



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: May 4, 2009
RE: Essex Group, Inc. / 183-25956-00016
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, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

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

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

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

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

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

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

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

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

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

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

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



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Essex Group, Inc. - Metals Processing Center
2601 South 600 East
Columbia City, Indiana 46725**

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

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

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

Operation Permit No.: T183-25956-00016	
Issued by:  Chrystal A. Wagner, Section Chief Permits Branch Office of Air Quality	Issuance Date: May 4, 2009 Expiration Date: May 4, 2014

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SECTION A SOURCE SUMMARY

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

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

The Permittee owns and operates a stationary secondary copper plant that produces copper rods and bars.

Source Address:	2601 South 600 East, Columbia City, Indiana 46725
Mailing Address:	2601 South 600 East, Columbia City, Indiana 46725
General Source Phone Number:	(260) 248-5553
SIC Code:	3357, 3351
County Location:	Whitley
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD 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 2-7-4(c)(3)][326 IAC 2-7-5(15)]

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

Rotary Furnace

- (a) One (1) natural gas-fired rotary furnace, identified as South Rotary Furnace (P-1), with a maximum heat input capacity of 22 MMBtu/hr and a maximum throughput capacity of 21,900 tons of copper per year, using a baghouse as particulate control, constructed in 1985, and exhausting to stack S-1.

Copper Rod and Bar Manufacturing

- (b) One (1) copper rod and bar manufacturing process, identified as 055 West Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity of 15 tons of copper per hour, constructed in 1985, exhausting to stack S-2, and consisting of:
- (1) one (1) natural gas-fired vertical melt furnace, with a maximum heat input capacity of 24 MMBtu/hr,
 - (2) one (1) holding furnace, with a maximum heat input capacity of 2.0 MMBtu/hr,
 - (3) one (1) tundish, with a maximum heat input capacity of 1.5 MMBtu/hr, and
 - (4) various ancillary launders, with an aggregate maximum heat input capacity of 2.5 MMBtu/hr.
- (c) One (1) copper rod and bar manufacturing process, identified as 055 East Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity

of 15 tons of copper per hour, constructed in 1994, exhausting to stack S-3, and consisting of:

- (1) one (1) natural gas-fired vertical melt furnace, with a maximum heat input capacity of 24 MMBtu/hr,
- (2) one (1) holding furnace, with a maximum heat input capacity of 2.0 MMBtu/hr,
- (3) one (1) tundish, with a maximum heat input capacity of 1.5 MMBtu/hr, and
- (4) various ancillary launders, with an aggregate maximum heat input capacity of 2.5 MMBtu/hr.

055 East Alcohol Quench Process

- (d) One (1) alcohol quench system, identified as 055 East Line Quench System (P-6), pumping a quench solution through ejectors into tubes, constructed in 1994. Emissions are controlled by the 055 West Line holding furnace, exhausting to stack S-2, or the 055 East Line holding furnace, exhausting to stack S-3.
- (e) One (1) mill emulsion system, identified as 055 East Line Mill Emulsion System (P-6), pumping a mill emulsion solution through sprays in an enclosed rolling mill stand area, constructed in 1994, and exhausting into the building or outside.

055 West Alcohol Quench Process

- (f) One (1) alcohol quench system, identified as 055 West Line Quench System (P-5), pumping a quench solution through ejectors into tubes, constructed in 1985. Emissions are controlled by the 055 West Line holding furnace, exhausting to stack S-2, or the 055 East Line holding furnace, exhausting to stack S-3.
- (g) One (1) mill emulsion system, identified as 055 West Line Mill Emulsion System (P-5), pumping a mill emulsion solution through sprays in an enclosed rolling mill stand area, constructed in 1985, and exhausting into the building or outside.

Process Tanks

- (h) One (1) mill emulsion process tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 East Line Mill Emulsion System, constructed in 1994.
- (i) One (1) quench solution process tank, with a maximum capacity of 7500 gallons, part of the 055 East Line Quench System, constructed in 1994.
- (j) One (1) mill emulsion process tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 West Line Mill Emulsion System, constructed in 1985.
- (k) One (1) quench solution process tank, with a maximum capacity of 7500 gallons, part of the 055 West Line Quench System, constructed in 1985.

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

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

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, and welding equipment. [326 IAC 6-3-2]
- (b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume. [326 IAC 6-3-2]
- (c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-5]
- (d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

- (a) This permit, T183-25956-00016, 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 or of permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control).
- (b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

- (a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or
- (b) the emission unit to which the condition pertains permanently ceases operation.

B.4 Enforceability [326 IAC 2-7-7]

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

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

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

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

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

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

- (a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34). Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1. When furnishing copies of requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

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

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by the "responsible official" of truth, accuracy, and completeness. This certification shall state that, 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) A "responsible official" is defined at 326 IAC 2-7-1(34).

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

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

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

and

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

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

The submittal by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(1),(3) and (13)][326 IAC 2-7-6(1) and (6)][326 IAC 1-6-3]

- (a) 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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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.11 Emergency Provisions [326 IAC 2-7-16]

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

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

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

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

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

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

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

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

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

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

- (a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided

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

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

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

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

- (a) All terms and conditions of permits established prior to T183-25956-00016 and issued pursuant to permitting programs approved into the state implementation plan have been either:

- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit, except for permits issued pursuant to Title IV of the Clean Air Act and 326 IAC 21 (Acid Deposition Control)

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

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

B.15 Deviations from Permit Requirements and Conditions [326 IAC 2-7-5(3)(C)(ii)]

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

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

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.16 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-5(6)(C)] The notification by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

- (1) That this permit contains a material mistake.
- (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.

- (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]
- (c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.17 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

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

Request for renewal shall be submitted to:

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

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

B.18 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12][40 CFR 72]

- (a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.
- (b) Pursuant to 326 IAC 2-7-11(b) and 326 IAC 2-7-12(a), administrative Part 70 operating permit amendments and permit modifications for purposes of the acid rain portion of a Part 70 permit shall be governed by regulations promulgated under Title IV of the Clean Air Act. [40 CFR 72]

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

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

Any such application shall be certified by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.19 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

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

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

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

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;
- (3) The changes do not result in emissions which exceed the limitations provided in this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

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

and

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

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

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

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

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

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

- (c) Emission Trades [326 IAC 2-7-20(c)]

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

The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ, or U.S. EPA is required.
- (e) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.
- (f) This condition does not apply to emission trades of SO₂ or NO_x under 326 IAC 21 or 326 IAC 10-4.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.22 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

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

B.23 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

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

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

The application which shall be submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

B.24 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

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

B.25 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

C.2 Opacity [326 IAC 5-1]

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

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

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

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

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

The Permittee shall not operate an incinerator 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). 326 IAC 6-4-2(4) is not federally enforceable.

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

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

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

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

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

All required notifications shall be submitted to:

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

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

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1, emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and Renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Licensed Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Licensed Asbestos inspector is not federally enforceable.

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

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

- (a) 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

Compliance Requirements [326 IAC 2-1.1-11]

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

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

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

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

Unless otherwise specified in this permit, 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

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

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

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

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

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

within ninety (90) days after the date of issuance of this permit.

The ERP does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

- (c) If the ERP is disapproved by IDEM, OAQ, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.

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

C.14 Risk Management Plan [326 IAC 2-7-5(12)][40 CFR 68]

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

C.15 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]

- (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 2-7-5][326 IAC 2-7-6]

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of 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 the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.17 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

- (a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), starting in 2004 and every three (3) years thereafter, the Permittee shall submit by July 1 an emission statement covering the previous calendar year. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:
 - (1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);
 - (2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(32) ("Regulated pollutant, which is used only for purposes of Section 19 of this rule") from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

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

C.18 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. 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.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. 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 the "responsible official" as defined by 326 IAC 2-7-1(34).
- (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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).
- (e) 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.20 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.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Rotary Furnace

- (a) One (1) natural gas-fired rotary furnace, identified as South Rotary Furnace (P-1), with a maximum heat input capacity of 22 MMBtu/hr and a maximum throughput capacity of 21,900 tons of copper per year, using a baghouse as particulate control, constructed in 1985, and exhausting to stack S-1.

Copper Rod and Bar Manufacturing

- (b) One (1) copper rod and bar manufacturing process, identified as 055 West Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity of 15 tons of copper per hour, constructed in 1985, exhausting to stack S-2, and consisting of:

- (1) one (1) natural gas-fired vertical melt furnace, with a maximum heat input capacity of 24 MMBtu/hr,
- (2) one (1) holding furnace, with a maximum heat input capacity of 2.0 MMBtu/hr,
- (3) one (1) tundish, with a maximum heat input capacity of 1.5 MMBtu/hr, and
- (4) various ancillary launders, with an aggregate maximum heat input capacity of 2.5 MMBtu/hr.

- (c) One (1) copper rod and bar manufacturing process, identified as 055 East Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity of 15 tons of copper per hour, constructed in 1994, exhausting to stack S-3, and consisting of:

- (1) one (1) natural gas-fired vertical melt furnace, with a maximum heat input capacity of 24 MMBtu/hr,
- (2) one (1) holding furnace, with a maximum heat input capacity of 2.0 MMBtu/hr,
- (3) one (1) tundish, with a maximum heat input capacity of 1.5 MMBtu/hr, and
- (4) various ancillary launders, with an aggregate maximum heat input capacity of 2.5 MMBtu/hr.

