



Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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TO: Interested Parties / Applicant
DATE: June 20, 2007
RE: Haynes International, Inc. / 067-18070-00009
FROM: Nisha Sizemore
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, Room 1049, 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.



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NEW SOURCE REVIEW AND Part 70 Operating Permit Renewal OFFICE OF AIR QUALITY

**Haynes International, Inc.
2000 West Deffenbaugh Street
Kokomo, Indiana 46902**

(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. This permit also addresses certain new source review requirements for existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Operation Permit No.: T067-18070-00009	
Original Signed By: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: June 20, 2007 Expiration Date: June 20, 2012

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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 rolling, drawing, and extruding of nonferrous metal foundry operation that produces nonferrous metal alloys.

Source Address:	2000 West Deffenbaugh Street, Kokomo, IN 46902
Mailing Address:	1020 West Park Avenue, Kokomo, IN 46904
General Source Phone Number:	(765) 456-6714
SIC Code:	3356
County Location:	Howard
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

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

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

Metal Melting and Machining Operations

- (a) One (1) argon oxygen decarbonization (AOD) vessel, constructed in 1972, processing a metal throughput of 5.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-14) and canopy hood fugitive emissions controlled by a baghouse for particulate matter control and exhausting to one (1) stack (S/V ID: DC-38);
- (b) Six (6) electroslag remelting furnaces (ESR), constructed in the 1970's and modified in 1982, processing a total metal throughput of 5.51 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-18);
- (c) One (1) electric arc furnace (EAF), constructed in 1963 and modified in 1978 and 2004, processing a metal throughput of 5.0 tons per hour with a five (5) module dust collector for particulate matter control and exhausting to one (1) duct (S/V ID: DC-22) and canopy hood fugitive emissions controlled by a baghouse for particulate matter control and exhausting to one (1) stack (S/V ID: DC-38);
- (d) One (1) sawing operation consisting of one (1) swing frame abrasive cut-off saw and one (1) automatic abrasive cut-off saw, constructed in 1981, processing a total metal throughput of 4.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-31);
- (e) One (1) CMI automatic abrasive billet grinder, constructed in 1981, processing a metal throughput of 3.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-32);

- (f) One (1) rotoblast shot blaster, constructed in 1989, processing a metal throughput of 8.0 tons per hour with a dust collector (DC-36) for particulate matter control and exhausting inside the building R35;
- (g) One (1) CMI abrasive billet grinder, constructed in November, 1997, processing a metal throughput of 3.0 tons per hour with one (1) dust collector for particulate control and exhausting to one (1) stack (S/V ID: DC-37);
- (h) One (1) grinding operation consisting of three (3) trackbound traveling abrasive grind machines (Grind 1), constructed in 1954, 1954, and 1983, respectively, and modified in 1981, 1990, and 1995, respectively, each grinder processing a metal throughput of 1.875 tons per hour with three (3) dust collectors for particulate matter control and exhausting to three (3) stacks (S/V ID: DC-1, DC-3, and DC-4), respectively;
- (i) One (1) grinder operation consisting of one (1) track bound traveling abrasive grind machine and one (1) stationary abrasive end grinder (Grind 2), constructed in 1954 and 1980, respectively, and modified in 1990 and 1995, respectively, each grinder processing a metal throughput of 4.35 tons per hour with two (2) dust collectors for particulate matter control and exhausting to two (2) stacks (S/V ID: DC-24 and DC-25), respectively;
- (j) One (1) sawing operation consisting of one (1) fox automatic abrasive cut-off saw and two (2) swing frame cut-off saws (Saw 1), constructed in 1960, 1967, and 1981, respectively, and modified in 1981, 1990, and 1995, respectively, each processing a metal throughput of 2.8 tons per hour with three (3) dust collectors for particulate matter control and exhausting to three (3) stacks (S/V ID: DC-2, DC-5, and DC-23) respectively;

Metal Machining Operations

- (k) One (1) grinding and sawing operation, constructed in the 1950's and modified in 1961, consisting of two (2) swing frame abrasive grinders and one (1) swing frame abrasive cut-off saw processing a total metal throughput of 1.15 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-8);
- (l) One (1) grinding and sawing operation consisting of four (4) swing frame abrasive spot grinders, one (1) swing frame abrasive cut-off saw, and one (1) swing frame belt grinder, constructed in 1954, processing a total metal throughput of 1.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-9);
- (m) One (1) rotoblast shot blaster, constructed in 1953, processing a metal throughput of 1.5 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-10);

Pickling Operations

- (n) One (1) R1 acid batch pickling line, constructed in 1983, pickling a throughput of 15.0 tons of metal per hour, utilizing a fume scrubber (FS-1) to control hydrofluoric acid (HF), nitric acid (HNO₃), NO_x, and particulate emissions, and exhausting to one (1) stack (S/V ID: FS-1); and
- (o) One (1) R35 acid strip pickling line, constructed in 1989, pickling 7.5 tons of metal per hour, utilizing a fume scrubber (FS-2) to control hydrofluoric acid (HF), nitric acid (HNO₃), NO_x, and particulate emissions, and exhausting to one (1) stack (S/V ID: FS-2).

Natural Gas Combustion Units

- (p) Two (2) natural gas-fired boilers, identified as Boiler 1 and Boiler 2, each constructed in 1965, each rated at 16.0 million (mm) British thermal units (Btu) per hour, and each exhausting to one (1) stack (S/V ID: GB1 and GB2), respectively;
- (q) Four (4) 3-Hi Mill preheat furnaces (Numbers 1, 2, 3, and 4), constructed in the 1940's, each rated at 10.35 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (r) One (1) 2-Hi Mill preheat furnace (Number 5), constructed in the 1940's, rated at 22 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (s) One (1) annealing furnace (Number 6), constructed in the 1940's, rated at 14.8 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (v) One (1) annealing furnace (Number 16), constructed in the 1960's and reconstructed in 2006, rated at 16 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (w) One (1) annealing furnace (Number 20), constructed between 1981 and 1983, rated at 12 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (x) Five (5) 4-Hi mill preheat furnaces (Numbers 51, 52, 53, 56, and 57), constructed between 1981 and 1983, each rated at 15 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting to five (5) stacks (SV ID: GF51, GF52, GF53, GF56, and GF57);
- (y) Two (2) 4-Hi mill steckle furnaces, constructed between 1981 and 1983, each rated at 20 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (z) One (1) strip annealing furnace A&K line, constructed between 1981 and 1983, rated at 10 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting to one (1) stack (S/V ID: GFA & K).

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) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million (mm) British thermal units (Btu) per hour;
 - (1) One (1) R1 pickle tank boiler rated at 2.10 mmBtu per hour; [326 IAC 6.5-1-2]
 - (2) One (1) R1 high pressure wash boiler rated at 2.52 mmBtu per hr; [326 IAC 6.5-1-2]
 - (3) One (1) R35 pickle line boiler rated at 1.5 mmBtu per hour; [326 IAC 6.5-1-2]
 - (4) One (1) R42 steam heating boiler rated at 1.05 mmBtu per hour; [326 IAC 6.5-1-2]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:

- (1) fifteen (15) separate cold cleaner degreasers used for parts washing, each of which has less than or equal to 80 gallon capacities; [326 IAC 8-3-2][326 IAC 8-3-5] and
 - (2) one (1) large mill bearing cleaner/degreaser, located in building R55, utilizing an enclosed power wash cleaner, and a catch basin where wastewater is pumped into an enclosed tank. [326 IAC 8-3-2][326 IAC 8-3-5]
- (c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; [326 IAC 6.5-1-2]
- (d) Grinding and machining operations with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations; [326 IAC 6.5-1-2]
- (e) Other activities or categories below insignificant thresholds:
- (1) two (2) dust silos (one (1) 50 ton storage capacity and one (1) 25 ton storage capacity) located in Building R-24, with two (2) dust collectors; [326 IAC 6.5-1-2]
 - (2) one (1) R36 strip anneal and Kolene operation with one (1) spray quench tank, one (1) mechanical brush scrubber, and one (1) fume scrubber, exhausting through one (1) stack (S/V ID: FS-3); [326 IAC 6.5-1-2]
 - (3) one (1) R24 weigh room utilizing a hood over the raw material scale and vented to a dust collector (DC-33) and out one (1) stack (S/V ID: DC-33). [326 IAC 6.5-1-2] and
 - (4) one (1) vacuum induction melting furnace with a metal throughput of 1 ton per hour, exhausting inside the plant. [326 IAC 6-3-2]

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, 067-18070-00009, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.
- (b) If IDEM, OAQ , upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

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) The "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 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 Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
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 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 067-18070-00009 and issued pursuant to permitting programs approved into the state implementation plan have been either:
- (1) incorporated as originally stated,
 - (2) revised under 326 IAC 2-7-10.5, or
 - (3) deleted under 326 IAC 2-7-10.5.
- (b) Provided that all terms and conditions are accurately reflected in this combined permit, all previous registrations and permits are superseded by this combined new source review and part 70 operating permit.

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

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

B.15 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 Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The Quarterly Deviation and Compliance Monitoring Report does require the certification by 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

Any such application shall be certified by 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.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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

- (5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(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.

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

- (a) A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-7-10.5.
- (b) Any modification at an existing major source is governed by the requirements of 326 IAC 2-2-2.

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

The application which shall be submitted by the Permittee does require the certification by 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 Advanced Source Modification Approval [326 IAC 2-7-5(16)] [326 IAC 2-7-10.5]

- (a) The requirements to obtain a source modification approval under 326 IAC 2-7-10.5 or a permit modification under 326 IAC 2-7-12 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.
- (b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.26 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.

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

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

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

All required notifications shall be submitted to:

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

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by 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 Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited 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 Data Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by 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 thirty (30) 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 thirty (30) days, the Permittee may extend the compliance schedule related to the equipment for an additional thirty (30) days provided the Permittee notifies:

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

in writing, prior to the end of the initial thirty (30) 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 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;
 - (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) Pursuant to 326 IAC 2-6-3(b)(2), starting in 2005 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] [326 IAC 2-2] [326 IAC 2-3]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.
- (c) If there is a "project" (as defined in 326 IAC 2-2-1 (qq)) at an existing emissions unit or at a source with Plantwide Applicability Limitation (PAL), which is not part of a "major modification" (as defined in 326 IAC 2-2-1 (ee)) and the Permittee elects to utilize the "projected actual emissions" (as defined in 326 IAC 2-2-1 (rr) and/or 326 IAC 2-3-1 (mm)), the Permittee shall comply with following:
 - (1) Before beginning actual construction of the "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, document and maintain the following records:
 - (A) A description of the project.
 - (B) Identification of any emissions unit whose emissions of a regulated new source review pollutant could be affected by the project.
 - (C) A description of the applicability test used to determine that the project is not a major modification for any regulated NSR pollutant, including:
 - (i) Baseline actual emissions;
 - (ii) Projected actual emissions;
 - (iii) Amount of emissions excluded under section 326 IAC 2-2-1(rr)(2)(A)(iii) and/or 326 IAC 2-3-1(mm)(2)(A)(iii); and
 - (iv) An explanation for why the amount was excluded, and any netting calculations, if applicable.
 - (2) Monitor the emissions of any regulated NSR pollutant that could increase as a result of the project and that is emitted by any existing emissions unit identified in (1)(B) above; and
 - (3) Calculate and maintain a record of the annual emissions, in tons per year on a calendar year basis, for a period of five (5) years following resumption of regular operations after the change, or for a period of ten (10) years following resumption of regular operations after the change if the project increases the design capacity of or the potential to emit that regulated NSR pollutant at the emissions unit.

