1%	0.0%	6.60%	2.7E-05	1200	0.01	0.01	0.00	0.01	0.00	0.00	0.13	100%
Prototype Niagra Phosphate Wash Line																
Neutracare 5088, DR238	9.17	1.00%	0.0%	1.0%	0.0%	4.80%	5.0E-04	1200	0.09	0.09	0.05	1.32	0.24	0.00	1.91	100%
Manual Assembly Line 1																
Jet Ink Fluid 17-7900Q	7.42	75.00%	0.0%	75.0%	0.0%	25.00%	5.6E-06	40	5.57	5.57	0.00	0.03	0.01	0.00	22.27	100%
MakeUp Fluid 16-7905Q	6.67	75.00%	0.0%	75.0%	0.0%	25.00%	2.6E-06	40	5.00	5.00	0.00	0.01	0.00	0.00	20.02	100%
Jet Ink Fluid V0001-602	7.09	87.00%	0.0%	87.0%	0.0%	13.00%	5.6E-06	40	6.17	6.17	0.00	0.03	0.01	0.00	47.44	100%
MakeUp Fluid V0001-401	6.67	99.00%	0.0%	99.0%	0.0%	1.00%	2.6E-06	40	6.61	6.61	0.00	0.02	0.00	0.00	660.53	100%
Assembly Line 2																
Jet Ink Fluid 17-7900Q	7.42	75.00%	0.0%	75.0%	0.0%	25.00%	5.6E-06	750	5.57	5.57	0.02	0.56	0.10	0.00	22.27	100%
MakeUp Fluid 16-7905Q	6.67	75.00%	0.0%	75.0%	0.0%	25.00%	2.6E-06	750	5.00	5.00	0.01	0.23	0.04	0.00	20.02	100%
Jet Ink Fluid V0001-602	7.09	87.00%	0.0%	87.0%	0.0%	13.00%	5.6E-06	750	6.17	6.17	0.03	0.62	0.11	0.00	47.44	100%
MakeUp Fluid V0001-401	6.67	99.00%	0.0%	99.0%	0.0%	1.00%	2.6E-06	750	6.61	6.61	0.01	0.30	0.06	0.00	660.53	100%
Assembly Line 3																
Jet Ink Fluid 17-7900Q	7.42	75.00%	0.0%	75.0%	0.0%	25.00%	5.6E-06	700	5.57	5.57	0.02	0.52	0.10	0.00	22.27	100%
MakeUp Fluid 16-7905Q	6.67	75.00%	0.0%	75.0%	0.0%	25.00%	2.6E-06	700	5.00	5.00	0.01	0.21	0.04	0.00	20.02	100%
Jet Ink Fluid V0001-602	7.09	87.00%	0.0%	87.0%	0.0%	13.00%	5.6E-06	770	6.17	6.17	0.03	0.64	0.12	0.00	47.44	100%
MakeUp Fluid V0001-401	6.67	99.00%	0.0%	99.0%	0.0%	1.00%	2.6E-06	770	6.61	6.61	0.01	0.31	0.06	0.00	660.53	100%
Assembly Line 5																
Jet Ink Fluid 17-7900Q	7.42	75.00%	0.0%	75.0%	0.0%	25.00%	5.6E-06	600	5.57	5.57	0.02	0.45	0.08	0.00	22.27	100%
MakeUp Fluid 16-7905Q	6.67	75.00%	0.0%	75.0%	0.0%	25.00%	2.6E-06	600	5.00	5.00	0.01	0.18	0.03	0.00	20.02	100%
Jet Ink Fluid V0001-602	7.09	87.00%	0.0%	87.0%	0.0%	13.00%	5.6E-06	600	6.17	6.17	0.02	0.50	0.09	0.00	47.44	100%