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

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

D.1.1 Prevention of Significant Deterioration (PSD) - Particulate [326 IAC 2-2]

PM/PM₁₀ emissions from the South Rotary Furnace, controlled by a baghouse, exhausting to stack S-1, shall not exceed 13.4 tons per year. Compliance with this condition limits particulate emissions from the South Rotary Furnace and the 055 West Line to less than twenty-five (25) tons per year, total, and renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes):

- (a) the allowable particulate emission rate from the South Rotary Furnace (P-1) shall not exceed 7.58 pounds per hour when operating at a process weight rate of 2.5 tons per hour.
- (b) the allowable particulate emission rate from the copper rod and bar manufacturing processes, identified as 055 West Line and 055 East Line, shall not exceed 30.51 pounds per hour, each, when operating at a process weight rate of 20 tons per hour, each.

The pounds per hour limitations were calculated with the following equation:

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

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

D.1.3 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and the South Rotary Furnace's control device.

Compliance Determination Requirements

D.1.4 Particulate Control

- (a) In order to comply with conditions D.1.1 and D.1.2(a), the baghouse for particulate control shall be in operation and control emissions from the South Rotary Furnace at all times that the rotary furnace is 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.

D.1.5 Testing Requirements [326 IAC 2-7-6(1),(6)][326 IAC 2-1.1-11]

The Permittee shall conduct a performance test of the South Rotary Furnace to determine compliance with Condition D.1.1 of the permit, utilizing methods as approved by the Commissioner, at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing of the permit.

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

D.1.6 Visible Emissions Notations

- (a) Daily visible emission notations of the rotary furnace stack exhaust (stack S-1) shall be performed during normal daylight operations. 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.1.7 Parametric Monitoring

- (a) The Permittee shall record the pressure drop across the baghouse used in conjunction with the rotary furnace at least once per day when the rotary furnace is 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 and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit.
- (b) The instrument used for determining the pressure drop shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

D.1.8 Broken or Failed Bag Detection

- (a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the 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's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

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

D.1.9 Record Keeping Requirements

- (a) To document compliance with condition D.1.6, the Permittee shall maintain daily records of the visible emission notations of the rotary furnace stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation (e.g., the process did not operate that day).
- (b) To document compliance with condition D.1.7, the Permittee shall maintain daily records of the pressure drop across the baghouse controlling the rotary furnace. 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) 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:

055 East Alcohol Quench Process

- (d) One (1) alcohol quench system, identified as 055 East Line Quench System (P-6), pumping a quench solution through ejectors into tubes, constructed in 1994. Emissions are controlled by the 055 West Line holding furnace, exhausting to stack S-2, or the 055 East Line holding furnace, exhausting to stack S-3.
- (e) One (1) mill emulsion system, identified as 055 East Line Mill Emulsion System (P-6), pumping a mill emulsion solution through sprays in an enclosed rolling mill stand area, constructed in 1994, and exhausting into the building or outside.

055 West Alcohol Quench Process

- (f) One (1) alcohol quench system, identified as 055 West Line Quench System (P-5), pumping a quench solution through ejectors into tubes, constructed in 1985. Emissions are controlled by the 055 West Line holding furnace, exhausting to stack S-2, or the 055 East Line holding furnace, exhausting to stack S-3.
- (g) One (1) mill emulsion system, identified as 055 West Line Mill Emulsion System (P-5), pumping a mill emulsion solution through sprays in an enclosed rolling mill stand area, constructed in 1985, and exhausting into the building or outside.

Process Tanks

- (h) One (1) mill emulsion process tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 East Line Mill Emulsion System, constructed in 1994.
- (i) One (1) quench solution process tank, with a maximum capacity of 7500 gallons, part of the 055 East Line Quench System, constructed in 1994.
- (j) One (1) mill emulsion process tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 West Line Mill Emulsion System, constructed in 1985.
- (k) One (1) quench solution process tank, with a maximum capacity of 7500 gallons, part of the 055 West Line Quench System, constructed in 1985.

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

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

D.2.1 Best Available Control Technology (BACT) - VOC [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to Significant Source Modification No. 183-24485-00016, issued on August 22, 2007, 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 8-1-6 (BACT), and as revised by this permit, the Permittee shall comply with the following BACT requirements:

- (a) The VOC input to the 055 East Line Quench System and the associated quench solution process tank shall not exceed 9.125 tons per month.

- (b) The VOC input to the 055 West Line Quench System and the associated quench solution process tank shall not exceed 9.125 tons per month.
- (c) The emissions from the 055 East and 055 West Quench Systems, including the two (2) quench solution process tanks, shall be controlled by one (1) of the following three (3) furnaces: South Rotary Furnace, 055 West Line holding furnace, or 055 East Line holding furnace. The capture system shall have a capture efficiency of 100% and each furnace shall achieve a minimum VOC destruction efficiency of 98%.
- (d) The total VOC input to the 055 East Line Mill Emulsion System and the associated mill emulsion process tank shall not exceed two (2) tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (e) The total VOC input to the 055 West Line Mill Emulsion System and the associated mill emulsion process tank shall not exceed two (2) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these requirements will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 8-1-6 (BACT) and makes this a minor source under 326 IAC 2-2 (Prevention of Significant Deterioration).

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(13)]

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

Compliance Determination Requirements

D.2.3 Volatile Organic Compounds (VOC)

In order to demonstrate compliance with condition D.2.1(c), either the 055 West Line holding furnace or the 055 East Line holding furnace shall control emissions from the 055 East Line and 055 West Line Quench Systems at all times that one or both of the quench systems are in operation.

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

The Permittee shall conduct a performance test of the 055 West Line holding furnace and the 055 East Line holding furnace to determine compliance with the limits on VOC capture and destruction efficiency in condition D.2.1(c), utilizing methods as approved by the Commissioner. Testing of the 055 West Line holding furnace and the 055 East Line holding furnace shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance demonstration and shall be performed for the holding furnace not tested during the prior testing cycle. The testing shall be conducted in accordance with Section C - Performance Testing.

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

D.2.5 Holding Furnace Flame Monitoring [40 CFR 64, Compliance Assurance Monitoring (CAM)]

- (a) In order to demonstrate compliance with condition D.2.1, the Permittee shall continuously monitor the presence of the holding furnace pilot flame using a thermocouple, ultraviolet sensing flame detector, or any other equivalent device to detect the presence of a flame. For the purpose of this condition, continuous means no less than once per minute.
- (b) In the event that absence of the holding furnace pilot flame has been observed, the failed flame must be repaired or replaced as soon as practicable. If it is determined that the flare failure cannot be corrected within fifteen (15) minutes of the failure being identified, then the Permittee shall commence the shut down process and completely shut down within fifteen (15) minutes after making the determination that the failure cannot be

corrected. The process may not be returned to normal operations until the flame failure is corrected. Operations may continue or be restarted only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

- (c) Section C - Response to Excursions and Exceedances shall be followed whenever a condition exists which should result in a response step. Absence of flame is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances shall be considered a deviation from this permit.

Compliance with the above monitoring conditions shall satisfy the requirements of 40 CFR 64, Compliance Assurance Monitoring.

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

D.2.6 Record Keeping Requirements

- (a) To document compliance with condition D.2.1, the Permittee shall maintain records of the following:
 - (1) Monthly purchase records of the VOC input to the 055 West Line and 055 East Line Quench Systems and associated quench solution process tanks.
 - (2) Records of which furnace the 055 West Line and 055 East Line Quench Systems are venting to when in operation, and the date and time when emissions are redirected.
 - (3) Monthly purchase records of the VOC input to the 055 West Line and 055 East Line Mill Emulsion Systems.
- (b) To document compliance with condition D.2.5, the Permittee shall maintain monthly records in either electronic or hard copy to demonstrate the thermocouple, ultraviolet sensing flame detector, or equivalent device detects the presence of a flame no less than once per minute.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.7 Reporting Requirements

A quarterly summary of the information to document compliance with condition D.2.1(a), (b), (d), and (e) shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, and welding equipment. [326 IAC 6-3-2]
- (b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume. [326 IAC 6-3-2]
- (c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-5]

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

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

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate emission rate from the brazing equipment cutting torches, soldering equipment, and welding equipment and the furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume shall be limited by the following:

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

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

D.3.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), the owner or operator of a cold cleaning facility (the degreasing operations that do not exceed 145 gallons per 12 months) shall:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operation requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

D.3.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), the Permittee shall comply with the following requirements:

- (a) The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

- (b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**PART 70 OPERATING PERMIT
CERTIFICATION**

Source Name: Essex Group, Inc. - Metals Processing Center
Source Address: 2601 South 600 East, Columbia City, Indiana 46725
Mailing Address: 2601 South 600 East, Columbia City, Indiana 46725
Part 70 Permit No.: T183-25956-00016

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY**

**Compliance and Enforcement Branch
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865**

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Essex Group, Inc. - Metals Processing Center
Source Address: 2601 South 600 East, Columbia City, Indiana 46725
Mailing Address: 2601 South 600 East, Columbia City, Indiana 46725
Part 70 Permit No.: T183-25956-00016

This form consists of 2 pages

Page 1 of 2

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

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

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

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

Page 2 of 2

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 Compliance and Enforcement Branch**

Part 70 Quarterly Report

Source Name: Essex Group, Inc. - Metals Processing Center
 Source Address: 2601 South 600 East, Columbia City, Indiana 46725
 Mailing Address: 2601 South 600 East, Columbia City, Indiana 46725
 Part 70 Permit No.: T183-25956-00016
 Facility: 055 East Line Quench System and the associated quench solution process tank;
 055 West Line Quench System and the associated quench solution process tank
 Parameter: VOC input
 Limit: VOC input shall not exceed 9.125 tons per month, per system

Note that a separate report must be completed for each quench system.

