INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We make Indiana a cleaner, healthier place to live.

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 13, 2007

RE: Mason Corporation/ 089-24373-00094

FROM: Matthew Stuckey, Deputy 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
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Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Mason Corporation
1049 U.S. Highway 41
Schererville, Indiana 46375

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

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

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 FESOP under 326 IAC 2-8.

Operation Permit No.: F 089-24373-00094	
Issued by: Matt Stuckey, Chief Permits Branch Office of Air Quality	Issuance Date: December 13, 2007 Expiration Date: December 13, 2012

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 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee should be aware that a physical change or a change in the method of operation that may render this descriptive information obsolete or inaccurate may trigger requirements for the Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary source manufacturing tin chloride and tin sulfate.

Source Address:	1049 U.S. Highway 41, Schererville, Indiana 46375
Mailing Address:	1049 U.S. Highway 41, Schererville, IN 46375
General Source Phone Number:	219-865-8040
SIC Code:	2819
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Nonattainment for PM 2.5 standard Attainment for all other criteria pollutants
Source Status:	Federally Enforceable State 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

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

(a) Two (2) rotary dryers, identified as RD-1 and RD-2, constructed in 1972 and 1975, respectively, each with a maximum throughput of 198.63 pounds per hour, each equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by one (1) baghouse, identified as Baghouse #1, exhausting to stack S-5.

(b) Two (2) rotary dryers, identified as RD-3 and RD-4, constructed in 1980 and 1982, respectively, each with a maximum throughput of 135.83 pounds per hour, each equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by two (2) baghouses, identified as Baghouse #4 and Baghouse #5, respectively, exhausting to Stack S-15 and S-16, respectively.

(c) One (1) rotary dryer, identified as RD-5, constructed in 1987 with a maximum throughput of 135.83 pounds per hour, equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by one (1) baghouse, identified as Baghouse #2, and exhausting to stack S-6.

(d) Two (2) fusion reactors, identified as FR-1 and FR-2, constructed in 1997 and 2000, respectively, with a maximum throughput of 180.29 and 600.96 pounds per hour, respectively, each equipped with a natural gas combustion source with a maximum capacity of 1.45 and 1.66 million British thermal units per hour, respectively, with emissions controlled by three (3) scrubbers, identified as Scrubber #1, Scrubber #2, and Scrubber #6, and exhausting to stacks S-7, S-8, and S-17, respectively.

(e) Two (2) tin chloride manufacturing lines, identified as Mfg-1 and Mfg-2, constructed in 1987 and 1986, respectively, with a maximum throughput of 5.82 and 2.74 pounds per hour, respectively, with emissions controlled by three (3) scrubbers, identified as Scrubber #3, Scrubber #4, and Scrubber #7, and exhausting to stacks S-11 and S-12.

(f) One (1) tin sulfate manufacturing line in the R&D Department, identified as Mfg-3, constructed in 1991, with a maximum throughput of 2.74 pounds per hour, with emissions controlled by one (1) scrubber, identified as Scrubber #5, and exhausting to stack S-13.

(g) One (1) tin sulfate manufacturing line, identified as Mfg-4, constructed in 2006, with a maximum throughput of 13.7 pounds per hour, with emissions controlled by one (1) scrubber, identified as Scrubber #7, and exhausting to stack S-14.

(h) One (1) paint booth, identified as PB-1, constructed in 1992, coating fiber and plastic drums and cylinders, with particulate emissions controlled by dry filters, and exhausting to stack S-9.

(i) One (1) cylinder dryer, identified as CD-1, constructed in 1987, with a maximum capacity of 0.514 gallons per hour of paint and mineral spirits, equipped with a natural gas combustion source with a maximum capacity of 4 million British thermal units per hour, with emissions controlled by one (1) afterburner, identified as Afterburner 1, and exhausting to vent V-10.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities:

(a) Emission units with PM and PM_{10} emissions less than five (5) tons per year, SO_2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) of a ton per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:

(1) One (1) brushing chamber, identified as BC-1, constructed in 1992, with a maximum throughput of 0.587 pounds per hour, with emissions controlled by one (1) baghouse, identified as Baghouse 3, and exhausting to vent V-14 which discharges inside of the building. [326 IAC 6.8-1-2]

(b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:

(1) One (1) natural gas-fired boiler, identified as B-1, constructed in 1990, with a maximum capacity of 3.5 million British thermal units per hour, and exhausting to stack S-1. [323 IAC 6.8-1-2]

(2) One (1) natural gas-fired boiler, identified as B-2, constructed in 1992, with a maximum capacity of 3.5 million British thermal units per hour, and exhausting to stack S-2. [323 IAC 6.8-1-2]

(3) One (1) natural gas-fired boiler, identified as B-3, constructed in 1995, with a maximum capacity of 2.5 million British thermal units per hour, and exhausting to stack S-3. [323 IAC 6.8-1-2]

(4) One (1) natural gas-fired oil heater, identified as B-4, constructed in 1988, with a maximum capacity of 0.4 million British thermal units per hour, and exhausting to stack S-4.

(5) Eighteen (18) gas unit heaters.

(6) Five (5) natural gas-fired sludge drying tanks, identified as T-1 through T-5, each constructed in 2005, each exhausting water vapor to stacks S-19A through S-23A, respectively, and each equipped with two (2) burners rated at 0.3 million British thermal units per hour that exhaust to stacks S-19 through S-23, respectively. [323 IAC 6.8-1-2]

(c) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons: one (1) diesel storage tank. [323 IAC 8-9]

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-8-1]

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

B.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F 089-24373-00094, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

B.4 Enforceability [326 IAC 2-8-6]

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

B.5 Severability [326 IAC 2-8-4(4)]

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

B.6 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

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

B.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

B.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

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

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

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

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

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and

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

The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) 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.

(b) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMPs do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

B.12 Emergency Provisions [326 IAC 2-8-12]

(a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation except as provided in 326 IAC 2-8-12.

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865

Northwest Regional Office phone: (219) 757-0265; fax: (219) 757-0267**.**

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

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

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

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.

(d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.

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

(1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.

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

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

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

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

(h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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

(a) All terms and conditions of permits established prior to F 089-24373-00094 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.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

(a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provisions), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-8-4(5)(C)][326 IAC 2-8-7(a)][326 IAC 2-8-8]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 Permit Renewal [326 IAC 2-8-3(h)]

(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 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 Permit Amendment or Revision [326 IAC 2-8-10][326 IAC 2-8-11.1]

(a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application shall be certified by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a prior permit revision, if each of the following conditions is met:

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

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

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

(4) The Permittee notifies the:

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

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)

77 West Jackson Boulevard
Chicago, Illinois 60604-3590

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

(b) Emission Trades [326 IAC 2-8-15(c)]
The Permittee may trade emissions increases and decreases at the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).

(c) Alternative Operating Scenarios [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ, or U.S. EPA is required.

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

B.20 Source Modification Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][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 FESOP 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.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

(a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

The application which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.23 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

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

(b) Failure to pay may result in administrative enforcement action or revocation of this permit.

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

B.24 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

(a) Pursuant to 326 IAC 2-8:

(1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period.

(2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and

(3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than one hundred (100) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

(c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided that the source's potential to emit does not exceed the above specified limits.

(d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of twenty percent (20%) 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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

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

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted by using ambient air quality modeling pursuant to 326 IAC 1-7-4.

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

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

(g) Indiana Accredited Asbestos Inspector
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

Testing Requirements [326 IAC 2-8-4(3)]

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

(a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

(c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted

by IDEM, OAQ if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

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

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

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.10 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.11 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

Corrective Actions and Response Steps [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

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

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

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

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

(2) review of operation and maintenance procedures and records; 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 maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4][326 IAC 2-8-5]

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

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

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

The response action documents submitted pursuant to this condition do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

(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, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

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

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

(d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

Stratospheric Ozone Protection

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

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

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

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

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

Ambient Monitoring Requirements [326 IAC 7-3]

C.20 Ambient Monitoring [326 IAC 7-3]

(a) The Permittee shall operate continuous ambient sulfur dioxide air quality monitors and a meteorological data acquisition system according to a monitoring plan submitted to the commissioner for approval. The monitoring plan shall include requirements listed in 326 IAC 7-3-2(a)(1), 326 IAC 7-3-2(a)(2) and 326 IAC 7-3-2(a)(3).