MakeUp Fluid V0001-401	6.67	99.00%	0.0%	99.0%	0.0%	1.00%	2.6E-06	600	6.61	6.61	0.01	0.24	0.04	0.00	660.53	100%
Assembly Line 6																
Jet Ink Fluid 17-7900Q	7.42	75.00%	0.0%	75.0%	0.0%	25.00%	5.6E-06	600	5.57	5.57	0.02	0.45	0.08	0.00	22.27	100%
MakeUp Fluid 16-7905Q	6.67	75.00%	0.0%	75.0%	0.0%	25.00%	2.6E-06	600	5.00	5.00	0.01	0.18	0.03	0.00	20.02	100%
Jet Ink Fluid V0001-602	7.09	87.00%	0.0%	87.0%	0.0%	13.00%	5.6E-06	600	6.17	6.17	0.02	0.50	0.09	0.00	47.44	100%
MakeUp Fluid V0001-401	6.67	99.00%	0.0%	99.0%	0.0%	1.00%	2.6E-06	600	6.61	6.61	0.01	0.24	0.04	0.00	660.53	100%
Assembly Line 7																
Jet Ink Fluid 17-7900Q	7.42	75.00%	0.0%	75.0%	0.0%	25.00%	5.6E-06	770	5.57	5.57	0.02	0.58	0.11	0.00	22.27	100%
MakeUp Fluid 16-7905Q	6.67	75.00%	0.0%	75.0%	0.0%	25.00%	2.6E-06	770	5.00	5.00	0.01	0.24	0.04	0.00	20.02	100%
Jet Ink Fluid V0001-602	7.09	87.00%	0.0%	87.0%	0.0%	13.00%	5.6E-06	770	6.17	6.17	0.03	0.64	0.12	0.00	47.44	100%
MakeUp Fluid V0001-401	6.67	99.00%	0.0%	99.0%	0.0%	1.00%	2.6E-06	770	6.61	6.61	0.01	0.31	0.06	0.00	660.53	100%
Manual Video Ink Jet																
Jet Ink Fluid 167905	6.67	75.00%	0.0%	75.0%	0.0%	25.00%	5.6E-06	360	5.00	5.00	0.01	0.24	0.04	0.00	20.02	100%
PW1 Maintenance Department																
Mineral Spirits	6.17	100.00%	0.0%	100.0%	0.0%	0.00%	1.4E-02	gal/hr	6.17	6.17	8.5E-02	2.03	0.37	0.00	0.00	100%
PW2 Maintenance Department																
Aqueous Solution	8.40	0.00%	0.0%	0.0%	0.0%	0.00%	1.4E-02	gal/hr	0.00	0.00	1.2E-01	2.76	0.50	0.00	0.00	100%
PW3 Prototype Department																
DR238	11.26	100.00%	100.0%	0.0%	0.0%	0.00%	1.0E-02	gal/hr	0.00	0.00	1.2E-01	2.78	0.51	0.00	0.00	100%
PW4 Prototype Department																
DR238	11.26	100.00%	100.0%	0.0%	0.0%	0.00%	1.0E-02	gal/hr	0.00	0.00	1.2E-01	2.78	0.51	0.00	0.00	100%
Skirts Coats Parts Washer																
Mirachem QX-490	8.84	19.80%	0.0%	19.8%	0.0%	0.00%	2.7E-02	gal/hr	1.75	1.75	2.4E-01	5.81	1.06	0.00	0.00	100%
													VOC (ton/yr)	**PM (ton/yr)**		
										Total	**3.53**	**84.71**	**15.46**	**0.00**		