QUARTER :

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 and Enforcement Branch**

Part 70 Quarterly Report

Source Name: Essex Group, Inc. - Metals Processing Center
 Source Address: 2601 South 600 East, Columbia City, Indiana 46725
 Mailing Address: 2601 South 600 East, Columbia City, Indiana 46725
 Part 70 Permit No.: T183-25956-00016
 Facility: 055 East Line Mill Emulsion System & the associated mill emulsion process tank;
 055 West Line Mill Emulsion System & the associated mill emulsion process tank
 Parameter: VOC input
 Limit: VOC input shall not exceed two (2) tons per twelve (12) consecutive month
 period with compliance determined at the end of each month, per system

Note that a separate report must be completed for each mill emulsion system.

QUARTER :

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 and Enforcement Branch**

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

Source Name: Essex Group, Inc. - Metals Processing Center
 Source Address: 2601 South 600 East, Columbia City, Indiana 46725
 Mailing Address: 2601 South 600 East, Columbia City, Indiana 46725
 Part 70 Permit No.: T183-25956-00016

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".	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

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

Form Completed by: _____

Title / Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

Addendum to the Technical Support Document (ATSD) for a
Part 70 Operating Permit Renewal

Source Background and Description
--

Source Name:	Essex Group, Inc. - Metals Processing Center
Source Location:	2601 South 600 East, Columbia City, Indiana 46725
County:	Whitley
SIC Code:	3357, 3351
Operation Permit No.:	T183-25956-00016
Permit Reviewer:	Meredith W. Jones

On January 30, 2009, the Office of Air Quality (OAQ) had a notice published in Post & Mail, Columbia City, Indiana, stating that Essex Group, Inc. - Metals Processing Center had applied for a Part 70 Operating Permit Renewal for a stationary secondary copper plant that produces copper rods and bars. The notice also stated that the OAQ proposed to issue a permit renewal 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.

Changes to the permit are noted as follows: ~~struck~~ language has been deleted; **bold** language has been added. The Table of Contents has been modified to reflect these changes. No changes have been made to the TSD, however, because the OAQ prefers that the technical support document reflect the permit that was on public notice.

Comments and Responses

On February 25, 2009, Essex Group, Inc. submitted comments to IDEM, OAQ on the draft Part 70 Operating Permit Renewal.

Comment 1:

The mill emulsion storage tanks referenced in the draft permit (conditions A.2(h) and A.2(j) and section E.1) and the technical support document (TSD) are not subject to the standards of 40 CFR 60, Subpart Kb, which applies to certain "storage vessels," as defined in 40 CFR 60.111b. The definition of "storage vessels" in this section expressly excludes "process tanks," which are defined in the same section. The mill emulsion storage tanks are "process tanks" because process liquids are transferred into and out of these tanks within the rod mill process. Please remove all references to "storage tanks" for the mill emulsion systems throughout the draft permit and replace with "process tanks."

Please delete the references to Subpart Kb in condition A.2(h) and (j), all of the requirements in section E.1, all of Attachment A, and section (d) on page 8 of the TSD in its entirety.

Additionally, the alcohol quench solution storage tanks referenced in conditions A.2(i) and A.2(k) are process tanks as well. Please remove all references to "storage tanks" for the alcohol quench systems throughout the draft permit and replace with "process tanks."

Response to Comment 1:

IDEM agrees that the mill emulsion and alcohol quench solution tanks are process tanks, and therefore are not subject to the requirements of 40 CFR 60, Subpart Kb. Attachment A has been deleted and the permit has been revised as follows:

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

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

...

Storage Process Tanks

- (h) One (1) mill emulsion ~~storage~~ **process** tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 East Line Mill Emulsion System, constructed in 1994.

~~This is considered an affected facility under 40 CFR 60, Subpart Kb.~~

- (i) One (1) quench solution ~~storage~~ **process** tank, with a maximum capacity of 7500 gallons, part of the 055 East Line Quench System, constructed in 1994.

- (j) One (1) mill emulsion ~~storage~~ **process** tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 West Line Mill Emulsion System, constructed in 1985.

~~This is considered an affected facility under 40 CFR 60, Subpart Kb.~~

- (k) One (1) quench solution ~~storage~~ **process** tank, with a maximum capacity of 7500 gallons, part of the 055 West Line Quench System, constructed in 1985.

SECTION D.2

EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

...

Storage Process Tanks

- (h) One (1) mill emulsion ~~storage~~ **process** tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 East Line Mill Emulsion System, constructed in 1994.

~~This is considered an affected facility under 40 CFR 60, Subpart Kb.~~

- (i) One (1) quench solution ~~storage~~ **process** tank, with a maximum capacity of 7500 gallons, part of the 055 East Line Quench System, constructed in 1994.

- (j) One (1) mill emulsion ~~storage~~ **process** tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 West Line Mill Emulsion System, constructed in 1985.

~~This is considered an affected facility under 40 CFR 60, Subpart Kb.~~

- (k) One (1) quench solution ~~storage~~ **process** tank, with a maximum capacity of 7500 gallons, part of the 055 West Line Quench System, constructed in 1985.

...

D.2.6 Record Keeping Requirements

(a) To document compliance with condition D.2.1, the Permittee shall maintain records of the following:

- (1) Monthly purchase records of the VOC input to the 055 West Line and 055 East Line Quench Systems and associated quench solution ~~storage~~ **process** tanks.

...

SECTION E.1 EMISSIONS UNIT OPERATION CONDITIONS

<p>Emissions Unit Description:</p> <p>Storage Tanks</p> <p>(h) One (1) mill emulsion storage tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 East Line Mill Emulsion System, constructed in 1994.</p> <p>This is considered an affected facility under 40 CFR 60, Subpart Kb.</p> <p>(j) One (1) mill emulsion storage tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 West Line Mill Emulsion System, constructed in 1985.</p> <p>This is considered an affected facility under 40 CFR 60, Subpart Kb.</p> <p>(The information describing the process contained in this emissions unit description box is descriptive information and does not constitute enforceable conditions.)</p>

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

~~E.1.1 General Provisions Relating to NSPS Kb [326 IAC 12-1][40 CFR 60, Subpart A]~~

~~Pursuant to 40 CFR 60, Subpart Kb, the Permittee shall comply with the provisions of 40 CFR 60 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 12-1, for the mill emulsion storage tanks in accordance with the schedule in 40 CFR 60, Subpart A.~~

~~E.1.2 New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 [40 CFR 60, Subpart Kb][326 IAC 12-1]~~

~~Pursuant to CFR Part 60, Subpart Kb, the Permittee shall comply with the following provisions of this rule for the mill emulsion storage tanks:~~

- ~~(1) 40 CFR 60.110b~~
- ~~(2) 40 CFR 60.111b~~
- ~~(3) 40 CFR 60.112b~~
- ~~(4) 40 CFR 60.113b~~
- ~~(5) 40 CFR 60.114b~~
- ~~(6) 40 CFR 60.115b~~
- ~~(7) 40 CFR 60.116b~~

~~The entire text of 40 CFR 60, Subpart Kb is included as Attachment A of this permit.~~

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch**

Part 70 Quarterly Report

Source Name: Essex Group, Inc. - Metals Processing Center
Source Address: 2601 South 600 East, Columbia City, Indiana 46725
Mailing Address: 2601 South 600 East, Columbia City, Indiana 46725
Part 70 Permit No.: T183-25956-00016
Facility: 055 East Line Quench System and the associated quench solution ~~storage~~
process tank;
055 West Line Quench System and the associated quench solution ~~storage~~
process tank
Parameter: VOC input
Limit: VOC input shall not exceed 9.125 tons per month, per system
...

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
Compliance and Enforcement Branch**

Part 70 Quarterly Report

Source Name: Essex Group, Inc. - Metals Processing Center
Source Address: 2601 South 600 East, Columbia City, Indiana 46725
Mailing Address: 2601 South 600 East, Columbia City, Indiana 46725
Part 70 Permit No.: T183-25956-00016
Facility: 055 East Line Mill Emulsion System & the associated mill emulsion ~~storage~~
process tank;
055 West Line Mill Emulsion System & the associated mill emulsion ~~storage~~
process tank
Parameter: VOC input
Limit: VOC input shall not exceed two (2) tons per twelve (12) consecutive month
period with compliance determined at the end of each month, per system
...

Comment 2:

In condition A.1, the Source Status incorrectly identifies the stationary source as a Major Source under PSD Rules. This source is no longer a major source of VOC as a result of modifications permitted by Significant Source Modification No. 183-24485-00016, issued on August 22, 2007, and the removal of the 091 line. Pursuant to 326 IAC 2-2-1(gg) and 40 CFR 52.21(b)(1)(i)(a), a major stationary source is any source within the 28 listed categories that has the potential to emit 100 tons or more per year of any regulated NSR pollutant. For purposes of the PSD program, the definition of "potential to emit" provides that any federally enforceable emission limit is to be considered as part of the source's design; therefore, potential to emit is calculated after application of such federally enforceable limits or controls [326 IAC 2-2-1(nn)][40 CFR 52.21(b)(4)]. (Note, also, that the definition of "potential to emit" for purposes of the Title V program considers federally enforceable emission limitations to be part of a source's design [326

2-7-1(29))[40 CFR 70.2]). The emission limitations contained in Significant Source Modification No. 183-14400-00016 are federally enforceable. As a result, even if that permit was issued pursuant to Indiana's PSD regulations, the emission limit remains federally enforceable and the current potential to emit is 12.1 tons per year as stated in the table on page 7 of the TSD, not the table on 6. The entire source is under the major source threshold of 100 tons per year for VOC (and all other NSR regulated pollutants), so it is no longer a major source as defined in the PSD regulations.