(b) The Permittee and other operators subject to the requirements of this rule, located in the same county, may submit a joint monitoring plan to satisfy the requirements of this rule. [326 IAC 7-3-2(c)]

(c) The Permittee may petition the commissioner for an administrative waiver of all or some of the requirements of 326 IAC 7-3 if such owner or operator can demonstrate that ambient monitoring is unnecessary to determine continued maintenance of the sulfur dioxide ambient air quality standards in the vicinity of the source. [326 IAC 7-3-2(d)]

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Two (2) rotary dryers, identified as RD-1 and RD-2, constructed in 1972 and 1975, respectively, each with a maximum throughput of 198.63 pounds per hour, each equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by one (1) baghouse, identified as Baghouse #1, exhausting to stack S-5.

(b) Two (2) rotary dryers, identified as RD-3 and RD-4, constructed in 1980 and 1982, respectively, each with a maximum throughput of 135.83 pounds per hour, each equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by two (2) baghouses, identified as Baghouse #4 and Baghouse #5, respectively, exhausting to Stack S-15 and S-16, respectively.

(c) One (1) rotary dryer, identified as RD-5, constructed in 1987 with a maximum throughput of 135.83 pounds per hour, equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by one (1) baghouse, identified as Baghouse #2, and exhausting to stack S-6.

(d) Two (2) fusion reactors, identified as FR-1 and FR-2, constructed in 1997 and 2000, respectively, with a maximum throughput of 180.29 and 600.96 pounds per hour, respectively, each equipped with a natural gas combustion source with a maximum capacity of 1.45 and 1.66 million British thermal units per hour, respectively, with emissions controlled by three (3) voluntary scrubbers, identified as Scrubber #1, Scrubber #2, and Scrubber #6, and exhausting to stacks S-7, S-8, and S-17, respectively.

(e) Two (2) tin chloride manufacturing lines, identified as Mfg-1 and Mfg-2, constructed in 1987 and 1986, respectively, with a maximum throughput of 5.82 and 2.74 pounds per hour, respectively, with emissions controlled by three (3) voluntary scrubbers, identified as Scrubber #3, Scrubber #4, and Scrubber #7, and exhausting to stacks S-11 and S-12.

(f) One (1) tin sulfate manufacturing line in the R&D Department, identified as Mfg-3, constructed in 1991, with a maximum throughput of 2.74 pounds per hour, with emissions controlled by one (1) voluntary scrubber, identified as Scrubber #5, and exhausting to stack S-13.

(g) One (1) tin sulfate manufacturing line, identified as Mfg-4, constructed in 2006, with a maximum throughput of 13.7 pounds per hour, with emissions controlled by one (1) voluntary scrubber, identified as Scrubber #7, and exhausting to stack S-14.

(h) Emission units with PM and PM_{10} emissions less than five (5) tons per year, SO_2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) of a ton per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:

(1) One (1) brushing chamber, identified as BC-1, constructed in 1992, with a maximum throughput of 0.587 pounds per hour, with emissions controlled by one (1) baghouse, identified as Baghouse 3, and exhausting to vent V-14 which discharges inside of the building. [326 IAC 6.8-1-2]

(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 2-8-4(1)]

D.1.1 Particulate Matter (PM) [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (formerly 326 IAC 6-1-2), particulate matter (PM) emissions from fusion reactor (FR-2) and brushing chamber (BC-1) shall not exceed 0.03 grain per dry standard cubic foot.

D.1.2 Particulate Matter (PM) [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the rotary dryers (RD-1, RD-2, RD-3, RD-4, and RD-5), manufacturing lines (Mfg-3 and Mfg-4) and brushing chamber shall not exceed the pounds per hour emission rate established by the following equation:

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

$E = 4.10 \times P^{0.67}$ Where:

P = process weight in tons/hr and E = rate in pounds per hour.

D.1.3 PSD, and Part 70 Minor Limits [326 IAC 2-2][326 IAC 2-8-4]

The permitee shall be subject to the following limitations:

Process	Allowable	
Unit	PM Limit (lb/hr)	PM10 Limit (lb/hr)
RD-1	0.817	0.817
RD-2	0.817	0.817
RD-3	0.677	0.677
RD-4	0.677	0.677
RE-5	0.677	0.677
FR-1	0.103	0.103
FR-2	0.103	0.103
Mfg-1	0.084	0.084
Mfg-2	0.010	0.010
Mfg-3	0.010	0.010
Mfg-4	0.148	0.148
Brushing Chamber	0.551	0.551

These limits are structured such the source total PM emissions are less than one hundred (100) tons per year and the source total PM_{10} emissions are less than one hundred (100) tons per year. This renders the requirements of 326 IAC 2-7 (Part 70 Permit Program), and 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

D.1.4 Specific VOC Reduction Requirments for Lake, Porter, Clark, and Floyd Counties [326 IAC 8-7]

326 IAC 8-7 applies to the source because it has coating facilities, a paint booth (PB-1), which has the potential to emit a total equal to or greater then ten (10) tpy and it is located in Lake County. However, pursuant to 326 IAC 8-7(b), the paint booth (PB-1) is exempt from the emission limit requirements of 326 IAC 8-7-3. Even though the source is exempt from the emission limits in 326 IAC 8-7-3, it must comply with the certification, record keeping, and reporting requirements of 326 IAC 8-7-6. See Record Keeping and Reporting requirements, below.

Compliance Determination Requirements

D.1.5 Testing Requirements [326 IAC 2-1.1-11]

(a) Within 180 days after issuance of this permit F 089-24373-00094, in order to demonstrate compliance with Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall perform PM and PM_{10} testing for the baghouse1 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every twenty (20) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with 326 IAC 3-6 and Section C - Performance Testing.

(b) Within 5 years of performing PM and PM_{10} testing for baghouse 1, in order to demonstrate compliance with Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall perform PM and PM_{10} testing for the baghouse 2 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every twenty (20) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with 326 IAC 3-6 and Section C - Performance Testing.

(c) Within 5 years of performing PM and PM_{10} testing for baghouse 2, in order to demonstrate compliance with Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall perform PM and PM_{10} testing for the baghouse 4 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every twenty (20) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with 326 IAC 3-6 and Section C - Performance Testing.

(d) Within 5 years of performing PM and PM_{10} testing for baghouse 4, in order to demonstrate compliance with Conditions D.1.1, D.1.2, and D.1.3, the Permittee shall perform PM and PM_{10} testing for the baghouse 5 utilizing methods as approved by the Commissioner. This test shall be repeated at least once every twenty (20) years from the date of the most recent valid compliance demonstration. PM_{10} includes filterable and condensable PM_{10}. Testing shall be conducted in accordance with 326 IAC 3-6 and Section C - Performance Testing.

D.1.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

D.1.7 Particulate Matter [326 IAC 2-8-5(a)(4)]

(a) The baghouses (Baghouse #1 and Baghouse #2, Baghouse #4, and Baghouse #5) and scrubbers (Scrubber #1 through Scrubber #7) for PM control shall be in operation and control emissions from the rotary dryers (RD-1, RD-2, RD-3, RD-4, and RD-5), fusion reactors (FR-1 and FR-2), and manufacturing lines (Mfg-1, Mfg-2, Mfg-3, and Mfg-4) at all times that the facilities are in operation.

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

Compliance Monitoring Requirements [326 IAC 2-8-4][326 IAC 2-8-5(a)(1)]

D.1.8 Visible Emissions Notations

(a) Once per day visible emission notations of the rotary dryers (RD-1, RD-2, RD-3, RD-4, and RD-5), fusion reactors (FR-1 and FR-2), and manufacturing lines (Mfg-1, Mfg-2, Mfg-3, and Mfg-4) stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

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

D.1.9 Parametric Monitoring

The Permittee shall record the pressure drop across Baghouse #1 in conjunction with the rotary dryers (RD-1 and RD-2), at least once per day when the rotary dryers are in operation. When for any one reading, the pressure drop across the baghouse is outside the normal range of 3.0 and 6.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit.

The Permittee shall record the pressure drops across Baghouse #2, Baghouse #4, and Baghouse #5 used in conjunction with the rotary dryers (RD-3, RD-4, and RD-5), at least once per day when the rotary dryers are in operation. When for any one reading, the pressure drop across the baghouses are outside the normal range of 3.0 and 10.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the

above mentioned range is not a deviation from this permit.