C.19 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11] [326 IAC 2-2] [326 IAC 2-3]

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

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit shall be considered timely if the date postmarked on the envelope or certified mail receipt, or affixed by the shipper on the private shipping receipt, is on or before the date it is due. If the document is submitted by any other means, it shall be considered timely if received by IDEM, OAQ, on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by 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.
- (f) If the Permittee is required to comply with the recordkeeping provisions of (c) in Section C - General Record Keeping Requirements for any "project" (as defined in 326 IAC 2-2-1 (qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ :
- (1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C - General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and
 - (2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).
- (g) The report for a project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:
- (1) The name, address, and telephone number of the major stationary source.
 - (2) The annual emissions calculated in accordance with (c)(2) and (3) in Section C - General Record Keeping Requirements.
 - (3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).
 - (4) Any other information that the Permittee deems fit to include in this report,

Reports required in this part shall be submitted to:

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

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

Stratospheric Ozone Protection

C.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:

Metal Melting and Machining Operations

- (a) One (1) argon oxygen decarbonization (AOD) vessel, constructed in 1972, processing a metal throughput of 5.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-14) and canopy hood fugitive emissions controlled by a baghouse for particulate matter control and exhausting to one (1) stack (S/V ID: DC-38);
- (b) Six (6) electroslag remelting furnaces (ESR), constructed in the 1970's and modified in 1982, processing a total metal throughput of 5.51 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-18);
- (c) One (1) electric arc furnace (EAF), constructed in 1963 and modified in 1978 and 2004, processing a metal throughput of 5.0 tons per hour with a five (5) module dust collector for particulate matter control and exhausting to one (1) duct (S/V ID: DC-22) and canopy hood fugitive emissions controlled by a baghouse for particulate matter control and exhausting to one (1) stack (S/V ID: DC-38);
- (d) One (1) sawing operation consisting of one (1) swing frame abrasive cut-off saw and one (1) automatic abrasive cut-off saw, constructed in 1981, processing a total metal throughput of 4.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-31);
- (e) One (1) CMI automatic abrasive billet grinder, constructed in 1981, processing a metal throughput of 3.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-32);
- (f) One (1) rotoblast shot blaster, constructed in 1989, processing a metal throughput of 8.0 tons per hour with a dust collector (DC-36) for particulate matter control and exhausting inside the building R35;
- (g) One (1) CMI abrasive billet grinder, constructed in November, 1997, processing a metal throughput of 3.0 tons per hour with one (1) dust collector for particulate control and exhausting to one (1) stack (S/V ID: DC-37);
- (h) One (1) grinding operation consisting of three (3) trackbound traveling abrasive grind machines (Grind 1), constructed in 1954, 1954, and 1983, respectively, and modified in 1981, 1990, and 1995, respectively, each grinder processing a metal throughput of 1.875 tons per hour with three (3) dust collectors for particulate matter control and exhausting to three (3) stacks (S/V ID: DC-1, DC-3, and DC-4), respectively;
- (i) One (1) grinder operation consisting of one (1) track bound traveling abrasive grind machine and one (1) stationary abrasive end grinder (Grind 2), constructed in 1954 and 1980, respectively, and modified in 1990 and 1995, respectively, each grinder processing a metal throughput of 4.35 tons per hour with two (2) dust collectors for particulate matter control and exhausting to two (2) stacks (S/V ID: DC-24 and DC-25), respectively;
- (j) One (1) sawing operation consisting of one (1) fox automatic abrasive cut-off saw and two (2) swing frame cut-off saws (Saw 1), constructed in 1960, 1967, and 1981, respectively, and modified in 1981, 1990, and 1995, respectively, each processing a metal throughput of 2.8 tons per hour with three (3) dust collectors for particulate matter control and exhausting to three (3) stacks (S/V ID: DC-2, DC-5, and DC-23) respectively;

Metal Machining Operations

- (k) One (1) grinding and sawing operation, constructed in the 1950's and modified in 1961, consisting of two (2) swing frame abrasive grinders and one (1) swing frame abrasive cut-off saw processing a total metal throughput of 1.15 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-8);
- (l) One (1) grinding and sawing operation consisting of four (4) swing frame abrasive spot grinders, one (1) swing frame abrasive cut-off saw, and one (1) swing frame belt grinder, constructed in 1954, processing a total metal throughput of 1.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-9);
- (m) One (1) rotoblast shot blaster, constructed in 1953, processing a metal throughput of 1.5 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-10);

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

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

D.1.1 Particulate Matter (PM) [326 IAC 6.5-1-2]

Pursuant to 326 IAC 6.5-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from each of the facilities listed in this section shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf).

D.1.2 PSD Minor Limits [326 IAC 2-2]

- (a) PM and PM10 emissions from the following operations, installed or modified in 1981, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1981:
 - (1) PM emissions from dust collector controlling the one (1) sawing operation exhausting through stack DC-31 shall be less than 1.51 pounds per hour;
 - (2) PM-10 emissions from dust collector controlling the one (1) sawing operation exhausting through stack DC-31 shall be less than 0.68 pounds per hour;
 - (3) PM emissions from the dust collector controlling the abrasive billet grinder exhausting through stack DC-32 shall be less than 1.13 pounds per hour;
 - (4) PM-10 emissions from the dust collector controlling the abrasive billet grinder exhausting through stack DC-32 shall be less than 0.51 pounds per hour;
 - (5) PM emissions from the dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-1 shall be less than 0.71 pound per hour;
 - (6) PM-10 emissions from the dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-1 shall be less than 0.32 pound per hour;
 - (7) PM emissions from the dust collector controlling the fox automatic abrasive cut-off saw in Saw 1 exhausting through stack DC-2 shall be less than 1.06 pounds per hour;

- (8) PM-10 emissions from the dust collector controlling the fox automatic abrasive cut-off saw in Saw 1 exhausting through stack DC-2 shall be less than 0.48 pounds per hour;
- (9) PM emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-23, shall be less than 1.06 pounds per hour;
- (10) PM-10 emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-23, shall be less than 0.48 pounds per hour.

The PM and PM10 emission limits in (a)(1) through (10), combined with potential unrestricted PM and PM10 emissions from the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K also installed in 1981, shall render the requirements of 326 IAC 2-2 (PSD) not applicable to the units installed in 1981.

- (b) PM and PM10 emissions from the following operation, modified in 1982, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1982:
 - (1) PM emissions from the dust collector controlling the six (6) electroslag remelting furnaces (ESR), modified in 1982, exhausting through stack DC-18 shall be less than 5.71 pounds per hour;
 - (2) PM10 emissions from the dust collector controlling the six (6) electroslag remelting furnaces (ESR), modified in 1982, exhausting through stack DC-18 shall be less than 3.42 pounds per hour.

The limits in (b)(1) and (2) shall limit PM and PM10 emissions from the ESR to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1982.

- (c) PM and PM10 emissions from the following operations, installed in 1989, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1989:
 - (1) PM emissions from the dust collector DC-36 controlling the one (1) rotoblast shot blaster, constructed in 1989, exhausting inside the building shall be less than 5.69 pounds per hour;
 - (2) PM10 emissions from the dust collector DC-36 controlling the one (1) rotoblast shot blaster, constructed in 1989, exhausting inside the building shall be less than 3.41 pounds per hour.

These limits in (c)(1) and (2) combined with the unrestricted PM and PM10 emissions from the R35 acid strip pickling line shall limit PM and PM10 emissions from the units installed in 1989 to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1989.

- (d) PM and PM10 emissions from the following operations, modified in 1990, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1990:
 - (1) PM emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-3, shall be less than 1.19 pounds per hour;

- (2) PM-10 emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-3, shall be less than 0.71 pound per hour;
- (3) PM emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-24, shall be less than 2.75 pounds per hour;
- (4) PM-10 emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-24, shall be less than 1.65 pounds per hour;
- (5) PM emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-5, shall be less than 1.77 pounds per hour;
- (6) PM-10 emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-5, shall be less than 1.06 pounds per hour.

The limits in (d)(1) through (6) shall limit PM and PM10 emissions from the units installed in 1990 to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1990.

- (e) PM and PM10 emissions from the following operations, modified in 1995, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1995:

- (1) PM emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-4, shall be less than 1.19 pounds per hour;
- (2) PM-10 emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-4, shall be less than 0.71 pound per hour;
- (3) PM emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-25, shall be less than 2.75 pounds per hour;
- (4) PM-10 emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-25, shall be less than 1.65 pounds per hour.

The limits in (e)(1) through (4) shall limit PM and PM10 emissions from the units modified in 1995 to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1995.

- (f) PM and PM10 emissions from the following operation, installed in 1997, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1997:

- (1) PM emissions from the dust collector controlling the CMI abrasive billet grinder, constructed in 1997, exhausting through stack DC-37 shall be less than 5.71 pounds per hour;
- (2) PM10 emissions from the dust collector controlling the CMI abrasive billet grinder, constructed in 1997, exhausting through stack DC-37 shall be less than 3.42 pounds per hour.

The limits in (f)(1) and (2) shall limit PM and PM10 emissions from the CMI abrasive billet grinder to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1997.

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 each facility and its control devices.

Compliance Determination Requirements

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (a) Within five (5) years after the date of the most recent IDEM approved stack test (September 27, 2004), in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing on the AOD vessel dust collector stack exhaust (DC-14) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (b) Within five (5) years after the date of the most recent IDEM approved stack test (September 8, 2004), in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing on the EAF dust collector stack exhaust (DC-22) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (c) Within five (5) years after the date of the most recent IDEM approved stack test (January 16, 2007), in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing on the ESR dust collector stack exhaust (DC-18) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
- (d) Within five (5) years after the date of the most recent IDEM approved stack test (September 27, 2004), in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing on the AOD and EAF canopy hood baghouse stack exhaust (DC-38) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.

D.1.5 Particulate Control

- (a) In order to comply with conditions D.1.1 and D.1.2, the dust collectors for particulate control shall be in operation and control emissions from each of the facilities listed in this section at all times that the facilities are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.1.6 Visible Emissions Notations

- (a) Visible emission notations of each of the stack exhausts of the dust collectors identified as DC-14, DC-22, DC-10, DC-31, DC-1, DC-3, DC-4, DC-24, DC-25, DC-2, DC-5, DC-23, DC-32, DC-37, and DC-38 shall be performed once per day 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 Visible Emissions Notations [40 CFR 64]

- (a) Visible emission notations of each of the stack exhausts of the dust collector for the six (6) electroslag remelting furnaces (ESR) exhausting through stack DC-18 and the dust collector for the Rotoblast shot blaster exhausting through stack DC-36 shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the pressure drop across each of the dust collectors used in conjunction with the facilities listed below, at least once per day when the process is in operation. When for any one reading, the pressure drop across any dust collector is outside the normal ranges listed below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

<u>Facility</u>	<u>Pressure Drop (inches of water)</u>
AOD (DC-14):	1.0 - 6.0
EAF(DC- 22):	1.0 - 6.0
Rotoblast (DC-10):	1.0 - 6.0
Saw/Grind (DC-31):	1.0 - 6.0
Grinders (DC-1, DC-3, and DC-4):	1.0 - 6.0 each
Grinders (DC-24 and DC-25):	1.0 - 6.0 each
Sawing (DC-2, DC-5, and DC-23):	1.0 - 6.0 each
CMI grinder (DC-32):	1.0 - 6.0
CMI grinder (DC-37):	1.0 - 6.0
AOD and EAF Canopy Hood	
Fugitive Emissions (DC-38):	2.0 - 10.0

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

D.1.9 Parametric Monitoring [40 CFR 64]

The Permittee shall record the pressure drop across each of the dust collectors used in conjunction with the facilities listed below, at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across any dust collector is outside the normal ranges listed below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

<u>Facility</u>	<u>Pressure Drop (inches of water)</u>
ESR (DC- 18):	1.0 - 6.0
Rotoblast (DC-36):	1.0 - 8.0

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

D.1.10 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 emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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, or dust traces.

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

D.1.11 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.6 and D.1.7, the Permittee shall maintain records of visible emission notations of the stack exhaust of each facility listed in this section once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day, or, for DC-36, the unit was venting indoors that day).
- (b) To document compliance with Conditions D.1.8 and D.1.9, the Permittee shall maintain records once per day of the pressure drop across each of the dust collectors during normal operation. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading (e.g. the process did not operate that day, or, for DC-36, the unit was venting indoors that day).
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2 FACILITY OPERATION CONDITIONS

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

Pickling Operations

- (n) One (1) R1 acid batch pickling line, constructed in 1983, pickling a throughput of 15.0 tons of metal per hour, utilizing a fume scrubber (FS-1) to control hydrofluoric acid (HF), nitric acid (HNO₃), NO_x, and particulate emissions, and exhausting to one (1) stack (S/V ID: FS-1); and
- (o) One (1) R35 acid strip pickling line, constructed in 1989, pickling 7.5 tons of metal per hour, utilizing a fume scrubber (FS-2) to control hydrofluoric acid (HF), nitric acid (HNO₃), NO_x, and particulate emissions, and exhausting to one (1) stack (S/V ID: FS-2).

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

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

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

Pursuant to 326 IAC 6.5-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from each of the facilities listed in this section shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf).

D.2.2 PSD Minor Limits [326 IAC 2-2]

- (a) NO_x emissions from the fume scrubber (FS-1) controlling NO_x emissions from the R1 acid batch pickling line shall be less than 7.93 pounds per hour.

This limit combined with potential unrestricted NO_x emissions from the annealing furnace (Number 20) shall limit NO_x emissions from the units installed in 1983 to less than 40 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable.