Appendix A: Emissions Calculations
HAPs
From Surface Coating Operations

Company Name: **Federal-Mogul Corporation**
Address City IN Zip: **3605 West Cleveland Road, South Bend, IN 46628**
Minor Source Operating Permit No.: **141-30201-00065**
Plt ID: **141-00065**
Reviewer: **Jack Harmon**

Material	Density (Lb/Gal)	Weight % Glycol Ether	Weight % Ethylene Glycol	Weight % MEK	Weight % Methanol	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Glycol Ether Emissions tons per year	Ethylene Glycol Emissions tons per year	MEK Emissions tons per year	Methanol Emissions tons per year
Screen Print - Skirt Coating											
E788-G75	11.15	0.00%	0.0%	0.0%	0.00%	0.00006	1200	0.00	0.00	0.00	0.00
E724-G75	11.15	0.00%	0.0%	0.0%	0.00%	0.00005	1200	0.00	0.00	0.00	0.00
Pad Print - Skirt Coating											
E786-G75	11.04	0.00%	0.0%	0.0%	0.00%	0.00003	900	0.00	0.00	0.00	0.00
SC3 - Skirt Coating											
E788-G75	11.15	0.00%	0.0%	0.0%	0.00%	0.00004	1320	0.00	0.00	0.00	0.00
E724-G75	11.15	0.00%	0.0%	0.0%	0.00%	0.00004	1320	0.00	0.00	0.00	0.00
SC4 - Skirt Coating											
E788-G75	11.15	0.00%	0.0%	0.0%	0.00%	0.00004	1320	0.00	0.00	0.00	0.00
E724-G75	11.15	0.00%	0.0%	0.0%	0.00%	0.00004	1320	0.00	0.00	0.00	0.00
Piston Coating											
E785-G75	11.15	10.00%	0.0%	0.0%	0.00%	0.00005	800	0.20	0.00	0.00	0.00
Ink Jet											
167900	7.43	0.00%	3.0%	35.0%	45.00%	9.0E-07	360	0.00	0.00	0.00	0.00
Pin Fit											
1000-I	7.09	0.00%	0.0%	0.0%	0.00%	5.0E-06	600	0.00	0.00	0.00	0.00
Phosphating Wash Lines											
Ridolene 200	10.01	0.00%	0.00%	0.00%	0.00%	4.2E-04	1200	0.00	0.00	0.00	0.00
Alodine 300	10.43	0.00%	0.00%	0.00%	0.00%	2.9E-04	1200	0.00	0.00	0.00	0.00
Parcolene 99x	8.54	0.00%	0.00%	0.00%	0.00%	2.5E-05	1200	0.00	0.00	0.00	0.00
SC3 & SC4 Wash Lines											
Ridolene 200	10.01	0.00%	0.00%	0.00%	0.00%	5.0E-04	1200	0.00	0.00	0.00	0.00
Alodine 300	10.43	0.00%	0.00%	0.00%	0.00%	3.2E-04	1200	0.00	0.00	0.00	0.00
Parcolene 99x	8.54	0.00%	0.00%	0.00%	0.00%	2.7E-05	1200	0.00	0.00	0.00	0.00
Assembly Line 2											
Marking Fluid 1000-I	7.09	0.00%	0.0%	0.0%	0.00%	2.6E-06	750	0.00	0.00	0.00	0.00
Jet Ink Fluid 167900 Q	7.43	0.00%	3.0%	35.0%	45.00%	5.6E-06	750	0.00	0.00	0.05	0.06
Assembly Lines 3 and 4											
Marking Fluid 1000-I	7.09	0.00%	0.0%	0.0%	0.00%	2.6E-06	770	0.00	0.00	0.00	0.00
Jet Ink Fluid 167900 Q	7.43	0.00%	3.0%	35.0%	45.00%	5.6E-06	770	0.00	0.00	0.05	0.06
Assembly Line 6											
Marking Fluid 1000-I	7.09	0.00%	0.0%	0.0%	0.00%	2.6E-06	600	0.00	0.00	0.00	0.00
Jet Ink Fluid 167900 Q	7.43	0.00%	3.0%	35.0%	45.00%	5.6E-06	600	0.00	0.00	0.04	0.05
State Potential Emissions			**Add worst case coating to all solvents**					**0.20**	**0.01**	**0.14**	**0.18**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emission Calculations
HAP Emissions

Company Name: **Federal-Mogul Corporation**
Address City IN Zip: **3605 West Cleveland Road, South Bend, IN 46628**
Minor Source Operating Permit: **141-30201-00065**
Plt ID: **141-00065**
Reviewer: **Jack Harmon**