The Permittee shall record the pressure drop across the srcubbers (S-1, S-2, S-3, S-4, S-5, S-7) used in conjunction with the fusion reactors (FR-1, FR-2) and the tin chloride manufacturing lines (Mfg-1, Mfg-2, Mfg-3, Mfg-4) at least once per day when the fusion reactors and tin chloride manufacturing lines are in operation. When for any one reading, the pressure drop across the scrubbers is outside the normal range of 0.1-1.0 inches of water , 0.1-1.0 inches of water , 10-20 inches of water, 10-20 inches of water, 5-15 inches of water, 0.1-1.0 inches of water, respectively, or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit.

The Permittee shall record the flow rates across the srcubbers (S-1, S-2, S-3, S-4, S-5, S-7) used in conjunction with the fusion reactors (FR-1, FR-2) and the tin chloride manufacturing lines (Mfg-1, Mfg-2, Mfg-3, Mfg-4) at least once per day when the fusion reactors and tin chloride manufacturing lines are in operation. When for any one reading, the flow rate across the scrubbers is below the normal level of 50 gallons of water per minute, 50 gallons of water per minute, 60 gallons of water per minute, 60 gallons of water per minute, 50 gallons of water per minute, 50 gallons of water per minute, respectively, or a flow rate established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate reading that is below the mentioned minimum level is not a deviation from this permit

Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

The instrument used for determining the pressure and flow rate shall comply with Section C – Instrument Specifications, of this permit, and shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.10 Broken or Failed Bag Detection and Scrubber Failure

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

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

(b) In the event that scrubber failure has been observed, failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirement of the emergency provisions of this permit. (Section B Emergency Provisions).

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.11 Record Keeping Requirements

(a) To document compliance with Condition D.1.8, the Permittee shall maintain a daily record of visible emission notations of baghouses 1,2,4, and 5 and Scrubbers #1 through Scrubber #7. The Permittee shall include in its daily record when a visible notation is not taken and the reason for the lack of visible emission notation, (e.g. the process did not operate that day).

(b) To document compliance with Condition D.1.9, the Permittee shall maintain a daily record of the pressure drop across the baghouses (Baghouse #1 and Baghouse #2, Baghouse #4, and Baghouse #5) controlling the rotary dryers. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(c) To document compliance with Condition D.1.9, the Permittee shall maintain records of the pressure drop across the scrubbers during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

(d) To document compliance with Condition D.1.3 the source shall submit to the department a certification that it is exempt from the limits of 326 IAC 8-7-3. The certification shall contain all of the following information:

(1) The name and address of the source and the name and telephone number of the company representative.

(2) Identification of each VOC emitting facility together with a description of the purpose each facility serves.

(3) A listing of facilities which meet the requirements of section 2(a) of this rule.

(4) Baseline actual emissions for each facility identified in subdivision (3) together with the following information:

(A) Maximum design rate, maximum production, or maximum throughput.

(B) VOC emission factors with reference to the source of the emission factors and procedures as to how the emission factors were estimated, for example, they type of each fuel or process chemicals used and the baseline year used.

(5) Procedures that will be used to monitor the source's potential emissions to ensure that they remain bellow twenty-five (25) tpy.

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

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(i) One (1) paint booth and one (1) cylinder dryer, identified as PB-1 and CD-1, constructed in 1992 and 1987, respectively, with the PB-1 coating fiber and plastic drums and cylinders, with particulate emissions controlled by dry filters, and exhausting to stack S-9 and CD-1, with a maximum capacity of 0.514 gallons per hour of paint and mineral spirits, equipped with a natural gas combustion source with a maximum capacity of 4 million British thermal units per hour, with emissions controlled by one (1) afterburner, identified as Afterburner 1, and exhausting to vent V-10.

(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 2-8-4(1)]

D.2.1 Particulate Matter (PM) [326 IAC 6.8-1-2]

Pursuant to 326 IAC 6.8-1-2 (formerly 326 IAC 6-1-2) emissions from the paint booth (PB-1) and cylinder dryer (CD-1) shall be limited to 0.03 grains per dry standard cubic foot.

Compliance Determination Requirements

D.2.2 Particulate Matter (PM)

In order to comply with Condition D.2.1, the dry filters for PM control shall be in operation at all times when the paint booth (PB-1) and cylinder dryer (CD-1) are in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.3 Monitoring

(a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from the surface coating booth stack S-9 while the booth is in operation. If a condition exists which should result in a response step, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failures to take response steps in accordance with Section C – Response to Excursions or Exceedances shall be considered a deviation from this permit.

(b) Monthly inspections shall be performed of the coating emissions from the stacks and the presence of overspray on the rooftops and the nearby ground. When there is a noticeable change in overspray emissions, or when evidence of overspray emissions is observed, the Permittee shall take reasonable response steps. Failure to take response steps in accordance with Section C – Response to Excursions or Exceedances, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16] [326 IAC 8-7-3]

D.2.4 Record Keeping Requirements

(a) To document compliance with Condition D.2.1, the Permittee shall maintain a log of weekly overspray observations, and daily and monthly inspections.

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:

(1) One (1) natural gas-fired boiler, identified as B-1, constructed in 1990, with a maximum capacity of 3.5 million British thermal units per hour, and exhausting to stack S-1. [323 IAC 6.8-1-2]

(2) One (1) natural gas-fired boiler, identified as B-2, constructed in 1992, with a maximum capacity of 3.5 million British thermal units per hour, and exhausting to stack S-2. [323 IAC 6.8-1-2]

(3) One (1) natural gas-fired boiler, identified as B-3, constructed in 1995, with a maximum capacity of 2.5 million British thermal units per hour, and exhausting to stack S-3. [323 IAC 6.8-1-2]

(4) One (1) natural gas-fired oil heater, identified as B-4, constructed in 1988, with a maximum capacity of 0.4 million British thermal units per hour, and exhausting to stack S-4.

(5) Eighteen (18) gas unit heaters.

(6) Five (5) natural gas-fired sludge drying tanks, identified as T-1 through T-5, each constructed in 2005, each exhausting water vapor to stacks S-19A through S-23A, respectively, and each equipped with two (2) burners rated at 0.3 million British thermal units per hour that exhaust to stacks S-19 through S-23, respectively. [323 IAC 6.8-1-2]

(b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons: one (1) diesel storage tank. [323 IAC 8-9]

(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 2-8-4(1)]

D.3.1 Particulate Matter (PM) [326 IAC 6.8-1-2]

(a) Pursuant to 326 IAC 6.8-1-2, the particulate emissions from each of the boilers shall be no greater than one-hundredth (0.01) grain per dry standard cubic foot (dscf).

(b) Pursuant to 326 IAC 6.8-1-2, particulate matter (PM) emissions from each of the sludge drying tanks shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.3.2 Record Keeping Requirements

(a) Pursuant to 326 IAC 8-9, the owner or operator of diesel storage tank shall maintain a record and submit to IDEM, OAQ a report containing the following information for each vessel:

(1) The vessel identification number;

(2) The vessel dimensions; and

(3) The vessel capacity.

The records shall be maintained for the life of the vessel.

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Mason Corporation
Source Address: 1049 U.S. Highway 41, Schererville, Indiana 46375
Mailing Address: 1049 U.S. Highway 41, Schererville, IN 46375
FESOP Permit No.: F 089-24373-00094

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Mason Corporation
Source Address: 1049 U.S. Highway 41, Schererville, Indiana 46375
Mailing Address: 1049 U.S. Highway 41, Schererville, IN 46375
FESOP Permit No.: F 089-24373-00094

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

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

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

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

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

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO_2, VOC, NO_X, CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

A certification is not required for this report.

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

FESOP Quarterly Report

Source Name: Mason Corporation
Source Address: 1049 U.S. Highway 41, Schererville, Indiana 46375
Mailing Address: 1049 U.S. Highway 41, Schererville, IN 46375
FESOP Permit No.: F 089-24373-00094
Facility:
Parameter:
Limit:

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

□ No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Mason Corporation
Source Address: 1049 U.S. Highway 41, Schererville, Indiana 46375
Mailing Address: 1049 U.S. Highway 41, Schererville, IN 46375
FESOP Permit No.: F 089-24373-00094

Months: _____ **to** _____ **Year:** _____

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

Page 2 of 2

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

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management
Office of Air Quality

Addendum to the Technical Support Document (TSD) for a Federally Enforceable State Operating Permit (FESOP) Renewal

Source Background and Description

Source Name:	Mason Corporation, Inc.
Source Location:	1049 U.S. Highway 41, Schererville, IN 46375
County:	Lake
SIC Code:	2819
Permit Renewal No.:	F 089 - 24373 - 00094
Permit Reviewer:	Zach Miller

On November 5, 2007, the Office of Air Quality (OAQ) had a notice published in The Post Tribune newspaper in Merrillville, Lake County, Indiana stating that Mason Corporation had applied for a Federally Enforceable State Operating Permit (FESOP) Renewal to operate a tin reclamation plant. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

No comments were received. Upon further review, IDEM, OAQ has decided to make the following changes to the permit. The changes listed below have been made to FESOP No F 089 - 24373 - 00094. The Table of Contents has been updated. Deleted language appears as ~~strikethroughs~~ and new language appears in **bold**:

1. In D.3.2 the record keeping and recording citation 326 IAC 8-7-3 has been included:

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16] [326 IAC 8-7-3]

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Federally Enforceable State Operating Permit Renewal

Source Background and Description

Source Name:	**Mason Corporation**
Source Location:	**1049 U.S. Highway 41 Schererville, Indiana 46375**
County:	**Lake**
SIC Code:	**2819**
Permit Renewal No.:	**F 089-24373-00094**
Permit Reviewer:	**Zach Miller**

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Mason Corporation relating to the operation of a tin sulfate manufacturing plant.