- (b) NO_x emissions from the fume scrubber (FS-2) controlling NO_x emissions from the R35 acid strip pickling line shall be less than 9.13 pounds per hour.

This limit will limit NO_x emissions from the modification in 1989 to less than 40 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply.

D.2.3 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 each facility and its control devices.

Compliance Determination Requirements

D.2.4 Scrubber Operating Condition

In order to comply with conditions D.2.1 and D.2.2, the fume scrubbers identified as FS-1 and FS-2 shall be operated at all times when the R1 batch pickling and R35 strip pickling units are in operation, respectively.

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

D.2.5 Visible Emissions Notations

- (a) Visible emission notations of each of the fume scrubber stack exhausts shall be performed once per day 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.2.6 Parametric Monitoring

The Permittee shall monitor and record the pH and flow rate of each of the scrubbers, at least once daily when the units are in operation. When for any one reading, the flow rate of either of the fume scrubbers is less than the minimum specified below or a minimum established during the latest stack test, or the pH of the scrubber is less than the value specified below or a value established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A flow rate that is less than the minimum specified below or a pH reading that is less than the value specified below 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.

<u>Scrubber</u>	<u>Flow rate</u>	<u>pH</u>
FS-1	150 gallons per minute	above 7
FS-2	75 gallons per minute	above 7

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

D.2.7 Record Keeping Requirements

- (a) To document compliance with Condition D.2.5, the Permittee shall maintain records of visible emission notations of each of the fume scrubber stack exhausts once per day. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).
- (b) To document compliance with Condition D.2.6, the Permittee shall maintain records once per day of the pH and flow rate in each fume scrubber during normal operation. The Permittee shall include in its daily record when a pH or flow rate reading is not taken and the reason for the lack of a pH or flow rate 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.3

FACILITY OPERATION CONDITIONS

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

Natural Gas Combustion Units

- (r) Two (2) natural gas-fired boilers, identified as Boiler 1 and Boiler 2, each constructed in 1965, each rated at 16.0 million (mm) British thermal units (Btu) per hour, and each exhausting to one (1) stack (S/V ID: GB1 and GB2), respectively;
- (s) Four (4) 3-Hi Mill preheat furnaces (Numbers 1, 2, 3, and 4), constructed in the 1940's, each rated at 10.35 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (t) One (1) 2-Hi Mill preheat furnace (Number 5), constructed in the 1940's, rated at 22 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (u) One (1) annealing furnace (Number 6), constructed in the 1940's, rated at 14.8 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (v) One (1) annealing furnace (Number 16), constructed in the 1960's and reconstructed in 2006, rated at 16 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (w) One (1) annealing furnace (Number 20), constructed between 1981 and 1983, rated at 12 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (x) Five (5) 4-Hi mill preheat furnaces (Numbers 51, 52, 53, 56, and 57), constructed between 1981 and 1983, each rated at 15 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting to five (5) stacks (SV ID: GF51, GF52, GF53, GF56, and GF57);
- (y) Two (2) 4-Hi mill steckle furnaces, constructed between 1981 and 1983, each rated at 20 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (z) One (1) strip annealing furnace A&K line, constructed between 1981 and 1983, rated at 10 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting to one (1) stack (S/V ID: GFA & K).

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

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

D.3.1 Particulate Matter (PM) [326 IAC 6.5-1-2(b)]

Pursuant to 326 IAC 6.5-1-2(b)(3) (Emissions Limitations for Sources of Indirect Heating), the particulate matter (PM) emission rate from each of the natural gas-fired boilers (Boilers 1 and 2) shall in no case exceed 0.01 grains per dry standard cubic foot (dscf) for all gaseous fuel-fired steam generators.

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

- (a) The combined usage of natural gas in the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K, shall be limited to a total of 780.0 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (b) Emissions of NO_x shall not exceed 100 pounds per MMCF of combined natural gas usage in the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K.

These limits will limit NO_x emissions from the modification in 1981 to less than 40 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply.

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

D.3.3 Record Keeping Requirements

- (a) To document compliance with Condition D.3.2, the Permittee shall maintain the following records:
 - (1) Calendar dates covered in the compliance determination period;
 - (2) Actual natural gas usage in million cubic feet (mmcf) per month for the four (4) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K.
- (b) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.3.4 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.3.2 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.4

FACILITY OPERATION CONDITIONS

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

Insignificant Activities

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million (mm) British thermal units (Btu) per hour;
 - (1) One (1) R1 pickle tank boiler rated at 2.10 mmBtu per hour; [326 IAC 6.5-1-2]
 - (2) One (1) R1 high pressure wash boiler rated at 2.52 mmBtu per hr; [326 IAC 6.5-1-2]
 - (3) One (1) R35 pickle line boiler rated at 1.5 mmBtu per hour; [326 IAC 6.5-1-2]
 - (4) One (1) R42 steam heating boiler rated at 1.05 mmBtu per hour; [326 IAC 6.5-1-2]
- (b) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:
 - (1) fifteen (15) separate cold cleaner degreasers used for parts washing, each of which has less than or equal to 80 gallon capacities; [326 IAC 8-3-2][326 IAC 8-3-5] and
 - (2) one (1) large mill bearing cleaner/degreaser, located in building R55, utilizing an enclosed power wash cleaner, and a catch basin where wastewater is pumped into an enclosed tank. [326 IAC 8-3-2][326 IAC 8-3-5]
- (c) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment; [326 IAC 6.5-1-2]
- (d) Grinding and machining operations with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations; [326 IAC 6.5-1-2]
- (e) Other activities or categories below insignificant thresholds:
 - (1) two (2) dust silos (one (1) 50 ton storage capacity and one (1) 25 ton storage capacity) located in Building R-24, with two (2) dust collectors; [326 IAC 6.5-1-2]
 - (2) one (1) R36 strip anneal and Kolene operation with one (1) spray quench tank, one (1) mechanical brush scrubber, and one (1) fume scrubber, exhausting through one (1) stack (S/V ID: FS-3); [326 IAC 6.5-1-2]
 - (3) one (1) R24 weigh room utilizing a hood over the raw material scale and vented to a dust collector (DC-33) and out one (1) stack (S/V ID: DC-33). [326 IAC 6.5-1-2] and
 - (4) one (1) vacuum induction melting furnace with a metal throughput of 1 ton per hour, exhausting inside the plant. [326 IAC 6-3-2]

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

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

D.4.1 Particulate Matter (PM) [326 IAC 6.5-1-2]

- (a) Pursuant to 326 IAC 6.5-1-2(a) (Nonattainment Area Particulate Limitations), particulate matter (PM) emissions from the following insignificant activities shall be limited to 0.03 grains per dry standard cubic foot (gr/dscf):

- (1) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;
 - (2) Grinding and machining operations with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations;
 - (3) two (2) dust silos (one (1) 50 ton storage capacity and one (1) 25 ton storage capacity) located in Building R-24, with two (2) dust collectors;
 - (4) one (1) R36 strip anneal and Kolene operation with one (1) spray quench tank, one (1) mechanical brush scrubber, and one (1) fume scrubber, exhausting through one (1) stack (S/V ID: FS-3); and
 - (5) one (1) R24 weigh room utilizing a hood over the raw material scale and vented to a dust collector (DC-33) and out one (1) stack (S/V ID: DC-33).
- (b) Pursuant to 326 IAC 6.5-1-2(b)(3) (Emissions Limitations for Sources of Indirect Heating), the particulate matter (PM) emission rate from each of the natural gas-fired boilers (R1 pickle tank boiler, R1 high pressure wash boiler, R35 pickle line boiler, and R42 steam heating boiler) shall in no case exceed 0.01 grains per dry standard cubic foot (dscf) for all gaseous fuel-fired steam generators.

D.4.2 Volatile Organic Compounds (VOC) [326 IAC 8-3-2]

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

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

D.4.3 Volatile Organic Compounds (VOC) [326 IAC 8-3-5]

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:

- (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (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 is 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) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, shall ensure that the following operating requirements are met:
- (1) Close the cover whenever articles are not being handled in the degreaser.
 - (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
 - (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

D.4.4 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 vacuum induction melting furnace shall not exceed 4.1 pounds per hour when operating at a process weight rate of 1.0 ton per hour. The pounds per hour limitation was calculated using 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:

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

Compliance Determination Requirements

D.4.5 Particulate Control

- (a) In order to comply with condition D.4.1, the dust collectors for particulate control for the dust silos and the R24 weighing operation (DC-33) shall be in operation and control emissions from the dust silos and R24 weighing operation at all times that the dust silos and R24 weigh room are in operation.
- (b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.
- (c) In order to comply with condition D.4.1, the mechanical brush scrubber and the fume scrubber (FS-3) for particulate control shall be in operation and control emissions from the R36 strip anneal and Kolene operation with one (1) spray quench tank at all times that the R36 strip anneal and Kolene operation with one (1) spray quench tank are in operation.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT OFFICE OF AIR QUALITY

PART 70 OPERATING PERMIT CERTIFICATION

Source Name: Haynes International, Inc.
Source Address: 2000 West Deffenbaugh Street, Kokomo, Indiana 46904
Mailing Address: 1020 West Park Avenue, Kokomo, IN 46904
Part 70 Permit No.: T067-18070-00009

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

Please check what document is being certified:

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

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

Signature:

Printed Name:

Title/Position:

Phone:

Date:

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

**PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT**

Source Name: Haynes International, Inc.
Source Address: 2000 West Deffenbaugh Street, Kokomo, Indiana 46904
Mailing Address: 1020 West Park Avenue, Kokomo, IN 46904
Part 70 Permit No.: T067-18070-00009

This form consists of 2 pages

Page 1 of 2

- | |
|--|
| <input type="checkbox"/> This is an emergency as defined in 326 IAC 2-7-1(12) <ul style="list-style-type: none">C 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); andC 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

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 DATA SECTION

Part 70 Quarterly Report

Source Name: Haynes International, Inc.
Source Address: 2000 West Deffenbaugh Street, Kokomo, Indiana 46904
Mailing Address: 1020 West Park Avenue, Kokomo, IN 46904
Part 70 Permit No.: T067-18070-00009
Facility: five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K
Parameter: NOx emissions
Limit: The usage of natural gas in the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K, shall be limited to a total of 780.0 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.

YEAR:

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

No deviation occurred in this quarter.

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

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

Attach a signed certification to complete this report.

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

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

Source Name: Haynes International, Inc.
 Source Address: 2000 West Deffenbaugh Street, Kokomo, Indiana 46904
 Mailing Address: 1020 West Park Avenue, Kokomo, IN 46904
 Part 70 Permit No.: T067-18070-00009

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

Page 1 of 2

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

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

Form Completed By:

Title/Position:

Date:

Phone:

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

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

Source Name: Haynes International, Inc.
Source Location: 2000 West Deffenbaugh Street, Kokomo, Indiana 46902
County: Howard
SIC Code: 3356
Operation Permit No.: T067-18070-00009
Permit Reviewer: Trish Earls/EVP

On February 7, 2007, the Office of Air Quality (OAQ) had a notice published in the Kokomo Tribune, Kokomo, Indiana, stating that Haynes International, Inc. had applied for a Part 70 Operating Permit Renewal to continue to operate a stationary rolling, drawing, and extruding of nonferrous metal foundry operation that produces nonferrous metal alloys. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On March 6, 2007, Howard County Councilman Leslie W. Ellison submitted a request for a public hearing on the proposed permit. On April 11, 2007, IDEM, OAQ conducted a public meeting regarding the draft permit documents for this source. During the meeting IDEM, OAQ received one written comment that is set out below.

Comment:

Howard County Councilman Leslie W. Ellison, Mrs. Leslie W. Ellison, LaQuita Zimmerman and Kathleen L. Sickles requested that IDEM, OAQ locate an ambient air monitoring site in Howard County. The commenters noted that there is already industry in the area and that additional industry is planning on moving to Howard County and surrounding counties. The commenters noted that existing monitors are too far away.

Response:

IDEM, OAQ conducts ambient air monitoring for ozone, coarse particulate matter, fine particulate matter, sulfur dioxide, nitrogen oxides, carbon monoxide, lead and air toxics at locations around Indiana. Information and maps of these monitoring sites is located at <http://www.in.gov/idem/programs/air/amb/index.html> on the internet. IDEM, OAQ has been operating an air monitor at 215 W. Superior St. (at the fire station) in Kokomo since 1999. This monitoring station collects data on the ambient air concentration of fine particulate matter, known as particulate matter 2.5 microns, abbreviated PM_{2.5}. The data collected from the Kokomo monitor is not yet available on the internet. The Kokomo monitor operates every third day and the data can be obtained from IDEM, OAQ by contacting Steve Lengerich by e-mail at slengeri@idem.in.gov or by telephone toll free at (800) 451-6027, extension 308-3264, or direct dial at (317) 308-3264. The placement of air monitors is done by IDEM, OAQ's Monitoring Branch. The Monitoring Branch Chief is Richard Zeiler. Mr. Zeiler can be reached at (800) 451-6027, extension 308-3238 or directly at (317) 308-3238, or at dzeiler@idem.in.gov by e-mail. A copy of the commenters' request has been forwarded to Mr. Zeiler.