Emission Unit	Flux Usage (lbs/day)	Pollutant	EF (lb/lb org flux)	Emissions before Controls (tons/yr)	Emissions after Controls (tons/yr)	Control Device	Control Efficiency (%)
Fluxing Operation with SF270FM flux (includes furnace and casting cells)	402	PM	see page 5 of App. A			none	
		PM10	see page 5 of App. A			none	
		HCl	0.0039	0.29	0.29	none	
		HF	0	0.00	0.00	none	
Maintenance Fluxing with Pyroflux FC-212-CC (in melt furnace only)	8	PM	see page 5 of App. A			none	
		PM10	see page 5 of App. A			none	
		HCl	0.02	0.03	0.03	none	
		HF	0.25	0.37	0.37	none	
		Total HAPs		**0.68**	**0.68**		

Note: Emission factors for SF270FM flux are based on a stack test conducted on the casting cells during fluxing on April 6-7, 2005. The SF270FM flux does not contain fluoride, therefore, there are no HF emissions.

Note: Emission factors for Pyroflux FC-212-CC flux are based on a worst case assumption that all chlorine in the flux is emitted as HCl and that all flourine in the flux is emitted as HF. This flux contains a maximum of 2% by weight of chloride

Appendix A: Emission Calculations
HAP Emissions

Company Name: Federal-Mogul Corporation
Address City IN Zip: 3605 West Cleveland Road, South Bend, IN 46628
Minor Source Operating Permit: 141-30201-00065
Plt ID: 141-00065
Reviewer: Jack Harmon

SCC# 3-04-001-03
Smelting Furnace/Reverberatory (Reverberatory Furnace)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Aluminum	Maximum:	5600	2000	2.8

	Nickel lbs/ton Produced	Manganese lbs/ton Produced	Lead lbs/ton Produced	Chromium lbs/ton Produced	Copper* lbs/ton Produced
	0.004	0.001	0.001	0.001	0.001
Potential Emissions lbs/hr	0.01	0.00	0.00	0.00	0.00
Potential Emissions lbs/day	0.25	0.09	0.04	0.05	0.04
Potential Emissions tons/year	0.05	0.02	0.01	0.01	0.01

SCC# 3-04-001-03
Smelting Furnace/Reverberatory (Casting Cells)

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR
Aluminum	Maximum:	6914.88	2000	3.45744

	Nickel lbs/ton Produced	Manganese lbs/ton Produced	Lead lbs/ton Produced	Chromium lbs/ton Produced	Copper* lbs/ton Produced
	0.004	0.001	0.001	0.001	0.001
Potential Emissions lbs/hr	0.01	0.01	0.00	0.00	0.00
Potential Emissions lbs/day	0.34	0.12	0.06	0.07	0.06
Potential Emissions tons/year	0.06	0.02	0.01	0.01	0.01

Note: HAP emission factors for reverberatory furnace are based on approved stack test results from a stack test performed May 29, 2002 on this furnace. The PM-10 emission factors obtained from those tests were multiplied by the various metal contents of the aluminum alloy as listed on the MSDS sheet to obtain each metal HAP emission factor.

* Copper is not a listed HAP under Section 112 of the Clean Air Act and is only counted towards PM and PM10 emissions.

Appendix A: Emission Calculations
Abrasive Blasting

Company Name: **Federal-Mogul Corporation**
Address City IN Zip: **3605 West Cleveland Road, South Bend, IN 46628**
Minor Source Operating Permit: **141-30201-00065**
Plt ID: **141-00065**
Reviewer: **Jack Harmon**

Table 1 - Emission Factors for Abrasives

	Emission Factor	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Sand	0.041	0.70
Grit	0.010	0.70
Steel Shot	0.004	0.86
Other	0.010	

Calculations

Flow Rate (FR) (lb/hr) = **599.760** per nozzle
Maximum Hours of Blasting per year* = **778.67** hours/year per nozzle

Uncontrolled Emissions (E, lb/hr)

EF = emission factor (lb PM/ lb abrasive) =	0.010
FR = Flow Rate (lb/hr) =	599.760
w = fraction of time of wet blasting =	0 %
N = number of nozzles =	2

Uncontrolled Emissions =	**6.00 lb/hr**	per nozzle
	2.34 ton/yr	per nozzle based on maximum hours of blasting
	4.67 ton/yr	total for both nozzles
Control Efficiency: 99.99% **Controlled Emissions =**	**6.0E-04 lb/hr**	per nozzle
	2.3E-04 ton/yr	per nozzle based on maximum hours of blasting
	4.7E-04 ton/yr	total for both nozzles