History

On March 2, 2007 Mason Corporation submitted applications to the OAQ requesting to renew its operating permit. Mason Corporation was issued a FESOP on November 25, 2002.

Permitted Emission Units and Pollution Control Equipment

(a) Two (2) rotary dryers, identified as RD-1 and RD-2, constructed in 1972 and 1975, respectively, each with a maximum throughput of 198.63 pounds per hour, each equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by one (1) baghouse, identified as Baghouse #1, exhausting to stack S-5.

(b) Two (2) rotary dryers, identified as RD-3 and RD-4, constructed in 1980 and 1982, respectively, each with a maximum throughput of 135.83 pounds per hour, each equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by two (2) baghouses, identified as Baghouse #4 and Baghouse #5, respectively, exhausting to Stack S-15 and S-16, respectively.

(c) One (1) rotary dryer, identified as RD-5, constructed in 1987 with a maximum throughput of 135.83 pounds per hour, equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour, with particulate emissions controlled by one (1) baghouse, identified as Baghouse #2, and exhausting to stack S-6.

(d) Two (2) fusion reactors, identified as FR-1 and FR-2, constructed in 1997 and 2000, respectively, with a maximum throughput of 180.29 and 600.96 pounds per hour, respectively, each equipped with a natural gas combustion source with a maximum capacity of 1.45 and 1.66 million British thermal units per hour, respectively, with emissions controlled by three (3) voluntary scrubbers, identified as Scrubber #1, Scrubber #2, and Scrubber #6, and exhausting to stacks S-7, S-8, and S-17, respectively.

(e) Two (2) tin chloride manufacturing lines, identified as Mfg-1 and Mfg-2, constructed in 1987 and 1986, respectively, with a maximum throughput of 5.82 and 2.74 pounds per

hour, respectively, with emissions controlled by three (3) voluntary scrubbers, identified as Scrubber #3, Scrubber #4, and Scrubber #7, and exhausting to stacks S-11 and S-12.

(f) One (1) tin sulfate manufacturing line in the R&D Department, identified as Mfg-3, constructed in 1991, with a maximum throughput of 2.74 pounds per hour, with emissions controlled by one (1) voluntary scrubber, identified as Scrubber #5, and exhausting to stack S-13.

(g) One (1) tin sulfate manufacturing line, identified as Mfg-4, constructed in 2006, with a maximum throughput of 13.7 pounds per hour, with emissions controlled by one (1) voluntary scrubber, identified as Scrubber #7, and exhausting to stack S-14.

(h) Emission units with PM and PM_{10} emissions less than five (5) tons per year, SO_2, NOx, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) of a ton per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:

(1) One (1) brushing chamber, identified as BC-1, constructed in 1992, with a maximum throughput of 0.587 pounds per hour, with emissions controlled by one (1) baghouse, identified as Baghouse 3, and exhausting to vent V-14 which discharges inside of the building.

(i) One (1) paint booth, identified as PB-1, constructed in 1992, coating fiber and plastic drums and cylinders, with particulate emissions controlled by dry filters, and exhausting to stack S-9 and one (1) cylinder dryer, identified as CD-1, constructed in 1987, with a maximum capacity of 0.514 gallons per hour of paint and mineral spirits, equipped with a natural gas combustion source with a maximum capacity of 4 million British thermal units per hour, with emissions controlled by one (1) afterburner, identified as Afterburner 1, and exhausting to vent V-10.

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

No unpermitted equipment is operating at this source during this review process.

Emission Units and Pollution Control Equipment Removed From the Source

(a) One rotary dryer, removed in 2006, identified as RD-6, constructed in 1990, with a maximum throughput of 135.83 pounds per hour, equipped with a natural gas combustion source with a maximum capacity of 0.75 million British thermal units per hour.

Insignificant Activities

The source consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

(a) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:

(1) One (1) natural gas-fired boiler, identified as B-1, constructed in 1990, with a maximum capacity of 3.5 million British thermal units per hour, and exhausting to stack S-1.

(2) One (1) natural gas-fired boiler, identified as B-2, constructed in 1992, with a maximum capacity of 3.5 million British thermal units per hour, and exhausting to stack S-2.

(3) One (1) natural gas-fired boiler, identified as B-3, constructed in 1995, with a maximum capacity of 2.5 million British thermal units per hour, and exhausting to stack S-3.

(4) One (1) natural gas-fired oil heater, identified as B-4, constructed in 1988, with a maximum capacity of 0.4 million British thermal units per hour, and exhausting to stack S-4.

(5) Eighteen (18) gas unit heaters.

(6) Five (5) natural gas-fired sludge drying tanks, identified as T-1 through T-5, each constructed in 2005, each exhausting water vapor to stacks S-19A through S-23A, respectively, and each equipped with two (2) burners rated at 0.3 million British thermal units per hour that exhaust to stacks S-19 through S-23, respectively.

(b) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughput less than 12,000 gallons: one (1) diesel storage tank.

Existing Approvals

Since the issuance of the FESOP (F 089-15312-00094) on 11/25/2002, the source has constructed or has been operating under the following approvals as well:

(a) Significant Permit Revision F 089-16196-00094, issued on May 10, 2002.

(b) First Administrative Amendment F 089-19741-00094, issued on December 10, 2004.

(c) Second Administrative Amendment F 089-21543-00094, issued on July 29, 2005.

(d) Significant Permit Revision F 089-22110-00094, issued on March 27, 2006.

(e) Third Administrative Amendment F 089-23123-00094, issued on June 20, 2006.

(f) Minor Permit Modification F 089-23504-00094, issued on December 4, 2006.

(g) Fourth Administrative Amendment F 089-24587-00094, issued on May 10, 2007.

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.

Air Pollution Control Justification as an Integral part of the Process

The applicant has submitted the following justification such that Baghouse 1, Baghouse 2, Baghouse 4, and Baghouse 5 control emissions from the six rotary dryers be considered an integral part of the rotary dryers. The four baghouses operate at all times that the rotary dryers are in operation and the primary purpose of the baghouses is for product capture. Wet product enters the rotary dryers where it is dried. The product stream exiting the rotary dryers is in powder form. The whole product stream is transferred pneumatically to the baghouses which separates the air from the product. The product exiting the baghouses is collected and sold. Baghouse 1 captures product from RD-1, RD-2; Baghouse 2 captures product from RD-5; Baghouse 4 captures product from RD-3; and Baghouse 5 captures water from RD-4. All of the product sold by the source is captured by the baghouses. Without the baghouses, there would be no product for the source to sell.

IDEM, OAQ has evaluated the justifications originally expounded upon in F 089-15312-00094 and agreed that Baghouse 1, Baghouse 2, Baghouse 3, and Baghouse 5 will be considered as an integral part of the rotary dryers. Therefore, the permitting level will be determined using the potential to emit after the four baghouses. Operating conditions in the proposed permit will specify that Baghouse 1, Baghouse 2, Baghouse 3, and Baghouse 5 shall operate at all times when the rotary dryers are in operation.

Enforcement Issue

There are no enforcement actions pending.