Particulate matter comes from many different sources including industrial and residential combustion activities and vehicle exhaust, so its composition varies widely. Some particles are emitted directly into the air from cars, trucks, buses, factories, construction sites, tilled fields, unpaved roads, stone crushing, and wood burning. Other particles are formed in the air from the chemical change of gases. They are indirectly formed when gases from burning fuels react with sunlight and water vapor. These gases come from fuel combustion in motor vehicles, diesel engines, at power plants, and in other industrial processes.

The federal Clean Air Act requires the United States Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for six criteria pollutants. PM_{2.5} is one of the six criteria pollutants. The EPA sets these standards at levels that protect human health, which is why the NAAQS are often referred to as the federal health standards for outdoor air. The NAAQS limit for all criteria pollutants is set low enough to protect human health, including the health of sensitive persons, such as asthmatics, children, and the elderly. More information about the NAAQS for PM_{2.5} is available at <http://www.epa.gov/air/particlepollution/standards.html> on EPA's website. The complete table of the NAAQS for all criteria pollutants can be found at the <http://www.epa.gov/air/criteria.html> website. EPA's website <http://www.epa.gov/air/urbanair/6poll.html> provides more detailed information about the health effects of six common air pollutants and why they are regulated. Howard County is in attainment for all the NAAQS, meaning that the concentration of criteria pollutants in the ambient air is at a level that is safe for human health and the environment.

Information about current and expected air pollution levels is available on IDEM's SmogWatch site at <http://www.in.gov/apps/idem/smog/> on the internet. The site is designed to provide Hoosiers with an easy-to-read forecast of air quality in their communities. The site provides information about ground-level ozone and particulate matter forecasts.

Ambient monitoring of toxic air pollutants in Indiana is part of IDEM's ToxWatch Program. IDEM, OAQ currently monitors air toxics at 10 locations across the state. The closest air toxics monitor to Howard County is in Marion County. The data from all of the air toxics monitors is available on IDEM, OAQ's ToxWatch site at <http://www.in.gov/idem/programs/air/toxwatch/> on the internet. Information on the health effects of hazardous air pollutants can be found on the EPA's website at <http://yosemite.epa.gov/oswer/ceppoweb.nsf/content/ChemicalsInYourCommunity.htm> on the internet. Information pertaining to emissions of hazardous air pollutants in Howard County can be found at <http://www.epa.gov/tri> on the internet.

There were no changes made to the Part 70 Operating Permit Renewal as a result of this comment.

Upon further review IDEM, OAQ has made the following changes to the Part 70 permit (additions in bold, deletions in ~~strikeout~~):

1. IDEM, OAQ has determined that it is no longer necessary to identify the Responsible Official in permits. Therefore, Condition A.1 has been revised to remove this reference 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 rolling, drawing, and extruding of nonferrous metal foundry operation that produces nonferrous metal alloys.

Responsible Official:	Vice President of Operations
Source Address:	2000 West Deffenbaugh Street, Kokomo, IN 46902
Mailing Address:	1020 West Park Avenue, Kokomo, IN 46904
General Source Phone Number:	(765) 456-6714
SIC Code:	3356
County Location:	Howard
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Part 70 Operating Permit Program Major Source, under PSD Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

2. Mail codes for the various departments of the OAQ have been added to the addresses included throughout the Part 70 Operating Permit without replication herein.
3. Paragraph (c) of condition D.1.4 has been revised to reflect the most recent stack test date on which the source performed the required stack testing on ESR dust collector DC-18 as follows:

D.1.4 Testing Requirements [326 IAC 2-7-6(1),(6)] [326 IAC 2-1.1-11]

- (c) Within five (5) years after the date of the most recent IDEM approved stack test (~~February 11, 2002~~ **January 16, 2007**), in order to demonstrate compliance with Condition D.1.1, the Permittee shall perform PM testing on the ESR dust collector stack exhaust (DC-18) utilizing methods as approved by the Commissioner. This test shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accordance with Section C - Performance Testing.
4. Condition D.1.6 has been revised to specify the emission units that are subject to the monitoring requirements in the condition. Condition D.1.8 has been revised to remove reference to dust collectors DC-18 and DC-36 since parametric monitoring for these units is already required in condition D.1.9 pursuant to 40 CFR 64, CAM. Also, since none of the units included in conditions D.1.6 or D.1.8 can vent indoors, the phrase "when exhausting to the atmosphere" has been removed.

D.1.6 Visible Emissions Notations

- (a) Visible emission notations of **each of the stack exhausts of each facility listed in this section of the dust collectors identified as DC-14, DC-22, DC-10, DC-31, DC-1, DC-3, DC-4, DC-24, DC-25, DC-2, DC-5, DC-23, DC-32, DC-37, and DC-38** shall be performed once per day during normal daylight operations ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) If abnormal emissions are observed, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.1.8 Parametric Monitoring

The Permittee shall record the pressure drop across each of the dust collectors used in conjunction with the facilities listed below, at least once per day when the process is in operation ~~when venting to the atmosphere~~. When for any one reading, the pressure drop across any dust collector is outside the normal ranges listed below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C - Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

Facility	Pressure Drop (inches of water)
AOD (DC-14):	1.0 - 6.0
ESR (DC-18):	1.0 - 6.0
EAF(DC- 22):	1.0 - 6.0
Rotoblast (DC-10):	1.0 - 6.0
Saw/Grind (DC-31):	1.0 - 6.0
Rotoblast (DC-36):	1.0 - 8.0
Grinders (DC-1, DC-3, and DC-4):	1.0 - 6.0 each
Grinders (DC-24 and DC-25):	1.0 - 6.0 each
Sawing (DC-2, DC-5, and DC-23):	1.0 - 6.0 each
CMI grinder (DC-32):	1.0 - 6.0
CMI grinder (DC-37):	1.0 - 6.0
AOD and EAF Canopy Hood	
Fugitive Emissions (DC-38):	2.0 - 10.0

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

5. The record keeping requirements in condition D.1.11 are revised as follows:

D.1.11 Record Keeping Requirements

- (a) To document compliance with Conditions D.1.6 and D.1.7, the Permittee shall maintain records of visible emission notations of the stack exhaust of each facility listed in this section once per day. **The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day, or, for DC-36, the unit was venting indoors that day).**
- (b) To document compliance with Conditions D.1.8 and D.1.9, the Permittee shall maintain records once per day of the pressure drop across each of the dust collectors during normal operation ~~when venting to the atmosphere~~. **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, or, for DC-36, the unit was venting indoors that day).**
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.
6. Since none of the units included in condition D.2.5 can vent indoors, the phrase "when exhausting to the atmosphere" has been removed.

D.2.5 Visible Emissions Notations

- (a) Visible emission notations of each of the fume scrubber stack exhausts shall be performed once per day during normal daylight operations ~~when exhausting to the atmosphere~~. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.

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

7. The record keeping requirements in condition D.2.7 are revised as follows:

D.2.7 Record Keeping Requirements

- (a) To document compliance with Condition D.2.5, the Permittee shall maintain records of visible emission notations of each of the fume scrubber stack exhausts once per day. **The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).**
- (b) To document compliance with Condition D.2.6, the Permittee shall maintain records once per day of the pH and flow rate in each fume scrubber during normal operation. **The Permittee shall include in its daily record when a pH or flow rate reading is not taken and the reason for the lack of a pH or flow rate 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.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a New Source Review and Part 70 Operating Permit Renewal

Source Background and Description

Source Name:	Haynes International, Inc.
Source Location:	2000 West Deffenbaugh Street, Kokomo, IN 46902
County:	Howard
SIC Code:	3356
Operation Permit No.:	067-7729-00009
Operation Permit Issuance Date:	June 24, 1999
Permit Renewal No.:	067-18070-00009
Permit Reviewer:	Trish Earls/EVP

The Office of Air Quality (OAQ) has reviewed a Part 70 Operating Permit Renewal application from Haynes International, Inc. relating to the operation of a stationary rolling, drawing, and extruding of nonferrous metal foundry operation that produces nonferrous metal alloys.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Metal Melting and Machining Operations

- (a) One (1) argon oxygen decarbonization (AOD) vessel, constructed in 1972, processing a metal throughput of 5.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-14) and canopy hood fugitive emissions controlled by a baghouse for particulate matter control and exhausting to one (1) stack (S/V ID: DC-38);
- (b) Six (6) electroslag remelting furnaces (ESR), constructed in the 1970's and modified in 1982, processing a total metal throughput of 5.51 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-18);
- (c) One (1) electric arc furnace (EAF), constructed in 1963 and modified in 1978 and 2004, processing a metal throughput of 5.0 tons per hour with a five (5) module dust collector for particulate matter control and exhausting to one (1) duct (S/V ID: DC-22) and canopy hood fugitive emissions controlled by a baghouse for particulate matter control and exhausting to one (1) stack (S/V ID: DC-38);

Note: In 2004, the EAF was modified by replacing the furnace's shell in order to operate the furnace in a more cost-efficient manner. The short-term metal throughput capacity was not affected by this change however the long-term efficiency was affected by the change. The primary purpose of the shell project was to increase raw material usage efficiency. The changed shell does not require the use of costly metals during "wash cycles" between the metal processing heats and also reduces the overall metal waste. The actual duration of the metal processing heats (e.g., the amount of time the metal heat was in the EAF) was not impacted by the EAF shell project. See the discussion of the applicability of 326 IAC 2-2 (PSD) in the State Rule Applicability – Entire Source section of this document for further details of this modification.

- (d) One (1) sawing operation consisting of one (1) swing frame abrasive cut-off saw and one (1) automatic abrasive cut-off saw, constructed in 1981, processing a total metal throughput of 4.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-31);
- (e) One (1) CMI automatic abrasive billet grinder, constructed in 1981, processing a metal throughput of 3.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-32);
- (f) One (1) rotoblast shot blaster, constructed in 1989, processing a metal throughput of 8.0 tons per hour with a dust collector (DC-36) for particulate matter control and exhausting inside the building R35;
- (g) One (1) CMI abrasive billet grinder, constructed in November, 1997, processing a metal throughput of 3.0 tons per hour with one (1) dust collector for particulate control and exhausting to one (1) stack (S/V ID: DC-37);
- (h) One (1) grinding operation consisting of three (3) trackbound traveling abrasive grind machines (Grind 1), constructed in 1954, 1954, and 1983, respectively, and modified in 1981, 1990, and 1995, respectively, each grinder processing a metal throughput of 1.875 tons per hour with three (3) dust collectors for particulate matter control and exhausting to three (3) stacks (S/V ID: DC-1, DC-3, and DC-4), respectively;
- (i) One (1) grinder operation consisting of one (1) track bound traveling abrasive grind machine and one (1) stationary abrasive end grinder (Grind 2), constructed in 1954 and 1980, respectively, and modified in 1990 and 1995, respectively, each grinder processing a metal throughput of 4.35 tons per hour with two (2) dust collectors for particulate matter control and exhausting to two (2) stacks (S/V ID: DC-24 and DC-25), respectively;
- (j) One (1) sawing operation consisting of one (1) fox automatic abrasive cut-off saw and two (2) swing frame cut-off saws (Saw 1), constructed in 1960, 1967, and 1981, respectively, and modified in 1981, 1990, and 1995, respectively, each processing a metal throughput of 2.8 tons per hour with three (3) dust collectors for particulate matter control and exhausting to three (3) stacks (S/V ID: DC-2, DC-5, and DC-23) respectively;

Metal Machining Operations

- (k) One (1) grinding and sawing operation, constructed in the 1950's and modified in 1961, consisting of two (2) swing frame abrasive grinders and one (1) swing frame abrasive cut-off saw processing a total metal throughput of 1.15 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-8);
- (l) One (1) grinding and sawing operation consisting of four (4) swing frame abrasive spot grinders, one (1) swing frame abrasive cut-off saw, and one (1) swing frame belt grinder, constructed in 1954, processing a total metal throughput of 1.0 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-9);
- (m) One (1) rotoblast shot blaster, constructed in 1953, processing a metal throughput of 1.5 tons per hour with a dust collector for particulate matter control and exhausting to one (1) stack (S/V ID: DC-10);

Pickling Operations

- (n) One (1) R1 acid batch pickling line, constructed in 1983, pickling a throughput of 15.0 tons of metal per hour, utilizing a fume scrubber (FS-1) to control hydrofluoric acid (HF), nitric acid (HNO₃), NO_x, and particulate emissions, and exhausting to one (1) stack (S/V ID: FS-1); and
- (o) One (1) R35 acid strip pickling line, constructed in 1989, pickling 7.5 tons of metal per hour, utilizing a fume scrubber (FS-2) to control hydrofluoric acid (HF), nitric acid (HNO₃), NO_x, and particulate emissions, and exhausting to one (1) stack (S/V ID: FS-2).