Please delete "Major Source, under PSD Rules" from the source status portion of condition A.1 of the draft permit, paragraph (a) under the Unrestricted Potential Emissions paragraph on page 6 of the TSD, and paragraph (a) under the Potential to Emit After Issuance paragraph on page 7 of the TSD. Also, please modify paragraph (b) under the Unrestricted Potential Emissions paragraph on page 6 of the TSD by deleting the word "other."

Response to Comment 2:

The unrestricted PTE for each regulated pollutant is less than 250 tons per year, after consideration of the removal of the 091 line. Therefore, IDEM agrees that the source is no longer a major source under PSD rules.

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

The Permittee owns and operates a stationary secondary copper plant that produces copper rods and bars.

Source Address:	2601 South 600 East, Columbia City, Indiana 46725
Mailing Address:	2601 South 600 East, Columbia City, Indiana 46725
General Source Phone Number:	(260) 248-5553
SIC Code:	3357, 3351
County Location:	Whitley
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

D.2.1 Best Available Control Technology (BACT) - VOC [326 IAC 2-2][326 IAC 8-1-6]

Pursuant to Significant Source Modification No. 183-24485-00016, issued on August 22, 2007, 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 8-1-6 (BACT), and as revised by this permit, the Permittee shall comply with the following BACT requirements:

- (a) The VOC input to the 055 East Line Quench System and the associated quench solution ~~storage~~ **process** tank shall not exceed 9.125 tons per month.
- (b) The VOC input to the 055 West Line Quench System and the associated quench solution ~~storage~~ **process** tank shall not exceed 9.125 tons per month.
- (c) The emissions from the 055 East and 055 West Quench Systems, including the two (2) quench solution ~~storage~~ **process** tanks, shall be controlled by one (1) of the following three (3) furnaces: South Rotary Furnace, 055 West Line holding furnace, or 055 East Line holding furnace. The capture system shall have a capture efficiency of 100% and each furnace shall achieve a minimum VOC destruction efficiency of 98%.
- (d) The total VOC input to the 055 East Line Mill Emulsion System and the associated mill emulsion ~~storage~~ **process** tank shall not exceed two (2) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

- (e) The total VOC input to the 055 West Line Mill Emulsion System and the associated mill emulsion ~~storage~~ **process** tank shall not exceed two (2) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these requirements will satisfy the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 8-1-6 (BACT); **and makes this a minor source under 326 IAC 2-2 (Prevention of Significant Deterioration).**

Additional Changes

IDEM, OAQ has decided to make additional revisions to the permit as described below.

IDEM Change No. 1:

IDEM has decided to reference 326 IAC 2 in Section B- Source Modification Requirements, rather than the specific construction rule.

B.21 Source Modification Requirement [326 IAC 2-7-10.5]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2. ~~and 326 IAC 2-7-10.5.~~

IDEM Change No. 2:

Several of IDEM's branches and sections have been renamed. Therefore, IDEM has updated the addresses listed in the permit. References to Permit Administration and Development Section and the Permits Branch have been changed to Permit Administration and Support Section. References to Asbestos Section, Compliance Data Section, Air Compliance Section, and Compliance Branch have been changed to Compliance and Enforcement Branch.

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

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

IDEM Change No. 3:

The Permittee initially requested that the permit be updated to allow the source to process both aluminum and copper on the 055 West Line. Prior to the publication of the public notice period the Permittee decided to delay the permitting of aluminum processing until a later date. The calculations and permit conditions were updated to show that the 055 West line will process only copper, but descriptive references to the source's ability to process aluminum were inadvertently left in the permit. All references to aluminum have subsequently been removed from the permit as follows:

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

The Permittee owns and operates a stationary secondary copper and aluminum plant that produces copper and aluminum rods and bars.

...

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

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

...

Copper and Aluminum Rod and Bar Manufacturing

- (b) One (1) copper and aluminum rod and bar manufacturing process, identified as 055 West Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity of 15 tons of copper per hour, constructed in 1985, exhausting to stack S-2, and consisting of:

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

...

Copper and Aluminum Rod and Bar Manufacturing

- (b) One (1) copper and aluminum rod and bar manufacturing process, identified as 055 West Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity of 15 tons of copper per hour, constructed in 1985, exhausting to stack S-2, and consisting of:

...

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

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes):

- (a) the allowable particulate emission rate from the South Rotary Furnace (P-1) shall not exceed 7.58 pounds per hour when operating at a process weight rate of 2.5 tons per hour.
- (b) the allowable particulate emission rate from the copper and aluminum rod and bar manufacturing processes, identified as 055 West Line and 055 East Line, shall not exceed 30.51 pounds per hour, each, when operating at a process weight rate of 20 tons per hour, each.

IDEM Contact

- (a) Questions regarding this proposed Part 70 Operating Permit Renewal can be directed to Meredith Jones at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-5176 or toll free at 1-800-451-6027 extension 4-5176.
- (b) A copy of the permit is available on the Internet at: <http://www.in.gov/ai/appfiles/idem-caats/>
- (c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Essex Group, Inc. - Metals Processing Center
Source Location:	2601 South 600 East, Columbia City, Indiana 46725
County:	Whitley
SIC Code:	3357, 3351
Permit Renewal No.:	T183-25956-00016
Permit Reviewer:	Meredith W. Jones

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Essex Group, Inc. - Metals Processing Center relating to the operation of a stationary secondary copper plant that produces copper rods and bars.

History

On January 23, 2008, Essex Group, Inc. - Metals Processing Center submitted an application to the OAQ requesting to renew its operating permit. Essex Group, Inc. - Metals Processing Center was issued a Part 70 Operating Permit on October 30, 2003.

Permitted Emission Units and Pollution Control Equipment

Rotary Furnace

- (a) One (1) natural gas-fired rotary furnace, identified as South Rotary Furnace (P-1), with a maximum heat input capacity of 22 MMBtu/hr and a maximum throughput capacity of 21,900 tons of copper per year, using a baghouse as particulate control, constructed in 1985, and exhausting to stack S-1.

Copper Rod and Bar Manufacturing

- (b) One (1) copper rod and bar manufacturing process, identified as 055 West Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity of 15 tons of copper per hour, constructed in 1985, exhausting to stack S-2, and consisting of:
- (1) one (1) natural gas-fired vertical melt furnace, with a maximum heat input capacity of 24 MMBtu/hr,
 - (2) one (1) holding furnace, with a maximum heat input capacity of 2.0 MMBtu/hr,
 - (3) one (1) tundish, with a maximum heat input capacity of 1.5 MMBtu/hr, and
 - (4) various ancillary launders, with an aggregate maximum heat input capacity of 2.5 MMBtu/hr.
- (c) One (1) copper rod and bar manufacturing process, identified as 055 East Line, with a maximum charging capacity of 20 tons of copper per hour and a maximum melt capacity of 15 tons of copper per hour, constructed in 1994, exhausting to stack S-3, and consisting of:
- (1) one (1) natural gas-fired vertical melt furnace, with a maximum heat input capacity of 24 MMBtu/hr,
 - (2) one (1) holding furnace, with a maximum heat input capacity of 2.0 MMBtu/hr,

- (3) one (1) tundish, with a maximum heat input capacity of 1.5 MMBtu/hr, and
- (4) various ancillary launders, with an aggregate maximum heat input capacity of 2.5 MMBtu/hr.

055 East Alcohol Quench Process

- (d) One (1) alcohol quench system, identified as 055 East Line Quench System (P-6), pumping a quench solution through ejectors into tubes, constructed in 1994. Emissions are controlled by the 055 West Line holding furnace, exhausting to stack S-2, or the 055 East Line holding furnace, exhausting to stack S-3.
- (e) One (1) mill emulsion system, identified as 055 East Line Mill Emulsion System (P-6), pumping a mill emulsion solution through sprays in an enclosed rolling mill stand area, constructed in 1994, and exhausting into the building or outside.

055 West Alcohol Quench Process

- (f) One (1) alcohol quench system, identified as 055 West Line Quench System (P-5), pumping a quench solution through ejectors into tubes, constructed in 1985. Emissions are controlled by the 055 West Line holding furnace, exhausting to stack S-2, or the 055 East Line holding furnace, exhausting to stack S-3.
- (g) One (1) mill emulsion system, identified as 055 West Line Mill Emulsion System (P-5), pumping a mill emulsion solution through sprays in an enclosed rolling mill stand area, constructed in 1985, and exhausting into the building or outside.

Storage Tanks

- (h) One (1) mill emulsion storage tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 East Line Mill Emulsion System, constructed in 1994.

This is considered an affected facility under 40 CFR 60, Subpart Kb.

- (i) One (1) quench solution storage tank, with a maximum capacity of 7500 gallons, part of the 055 East Line Quench System, constructed in 1994.
- (j) One (1) mill emulsion storage tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 West Line Mill Emulsion System, constructed in 1985.

This is considered an affected facility under 40 CFR 60, Subpart Kb.

- (k) One (1) quench solution storage tank, with a maximum capacity of 7500 gallons, part of the 055 West Line Quench System, constructed in 1985.

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

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

Emission Units and Pollution Control Equipment Removed From the Source

- (a) One (1) natural gas-fired rotary furnace, identified as North Rotary Furnace (P-1), with a maximum heat input capacity of 22 MMBtu/hr and a maximum throughput capacity of 1.43 tons of copper per hour, using a baghouse as particulate control, constructed in 1985, and exhausting to stack S-1.
- (b) One (1) recuperative thermal oxidizer, identified as CE-03.