Stack Summary

Stack ID	Operation	Height (feet)	Diameter (feet)	Flow Rate (acfm)	Temperature (^{0}F)
S1	**Boiler**	**20**	**2 20”**	**3,365**	**350**
S2	**Boiler**	**20**	**2 20”**	**3,365**	**350**
S3	**Boiler**	**20**	**2 20”**	**2,404**	**350**
S4	**Gas Oil Htr.**	**15**	**8”**	**385**	**350**
S5	**Rotary Dryer**	**30**	**16”**	**2,163**	**350**
S6	**Rotary Dryer**	**30**	**32”**	**2,163**	**350**
S7	**Fusion Reactor #1**	**25**	**12”**	**1,394**	**NA**
S8	**Fusion Reactor #2**	**25**	**12”**	**1,596**	**NA**
S9	**Pain Booth/ Cleanup**	**20**	**12”**	**3,846**	**350**
S10	**Cylinder Dryer**	**NA**	**NA**	**3,846**	**350**
S11	**Tin Chloride Manufacturing (Emergency use only)**	**UK**	**UK**	**NA**	**NA**
S12	**Tin Chloride Manufacturing**	**UK**	**UK**	**NA**	**NA**
S13	**R&D**	**UK**	**UK**	**NA**	**NA**
S14	**Tin Sulfate Manufacturing Line**	**25**	**6"**	**1442**	**350**
S15	**Rotary Dryer**	**30**	**16"**	**1442**	**350**
S16	**Rotary Dryer**	**30**	**16"**	**1442**	**350**
S17	**Fusion Reactor**	**25**	**12"**	**2990**	**230**

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Lake County.

Pollutant	Status
PM_{10}	Attainment
$PM_{2.5}$	Nonattainment
SO_2	Attainment
NOx	Attainment
8-hour Ozone	Nonattainment
CO	Attainment
Lead	Attainment

(a) U.S. EPA in Federal Register Notice 70 FR 943 dated January 5, 2005 has designated Lake County as nonattainment for $PM_{2.5}$. On March 7, 2005 the Indiana Attorney General's Office on behalf of IDEM filed a law suit with the Court of Appeals for the District of Columbia Circuit challenging U.S. EPA's designation of non-attainment areas without sufficient data. However, in order to ensure that sources are not potentially liable for violation of the Clean Air Act, the OAQ is following the U.S. EPA's guidance to regulate PM_{10} emissions as a surrogate for $PM_{2.5}$ emissions pursuant to the Non-attainment New Source Review requirements. See the State Rule Applicability – Entire Source section.

(b) On December 22, 2006 the United States Court of Appeals, District of Columbia issued a decision which served to partially vacate and remand the U.S. EPA's final rule for implementation of the eight-hour National Ambient Air quality Standard for ozone. *South Coast Air Quality Mgmt. Dist. v. EPA*, 472 F.3d 882 (D.C. Cir., December 22, 2006), *rehearing denied* 2007 U.S. App. LEXIS 13748 (D.C. Cir., June 8, 2007). The U.S. EPA has instructed IDEM to issue permits in accordance with its interpretation of the *South Coast* decision as follows: Gary-Lake-Porter County was previously designated as a severe non-attainment area prior to revocation of the one-hour ozone standard, therefore, pursuant to the anti-backsliding provisions of the Clean Air Act, any new or existing source must be subject to the major source applicability cut-offs and offset ratios under the area's previous one-hour standard designation. This means that a source must achieve the Lowest Achievable Emission Rate (LAER) if it exceeds 25 tons per year of VOC emissions and must offset any increase in VOC emissions by a decrease of 1.3 times that amount.

(c) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NOx emissions are considered when evaluating the rule applicability relating to ozone standards. Lake County has been designated as nonattainment for the 8-hour ozone standard. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Emission Offset, 326 IAC 2-3. See the State Rule Applicability – Entire Source section.

(d) Lake 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. See the State Rule Applicability – Entire Source section.

(e) Fugitive Emissions
Since this type of operation is one of the twenty-eight listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Actual Emissions

The following table shows the actual emissions from the source. This information reflects the 2002 OAQ emission data.

Pollutant	Actual Emissions (tons/year)
PM	30
PM_{10}	30
SO_2	0
VOC	4
CO	6
NO_x	7
HAP (specify)	Unknown

Potential to Emit After Issuance

The source has opted to remain a FESOP source. The table below summarizes the potential to emit, reflecting all limits of the emission units. Any control equipment is considered enforceable only after issuance of this FESOP and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

Process/emission unit	PM/PM_{10} (tons/year)	SO_2 (tons/year)	VOC (tons/year)	CO (tons/year)	NO_x (tons/year)	HAPs (tons/year)
Rotary Dryer 1 and 2	16.4	0.0	0.0	0.0	0.0	0.0
Rotary Dryer 3	7.8	0.0	0.0	0.0	0.0	0.0
Rotary Dryer 4	7.8	0.0	0.0	0.0	0.0	0.0
Rotary Dryer 5	16.1	0.0	0.0	0.0	0.0	0.0
Fusion Reactor 1	3.9	0.0	0.0	0.0	0.0	0.02
Fusion Reactor 2	3.9	0.0	0.0	0.0	0.0	0.02
Cylinder Dryer and Paint Booth	3.74	0.0	18.75	0.0	0.0	1.28
Brushing Chamber	2.32	0.0	0.0	0.0	0.0	0.00
Manufacturing Lines 1	15.76	0.0	0.0	0.0	0.0	0.01
Manufacturing Lines 2	9.02	0.0	0.0	0.0	0.0	0.01
Manufacturing Lines 3	9.02	0.0	0.0	0.0	0.0	0.01
Manufacturing Lines 4	3.02	0.0	0.0	0.0	0.0	0.01
Boilors 1-3	0.3	0.0	0.3	3.5	4.1	0.83
Oil Heater and Sludge Drying Tanks	Negligible	Negligible	Negligible	0.70	0.66	0.16
Significant Combustion	0.0	0.0	0.3	4.0	4.8	0.90
Total Emissions	99.08	Negligible	19.66	8.2	9.56	Single < 10 Combined < 25

(a) This existing stationary source is not major for PSD because the emissions of all attainment criteria pollutant and PM, are less than one hundred (<100) tons per year, and is one of the twenty-eight (28) listed source categories.

(b) This existing stationary source is not major for the Emission Offset for ozone because the emissions of the nonattainment pollutants, VOC and NOx, are less than twenty five (<25) tons per year and one hundred (100) tons per year, respectively.

(c) This existing stationary source is not major for Nonattainment NSR because the emissions of PM_{10} (surrogate of $PM_{2.5}$) are less than one hundred (<100) tons per year.

(d) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2 or 326 IAC 2-3, fugitive emissions are counted toward the determination of PSD and Emission Offset applicability.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

(b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14 incorporates 40 CFR Part 61 and 326 IAC 20 incorporates 40 CFR Part 63) included in this permit renewal.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)
Revisions to 326 IAC (Emission Reporting) became effective March 27, 2004. The Permittee is no longer required to submit an emission statement; therefore, the emission statement is removed from the permit.

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

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period.

(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.

326 IAC 2-3 (Emission Offset)
The uncontolled emissions for VOC and NO_X are less than twenty five (<25) tons per year, respectivly; therefore, it is not a major source for emission offset.

326 IAC 2-2 (Prevention of Significant Deterioration)

The uncontrolled PM and PM10 emissions are more than 100 tons per year. Pursuant to SPM F 089-22110-00094 and revised by F 089-24373-00094 the following limits have been established.

Process/emission unit	**PM/PM_{10} (lb/hr)**
Rotary Dryer 1 and 2	3.74
Rotary Dryer 3	1.78
Rotary Dryer 4	1.78
Rotary Dryer 5	3.68
Fusion Reactor 1	0.103
Fusion Reactor 2	0.103
Brushing Chamber	0.53
Manufacturing Line 1	3.6
Manufacturing Line 2	2.01
Manufacturing Line 3	2.01
Manufacturing Line 4	0.689
Total Emissions	20.03

Compliance with the above limits, combined with the potential to emit PM/PM10 from other emission units at the source, shall limit the PM/PM10 from the entire source to less than one hundred (100) tons per twelve (12) consecutive month period and render 326-IAC 2-2 not applicable.

326 IAC 6.8-10 Lake County: Fugitive Particulate Matter

The facilities and operations at the source do not have the potential to emit five (5) tons per year of fugitive emissions and is not one of the listed sources in 326 IAC 6.8-10(a)(2). Therefore 326 IAC 6.8-10 does not apply.

326 IAC 2-8-4 (FESOP)

Pursuant to this rule, the amount of PM10 shall be limited to less than one hundred (100) tons per year. The PM10 limit established in 326 IAC 2-2 will also satisfy the requirements for FESOP. Therefore, the requirements of 326 IAC2-7, do not apply.