Natural Gas Combustion Units

- (p) Two (2) natural gas-fired boilers, identified as Boiler 1 and Boiler 2, each constructed in 1965, each rated at 16.0 million (mm) British thermal units (Btu) per hour, and each exhausting to one (1) stack (S/V ID: GB1 and GB2), respectively;
- (q) Four (4) 3-Hi Mill preheat furnaces (Numbers 1, 2, 3, and 4), constructed in the 1940's, each rated at 10.35 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (r) One (1) 2-Hi Mill preheat furnace (Number 5), constructed in the 1940's, rated at 22 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (s) One (1) annealing furnace (Number 6), constructed in the 1940's, rated at 14.8 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (t) One (1) annealing furnace (Number 16), constructed in the 1960's and reconstructed in 2006, rated at 16 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;

Note: IDEM was notified of the reconstruction of this furnace in 2005 and it was determined that the change was exempt from permitting requirements.

- (u) One (1) annealing furnace (Number 20), constructed in 1983, rated at 12 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (v) Five (5) 4-Hi mill preheat furnaces (Numbers 51, 52, 53, 56, and 57), constructed in 1981, each rated at 15 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting to five (5) stacks (SV ID: GF51, GF52, GF53, GF56, and GF57);
- (w) Two (2) 4-Hi mill steckle furnaces, constructed in 1981, each rated at 20 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting inside the plant;
- (x) One (1) strip annealing furnace A&K line, constructed in 1981, rated at 10 million (mm) British thermal units (Btu) per hour, combusting natural gas, and exhausting to one (1) stack (S/V ID: GFA & K).

Unpermitted Emission Units and Pollution Control Equipment

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

Insignificant Activities

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

- (a) Natural gas-fired combustion sources with heat input equal to or less than ten (10) million (mm) British thermal units (Btu) per hour;
 - (1) Four (4) 24 inch bar mill preheat furnaces each rated at 9.0 mmBtu per hour;
 - (2) One (1) car bottom annealing furnace rated at 5.4 mmBtu per hour;
 - (3) Two (2) 10 inch bar mill preheat furnaces each rated at 9.0 mmBtu per hour;
 - (4) Five (5) forge shop preheat furnaces each rated at 7.8 mmBtu per hour;
 - (5) One (1) forge shop preheat furnace rated at nine 9.0 mmBtu per hour;
 - (6) One (1) annealing furnace rated at 7.8 mmBtu per hour;
 - (7) One (1) car bottom annealing furnace rated at 4.0 mmBtu per hour;
 - (8) One (1) R1 pickle tank boiler rated at 2.10 mmBtu per hour;
 - (9) One (1) R1 high pressure wash boiler rated at 2.52 mmBtu per hr;
 - (10) One (1) R35 pickle line boiler rated at 1.5 mmBtu per hour;
 - (11) One (1) R36 Kolene tank heater rated at 5.5 mmBtu per hour;
 - (12) One (1) R42 steam heating boiler rated at 1.05 mmBtu per hour;
 - (13) Three (3) air make-up units, each rated at 4.9 mmBtu per hour.
- (b) Combustion source flame safety purging on startup;
- (c) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;
- (d) The following VOC and HAP storage containers:
 - (1) Storage tanks with capacity less than or equal to 1,000 gallons and annual throughputs less than 12,000 gallons;
 - (2) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;
- (e) Refractory storage not requiring air pollution equipment;
- (f) Machining where an aqueous cutting coolant continuously floods the machining interface;
- (g) Degreasing operations that do not exceed 145 gallons per 12 months, except if subject to 326 IAC 20-6:
 - (1) fifteen (15) separate cold cleaner degreasers used for parts washing, each of which has less than or equal to 80 gallon capacities; and
 - (2) one (1) large mill bearing cleaner/degreaser, located in building R55, utilizing an enclosed power wash cleaner, and a catch basin where wastewater is pumped into an enclosed tank.
- (h) Cleaners and solvents characterized as follows:
 - (1) having a vapor pressure equal to or less than 2 kPa; 15 mmHg; or 0.3 psi measured at 38 degrees C (100°F) or;
 - (2) having a vapor pressure equal to or less than 0.7 kPa; 5 mmHg; or 0.1 psi measured at 20 degrees C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months;
- (i) The following equipment related to manufacturing activities not resulting in the emission of HAPs: brazing equipment, cutting torches, soldering equipment, welding equipment;
- (j) Closed loop heating and cooling systems;
- (k) Rolling of recovery systems;
- (l) Activities associated with the treatment of wastewater streams with an oil and grease content less than or equal to 1% by volume;
- (m) Any operation using aqueous solutions containing less than 1% by weight of VOCs, excluding HAPs;
- (n) Noncontact cooling tower systems with either of the following:
 - (1) forced and induced draft cooling tower system not regulated under a NESHAP;
- (o) Quenching operations used with heat treating processes;
- (p) Replacement or repair of electrostatic precipitators, bags, bags in baghouses and filters in other air filtration equipment;

- (q) Heat exchanger cleaning and repair;
- (r) Paved and unpaved roads and parking lots with public access;
- (s) Underground conveyors;
- (t) Asbestos abatement projects regulated by 326 IAC 14-10;
- (u) Purging of gas lines and vessels that is related to routine maintenance and repair of building, structures, or vehicles at the source where air emissions from those activities would not be associated with any production process;
- (v) Equipment used to collect any material that might be released during a malfunction, process, upset, or spill cleanup, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment;
- (w) Blowdown for any of the following: sight glass; boiler; compressors; pumps; and cooling tower;
- (x) On-site fire and emergency response training approved by the department;
- (y) Emergency generators as follows:
 - (1) Gasoline generators not exceeding 110 horsepower;
 - (2) Diesel generators not exceeding 1600 horsepower;
 - (3) Natural gas turbines or reciprocating engines not exceeding 16,000 horsepower;
- (z) Grinding and machining operations with fabric filters, scrubbers, mist collectors, wet collectors, and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4000 actual cubic feet per minute, including the following: deburring; buffing; polishing; abrasive blasting; pneumatic conveying; and woodworking operations;
- (aa) A laboratory as defined in 326 IAC 2-7-1(21)(D);
- (bb) Farm operations; and
- (cc) Other activities or categories below insignificant thresholds:
 - (1) two (2) dust silos (one (1) 50 ton storage capacity and one (1) 25 ton storage capacity) located in Building R-24, with two (2) dust collectors;
 - (2) one (1) R36 strip anneal and Kolene operation with one (1) spray quench tank, one (1) mechanical brush scrubber, and one (1) fume scrubber, exhausting through one (1) stack (S/V ID: FS-3);
 - (3) one (1) R24 weigh room utilizing a hood over the raw material scale and vented to a dust collector (DC-33) and out one (1) stack (S/V ID: DC-33); and
 - (4) one (1) vacuum induction melting furnace with a metal throughput of 1 ton per hour, exhausting inside the plant.

Existing Approvals

The source has constructed or has been operating under the following previous approvals:

- (a) Part 70 Operating Permit T067-7729-00009, issued on June 24, 1999;
- (b) First Administrative Amendment No. 067-11021-00009, issued on July 22, 1999;
- (c) Second Administrative Amendment No. 067-14464-00009, issued on June 22, 2001;
- (d) Title V Reopening No. 067-13319-00009, issued on March 18, 2002;
- (e) Third Administrative Amendment No. 067-17273-00009, issued on March 17, 2003;
- (f) Fourth Administrative Amendment No. 067-17254-00009, issued on May 28, 2003;
- (g) Review Request No. 067-16352-00009, issued on December 17, 2004; and
- (h) Fifth Administrative Amendment No. 067-20721-00009, issued on April 18, 2006.

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 determined no longer applicable; therefore, were not incorporated into this Part 70 permit:

- (a) Part 70 Operating Permit T067-7729-00009, issued on June 24, 1999, Condition D.3.2;

D.3.2 Prevention of Significant Deterioration (PSD) [326 IAC 2-2] [40 CFR 52.21]

- (a) The input of raw materials into each the R1 batch pickling operation controlled by fume scrubber FS-1, and the R35 strip pickling operation controlled by fume scrubber FS-2, shall be at a level such that the emissions of NO_x from each of these facilities shall not exceed 40 tons per twelve (12) consecutive month period. The applicant shall conduct a performance test on each of these units to establish an emission factor for NO_x, and to determine the NO_x control efficiency of the fume scrubbers (FS-1 and FS-2).
- (b) If the required performance tests indicate that the potential to emit NO_x, after controls, is equal to or greater than 40 tons per year, the Permittee shall limit production, or take any other steps necessary as approved by the Commissioner, to limit the potential to emit NO_x from each of these facilities to less than 40 tons per year. Compliance with this limit makes 326 IAC 2-2 (Prevention of Significant Deterioration) and 40 CFR 52.21 not applicable.

Reason not incorporated: The source conducted stack tests for NO_x emissions on FS-1 and FS-2 on February 11, 2002 and FS-2 was tested again on September 24, 2004. The emission factors and the NO_x emission control efficiencies of the scrubbers obtained from the stack test results indicate that uncontrolled NO_x emissions from FS-1, constructed in 1983, are 4.40 tons per year and uncontrolled NO_x emissions from FS-2, constructed in 1989, are 17.25 tons per year. Although NO_x emissions from each operation are less than 40 tons per year before control, limits will be added to the permit to ensure that NO_x emissions do not exceed 40 tons per year from each operation.

Enforcement Issue

IDEM is aware that the EAF has been modified prior to receipt of the proper permit. IDEM is reviewing this matter and will take appropriate action. This draft Title V operating permit renewal contains provisions to bring unpermitted equipment into compliance with construction permit rules.

Recommendation

The staff recommends to the Commissioner that the Part 70 permit 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 administratively complete Part 70 permit renewal application for the purposes of this review was received on September 23, 2003. Additional information was received on August 16, 2004, December 7, 2005, and April 21, 2006.

There was no notice of completeness letter mailed to the Permittee.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 9).

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source, excluding the emission limits that were contained in previous Part 70 operating permit No. T067-7729-00009, issued on June 24, 1999.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	Greater than 250
PM-10	Greater than 250
SO ₂	Less than 100
VOC	Less than 100
CO	Greater than 100, Less than 250
NO _x	Greater than 250

HAPs	Unrestricted Potential Emissions (tons/yr)
Nickel	greater than 10
Chromium	greater than 10
Manganese	greater than 10
Cobalt	greater than 10
Hydrofluoric acid (HF)	less than 10
Nitric Acid (HNO ₃)	less than 10
Toluene	negligible
hexane	negligible
benzene	negligible
Total	Greater than 25

- (a) The unrestricted potential emissions of PM-10, CO and NO_x are equal to or greater than 100 tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.
- (b) The unrestricted potential emissions of any single HAP is equal to or greater than ten (10) tons per year and the unrestricted potential emissions of a combination of HAPs is equal to or greater than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7.

Potential to Emit of the Source

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA.”