Insignificant Activities

- (a) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment cutting torches, soldering equipment, and welding equipment. [326 IAC 6-3-2]
- (b) Furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume. [326 IAC 6-3-2]
- (c) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6. [326 IAC 8-3-2][326 IAC 8-3-5]
- (d) Paved and unpaved roads and parking lots with public access. [326 IAC 6-4]
- (e) A petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month.
- (f) The following VOC and HAP storage containers: storage tanks with capacity less than or equal to 1000 gallons and annual throughputs less than 12,000 gallons; vessels storing lubricating oils, hydraulic oils, and machining fluids.
- (g) Refractory storage not requiring air pollution control equipment
- (h) Application of oils, greases, lubricants, or other nonvolatile materials applied as temporary protective coatings.
- (i) Cleaners and solvents having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38°C (100°F).
- (j) Noncontact, forced and induced, draft cooling tower system not regulated under a NESHAP.
- (k) Replacement or repair of electrostatic precipitators, bags in baghouses, and filters in other air filtration equipment.
- (l) Heat exchanger cleaning and repair.
- (m) Filter or coalescer media changeout.
- (n) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower.
- (o) Emergency generators as follows: gasoline generators not exceeding 110 horsepower; diesel generators not exceeding 1600 horsepower; natural gas turbines or reciprocating engines not exceeding 16,000 horsepower.
- (p) Stationary fire pumps.

- (q) Purge double block and bleed valves.
- (r) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM/PM₁₀, 10 tons per year SO₂, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of a combination of HAPs:
 - (1) One (1) wire drawing process involving rod breakdown;
 - (2) Two (2) above-ground IPA storage tanks with fixed roof cone tanks, with a capacity of 7773 gallons each; and
 - (3) Two (2) parts washers, with a capacity of 17 gallons each.

Existing Approvals

Since the issuance of Part 70 Operating Permit No. 183-6488-00016 on October 30, 2003, the source has constructed or has been operating under the following approvals as well:

- (a) Significant Source Modification No. 183-24485-00016, issued on August 22, 2007; and
- (b) Significant Permit Modification No. 183-24195-00016, issued on September 6, 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.

The following terms and conditions from previous approvals have been revised in this Part 70 Operating Permit Renewal:

- (a) PSD minor limit, South Rotary Furnace and 055 West Line: Condition D.1.1

The limits on the amount of copper produced by the South Rotary Furnace and the 055 West Line, as well as the limits on PM emissions from the 055 West Line, are no longer necessary because of the removal of the North Rotary Furnace. These limits were previously included to limit total PM emissions from these units to less than 25 tons per year and therefore render the requirements of 326 IAC 2-2 (PSD) not applicable. However, the South Rotary Furnace and the 055 West Line together have the potential to emit less than 25 tons per year after the rotary furnace's emissions are controlled. Therefore, the only limit necessary is on the amount of particulate emitted from the South Rotary Furnace.

- (b) Visible Emissions Notations, Condition D.1.6

Daily visible emission notations of the copper bar and rod manufacturing processes stack exhausts (stacks S-2 and S-3) are not required because these emissions are uncontrolled.

- (c) Testing Requirements

- (1) Condition D.1.5

Because of the removal of the limits on the amount of copper produced by the 055 West Line and the limits on PM emissions from the 055 West Line, testing of particulate emissions from stack S-2 is no longer required.

- (2) Condition D.2.4

Because the South Rotary Furnace is not used to control emissions from the alcohol quench systems, testing of VOC emissions from this furnace is not required.

(d) Furnace Monitoring

- (1) Conditions D.2.5 and D.2.6 (in previous permit)
 Because the South Rotary Furnace is not used to control emissions from the alcohol quench processes, monitoring of the temperature and fan amperage of this furnace is not required.
- (2) Condition D.2.5
 Temperature and fan amperage monitoring of the 055 West Line holding furnace and the 055 East Line holding furnace have been replaced by pilot flame monitoring. The quench processes cannot operate without the furnace operating, and because the furnace must operate at a temperature high enough to melt the copper, the presence of flame in the furnace indicates that the furnace is operating at a temperature high enough to adequately control VOC emissions.

(e) Mill Emulsion Storage Tanks, 40 CFR 60, Subpart Kb, Section E.1

Because the volume of the storage tanks that are part of the Mill Emulsion Systems has increased, these tanks are subject to Standards of Performance for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb). These requirements have been added to the permit as section E.1.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Whitley County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Unclassifiable or attainment effective June 15, 2004, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx

emissions are considered when evaluating the rule applicability relating to ozone. Because Whitley County has been designated as attainment or unclassifiable for ozone, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM_{2.5}**
Whitley County has been classified as attainment for PM_{2.5}. On May 8, 2008, U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions, and the effective date of these rules is July 15, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions until 326 IAC 2-2 is revised.
- (c) **Other Criteria Pollutants**
Whitley 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.
- (d) Since this source is classified as a secondary metal production plant, it is considered one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(gg)(1).
- (e) **Fugitive Emissions**
Since this type of operation is in one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are counted toward the determination of PSD applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	85.95
PM ₁₀	82.53
SO _x	0.47
VOC	226.72
CO	48.32
NO _x	36.14
HAPs	negl.

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of VOC is greater than 100 tons per year. These emissions are limited and controlled to less than 100 tons per year, however, the source is subject to the provisions of 326 IAC 2-7 because it is a major source under PSD rules pursuant to PSD/Significant Source Modification No. 183-14400-00016, issued on July 9, 2003.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of all other criteria pollutants is less than 100 tons per year for each pollutant.
- (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.
- (d) **Fugitive Emissions**
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are counted toward the determination of Part 70 applicability.

Part 70 Permit Conditions

This source is subject to the requirements of 326 IAC 2-7, pursuant to which the source has to meet the following:

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

Potential to Emit After Issuance

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

Process/ Emission Unit	Potential to Emit (tons/year)						
	PM	PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs
South Rotary Furnace (P-1)	13.4	13.4	0.32	2.30	26.68	10.38	negl.
055 West Line	11.50	9.79	0.08	0.71	10.82	12.88	negl.
055 East Line	11.50	9.79	0.08	0.71	10.82	12.88	negl.
Alcohol Quench Systems (P-6 and P-5)	-	-	-	4.38 ¹	-	-	negl.
Mill Emulsion Systems (P-6 and P-5)	-	-	-	4.00 ¹	-	-	negl.
Total: South Rotary Furnace (P-1) and 055 West Line	24.9²	23.19	0.4	3.01	37.5	23.26	negl.
Total: Entire Source	36.4	32.98	0.48	12.1	48.32	36.14	negl.
Major Source Threshold	250	250	250	250	250	250	-

¹Limited pursuant to 326 IAC 2-2 (PSD) and 326 IAC 8-1-6 (BACT)

²Compliance with this limit renders the requirements of 326 IAC 2-2 (PSD) not applicable

- (a) This existing stationary source is major for PSD pursuant to PSD/Significant Source Modification No. 183-14400-00016, issued on July 9, 2003.
- (b) Fugitive Emissions
 Since this type of operation is in 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 applicability.

Federal Rule Applicability

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

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

The following table is used to identify the applicability of each of the criteria, under 40 CFR 64.1, to each existing emission unit and specified pollutant subject to CAM:

Emission Unit - Pollutant	Control Device Used	Emission Limitation (Y/N)	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	Major Source Threshold (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
South Rotary Furnace (P-1) - PM	baghouse	Y	62.95	12.12	100	N	N
Alcohol Quench Systems (P-6 and P-5) - VOC	furnace	Y	219.0	4.38	100	Y	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are applicable to both alcohol quench systems (P-6 and P-5) for VOC upon issuance of the Title V renewal. A CAM plan will be incorporated into this Part 70 permit renewal. See the Compliance Monitoring Requirements section of this TSD for a detailed explanation of the CAM requirements to which the source is subject.

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR 63) included in this permit renewal. The source is not a major source of HAPs.
- (c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Halogenated Solvent Cleaning (40 CFR 63, Subpart T) are not included in the permit for the degreasing operations. These operations do not use any solvent containing methylene chloride (CAS No. 75-09-2), perchloroethylene (CAS No. 127-18-4), trichloroethylene (CAS No. 79-01-6), 1,1,1-trichloroethane (CAS No. 71-55-6), carbon tetrachloride (CAS No. 56-23-5) or chloroform (CAS No. 67-66-3), or any combination of these halogenated HAP solvents, in a total concentration greater than five percent (%) by weight, as a cleaning and/or drying agent.
- (d) This source is subject to the requirements of the New Source Performance Standard for Volatile Organic Liquid Storage Vessels (Including Petroleum Liquid Storage Vessels) for Which Construction, Reconstruction, or Modification Commenced After July 23, 1984 (40 CFR 60, Subpart Kb). The following facilities are subject to this rule because they are storage vessels that are used to store volatile organic liquids (VOL) and have a capacity greater than or equal to 75 cubic meters (m³) (19,812.75 gallons):
 - (1) One (1) mill emulsion storage tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 East Line Mill Emulsion System, constructed in 1994.
 - (2) One (1) mill emulsion storage tank, with a maximum working capacity of 18,500 gallons and a maximum overflow capacity of 25,749 gallons, part of the 055 West Line Mill Emulsion System, constructed in 1985.