State Rule Applicability – Individual Facilaties

If 326 IAC 2-4.1 does not apply:
Two fusion reactors and tin sulfate manufacturing lines were constructed after 1997, the applicabililty date of this rule; and each will emit less than ten (10) tons per year of a single HAP and less than twenty five (25) tons per year of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply to these emission units.

326 IAC 6.8-1-2 (Particulate Emission Limitations)
Pursuant to 326 IAC 6.8-1-2(a) the discharge of PM from the following emission units shall not exceed 0.03 grain per dry standard cubic foot (dscf):

1. Rotary dryers one through five (RD1 - RD 5)
2. Fusion reactors (FR-1 and FR-2)
3. Paint booth (PB-1) and cylinder dryer (CD-1)
4. Manufacturing lines (MFG1, MFG2, MFG3, and MFG4)
5. Brushing Chamber (BC-1)

The information provided by the source concerning the emission units indicate that the emission units have the ability to comply with this requirement.

Comparison of Emissions allowed by 326 IAC 6-3-2 and 326 IAC 6.8-1-2

Pursuant to 326 IAC 6-3-2 the PM emissions from the emission units listed in the table below shall not exceed the PM emission limits in said table.

Emission Units	Process Weight Rate (ton/hr)	Allowable Emissions (lb/hr)
RD- 1 (Baghouse #1, S-5)	0.099	0.817
RD-2 (Baghouse #1, S-5)	0.099	0.871
RD-3 (Baghouse 4)	0.068	0.677
RD-4 (Baghouse 5)	0.068	0.677
RD-5 (Baghouse 2)	0.068	0.677
FR-1 (Scrubber 1)	0.090	0.817
FR-2 (Scrubber 2)	0.300	1.830
MFG-1 (Scrubber 3)	0.003	0.084
MFG-2 (Scrubber 4)	0.001	0.010
MFG-3 (Scrubber 5)	0.001	0.010
MFG-4 (Scrubber 7)	0.007	0.148

Pursuant to 326 IAC 6.8-1-2 (formerly 326 IAC 6-1-2), particulate matter (PM) emissions from the rotary dryers (RD-1, RD-2, RD-3, RD-4, and RD-5), fusion reactors (FR-1 and FR-2), manufacturing lines (Mfg-1, Mfg-2, Mfg-3**,** and Mfg-4), and brushing chamber shall be limited to 0.03 grain per dry standard cubic foot. This limitation is equivalent to the following emissions:

Unit	PM Limit (lb/hr)
RD-1 and RD-2 Combined (Baghouse #1, S-5)	4.16
RD-3 (Baghouse #4, S-15)	2.06
RD-4 (Baghouse #5, S-16)	2.06
RD-5 (Baghouse #6, S-6)	4.5
FR-1 (Scrubber #1, S-7)	0.103
FR-2 (Scrubber #2, S-8)	0.103
Mfg-1 (Scrubber #3, S-11)	4.37
Mfg-2 (Scrubber #4, S-12)	2.06
Mfg-3 (Scrubber #5, S-13)	2.06
Mfg-4 (Scrubber #6, S-14)	1.03
Brushing Chamber	1.54

In a situation where two rules are applicable, IDEM is required to apply the more stringent of the two. As such, the PM limitation found in 6.8-1-2 will be applied as it is more stringent than the limitations found in 326 IAC 6-3-2.

326 IAC 8-1-6 (New Facilities: General Reduction Requirements)
326 IAC 8-1-6 does not apply to the cylinder dryer (CD-1) even though it was constructed after January 1, 1980 because it has the potential to emit less than twenty-five (25) tons of VOC per year.

326 IAC 8-2-9 (Miscellaneous Metal Coating)
326 IAC 8-2-9 does not apply to the paint booth (PB-1) because the paint booth does not coat metal objects.

326 IAC 8-6 (Organic Solvent Emission Limitations)
326 IAC 8-6 does not apply to the paint booth (PB-1) or cylinder dryer (CD-1) because these units were constructed after January 1, 1980 and the source does not have the potential to emit greater than one hundred (100) tons per year of VOC.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark, and Floyd Counties)
326 IAC 8-7 applies to the source because it has coating facilities, a paint booth (PB-1), which has the potential to emit a total equal to or greater then ten (10) tpy and it is located in Lake County. However, pursuant to 326 IAC 8-7(b), the paint booth (PB-1) is exempt from the emission limit requirements of 326 IAC 8-7-3. Even though the source is exempt from the emission limits in 326 IAC 8-7-3, it must comply with the certification, record keeping, and reporting requirements of 326 IAC 8-7-6.

326 IAC 6.8-1-2(b) (Particulate Emission Limitations)
Pursuant to 326 IAC 6.8-1-2(b)(3) the particulate matter from boilers one (1) through three (3) (B-1, B-2, B3) shall not exceed 0.01 grain per dry standard cubic foot (dscf).

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities)
326 IAC 8-4-3 does not apply to the diesel storage tank because it has a capacity less than 39,000 gallons.

326 IAC 8-9 (Volatile Organic Liquid Storage Vessels)
Pursuant to 326 IAC 8-9, the diesel storage tank is not subject to any specific emission limitations because the capacity of the diesel storage tank is less than 39,000 gallons. However, 326 IAC 8-9-1(b) requires stationary vessels with a capacity of less than 39,000 gallons to comply with the reporting and record keeping provisions of section 6(a) and 6(b).

Testing Requirements

Emission Unit	Control Device	Timeframe for Testing	Pollutant	Frequency of Testing	Limit or Requirement
Rotary Dryer 1 and 2	Baghouse1	180 days after issuance of this permit	PM/PM_{10}	A different Baghouse will be tested every five years.	2.78 lbs/hr
Rotary Dryer 5	Baghouse 2	Within 5 years of testing Baghouse 1.	PM/PM_{10}	A different Baghouse will be tested every five years.	3.0 lbs/hr
Rotary Dryer 3	Baghouse 4	Within 5 years of testing Baghouse 2	PM/PM_{10}	A different Baghouse will be tested every five years.	1.37 lbs/hr
Rotary Dryer 4	Baghouse 5	Within 5 years of testing Baghouse 4.	PM/PM_{10}	A different Baghouse will be tested every five years.	1.37 lbs/hr

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-7-5. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

If the Compliance Determination Requirements are not sufficient to demonstrate continuous compliance, they will be supplemented with Compliance Monitoring Requirements, also in Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

The compliance monitoring requirements applicable to this source are as follows:

Emission Units	Frequency	Parameters
Paint booth, with Stack 9	Daily	Inspections and manometer readings of dry filters.
Paint booth, with Stack 9	Weekly	Observations of the overspray from the stacks, while one or more booths are in operation.
Dry filter for Paint booth	Monthly	Inspect coating emissions from the stack for overspary.

Control	Parameter	Frequency	Range	Excursions and Exceedances
Baghouse 1, 2	Visible Emissions	Daily	Normal-Abnormal	Response Steps
	Water Pressure Drop		3 to 6 inches	
Baghouse 3,4,5	Visible Emissions	Daily	Normal-Abnormal	Response Steps
	Water Pressure Drop		3 to 10 inches	

Control	Parameter	Frequency	Range	Excursions and Exceedances
Scrubber 1	Water Pressure	Daily	0.1-1.0 inches	Response Steps
	Visible Emissions		Normal - Abnormal	
	Flow Rate		50 gallons per minute	
Scrubber 2	Water Pressure	Daily	0.1-1.0 inches	Response Steps
	Visible Emissions		Normal - Abnormal	
	Flow Rate		50 gallons per minute	
Scrubber 3	Water Pressure	Daily	10-20 inches	Response Steps
	Visible Emissions		Normal - Abnormal	
	Flow Rate		60 gallons per minute	
Scrubber 4	Water Pressure	Daily	10-20 inches	Response Steps
	Visible Emissions		Normal - Abnormal	
	Flow Rate		60 gallons per minute	
Scrubber 5	Water Pressure	Daily	5-15 inches	Response Steps
	Visible Emissions		Normal - Abnormal	
	Flow Rate		50 gallons per minute	
Scrubber 7	Water Pressure	Daily	0.1-1.0 inches	Response Steps
	Visible Emissions		Normal - Abnormal	
	Flow Rate		50 gallons per minute	

Recommendation

The staff recommends to the Commissioner that the FESOP 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 March 2, 2007.

Conclusion

The operation of this tin sulfate manufacturing plant shall be subject to the conditions of the attached FESOP Renewal No. F 089-24373-00094.