The source was issued a Part 70 Operating Permit on June 24, 1999. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of the original Part 70 operating Permit 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	Single HAP*	Total HAPs**
AOD (DC-14) – 1972	3.74	3.74	0.00	0.00	13.14	0.00	2.81	3.29
ESR (DC-18) – 1970's and modified in 1982	4.95	4.95	0.00	0.10	0.00	36.20	3.71	4.36
EAF (DC-22) – 1963 and modified in 1978 and 2004	6.09	18.33	5.26	3.94	47.96	7.01	4.57	5.36
AOD/EAF Canopy Hood (DC-38) - Emissions are from AOD and EAF. ATPA test was done by the Permittee for modification to EAF in 2004 and emissions were below significant levels.	13.11	27.55	5.26	3.94	30.55	7.01	9.83	12.24
Saw/Grind (DC-8) – 1950's and modified in 1961	0.86	0.09	0.00	0.00	0.00	0.00	0.65	0.76
Saw/Grind (DC-9) – 1954	0.74	0.07	0.00	0.00	0.00	0.00	0.56	0.65
Rotoblast (DC-10) – 1953	1.12	0.96	0.00	0.00	0.00	0.00	0.84	0.99
Cutting (DC-31) – 1981	2.98	0.30	0.00	0.00	0.00	0.00	2.24	2.62
Grinder (DC-32) – 1981	2.23	0.22	0.00	0.00	0.00	0.00	1.67	1.96
Rotoblast (DC-36) – 1989	5.96	5.12	0.00	0.00	0.00	0.00	4.47	5.24
Grind 1 (DC-1, DC-3, and DC-4) – 1954, 1954, and 1983 and modified in 1981, 1990, and 1995	4.19	0.42	0.00	0.00	0.00	0.00	3.14	3.69
Grind 2 (DC-24 and DC-25) – 1954 and 1980 and modified in 1990 and 1995	6.48	0.65	0.00	0.00	0.00	0.00	4.86	5.70
Saw 1 (DC-2, DC-5, and DC-23) - 1960, 1967, and 1981 and modified in 1981, 1990, and 1995	6.25	0.63	0.00	0.00	0.00	0.00	4.69	5.50
Grinder (DC-37) – 1997	2.23	0.22	0.00	0.00	0.00	0.00	1.67	1.96
Pickling (FS-1) - 1983	0.13	0.13	0.00	0.00	0.00	4.09	0.32	0.36
Pickling (FS-2) - 1989	0.08	0.08	0.00	0.00	0.00	12.47	--	--
Natural gas combustion ⁽¹⁾	3.11	12.44	0.98	9.01	137.53	163.73	2.95 (hexane)	3.09
Insignificant Activities	0.06	0.06	0.00	2.50	0.00	0.00	0.00	0.00
Total PTE	64.31	75.96	11.5	19.39	229.18	230.51	45.71 (Nickel)	57.77

All emissions represent emissions after control.

* Single HAP emissions from the melting and machining operations listed above represent Nickel emissions and were calculated using a worst case 75% Nickel PM fraction in Alloy 214 based on Title V permit 067-7729-00009, issued on June 24, 1999.

** Total HAP emissions were calculated using a worst-case 88% Cobalt/Chromium PM fraction in Alloy 6B based on Title V permit 067-7729-00009, issued on June 24, 1999.

Note (1) The usage of natural gas in the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K, shall be limited to a total of 780.0 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month, so that NO_x emissions are limited to less than 40 tons per year to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable. These emissions also include insignificant activities.

Actual Emissions

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

Pollutant	Actual Emissions (tons/year)
PM2.5	8.0
PM10	14.0
SO ₂	2.0
VOC	4.0
CO	34.0
NO _x	58.0
HAP (Lead)	0.00

County Attainment Status

The source is located in Howard County.

Pollutant	Status
PM2.5	Attainment
PM-10	Attainment
SO ₂	Attainment
NO ₂	Attainment
8-hour Ozone	Attainment
CO	Attainment
Lead	Attainment

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC emissions and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Howard County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (b) Howard County has been classified as unclassifiable or attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM 2.5 emissions. Therefore, until the U.S.EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions. See the State Rule Applicability for the source section.

- (c) Howard County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.
- (d) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 redesignating Delaware, Greene, Jackson, Vanderburgh, Vigo and Warrick Counties to attainment for the eight-hour ozone standard, redesignating Lake County to attainment for the sulfur dioxide standard, and revoking the one-hour ozone standard in Indiana.
- (e) Fugitive Emissions
 Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive emissions are counted toward determination of PSD and Emission Offset 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 assure that all reasonable information is provided to evaluate continuous compliance with the applicable requirements.

Federal Rule Applicability

- (a) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is applicable to emission units that involve a pollutant-specific emission unit and meet the following criteria:
 - (1) with the potential to emit before controls equal to or greater than the major source threshold for a regulated air pollutant,
 - (2) that is subject to an emission limitation or standard for that regulated air pollutant, and
 - (3) uses a control device as defined in 40CFR Part 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 emission unit at this source:

Emission Unit	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)
AOD DC-14 - PM-10	Dust Collector	N	374.49	3.74	100	N	N
AOD - CO	None	N	13.14	13.14	100	N	N
ESR DC-18 - PM-10	Dust Collector	Y	494.74	4.95	100	Y	N

Emission Unit	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)
ESR - NOx	None	N	36.20	36.20	100	N	N
ESR - VOC	None	N	0.10	0.10	100	N	N
EAF DC-22 - PM-10	Dust Collector	N	1833.03	18.33	100	N	N
EAF - SO2	None	N	5.26	5.26	100	N	N
EAF - NOx	None	N	7.01	7.01	100	N	N
EAF - VOC	None	N	3.94	3.94	100	N	N
EAF - CO	None	N	47.96	47.96	100	N	N
EAF/AOD DC-38 - PM-10	Dust collector	N	2755.02	27.55	100	N	N
Rotoblast shot blaster DC-10 - PM-10	Dust Collector	N	96.05	0.96	100	N	N
Sawing operation DC-31 - PM-10	Dust Collector	Y	29.78	0.30	100	N	N
CMI automatic abrasive billet grinder DC-32 - PM-10	Dust Collector	Y	22.34	0.22	100	N	N
Rotoblast shot blaster DC-36 - PM-10	Dust Collector	Y	512.28	5.12	100	Y	N
Grind 1 DC-1 - PM-10	Dust collector	Y	13.96	0.14	100	N	N
Grind 1 DC-3 - PM-10	Dust collector	Y	13.96	0.14	100	N	N
Grind 1 DC-4 - PM-10	Dust collector	Y	13.96	0.14	100	N	N
Grind 2 DC-24 - PM-10	Dust collector	Y	32.39	0.32	100	N	N
Grind 2 DC-25 - PM-10	Dust collector	Y	32.39	0.32	100	N	N
Saw 1 DC-2 - PM-10	Dust collector	Y	20.85	0.21	100	N	N
Saw 1 DC-5 - PM-10	Dust collector	Y	20.85	0.21	100	N	N
Saw 1 DC-23 - PM-10	Dust collector	Y	20.85	0.21	100	N	N
CMI grinder DC-37 - PM-10	Dust Collector	Y	22.34	0.22	100	N	N
Grinding and sawing DC-8 - PM-10	Dust collector	Y	8.56	0.09	100	N	N
Grinding and sawing DC-9 - PM-10	Dust collector	Y	7.45	0.07	100	N	N
R1 acid batch pickling line FS-1 - PM-10	Fume scrubber	N	0.13	0.13	100	N	N
R1 acid batch pickling line FS-1 - NOx	Fume scrubber	Y	4.40	4.09	100	N	N
R35 acid strip pickling line FS-2 - PM-10	Fume scrubber	N	0.08	0.08	100	N	N
R35 acid strip pickling line FS-2 - NOx	Fume scrubber	Y	17.25	12.47	100	N	N
Boiler 1 - PM-10	None	N	0.53	0.53	100	N	N

Emission Unit	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)
Boiler 1 - all other pollutants	None	N	<100	<100	100	N	N
Boiler 2 - PM-10	None	N	0.53	0.53	100	N	N
Boiler 2 - all other pollutants	None	N	<100	<100	100	N	N
Five 4-Hi mill preheater furnaces, two 4-Hi mill steckle furnaces, and one strip annealing furnace A&K - NOx	None	Y	<100	<100	100	N	N
Five 4-Hi mill preheater furnaces, two 4-Hi mill steckle furnaces, and one strip annealing furnace A&K - all other pollutants	None	N	<100	<100	100	N	N
All other combustion units - all pollutants	None	N	<100	<100	100	N	N

Based on this evaluation, the requirements of 40 CFR Part 64, CAM are applicable to the ESR (DC-18) and the Rotoblast (DC-36) for PM-10 upon start-up.

- (b) The pollutant-specific emission units are not "large units" as described in 40 CFR 64.5. Therefore, the owner or operator has submitted CAM plans pursuant to 40 CFR 64 as part of the Part 70 renewal application.

The compliance monitoring requirements applicable to the source which shall satisfy the 40 CFR 64 Compliance Assurance Monitoring requirements, are as follows:

- (1) Daily visible emission notations of the each of the above listed facilities stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (2) 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.
- (3) 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.
- (4) 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.
- (5) 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.

- (6) The Permittee shall record the pressure drop across each of the dust collectors used in conjunction with the facilities listed below, at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across any dust collector is outside the normal ranges listed below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

<u>Facility</u>	<u>Pressure Drop (inches of water)</u>
ESR (DC- 18):	1.0 - 6.0
Rotoblast (DC-36):	1.0 - 8.0

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

- (7) For a single compartment dust collector 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).
- (8) For a single compartment dust collector 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 emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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, or dust traces.

- (c) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40 – 60.46), Subpart D (Standard of Performance for Fossil-Fuel-Fired Steam Generators for Which Construction is Commenced After August 17, 1971) were not included in this permit for the two (2) boilers (Boilers 1 and 2) because the boilers were constructed in 1965 and are rated at less than 250 MMBtu per hour heat input. Therefore, the requirements under 326 IAC 12 (40 CFR 60, Subpart D) were not included in the permit for the boilers.
- (d) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40b – 60.49b), Subpart Db (Standard of Performance for Industrial-Commercial-Institutional Steam Generating Units that were constructed after June 19, 1984) were not included in this permit for the two (2) boilers (Boilers 1 and 2) because the boilers were constructed in 1965 and are rated at less than 100 MMBtu per hour heat input. Therefore, the requirements under 326 IAC 12 (40 CFR 60 Subpart Db) were not included in the permit for the boilers.

- (e) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.40c – 60.46c), Subpart Dc (Standard of Performance for Small Industrial-Commercial-Institutional Steam Generating Units that were constructed after June 9, 1989) were not included in this permit for the two (2) boilers (Boilers 1 and 2) because the boilers were constructed in 1965. Therefore, the requirements under 326 IAC 12 (40 CFR 60 Subpart Dc) were not included in the permit for the boilers.
- (f) The requirements of the New Source Performance Standard, 326 IAC 12, (40 CFR 60.270a – 60.276a, Subpart AAa (Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon Oxygen Decarburization Vessels Constructed after August 7, 1983) were not included in this permit for the EAF and AOD. This rule applies to steel plants that produce carbon, alloy, or specialty steels. This plant melts purified metal ingot, not scrap, and produces nonferrous metal alloys. No steel is manufactured at this source. Therefore, the requirements of this rule were not included in this permit for the EAF furnace and AOD vessel.
- (g) This requirements of 40 CFR 61.30 – 61.34, Subpart C (National Emission Standard for Beryllium) were not included in the permit for this source. This source does not process beryllium alloy. Therefore, the requirements of this rule are not included in the permit.
- (h) The two (2) natural gas fired boilers (Boilers 1 and 2), each constructed in 1965, and each rated at 16 million (MM) British thermal units (Btu) per hour are subject to the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 326 IAC 14, 40 CFR 63.7480 through 63.7575, Subpart DDDDD because the boilers are located at a major source of HAPs. The two (2) boilers comprise one existing affected source for the large gaseous fuel subcategory, as defined by 40 CFR 63.7506(b), because they meet the criteria in the definition in 40 CFR 63.7575 for the large gaseous fuel subcategory.

Pursuant to 40 CFR 63.7506(b), the only requirements that apply to the existing affected source for the large gaseous fuel subcategory are the initial notification requirements in 40 CFR 63.9(b). The Permittee shall submit an Initial Notification containing the information specified in 40 CFR 63.9(b)(2) not later than 120 days after the effective date of 40 CFR 63, Subpart DDDDD as required by 40 CFR 63.7545(b).
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Steel Pickling—HCl Process Facilities and Hydrochloric Acid Regeneration Plants, 40 CFR 63.1155 – 63.1166, Subpart CCC were not included in this permit for the two (2) pickling lines, R1 and R35, because Haynes does not pickle carbon steel, Haynes does not use HCl for its pickling operations, and Haynes is not an HCl regeneration plant. Therefore, the requirements of this rule were not included in the permit.

State Rule Applicability – Entire Source

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

This source, which was constructed prior to the August 7, 1977 applicability date, is a major source under 326 IAC 2-2 (PSD), because it qualifies as one of the 28 listed sources (secondary metal production) and has the potential to emit more than one hundred (100) tons per year) of NO_x and CO.