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Ton/yr = lb/hr X 8760 hr/yr X ton/2000 lbs
Flow Rate (FR) (lb/hr) obtained from manufacturer.
E = EF x FR x (1-w/200) x N
w should be entered in as a whole number (if w is 50%, enter 50)
* The maximum hours of blasting time per year was based on a design cycle time to process each piston of 90 seconds. Based on the unit's design, blasting can occur a maximum of 16 seconds per cycle. Therefore, the maximum hours of blasting time per year is calculated as follows:

8760 hrs/yr x 3600 sec./hr = 31536000 seconds/yr

31536000 seconds/yr / 90 sec./cycle = 350400 cycles/yr

350400 cycles/yr x 8 sec./cycle blasting per nozzle 2803200 sec./yr blasting per nozzle

2803200 sec./yr blasting per nozzle 3600 sec./hr = 778.67 hours/yr blasting per nozzle

Appendix A: Emission Calculations
Internal Combustion Engines - Natural Gas-Fired Emergency Generator

Company Name: **Federal-Mogul Corporation**
Address City IN Zip: **3605 West Cleveland Road, South Bend, IN 46628**
Minor Source Operating Permit: **141-30201-00065**
Plt ID: **141-00065**
Reviewer: **Jack Harmon**

Heat Input Capacity
MM Btu/hr

0.4

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMBtu	0.0019	0.0066	0.0034	0.3200	0.0021	0.0820
Potential Emission in tons/yr	3.4E-03	1.2E-02	6.0E-03	0.56	3.7E-03	0.14

Methodology

Emission Factors are from AP 42 Table 3.1-1 and Table 3.1-2a.
Heat input capacity (MMBtu/hr) = Max. fuel consumption (395 cf/hr) x (1020 Btu/cf) x (1E-06 MMBtu/Btu)
Emission (tons/yr) = [Heat input rate (MMBtu/hr) x Emission Factor (lb/MMBtu)] * 8760 hr/yr / (2,000 lb/ton)
*The PM emission factor is filterable PM. The PM10 emission factor is filterable and condensable PM10 combined.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Paul Frodyma
Federal – Mogul Corporation
3605 W. Cleveland Rd
South Bend, IN 46628

DATE: October 4, 2011

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

SUBJECT: Final Decision
MSOP
141-30201-00065

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:
Trent Rock (Plant Manager)
Kathy Moore (KERAMIDA Environmental, Inc)
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.

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

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

October 4, 2011

TO: South Bend Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: **Federal – Mogul Corporation**
Permit Number: **141-30201-00065**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	MIDENNEY 10/4/2011 Federal - Mogul Corporation (previously A.E. Goetze) 141-30201-00065 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee / Remarks
1		Paul Frodyma Federal - Mogul Corporation (previously A.E. Goetz 3605 W Cleveland Rd South Bend IN 46628 (Source CAATS) via confirm delivery									
2		Trent Rock Plant Mgr Federal - Mogul Corporation (previously A.E. Goetz 3605 W Cleveland Rd South Bend IN 46628 *(RO CAATS)*									
3		Mr. Charles L. Berger Berger & Berger, Attorneys at Law 313 Main Street Evansville IN 47700 *(Affected Party)*									
4		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 *(Affected Party)*									
5		Mr. Wayne Falda South Bend Tribune 255 W Colfax Ave South Bend IN 46626 *(Affected Party)*									
6		St. Joseph County Board of Commissioners 227 West Jefferson Blvd, South Bend IN 46601 *(Local Official)*									
7		St. Joseph County Health Department 227 W Jefferson Blvd, Room 825 South Bend IN 46601-1870 *(Health Department)*									
8		South Bend Public Library 304 South Main Street South Bend IN 46601 *(Library)*									
9		Mrs. Kathy Moore KERAMIDA Environmental, Inc. 401 North College Indianapolis IN 46202 *(Consultant)*									
10		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 *(Affected Party)*									
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	
9			The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

FACSIMILIE OF PS Form 3877