The mill emulsion storage tanks are subject to the following portions of 40 CFR 60, Subpart Kb:

- (1) 40 CFR 60.110b
- (2) 40 CFR 60.111b
- (3) 40 CFR 60.112b
- (4) 40 CFR 60.113b
- (5) 40 CFR 60.114b
- (6) 40 CFR 60.115b
- (7) 40 CFR 60.116b

The provisions of 40 CFR 60 Subpart A – General Provisions, which are incorporated as 326 IAC 12-1-1, apply to the facility described in this section except when otherwise specified in 40 CFR 60, Subpart Kb.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

VOC

- (a) The 055 West Line was constructed in 1985 and the 055 East line was constructed in 1994. On August 30, 1996, the source submitted an application for a Part 70 Operating Permit. A review of the permit application revealed that the alcohol quench processes (AQPs), as well as ancillary storage tanks, had been constructed and operated without a permit. The application indicated that the potential VOC emissions from each AQP was in excess of 700 tons per year and the source had been a major PSD source for VOC since promulgation of the PSD rules in 1977- the PTE of the 091 AQP, constructed in 1975 and removed from the source pursuant to Significant Source Modification No. 183-24485-00016, issued on August 22, 2007, was in excess of 700 tons VOC per year.

On August 4, 1998, IDEM sent a letter to the Permittee indicating that the source was found to be in noncompliance with 326 IAC 2-2 because the 055 West and 055 East AQPs triggered a PSD review when they were installed in 1985 and 1994, respectively. In response, Essex Group, Inc., sent a letter to IDEM stating that the VOC emissions from the 055 West and 055 East AQPs were less than 25 tons per year, per line (significantly less than the estimate that was included in the original permit application) and therefore the source is neither subject to the requirements of 326 IAC 2-2 nor required to receive a registration. The Permittee submitted an amended permit application on May 3, 1999 to reflect this determination.

On March 6, 2001, the Permittee clarified that the initial VOC emission estimate (>700 tons per year of VOC) for the AQPs was more accurate than the estimate provided in the letter sent in response to the letter sent to the Permittee by IDEM on August 4, 1998. As a result, OAQ reaffirmed that the 055 West and 055 East AQPs, identified as P-5 and P-6, were subject to the requirements of 326 IAC 2-2 and instructed the Permittee to submit the appropriate permit application.

In order to satisfy the applicable PSD requirements, the source submitted a PSD permit application on May 15, 2001 to permit the operation of the alcohol quench processes, ancillary storage tanks, and the BACT to control VOC emissions from the 055 West and 055 East facilities and satisfy the requirements of 326 IAC 2-2. As a result, the source was issued PSD/Significant Source Modification No. 183-14400-00016 on July 9, 2003.

- (b) The source was issued Significant Source Modification No. 183-24485-00016 on August 22, 2007. The net emissions increase of the permitted modification was less than the relevant PSD major modification thresholds. Therefore, the modification would not trigger PSD review based on the level of emissions increase. However, in order to modify the BACT

emission limitations and required control technology, the PSD BACT limits originally established in PSD/SSM No. 183-14400-00016, issued July 9, 2003, had to be revised.

The PSD provisions require that the modification be reviewed to ensure compliance with the National Ambient Air Quality Standards and to apply the requirements of 326 IAC 2-2. Specifically, 326 IAC 2-2-3 requires the determination and implementation of BACT, 326 IAC 2-2-4 and 326 IAC 2-2-5 require the evaluation of the modification's impact on air quality, 326 IAC 2-2-6 requires an assessment of increment consumption, and 326 IAC 2-2-7 requires an evaluation of additional impacts.

For the purpose of evaluating VOC emissions, the quench processes and the mill emulsion processes were evaluated separately. Pursuant to 326 IAC 2-2-3, BACT for VOC has been evaluated and determined for each of these processes.

Pursuant to Significant Source Modification No. 183-24485-00016, PSD BACT for VOC has been determined to be the following:

- (1) The VOC input to the 055 East Line Quench System and the associated quench solution storage tank shall not exceed 9.125 tons per month.
- (2) The VOC input to the 055 West Line Quench System and the associated quench solution storage tank shall not exceed 9.125 tons per month.
- (3) The emissions from the 055 East and 055 West Quench Systems, including the two (2) quench solution storage tanks, shall be controlled by one (1) of the following three (3) furnaces: South Rotary Furnace, 055 West Line holding furnace, or 055 East Line holding furnace. The capture system shall have a capture efficiency of 100% and each furnace shall achieve a minimum VOC destruction efficiency of 98%.
- (4) The total VOC input to the 055 East Line Mill Emulsion System and the associated mill emulsion storage tank shall not exceed two (2) tons per twelve (12) consecutive month period with compliance determined at the end of each month.
- (5) The total VOC input to the 055 West Line Mill Emulsion System and the associated mill emulsion storage tank shall not exceed two (2) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these requirements will also satisfy the requirements of 326 IAC 8-1-6 (BACT).

Note that the option to control emissions using the North Rotary Furnace has been removed from the BACT, which does not require a re-opening and modification of the BACT, because the furnace has been removed from the source. While the Permittee has chosen not to use the South Rotary Furnace to control emissions from the alcohol quench systems at this time, the option to do so has been kept in the permit to allow for future flexibility since the furnace remains at the source.

Particulate

PM/PM₁₀ emissions from the South Rotary Furnace, controlled by a baghouse, exhausting to stack S-1, shall not exceed 13.4 tons per year. Compliance with this condition limits particulate emissions from the South Rotary Furnace and the 055 West Line to less than twenty-five (25) tons per year, total, and renders the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. Pursuant to Part 70 Operating Permit No. 183-6488-00016, issued on October 30, 2003, any change or modification which increases the total potential emissions from the North and South

rotary furnaces and the 055 West Copper Rod and Bar Manufacturing Line to equal to or greater than 25 tons of PM per year must receive prior approval from IDEM, OAQ.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAPs))

The operation of the source 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.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it is required to have an operating permit under 326 IAC 2-7, Part 70 program. Pursuant to this rule, the Permittee shall submit an emission statement certified pursuant to the requirements of 326 IAC 2-6. The source is not subject to annual reporting because it is not located in Lake, Porter, or LaPorte County; it does not emit lead into the ambient air at levels equal to or greater than five (5) tons per year; it does not have the potential to emit greater than or equal to two thousand five hundred (2500) tons per year of any of carbon monoxide, oxides of nitrogen, or sulfur dioxide; and it does not have the potential to emit greater than or equal to two hundred fifty (250) tons per year of particulate matter less than or equal to ten (10) micrometers (PM₁₀) or volatile organic compounds. In accordance with the compliance schedule specified in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2004 and every 3 years after. Therefore, the next emission statement for this source must be submitted by July 1, 2010. The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4.

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 Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in the permit:

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

326 IAC 6-4 (Fugitive Dust Emissions)

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

State Rule Applicability – Individual Facilities

326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate from the South Rotary Furnace (P-1); the 055 West Line; the 055 East Line; the brazing equipment cutting torches, soldering equipment, and welding equipment; and the furnaces used for melting metals other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume, shall be limited by the following:

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

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

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

The baghouse shall be in operation at all times the South Rotary Furnace (P-1) is in operation in order to comply with this limit.

326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations)

None of the facilities at this source have the potential to emit twenty-five (25) tons per year or ten (10) pounds per hour of sulfur dioxide. Therefore, the requirements of 326 IAC 7-1.1-1 (Sulfur Dioxide Emission Limitations) do not apply.

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

- (a) Rotary Furnace; Copper Rod and Bar Manufacturing
The South Rotary Furnace (P-1), the 055 West Line, and the 055 East Line do not have potential VOC emissions of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) or more per year. Therefore, the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) do not apply.
- (b) Alcohol Quench Processes
The 055 East Line Quench System (P-6) and the 055 West Line Quench System (P-5) were both constructed after January 1, 1980, have potential VOC emissions of twenty-two and seven-tenths (22.7) megagrams (twenty-five (25) tons) or more per year, and are not otherwise regulated by other provisions of 326 IAC 8, 326 IAC 20-48, or 326 IAC 20-56. Therefore, pursuant to 326 IAC 8-1-6 (New Facilities; General Reduction Requirements), the facilities must reduce VOC emissions using the best available control technology (BACT). Pursuant to Significant Source Modification No. 183-14400-00016 issued on July 9, 2003, compliance with the requirements of 326 IAC 2-2 will satisfy the requirements of 326 IAC 8-1-6 for these facilities. See State Rule Applicability - 326 IAC 2-2 for the specific requirements.

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

The degreasing operations are subject to the requirements of 326 IAC 8-3-2 because these are organic solvent degreasing operations that were constructed after January 1, 1980. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operation), the owner or operator of a cold cleaning facility shall:

- (a) equip the cleaner with a cover;
- (b) equip the cleaner with a facility for draining cleaned parts;
- (c) close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) provide a permanent, conspicuous label summarizing the operation requirements;
- (f) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.

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

The degreasing operations are subject to the requirements of 326 IAC 8-3-5 because these are organic solvent degreasing operations that were constructed after July 1, 1990. Pursuant to 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control), the Permittee shall comply with the following requirements:

- (a) The owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) the solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) the solvent is agitated; or
 - (C) the solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.
- (b) The owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Compliance Determination and Monitoring Requirements

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

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

Compliance Determination Requirements

(a) The compliance determination requirements applicable to the rotary furnace are as follows:

(1) *Particulate Control*

The baghouse for particulate control shall be in operation and control emissions from the South Rotary Furnace at all times that the rotary furnace is in operation. 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.

(2) *Testing Requirements*

The Permittee shall conduct a performance test of the South Rotary Furnace to determine compliance with Condition D.1.1 of the permit, utilizing methods as approved by the Commissioner, at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing of the permit.