The one (1) argon oxygen decarbonization (AOD) vessel, constructed in 1972, the one (1) grinding and sawing operation, constructed in the 1950's and modified in 1961, the one (1) grinding and sawing operation consisting of four (4) swing frame abrasive spot grinders, one (1) swing frame abrasive cut-off saw, and one (1) swing frame belt grinder, constructed in 1954, the one (1) rotoblast shot blaster, constructed in 1953, the two (2) natural gas-fired boilers, identified as Boiler 1 and Boiler 2, each constructed in 1965, the four (4) 3-Hi Mill preheat furnaces (Numbers 1, 2, 3, and 4), constructed in the 1940's, the one (1) 2-Hi Mill preheat furnace (Number 5), constructed in the 1940's, and the one (1) annealing furnace (Number 6), constructed in the 1940's, were each constructed prior to the rule applicability date of August 7, 1977, therefore, they are not subject to the requirements of this rule. However, the total potential to emit of CO and NOx from these emission units and emission units constructed prior to 1977 but modified later were greater than 100 tons per year, therefore, the source was considered a major PSD source with respect to the subsequent modifications to the source.

(a) The five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K were all constructed and operated without a permit in 1981. The potential NOx emissions from the firing of natural gas in these furnaces combined exceed 40 tons per year (see Appendix A, page 5 of 9 for detailed calculations). However, based on information on actual natural gas usage obtained from Haynes International, Inc. the actual NOx emissions have never exceeded 40 tons per year, therefore NOx emissions from this modification in 1981 are being limited to less than 40 tons per year to render the requirements of 326 IAC 2-2 for a major modification to a major PSD source not applicable. Therefore, the following limits shall apply:

- (1) The combined usage of natural gas in the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K, shall be limited to a total of 780.0 million cubic feet (MMCF) per twelve (12) consecutive month period, with compliance determined at the end of each month.
- (2) Emissions of NOx shall not exceed 100 pounds per MMCF of combined natural gas usage in the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K.

The natural gas usage and NOx emission limitations are required to limit NOx emissions to less than 40 tons per year to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) not applicable to the modification to the source in 1981.

(b) PM and PM10 emissions from the following operations, constructed or modified in 1981, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1981:

- (1) PM emissions from dust collector controlling the one (1) sawing operation exhausting through stack DC-31 shall be less than 1.51 pounds per hour;
- (2) PM-10 emissions from dust collector controlling the one (1) sawing operation exhausting through stack DC-31 shall be less than 0.68 pounds per hour;
- (3) PM emissions from the dust collector controlling the abrasive billet grinder exhausting through stack DC-32 shall be less than 1.13 pounds per hour;
- (4) PM-10 emissions from the dust collector controlling the abrasive billet grinder exhausting through stack DC-32 shall be less than 0.51 pounds per hour;
- (5) PM emissions from the dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-1 shall be less than 0.71 pound per hour;

- (6) PM-10 emissions from the dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-1 shall be less than 0.32 pound per hour;
- (7) PM emissions from the dust collector controlling the fox automatic abrasive cut-off saw in Saw 1 exhausting through stack DC-2 shall be less than 1.06 pounds per hour;
- (8) PM-10 emissions from the dust collector controlling the fox automatic abrasive cut-off saw in Saw 1 exhausting through stack DC-2 shall be less than 0.48 pounds per hour;
- (9) PM emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-23, shall be less than 1.06 pounds per hour;
- (10) PM-10 emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-23, shall be less than 0.48 pounds per hour.

The above PM and PM10 emission limits combined with potential unrestricted PM and PM10 emissions from the five (5) 4-Hi mill preheat furnaces, the two (2) 4-Hi mill steckle furnaces, and the one (1) strip annealing furnace A&K also installed in 1981 shall render the requirements of 326 IAC 2-2 (PSD) not applicable to the units installed in 1981.

- (c) PM and PM10 emissions from the dust collector controlling the six (6) electroslag remelting furnaces (ESR), modified in 1982, exhausting through stack DC-18 shall be less than 5.71 and 3.42 pounds per hour, respectively. These limits shall limit PM and PM10 emissions from the ESR to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1982.
- (d) The R1 acid batch and R35 strip pickling lines were constructed in 1983 and 1989, respectively. The one (1) annealing furnace (Number 20) was also constructed in 1983. The NOx emissions from the R1 acid batch pickling line and the annealing furnace (Number 20) constructed in 1983 must be less than 40 tons per year and NOx emissions from the R35 strip pickling line constructed in 1989 must be less than 40 tons per year to render the requirements of 326 IAC 2-2 for a major modification to a major PSD source not applicable.

In the original Title V permit, the source was required to conduct a performance test for NOx emissions on each of the pickling operations to determine if the fume scrubbers (FS-1 and FS-2) are controlling the NOx emissions from the R1 acid batch and R35 strip pickling operations to below 40 tons per year. The source conducted stack tests for NOx emissions on FS-1 and FS-2 on February 11, 2002 and FS-2 was tested again on September 24, 2004. The emission factors and the NOx emission control efficiencies of the scrubbers obtained from the stack test results indicate that uncontrolled NOx emissions from FS-1 are 4.40 tons per year and uncontrolled NOx emissions from FS-2 are 17.25 tons per year. Based on the stack test results, NOx emissions from the R1 acid batch pickling line and the annealing furnace (Number 20) are 9.66 tons per year before control. However, to ensure that NOx emissions remain at less than 40 tons per year from each of R1 and R35, NOx emission limits will be added to the permit and the fume scrubbers will be required to be in operation at all times R1 and R35 are in operation.

The following limits shall ensure that NOx emissions from the modifications to the source in 1983 and 1989 do not exceed 40 tons per year to render the requirements of 326 IAC 2-2 for a major modification to a major PSD source not applicable:

- (1) NOx emissions from the fume scrubber (FS-1) controlling NOx emissions from the R1 acid batch pickling line shall be less than 7.93 pounds per hour. This limit combined with potential unrestricted NOx emissions from the annealing furnace (Number 20) shall limit NOx emissions from the units installed in 1983 to less than 40 tons per year to render the requirements of 326 IAC 2-2 (PSD) not applicable.
 - (2) NOx emissions from the fume scrubber (FS-2) controlling NOx emissions from the R35 acid strip pickling line shall be less than 9.13 pounds per hour so that NOx emissions from the modification in 1989 are less than 40 tons per year so that the requirements of 326 IAC 2-2 (PSD) do not apply.
- (e) PM and PM10 emissions from the dust collector DC-36 controlling the one (1) rotoblast shot blaster, constructed in 1989, exhausting inside the building shall be less than 5.69 and 3.41 pounds per hour, respectively. These limits combined with the unrestricted PM and PM10 emissions from the R35 acid strip pickling line shall limit PM and PM10 emissions from the units installed in 1989 to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1989.
- (f) PM and PM10 emissions from the following operations, modified in 1990, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1990:
- (1) PM emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-3, shall be less than 1.19 pounds per hour;
 - (2) PM-10 emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-3, shall be less than 0.71 pound per hour;
 - (3) PM emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-24, shall be less than 2.75 pounds per hour;
 - (4) PM-10 emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-24, shall be less than 1.65 pounds per hour;
 - (5) PM emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-5, shall be less than 1.77 pounds per hour;
 - (6) PM-10 emissions from the dust collector controlling the swing frame cut-off saw in Saw 1 exhausting through stack DC-5, shall be less than 1.06 pounds per hour.
- (g) PM and PM10 emissions from the following operations, modified in 1995, shall be limited as follows to ensure that the requirements of 326 IAC 2-2 (PSD) do not apply to the modification to the source in 1995:
- (1) PM emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-4, shall be less than 1.19 pounds per hour;
 - (2) PM-10 emissions from dust collector controlling the abrasive grind machine in Grind 1 exhausting through stack DC-4, shall be less than 0.71 pound per hour;

- (3) PM emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-25, shall be less than 2.75 pounds per hour;
- (4) PM-10 emissions from the dust collector controlling the abrasive grind machine in Grind 2 exhausting through stack DC-25, shall be less than 1.65 pounds per hour.
- (h) PM and PM10 emissions from the dust collector controlling the CMI abrasive billet grinder, constructed in 1997, exhausting through stack DC-37 shall be less than 5.71 and 3.42 pounds per hour, respectively. These limits shall limit PM and PM10 emissions from the CMI abrasive billet grinder to less than 25 and 15 tons per year, respectively to render the requirements of 326 IAC 2-2 (PSD) not applicable to the modification to this source in 1997.

As permitted under Second Administrative Amendment No. 067-14464-00009, issued on June 22, 2001, the dust collector DC-38 was installed in 2001 for particulate matter fugitive emissions control via a canopy hood for fugitive emissions from the existing AOD and the EAF. There was no emissions increase from the installation of this unit since it is an emission control device. Therefore, PSD minor limits for DC-38 are not required to render 326 IAC 2-2 not applicable. A powder cutting torch and air make up units which have potential emissions less than the PSD significant modification thresholds were also installed in 2001 under the same administrative amendment. Therefore, the modification to the source in 2001 was a minor modification under PSD.

On August 16, 2004, Haynes International submitted a modification application (which has been combined into this Title V permit renewal) to notify IDEM of a planned change to its Electric Arc Furnace (EAF). This change included the replacement of the furnace's shell in order to operate the furnace in a more cost-efficient manner. In the application submitted to IDEM by Haynes, it was noted that the EAF's size and capacity would not be impacted by the shell replacement. No other units were physically or operationally changed as part of the EAF shell project. Haynes has confirmed that the short-term (e.g., pounds per hour (lb/hr) metal throughput capacity of the EAF was not impacted by the shell change.

While the EAF short-term capacity itself was not impacted, the EAF's long-term efficiency was affected by the change. The primary purpose of the EAF shell project was to increase raw material usage efficiency. The changed shell does not require the use of costly metals during "wash cycles" between the metal processing heats and also reduces the overall metal waste (i.e., cost savings). The actual duration of the metal processing heats (e.g., the amount of time the metal heat was in the EAF) was not impacted by the EAF shell project.

Haynes then considered whether a reduction of wash cycle downtimes could, theoretically, increase long-term (e.g., monthly, annual) actual metal throughput in the EAF and other upstream and downstream units. Haynes has determined that the long-term actual metal throughput in the EAF, and other upstream and downstream units, could increase as a result of increased processing efficiency at the EAF. However, this actual metal throughput could also be impacted by customer demand. The EAF is not expected to operate at its full capacity (prior to or after the EAF shell project) in order to meet projected customer demands.

Haynes believes that any actual emissions increase since the EAF shell project as a result of increased production could be attributed to increased customer demand production that could have been accommodated prior to the EAF shell project if the demand had existed. However, Haynes has calculated actual emissions increases based on the conservative assumption that these projected increases are solely a result of the EAF shell project in order to ensure that the requirements of 326 IAC 2-2 do not apply. These calculations are included in Appendix A to this TSD, page 9.

The Permittee has provided the above information as part of the application for this approval that based on Actual to Projected Actual test in 326 IAC 2-2-2 this modification at a major stationary source will not be major for Prevention of Significant Deterioration under 326 IAC 2-2-1. IDEM, OAQ has not reviewed this information and will not be making any determination in this regard as part of this approval. The applicant will be required to keep records and report in accordance with Source obligation in 326 IAC 2-2-8.

Criteria Pollutants	Baseline Actual Emissions (tpy) [1]	Projected Actual Emissions (tpy) [2]	Total Emissions Increase from Project (tpy) {Column [2] – Column [1]} [3]	Significant Increase Level (tpy) [4]
PM10	35.68	45.63	9.95	15
PM	39.49	50.39	10.90	25
SO2	3.42	4.22	0.80	40
NOx	52.24	68.22	15.98	40
CO	45.70	71.57	25.87	100
VOC	3.22	5.43	2.21	40
Pb	0.43	0.53	0.10	0.60

[1] "Baseline actual emissions" are defined in 326 IAC 2-2-1(e) as the rate the pollutant was emitted during a consecutive twenty-four (24) month period within the ten (10) year period immediately preceding the proposed project's construction. For this project the 24 month period occurred from 2001 to 2002. All existing emission units at the source are included in this analysis.

[2] "Projected actual emissions" are defined in 326 IAC 2-2-1(rr) as future emissions excluding any increase in emissions from the project that could have been accommodated during the consecutive twenty-four (24) month period used to establish the baseline actual emissions. Haynes has calculated actual emissions increases based on the conservative assumption that these projected increases are solely a result of the EAF shell project. Projected actual emissions at the EAF are based on a ratio of past actual (baseline actual) metal melt throughput at the EAF and projected actual metal throughput at the EAF (based on projected business parameters). This percentage increase from baseline EAF metal melt to projected actual EAF metal melt is then conservatively applied to the remaining facility emission units.

[3] In accordance with 326 IAC 2-2-2(d)(3), the emissions increase that is calculated as the sum of the difference between the projected actual emissions and the baseline actual emissions for each emissions unit.