Appendix A: Emission Calculations

Emission Summery

Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, Indiana 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 6/26/2007

Unlimited Potential Emissions

	PM/PM_{10} (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Nox (tons/yr)	HAPs (tons/yr)
Emission Unit						
Two Fusion Reactors	12.01	0.00	0.00	0.00	0.00	0.07
Tin Chloride Manufacturing Line 1	25.53	0.00	0.00	0.00	0.00	0.14
Tin Chloride Manufacturing Line 2	12.01	0.00	0.00	0.00	0.00	0.07
Tin Sulfate Manufacturing Line 3	12.01	0.00	0.00	0.00	0.00	0.07
Tin Sulfate Manufacturing Line 4	6.00	0.00	0.00	0.00	0.00	0.03
Paint Booth (PB-1)	3.74	0.00	13.34	0.00	0.00	1.28
Cylinder dryer	3.74	0.00	5.72	0.00	0.00	0.00
Rotary Dryers 1 and 2	12.16	0.00	0.00	0.00	0.00	0.00
Rotary Dryer 3	12.16	0.00	0.00	0.00	0.00	0.00
Rotary Dryer 4	6.01	0.00	0.00	0.00	0.00	0.00
Rotary Dryer 5	6.01	0.00	0.00	0.00	0.00	0.00
Significant Activities: Combustion	13.14	0.00	0.30	4.00	4.80	0.90
Brushing Chamber	2.57	0.00	0.00	0.00	0.00	0.00
Boiler 1	0.10	0.00	0.10	1.30	1.50	0.30
Boiler 2	0.10	0.00	0.10	1.30	1.50	0.30
Boiler 3	0.10	0.00	0.10	0.90	1.10	0.23
Oil Heater and Sludge Drying Tanks	Negligible	Negligible	Negligible	0.70	0.83	0.16
Total Emissions	127.39	0.00	19.66	8.20	9.73	3.55

Limited Potential Emission

	PM/PM_{10} (tons/yr)	SO2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Nox (tons/yr)	HAPs (tons/yr)
Emission Unit						
Fusion Reactor 1	0.10	0.00	0.00	0.00	0.00	0.04
Fusion Reactor 2	0.10	0.00	0.00	0.00	0.00	0.04
Tin Chloride Manufacturing Line 1	4.37	0.00	0.00	0.00	0.00	0.07
Tin Chloride Manufacturing Line 2	2.06	0.00	0.00	0.00	0.00	0.03
Tin Sulfate Manufacturing Line 3	2.06	0.00	0.00	0.00	0.00	0.03
Tin Sulfate Manufacturing Line 4	1.03	0.00	0.00	0.00	0.00	0.02
Cylinder Dryer and Paint Booth (PB-1)	3.74	0.00	16.30	0.00	0.00	1.28
Rotary Dryers 1 and 2	4.16	0.00	0.00	0.00	0.00	0.00
Rotary Dryer 3	2.06	0.00	0.00	0.00	0.00	0.00
Rotary Dryer 4	2.06	0.00	0.00	0.00	0.00	0.00
Rotary Dryer 5	4.50	0.00	0.00	0.00	0.00	0.00
Significant Activities: Combustion	0.00	0.00	0.30	4.00	4.80	0.90
Brushing Chamber	2.32	0.00	0.00	0.00	0.00	0.00
Boiler 1	0.10	0.00	0.10	1.30	1.50	0.30
Boiler 2	0.10	0.00	0.10	1.30	1.50	0.30
Boiler 3	0.10	0.00	0.10	0.90	1.10	0.23
Drying Tanks	Negligible	Negligible	Negligible	0.70	0.66	0.16
Total Emissions	28.87	0.00	16.90	8.20	9.56	3.40

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100

Company Name: **Mason Corporation**
Address City IN Zip: **1049 U.S. Highway 41, Schererville, IN 46375**
Permit Number: **089-24373-00094**
Reviewer: **Zach Miller**
Date: **6/26/2007**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
11.6	101.6

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.10	0.39	0.03	5.08	0.28	4.27

**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 (SUPPLEMENT D 3/98)
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: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: 089-24373-00094
Plt ID: 089-00094
Reviewer: Zach Miller
Date: 6/26/2007

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	1.067E-04	6.097E-05	3.811E-03	9.145E-02	1.727E-04	9.561E-02

9.588E-02

HAPs - Metals

	Lead	Cadmium	Chromium	Manganese	Nickel	
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	2.540E-05	5.589E-05	7.113E-05	1.931E-05	1.067E-04	2.784E-04

Methodology is the same as page 1.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	147.98
PM_{10}	147.98
SO_2	0.01
VOC	16.94
CO	8.20
NO_x	9.73

HAPs	tons/year
Chlorine	< 10.0
Ethylene Glycol	< 10.0
Benzene	< 10.0
Dichlorobenzene	< 10.0
Formaldehyde	< 10.0
Hexane	< 10.0
Toluene	< 10.0
Lead	< 10.0
Cadmium	< 10.0
Chromium	< 10.0
Manganese	< 10.0
Nickel	< 10.0
Total Emissions	< 25.0

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) PM_{10} is equal to or greater than 100 tons per year. The source is subject to the provisions of 326 IAC 2-7. However, the source has agreed to limit their PM10 emissions to less than Title V levels, therefore the source will be issued a FESOP.

(b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants are less than 100 tons per year.

(c) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP is less than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is less than twenty-five (25) tons per year.

Appendix A: Emission Calculations
Particulate Emissions from the Rotary Dryers
Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 6/26/2007

Particulate Emissions from the Five Rotary Dryers

Unit	Control Device	Air Flow Rate (acfm)	Grain Loading (grain/ascf)	Control Efficiency (%)	Uncontrolled PM Emissions (ton/yr)	Controlled PM Emissions (ton/yr)
RD-1 and RD-2	Baghouse 1	16,200	0.02	99.00%	1216.39	12.16
RD-3	Baghouse 4	8000	0.02	99.00%	600.69	6.01
RD-4	Baghouse 5	8000	0.02	99.00%	600.69	6.01
RD-5	Baghouse 2	17,500	0.02	99.00%	1314.00	13.14
Total Emissions					3731.76	37.32

Methodology

Uncontrolled PM Emissions (ton/yr) = Air Flow Rate (acfm) * Grain Loading (gr/ascf) / 7000 (gr/lb) * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)/(1 -Control Efficiency)
Controlled PM Emissions (ton/yr) =Air Flow Rate (acfm) * Grain Loading (gr/ascf) / 7000 (gr/lb) * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emission Calculations
Emissions from the Fusion Reactors
Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 6/26/2007

Particulate Emissions from the Two Fusion Reactors

Unit	Control Device	Air Flow Rate (acfm)	Grain Loading (gr/dscf)	Control Efficiency (%)	Uncontrolled PM Emissions (ton/yr)	Controlled PM Emissions (ton/yr)
FR-1	Scrubber 1	4,000	0.02	50.00%	6.01	3.00
FR-2	Scrubber 2	4,000	0.02	50.00%	6.01	3.00
Total Emissions					12.01	6.00

Methodology

Uncontrolled PM Emissions (ton/yr) = Air Flow Rate (acfm) * Grain Loading (gr/ascf) / 7000 (gr/lb) * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton) / (1-Control Efficiency)
Controlled PM Emissions (ton/yr) = Air Flow Rate (acfm) * Grain Loading (gr/ascf) / 7000 (gr/lb) * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Chlorine Emissions from the Two Fusion Reactors

Unit	Control Device	Air Flow Rate (acfm)	Exhaust Density (lb/dscf)	Concentration (ppm)	Control Efficiency (%)	Uncontrolled Chlorine Emissions (ton/yr)	Controlled Chlorine Emissions (ton/yr)
FR-1	Scrubber 1	4,000	0.08	0.2	50.00%	0.03	0.02
FR-2	Scrubber 2	4,000	0.08	0.2	50.00%	0.03	0.02
Total Emissions						0.07	0.04

Methodology

Uncontrolled Chlorine Emissions (ton/yr) = Air Flow Rate (acfm) * Exhaust Density (lb/ascf) * Concentration (ppm) / 10^6 * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)/(1-Control Efficiency)
Controlled Chlorine Emissions (ton/yr) = Air Flow Rate (acfm) * Exhaust Density (lb/ascf) * Concentration (ppm) / 10^6 * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emission Calculations
Emissions from the Cylinder Dryer and Paint Booth
Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 6/26/2007

VOC Emissions from the Paint Booth and Cylinder Dryer

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
Paint	8.84	41.50%	0.08%	41.42%	0.00%	42.60%	0.04400	15.000	3.66	3.66	2.42	58.00	10.58	3.74	8.60	75%

Methodology

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)
Total = Worst Coating + Sum of all solvents used

Paint HAP Emissions from Paint Booth

Material	Density (lb/gal)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Weight % Ethylene Glycol	Ethylene Glycol Emissions (ton/yr)
Paint	8.84	0.0440	15.00	5.00%	1.28

NOTE: It is assumed that 70% of the VOC is emitted by the paint booth and 30% is emitted by the cylinder dryer.