(b) The compliance determination requirements applicable to the alcohol quench processes are as follows:

(1) *Volatile Organic Compounds (VOC)*

In order to demonstrate compliance with condition D.2.1(c), either the 055 West Line holding furnace or the 055 East Line holding furnace shall control emissions from the 055 East Line and 055 West Line Quench Systems at all times that one or both of the quench systems are in operation.

(2) *Testing Requirements*

The Permittee shall conduct a performance test of the 055 West Line holding furnace and the 055 East Line holding furnace to determine compliance with the limits on VOC capture and destruction efficiency in condition D.2.1(c), utilizing methods as approved by the Commissioner. Testing of the 055 West Line holding furnace and the 055 East Line holding furnace shall be repeated at least once every two and one-half (2.5) years from the date of the most recent valid compliance

demonstration and shall be performed for the holding furnace not tested during the prior testing cycle. The testing shall be conducted in accordance with Section C - Performance Testing.

Compliance Monitoring Requirements

(a) The compliance monitoring requirements applicable to the rotary furnace are as follows:

(1) *Visible Emissions Notations*

Daily visible emission notations of the rotary furnace stack exhaust (stack S-1) shall be performed during normal daylight operations. A trained employee shall record whether emissions are normal or abnormal. 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. 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. 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. 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.

(2) *Parametric Monitoring*

The Permittee shall record the pressure drop across the baghouse used in conjunction with the rotary furnace at least once per day when the rotary furnace is 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 and Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, shall be considered a deviation from this permit. The instrument used for determining the pressure drop shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated at least once every six (6) months.

(3) *Broken or Failed Bag Detection*

For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit has been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the 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's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces, or triboflows.

These monitoring conditions are necessary because the baghouse for the rotary furnace must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) and 326 IAC 2-7 (Part 70) and to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable.

- (b) The compliance monitoring requirements applicable to the alcohol quench processes are as follows:

Holding Furnace Flame Monitoring

- (1) In order to demonstrate compliance with condition D.2.1, the Permittee shall continuously monitor the presence of the holding furnace pilot flame using a thermocouple, ultraviolet sensing flame detector, or any other equivalent device to detect the presence of a flame. For the purpose of this condition, continuous means no less than once per minute.
- (2) In the event that absence of the holding furnace pilot flame has been observed, the failed flame must be repaired or replaced as soon as practicable. If it is determined that the flare failure cannot be corrected within fifteen (15) minutes of the failure being identified, then the Permittee shall commence the shut down process and completely shut down within fifteen (15) minutes after making the determination that the failure cannot be corrected. The process may not be returned to normal operations until the flame failure is corrected. Operations may continue or be restarted only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).
- (3) Section C - Response to Excursions and Exceedances shall be followed whenever a condition exists which should result in a response step. Absence of flame is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances shall be considered a deviation from this permit.

These monitoring conditions are necessary because the 055 West Line holding furnace and the 055 East Line holding furnace must operate properly to ensure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration), 326 IAC 8-1-6 (BACT), 40 CFR Part 64 (CAM), and 326 IAC 2-7 (Part 70).

Recommendation

The staff recommends to the Commissioner that the Part 70 Operating Permit Renewal be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on January 23, 2008. Additional information was received in April, May, July, August, and December 2008 and January 2009.

Conclusion

The operation of this stationary secondary copper plant that produces copper rods and bars shall be subject to the conditions of the attached Part 70 Operating Permit Renewal No. 183-25956-00016.

Company Name: Essex Group, Inc. - Metals Processing Center
Address: 2601 South 600 East, Columbia City, IN 46725
Part 70 No.: 183-25956-00016
Reviewer: Meredith W. Jones
Date: 4/28/08

****Copper Rod and Bar Manufacturing (055 West Line)****

Uncontrolled Potential to Emit (tons/yr)

	<i>PM</i>	<i>PM-10</i>	<i>SOx</i>	<i>NOx</i>	<i>VOC</i>	<i>CO</i>
South Rotary Furnace (P-1)	62.95	62.95	0.32	10.38	2.30	26.68
055 West Line	11.50	9.79	0.08	12.88	0.71	10.82
055 East Line	11.50	9.79	0.08	12.88	0.71	10.82
Alcohol Quench Systems (P-6 and P-5)	0.00	0.00	0.00	0.00	219.00	0.00
Mill Emulsion Systems (P-6 and P-5)	0.00	0.00	0.00	0.00	4.00	0.00
Total	85.95	82.53	0.47	36.14	226.72	48.32

Limited and Controlled Potential to Emit (tons/yr)

	<i>PM</i>	<i>PM-10</i>	<i>SOx</i>	<i>NOx</i>	<i>VOC</i>	<i>CO</i>
South Rotary Furnace (P-1)	12.12	12.12	0.32	10.38	2.30	26.68
055 West Line	11.50	9.79	0.08	12.88	0.71	10.82
055 East Line	11.50	9.79	0.08	12.88	0.71	10.82
Alcohol Quench Systems (P-6 and P-5)	0.00	0.00	0.00	0.00	4.38	0.00
Mill Emulsion Systems (P-6 and P-5)	0.00	0.00	0.00	0.00	4.00	0.00
Total	35.11	31.70	0.47	36.14	12.10	48.32

Company Name: Essex Group, Inc. - Metals Processing Center
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****Copper Rod and Bar Manufacturing (055 West Line)****

(used to melt and fire-refine enamel-coated copper magnet wire, shavings, sweepings, and other non-chemically pure copper wire; PVC-coated copper is not processed in this unit)

This is a batch process. The worst-case (fastest) batch processing time is 16 hours, divided, approximately, between the activities below as follows: 11.75 hours charging/melting, 3.25 hours pouring, 1 hour poling.

1. Charging/Melting

Material: copper

Capacity (lbs copper/batch) = 80,000 Worst-case Batch Processing Time (hrs) = 16
 Batches per Year = 547.50 Maximum Capacity (tons copper/yr) = 21,900

	PM ¹	PM-10 ¹	SO _x	NO _x	VOC ¹	CO ¹
Emission Factor (EF) (lbs/ton produced)	5.62	5.62	0	0	0.16	1.62
Unrestricted PTE (tons/yr)	61.54	61.54	0.00	0.00	1.75	17.74

2. Pouring

Material: copper

Capacity (lbs copper/batch) = 80,000 Worst-case Batch Processing Time (hrs) = 16
 Batches per Year = 547.50 Maximum Capacity (tons copper/yr) = 21,900

	PM	PM-10	SO _x ²	NO _x ²	VOC ³	CO
Emission Factor (EF) (lbs/ton produced)	-	-	0.02	0.01	-	-
Unrestricted PTE (tons/yr)	0.00	0.00	0.22	0.11	0.00	0.00

3. Natural Gas Combustion

Heat Input Capacity (MMBtu/hr) = 22 Heating Value (MMBtu/10⁶ scf) = 1020

	PM ⁴	PM-10 ⁴	SO _x ⁴	NO _x ⁴	VOC ⁴	CO ⁴
Emission Factor (EF) (lbs/10 ⁶ scf)	7.6	7.6	0.60	100	5.5	84
Unrestricted PTE (lbs/hr)	0.16	0.16	0.01	2.16	0.12	1.81
Unrestricted PTE (lbs/day)	3.93	3.93	0.31	51.76	2.85	43.48
Unrestricted PTE (tons/yr)	0.72	0.72	0.06	9.45	0.52	7.94

*PM and PM-10 emission factors are both total (filterable and condensable) PM combined.

4. Wood Combustion

Material: poling wood⁵

Throughput (tons/yr) = 209 Heating Value (Btu/lb) = 8000

	PM ⁶	PM-10 ⁶	SO _x ⁶	NO _x ⁶	VOC ⁶	CO ⁶
Emission Factor (EF) (lbs/MMBtu)	0.417	0.417	0.025	0.49	0.017	0.6
Unrestricted PTE (lbs/hr)	0.16	0.16	0.01	0.19	0.01	0.23
Unrestricted PTE (lbs/day)	3.82	3.82	0.23	4.49	0.16	5.50
Unrestricted PTE (tons/yr)	0.70	0.70	0.04	0.82	0.03	1.00

5. Summary

PM Capture Efficiency = 85.0% PM Control Efficiency = 95.0%

	PM	PM-10	SO _x	NO _x	VOC	CO
Unrestricted PTE (tons/yr)	62.95	62.95	0.32	10.38	2.30	26.68
Controlled PTE (tons/yr)	12.12	12.12	0.32	10.38	2.30	26.68

Batches per Year = (8760 hrs/ yr) / Worst-case Batch Processing Time (hrs)

Maximum Capacity (tons copper/yr) = Capacity (lbs copper/batch) * Batches per Year * (1 ton/ 2000 lbs)

¹Emission factors provided by the Permittee; based on stack test data and mass balance calculations.

²Emission factors from FIRE 6.01.

³Emission factor provided by the Permittee; based on mass balance calculations.

⁴Emission factors from US EPA's AP 42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

⁵The wood burned in the furnace is dry wood used for poling. Poling is the process of adding wood to the copper bath in order to reduce the oxygen level.

⁶Emission factors from US EPA's AP 42, 5th Edition, Section 1.6 - Wood Residue Combustion in Boilers, Tables 1.6-1, 1.6-2, and 1.6-3.

Methodology:

Charging/Melting & Pouring Unrestricted PTE (tons/yr) = EF (lbs/ton produced) * Maximum Capacity (tons copper/yr) * (1 ton/ 2000 lbs)

Natural Gas Combustion

Unrestricted PTE (lbs/hr) = EF (lbs/10⁶ scf) * Heat Input Capacity (MMBtu/hr) / Heating Value (MMBtu/10⁶ scf)

Unrestricted PTE (lbs/day) = EF (lbs/10⁶ scf) * Heat Input Capacity (MMBtu/hr) / Heating Value (MMBtu/10⁶ scf) * (24 hrs/ day)

Unrestricted PTE (tons/yr) = EF (lbs/10⁶ scf) * Heat Input Capacity (MMBtu/hr) / Heating Value (MMBtu/10⁶ scf) * (24 hrs/ day) * (365 days/yr) * (1 ton/ 2000 lb)

Wood Combustion

Unrestricted PTE (lbs/hr) = EF (lbs/MMBtu) * Throughput (tons/yr) * Heating Value (Btu/lb) * (2000 lbs/ ton) * (MMBtu/ 1,000,000 Btu) * (1 yr/ 8760 hrs)

Unrestricted PTE (lbs/day) = EF (lbs/MMBtu) * Throughput (tons/yr) * Heating Value (Btu/lb) * (2000 lbs/ ton) * (MMBtu/ 1,000,000 Btu) * (1 yr/ 365 days)

Unrestricted PTE (tons/yr) = EF (lbs/MMBtu) * Throughput (tons/yr) * Heating Value (Btu/lb) * (2000 lbs/ ton) * (MMBtu/ 1,000,000 Btu) * (1 ton/ 2000 lbs)

Controlled PTE (tons/yr) = Unrestricted PTE (tons/yr) - (Unrestricted PTE (tons/yr) * PM Capture Efficiency (%) * (PM Control Efficiency))

****Copper Rod and Bar Manufacturing (055 West Line)****

1. Foundry Activities (vertical melt furnace and casting)

Material: pure copper cathode Maximum Production Capacity (tons/hr) =

	PM ¹	PM-10 ¹	SOx	NOx	VOC	CO
<i>Emission Factor (EF) (lbs/ton produced)</i>	0.175	0.149	-	-	-	-
Unrestricted PTE (lbs/hr)	2.63	2.24	0.00	0.00	0.00	0.00
Unrestricted PTE (lbs/day)	63.00	53.64	0.00	0.00	0.00	0.00
Unrestricted PTE (tons/yr)	11.50	9.79	0.00	0.00	0.00	0.00

2. Natural Gas Combustion (melt furnace, holding furnace, tundish, and ancillary launders)

Aggregate Heat Input Capacity (MMBtu/hr) = Heating Value (MMBtu/10⁶ scf) =

	PM ¹	PM-10 ¹	SOx ²	NOx ²	VOC ²	CO ²
<i>Emission Factor (EF) (lbs/10⁶ scf)</i>	-	-	0.6	100	5.5	84
Unrestricted PTE (lbs/hr)	0.00	0.00	0.02	2.94	0.16	2.47
Unrestricted PTE (lbs/day)	0.00	0.00	0.42	70.59	3.88	59.29
Unrestricted PTE (tons/yr)	0.00	0.00	0.08	12.88	0.71	10.82

3. Summary

	PM	PM-10	SOx	NOx	VOC	CO
Unrestricted PTE (tons/yr)	11.50	9.79	0.08	12.88	0.71	10.82

¹Emission factors provided by the Permittee; based on stack test data.

²Emission factors from US EPA's AP 42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

Methodology:

Foundry Activities

Unrestricted PTE (lbs/hr) = EF (lbs/ton produced) * Maximum Production Capacity (tons/hr)

Unrestricted PTE (lbs/day) = EF (lbs/ton produced) * Maximum Production Capacity (tons/hr) * (24 hrs/ day)

Unrestricted PTE (tons/yr) = EF (lbs/ton produced) * Maximum Production Capacity (tons/hr) * (24 hrs/ day) * (365 days/yr) * (1 ton/ 2000 lbs)

Natural Gas Combustion

Unrestricted PTE (lbs/hr) = EF (lbs/10⁶ scf) * Aggregate Heat Input Capacity (MMBtu/hr) / Heating Value (MMBtu/10⁶ scf)

Unrestricted PTE (lbs/day) = EF (lbs/10⁶ scf) * Aggregate Heat Input Capacity (MMBtu/hr) / Heating Value (MMBtu/10⁶ scf) * (24 hrs/ day)

Unrestricted PTE (tons/yr) = EF (lbs/10⁶ scf) * Aggregate Heat Input Capacity (MMBtu/hr) / Heating Value (MMBtu/10⁶ scf) * (24 hrs/ day)

* (365 days/yr) * (1 ton/ 2000 lbs)

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****Copper Rod and Bar Manufacturing (055 West Line)****

1. Foundry Activities (vertical melt furnace and casting)

Material: pure copper cathode Maximum Production Capacity (tons/hr) =

	PM ¹	PM-10 ¹	SOx	NOx	VOC	CO
<i>Emission Factor (EF) (lbs/ton produced)</i>	0.175	0.149	-	-	-	-
Unrestricted PTE (lbs/hr)	2.63	2.24	0.00	0.00	0.00	0.00
Unrestricted PTE (lbs/day)	63.00	53.64	0.00	0.00	0.00	0.00
Unrestricted PTE (tons/yr)	11.50	9.79	0.00	0.00	0.00	0.00

2. Natural Gas Combustion (melt furnace, holding furnace, tundish, and ancillary launders)

Aggregate Heat Input Capacity (MMBtu/hr) = Heating Value (MMBtu/10⁶ scf) =

	PM ¹	PM-10 ¹	SOx ²	NOx ²	VOC ²	CO ²
<i>Emission Factor (EF) (lbs/10⁶ scf)</i>	-	-	0.6	100	5.5	84
Unrestricted PTE (lbs/hr)	0.00	0.00	0.02	2.94	0.16	2.47
Unrestricted PTE (lbs/day)	0.00	0.00	0.42	70.59	3.88	59.29
Unrestricted PTE (tons/yr)	0.00	0.00	0.08	12.88	0.71	10.82

3. Summary

	PM	PM-10	SOx	NOx	VOC	CO
Unrestricted PTE (tons/yr)	11.50	9.79	0.08	12.88	0.71	10.82

¹Emission factors provided by the Permittee; based on stack test data.

²Emission factors from US EPA's AP 42, 5th Edition, Section 1.4 - Natural Gas Combustion, Tables 1.4-1 and 1.4-2.

Methodology:

Same as 055 West Line methodology on previous page.

****Copper Rod and Bar Manufacturing (055 West Line)****

1. Alcohol Quench Systems

Material: 2-PROPANOL	hrs/yr 8760	VOC Control Efficiency ¹ 98.0%
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055 East Line (P-6)	PM	PM-10	SOx	NOx	VOC ²	CO
Input (tons/month)	-	-	-	-	9.125	-
Unrestricted PTE (lbs/hr)	0.00	0.00	0.00	0.00	25.00	0.00
Unrestricted PTE (tons/yr)	0.00	0.00	0.00	0.00	109.50	0.00
Controlled PTE (tons/yr)	0.00	0.00	0.00	0.00	2.19	0.00

055 West Line (P-5)	PM	PM-10	SOx	NOx	VOC ²	CO
Input (tons/month)	-	-	-	-	9.125	-
Unrestricted PTE (lbs/hr)	0.00	0.00	0.00	0.00	25.00	0.00
Unrestricted PTE (tons/yr)	0.00	0.00	0.00	0.00	109.50	0.00
Controlled PTE (tons/yr)	0.00	0.00	0.00	0.00	2.19	0.00

2. Alcohol Quench Systems Summary

	PM	PM-10	SOx	NOx	VOC	CO
Unrestricted PTE (tons/yr)	0.00	0.00	0.00	0.00	219.00	0.00
Controlled PTE (tons/yr)	0.00	0.00	0.00	0.00	4.38	0.00

3. Mill Emulsion Systems³

Material: synthetic water soluble lubrication	hrs/yr 8760	Control Efficiency 0.0%
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055 East Line (P-6)	PM	PM-10	SOx	NOx	VOC ²	CO
Input (tons/yr)	-	-	-	-	2.00	-
Limited PTE (tons/yr)	-	-	-	-	2.00	-

055 West Line (P-5)	PM	PM-10	SOx	NOx	VOC ²	CO
Input (tons/yr)	-	-	-	-	2.00	-
Limited PTE (tons/yr)	-	-	-	-	2.00	-

4. Mill Emulsion Systems Summary

	PM	PM-10	SOx	NOx	VOC	CO
Limited PTE (tons/yr)	0.00	0.00	0.00	0.00	4.00	0.00

5. Alcohol Quench Processes Summary

	PM	PM-10	SOx	NOx	VOC	CO
Unrestricted PTE (tons/yr)	0.00	0.00	0.00	0.00	223.00	0.00
Limited and Controlled PTE (tons/yr)	0.00	0.00	0.00	0.00	8.38	0.00

¹Minimum control efficiency pursuant to Significant Source Modification No. 183-24485-00016, issued on August 22, 2007, and 326 IAC 8-1-6.

²Emission factor provided by source; based on mass balance calculations; input limited pursuant to Significant Source Modification No. 183-24485-00016, issued on August 22, 2007, and 326 IAC 8-1-6.

³Includes emissions from associated storage tanks.

Methodology:

Alcohol Quench Systems Unrestricted PTE (lbs/hr) = Input (tons/month) * (2000 lbs/ ton) * (12 months/ yr) * (1 yr/ 8760 hrs)

Alcohol Quench Systems Unrestricted PTE (tons/yr) = Input (tons/month) * (12 months/ yr)

Controlled PTE (tons/yr) = Unrestricted Emissions (tons/yr) * (1- VOC Control Efficiency (%))