Source Calculations: Cl2 emissions from all emission units = 9,284 lbs/yr or 4.692 tons/yr

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

Mineral Spirit VOC Emissions from the Cylinder Dryer

Unit	Coating	Solids Mass Fraction	Material Density (lb/gal)	Maximum Capacity (gal/yr)	Percent Emitted (%)	Uncontrolled VOC Emissions (ton/yr)
CD-1	Mineral Spirits	1.000	6.35	6,000	30.00%	5.72
PB-1	Mineral Spirits	1.000	6.35	6,000	70.00%	13.34

Methodology

Uncontrolled VOC Emissions (ton/yr) = Solids Mass Fraction * Material Density (lb/gal) *
Maximum Capacity (gal/yr) * Percent Emitted (%) / 2000 (lb/ton)

Appendix A: Emission Calculations
Emissions from the Brushing Chamber
Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 6/26/2007

Particulate Emissions from the Brushing Chamber

Unit	Density of Solids (lb/gal)	Maximum Number of Drums Removed per Year	Drum Capacity (gal)	Control Efficiency (%)	Uncontrolled PM Emissions (ton/yr)	Controlled PM Emissions (ton/yr)
BC-1	8.42	10	55.00	90.00%	2.57	0.26

Methodology

Uncontrolled PM Emissions (ton/yr) = Density of Solids (lb/gal) * Number of Drums * Drum Capacity / 2000 (lb/ton)/ (Control Efficiency)
Controlled PM Emissions (ton/yr) = uncontrolled emissions* (1- control efficiency)

Appendix A: Emission Calculations
Emissions from the Manufacturing Lines
Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 6/26/2007

Particulate Emissions from the Manufacturing Lines

Unit	Grain Loading (gr/ascf)	Air Flow Rate (acfm)	Control Efficiency (%)	Uncontrolled PM Emissions (ton/yr)	Controlled PM Emissions (ton/yr)
Mfg -1	0.02	17,000	50%	25.53	12.76
Mfg -2	0.02	8,000	50%	12.01	6.01
Mfg -3	0.02	8,000	50%	12.01	6.01
Mfg -4	0.02	4,000	50%	6.01	3.00
Total Emissions				55.56	27.78

Methodology

Uncontrolled PM Emissions (ton/yr) = Air Flow Rate (acfm) * Grain Loading (gr/ascf) / 7000 (gr/lb) * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)/ (1-Control Efficiency)
Controlled PM Emissions (ton/yr) = Air Flow Rate (acfm) * Grain Loading (gr/ascf) / 7000 (gr/lb) * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Chlorine Emissions from the Manufacturing Lines

Unit	Air Flow Rate (acfm)	Exhaust Density (lb/dscf)	Concentration (ppm)	Control Efficiency (%)	Uncontrolled Chlorine Emissions (ton/yr)	Controlled Chlorine Emissions (ton/yr)
Mfg -1	17,000	0.08	0.2	50.00%	0.14	0.07
Mfg -2	8,000	0.08	0.2	50.00%	0.07	0.03
Mfg -3	8,000	0.08	0.2	50.00%	0.07	0.03
Mfg -4	4,000	0.08	0.2	50.00%	0.03	0.02
Total Emissions					0.32	0.15

Methodology

Uncontrolled Chlorine Emissions (ton/yr) = Air Flow Rate (acfm) * Exhaust Density (lb/ascf) * Concentration (ppm) / 10^6 * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)/ (1 - Control Efficiency)
Controlled Chlorine Emissions (ton/yr) = Air Flow Rate (acfm) * Exhaust Density (lb/ascf) * Concentration (ppm) / 10^6 * 60 (min/hr) * 8760 (hr/yr) / 2000 (lb/ton)

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Boiler One
MM BTU/HR <100

Company Name: **Mason Corporation**
Address City IN Zip: **1049 U.S. Highway 41, Schererville, IN 46375**
Permit Number: **F 089-24373-00094**
Reviewer: **Zach Miller**
Date: **7/2/2007**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.5	30.7

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	1.5	0.1	1.3

*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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 8 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Boiler One
MM BTU/HR <100
HAPs Emissions

Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 7/2/2007

	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	3.219E-05	1.840E-05	1.150E-03	2.759E-02	5.212E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
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	7.665E-06	1.686E-05	2.146E-05	5.825E-06	3.219E-05

Methodology is the same as page 7.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Boiler Two
MM BTU/HR <100

Company Name: **Mason Corporation**
Address City IN Zip: **1049 U.S. Highway 41, Schererville, IN 46375**
Permit Number: **F 089-24373-00094**
Reviewer: **Zach Miller**
Date: **7/2/2007**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
3.5	30.7

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	1.5	0.1	1.3

*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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 10 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Boiler Two
MM BTU/HR <100
HAPs Emissions

Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 7/2/2007

	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	3.219E-05	1.840E-05	1.150E-03	2.759E-02	5.212E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
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	7.665E-06	1.686E-05	2.146E-05	5.825E-06	3.219E-05

Methodology is the same as page 9.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Boilor Three
MM BTU/HR <100

Company Name: **Mason Corporation**
Address City IN Zip: **1049 U.S. Highway 41, Schererville, IN 46375**
Permit Number: **F 089-24373-00094**
Reviewer: **Zach Miller**
Date: **7/2/2007**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
2.5	21.9

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.0	0.1	0.0	1.1	0.1	0.9

*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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 12 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Boilor Three
MM BTU/HR <100
HAPs Emissions

Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 7/2/2007

	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	2.300E-05	1.314E-05	8.213E-04	1.971E-02	3.723E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
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	5.475E-06	1.205E-05	1.533E-05	4.161E-06	2.300E-05

Methodology is the same as page 11.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Oil Heater
MM BTU/HR <100

Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 7/2/2007

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
0.4	3.5

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.003	0.013	0.001	0.175	0.010	0.147

*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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 14 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Oil Heater
MM BTU/HR <100
HAPs Emissions

Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 7/2/2007

	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	3.679E-06	2.102E-06	1.314E-04	3.154E-03	5.957E-06

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
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	8.760E-07	1.927E-06	2.453E-06	6.658E-07	3.679E-06

Methodology is the same as page 13.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
Combustion Sources
MM BTU/HR <100

Company Name: **Mason Corporation**
Address City IN Zip: **1049 U.S. Highway 41, Schererville, IN 46375**
Permit Number: **F 089-24373-00094**
Reviewer: **Zach Miller**
Date: **6/26/2007**

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
10.9	95.1

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF		7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	*	*	0.0	4.8	0.3	4.0

*PM included in process operations.
**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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 16 of TSD Appendix for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only

MM BTU/HR <100
HAPs Emissions
Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 6/27/2007

	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	9.989E-05	5.708E-05	3.568E-03	8.562E-02	1.617E-04

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
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	2.378E-05	5.232E-05	6.659E-05	1.808E-05	9.989E-05

Methodology is the same as page 15.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Sludge Drying Tanks
MM BTU/HR <100

Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN 46375
Permit Number: F 089-15312-00094
Reviewer: Zach Miller
Date: 8/1/2007

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
1.5	13.1

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission in tons/yr	0.012	0.050	0.004	0.657	0.036	0.552

*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 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 20 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only: Sludge Drying Tanks
MM BTU/HR <100
HAPs Emissions
Company Name: Mason Corporation
Address City IN Zip: 1049 U.S. Highway 41, Schererville, IN
Permit Number: F 089-24373-00094
Reviewer: Zach Miller
Date: 8/1/2007

	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	1.380E-05	7.884E-06	4.928E-04	1.183E-02	2.234E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
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	3.285E-06	7.227E-06	9.198E-06	2.497E-06	1.380E-05

Methodology is the same as page 19.

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.

Cl2 Emissions:

Uncontrolled Cl2 emissions = 9284 lbs/yr or 4.692 tons/yr

Calculations were verified by IDEM.