[4] "Significant" is defined in 326 IAC 2-2-1(xx) for PM and PM10, and in 326 IAC 2-3-1(qq) for VOC.

326 IAC 2-6 (Emission Reporting)

Since this source is required to have an operating permit under 326 IAC 2-7, Part 70 Permit Program, this source is subject to 326 IAC 2-6 (Emission Reporting). In accordance with the compliance schedule in 326 IAC 2-6-3, an emission statement must be submitted triennially by July 1 beginning in 2005 and every 3 years after. 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)

This source is subject to 326 IAC 6-4 for 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).

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

Pursuant to 326 IAC 2-4.1-1 (New Source Toxics Control), any new process or production unit, constructed or reconstructed after July 27, 1997, which in and of itself emits or has the potential to emit (PTE) 10 tons per year of any HAP or 25 tons per year of any combination of HAPs, must be controlled using technologies consistent with Maximum Achievable Control Technology (MACT). The CMI grinder (DC-37) was constructed in November 18, 1997; however the single and combination HAP emissions from this facility are less than ten (10) and twenty-five (25) tons per year, respectively, therefore, it is not subject to the requirements of 326 IAC 2-4.1. All other facilities at the source were constructed prior to July 27, 1997, therefore 326 IAC 2-4.1 does not apply.

State Rule Applicability – Individual Facilities

326 IAC 6.5-1-2 (Particulate Limitations except Lake County)

This source is subject to the requirements of 326 IAC 6.5-1-2 (Particulate matter limitations except Lake County) (formerly 326 IAC 6-1-2) because this source is located in one of the counties listed in 326 IAC 6.5-1-1(a), potential particulate matter (PM) emissions exceed 100 tons per year, and actual PM emissions exceed 10 tons per year.

- (a) Pursuant to 326 IAC 6.5-1-2(a), PM emissions from each facility at this source shall not exceed 0.03 grains per dry standard cubic foot (gr/dscf). The control devices for each facility shall be operated at all times that the facilities are in operation in order to comply with this limit as follows:

Facility	Control Device
AOD Vessel	DC-14, DC-38
ESR Furnaces	DC-18
EAF Furnace	DC-22, DC-38
Sawing and Grinding	DC-8
Sawing and Grinding	DC-9
Rotoblast	DC-10
Abrasive cutting	DC-31
CMI Abrasive billet grinder	DC-32
Rotoblast	DC-36
Grind 1- Trackbound grinders	DC-1, DC-3, DC-4
Grind 2- Trackbound, end grinders	DC-24, DC-25
Saw 1- Cut-off, swing frame saws	DC-2, DC-5, DC-23
CMI abrasive billet grinder	DC-37
R1 acid batch pickling	FS-1
R35 strip pickling	FS-2
R36 anneal and kolene *	FS-3

Facility	Control Device
R24 weighing operation*	DC-33
Miscellaneous machining*	--

* These units are listed under insignificant activities.

- (b) Pursuant to 326 IAC 6.5-1-2(b)(3), gaseous fuel-fired steam generators are limited to a particulate matter content of no greater than 0.01 grain per dry standard cubic foot (gr/dscf). The following natural gas-fired boilers are subject to this rule:

Facility	Boiler Rating (mmBtu/hr)
Boiler 1	16.0
Boiler 2	16.0
R42 steam heating boiler*	1.05
R1 high pressure wash boiler*	2.52
R1 pickle tank boiler*	2.10
R35 pickle line boiler *	1.50

* These units are listed under insignificant activities.

- (c) The vacuum induction melting furnace is not subject to this rule because it does not vent through a stack and it is not practical to enforce a grain loading limit.

326 IAC 6.5-5 (Howard County)

Haynes International, Inc. does not have any specifically regulated facilities under 326 IAC 6.5-5. Therefore, this rule is not applicable.

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

The boilers at this source are not subject to this rule. Pursuant to 326 IAC 6-2-1(e), if any limitation established by this rule is inconsistent with applicable limitations contained in 326 IAC 6.5 and 326 IAC 6.8, then the limitations contained in 326 IAC 6.5 and 326 IAC 6.8 prevail. Since each of the boilers at this source is subject to a particulate matter emission limitation pursuant to 326 IAC 6.5, which is more stringent, they are not subject to this rule.

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

The facilities subject to 326 IAC 6.5-1-2 at this source are not subject to the requirements of 326 IAC 6-3-2. Pursuant to 326 IAC 6-3-1(c)(3), this rule does not apply if the limitation established in the rule is less stringent than applicable limitation established in 326 IAC 6.5. Since the applicable PM emission limits established by 326 IAC 6.5-1-2 for each facility are less than the PM limits that would be established by 326 IAC 6-3-2, the more stringent limits apply and the limits pursuant to 326 IAC 6-3-2 do not apply.

The vacuum induction melting furnace is subject to this rule. Pursuant to 326 IAC 6-3-2, the allowable particulate emission rate from the vacuum induction melting furnace shall not exceed 4.1 pounds per hour when operating at a process weight rate of 1 ton per hour. The pounds per hour limitation was calculated using 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:

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

Uncontrolled particulate emissions from the vacuum induction melting furnace are less than the allowable limit, therefore, the furnace will be able to comply with this rule.

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

326 IAC 8-1-6 (General Reduction Requirements) applies to new facilities (as of January 1, 1980) which have potential emissions of 25 tons or more per year of VOC. All of the facilities at this source are each below the twenty-five (25) tons per year applicability threshold and, therefore, are not subject to the requirements of 326 IAC 8-1-6.

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

The fifteen (15) separate cold cleaner degreasers and the large mill bearing degreaser (see insignificant activities) are subject to the requirements of this rule because they were constructed after January 1, 1980. Pursuant to 326 IAC 8-3-2 (Cold Cleaner Operations), for cold cleaning operations constructed after January 1, 1980, the Permittee shall:

- (a) Equip the cleaner with a cover;
- (b) Equip the cleaner with a facility for draining cleaned parts;
- (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
- (e) Provide a permanent, conspicuous label summarizing the 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(a) (Cold Cleaner Degreaser Operation and Control)

The fifteen (15) separate cold cleaner degreasers and the large mill bearing degreaser (see insignificant activities) are subject to the requirements of this rule because they were constructed after July 1, 1990.

- (a) Pursuant to 326 IAC 8-3-5(a) (Cold Cleaner Degreaser Operation and Control), for cold cleaner degreaser operations without remote solvent reservoirs constructed after July 1, 1990, the Permittee shall ensure that the following control equipment requirements are met:
 - (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (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 is 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) Pursuant to 326 IAC 8-3-5(b) (Cold Cleaner Degreaser Operation and Control), the owner or operator of a cold cleaning facility construction of which commenced after July 1, 1990, 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.

326 IAC 8-4-6 (Gasoline Dispensing Facilities)

Pursuant to 326 IAC 8-4-1(f), *Applicability*, the requirements of 326 IAC 8-4-6 do not apply to gasoline dispensing facilities that have a monthly gasoline throughput of less than ten thousand (10,000) gallons per month and were in existence prior to July 1, 1989. The 330 gallon gasoline storage tank and dispensing operation (see insignificant activities) was installed at the source prior to July 1, 1989 and the source dispenses well below 10,000 gallons of gasoline per month. Therefore, the requirements of 326 IAC 8-4-6 do not apply to this source.

326 IAC 8-6 (Organic Solvent Emission Limitations)

Pursuant to 326 IAC 8-6-1, this rule applies to existing sources as of January 1, 1980, located in Lake and Marion Counties, and sources commencing operation after October 7, 1974 and prior to January 1, 1980 located anywhere in the state with potential VOC emissions of 100 tons per year. None of the facilities at this source are subject to the requirements of 326 IAC 8-6 as the VOC emissions from all organic solvents are less than 100 tons per year.

326 IAC 9-1 (Carbon Monoxide Emission Rules)

Pursuant to 326 IAC 9-1, this rule applies to all stationary sources of carbon monoxide emissions commencing operation after March 21, 1972 and for which an emission limit has been established in 326 IAC 9-1-2. Specifically, the regulation applies to petroleum refining emissions, ferrous metal smelters, and refuse incineration and burning equipment sources. This source is not one of the above mentioned sources, and therefore, is not subject to the requirements of 326 IAC 9-1.

326 IAC 11-1 (Emission Limitations for Specific Type of Operations)

Pursuant to 326 IAC 11-1-1, emission limitations are established for particulate matter from foundries. Particulate emissions from all foundries in operation on or before December 6, 1968 shall comply with the requirements set forth in section 2 of this rule. Pursuant to 326 IAC 11-1-1, if any emission limit established by this rule is inconsistent with applicable limits contained in 326 IAC 6.5-1, then the limit contained herein shall not apply; but the limit in 326 IAC 6.5-1 shall apply. Since each of the facilities at this source is subject to a particulate matter emission limitation pursuant to 326 IAC 6.5 they are not subject to this rule. This rule also only includes emission limits for foundry cupolas and since this source does not include any cupolas, the rule does not apply.

Testing Requirements

This source conducted compliance stack tests on:

- (a) Argon oxygen decarbonization (AOD) vessel on February 12 - 13, 2002 for PM, and September 27, 2004 for PM and PM10;
- (b) Electric arc furnace (EAF) on February 12 - 13, 2002 for PM, on October 23, 2003 and August 5, 2005 for CO, and September 8, 2004 for PM and PM10;
- (c) The six (6) electroslag remelting furnaces (ESR) on February 11, 2002 for PM;
- (d) The AOD/EAF canopy hood (DC-38) on March 15, 2002 and September 27, 2004 for PM and PM10;
- (e) The R1 acid batch pickling line controlled by FS-1 on February 11, 2002 for NOx, and February 4, 2003 for PM;
- (f) The R35 acid strip pickling line controlled by FS-2 on February 11, 2002 and September 24, 2004 for NOx, and February 5, 2003 for PM.

All tests indicated that the source is in compliance with the applicable emission limits.

Since the stack tests for CO emissions from the EAF and NOx and PM emissions from FS-1 and FS-2 were required as one-time tests in the original Title V permit to develop emission factors, repeat testing for these pollutants will not be required in the Title V permit renewal.

Repeat testing for PM and PM10 emissions from the AOD, the EAF, the ESR, and the AOD/EAF canopy hood will be required within 5 years from the date of the last valid compliance demonstration.

Compliance Requirements

Permits issued under 326 IAC 2-7 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less 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 requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

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

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

1. The AOD, ESR, EAF, grinders and saws (DC-1, DC-2, DC-3, DC-4, DC-5, DC-14, DC-18, DC-22, DC-23, DC-24, DC-25, DC-31, DC-32, DC-37), the shot blaster (DC-36), the rotoblast (DC-10), and the AOD and EAF Canopy Hood (DC-38) have applicable compliance monitoring conditions as specified below:
 - (1) Daily visible emission notations of the each of the above listed facilities stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
 - (2) 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.
 - (3) 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.
 - (4) 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.
 - (5) 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.
 - (6) The Permittee shall record the pressure drop across each of the dust collectors used in conjunction with the facilities listed below, at least once per day when the process is in operation when venting to the atmosphere. When for any one reading, the pressure drop across any dust collector is outside the normal ranges listed below or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

<u>Facility</u>	<u>Pressure Drop (inches of water)</u>
AOD (DC-14):	1.0 - 6.0
ESR (DC- 18):	1.0 - 6.0
EAF(DC- 22):	1.0 - 6.0
Rotoblast (DC-10):	1.0 - 6.0
Saw/Grind (DC-31):	1.0 - 6.0
Rotoblast (DC-36):	1.0 - 8.0
Grinders (DC-1, DC-3, and DC-4):	1.0 - 6.0 each
Grinders (DC-24 and DC-25):	1.0 - 6.0 each
Sawing (DC-2, DC-5, and DC-23):	1.0 - 6.0 each
CMI grinder (DC-32):	1.0 - 6.0

<u>Facility</u>	<u>Pressure Drop (inches of water)</u>
CMI grinder (DC-37):	1.0 - 6.0
AOD and EAF Canopy Hood	
Fugitive Emissions (DC-38):	2.0 - 10.0

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

- (7) For a single compartment dust collector 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).
- (8) For a single compartment dust collector 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 emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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, or dust traces.

These monitoring conditions are necessary because the dust collectors for the listed facilities must operate properly to ensure compliance with 326 IAC 6.5-1-2 (Particulate Limitations except Lake County), 40 CFR 64, CAM (for DC-18 and DC-36), and 326 IAC 2-7 (Part 70).

2. The grinders and saws (DC-8 and DC-9) have applicable compliance monitoring conditions as specified below:
 - (1) Daily visible emission notations of the each of the above listed facilities stack exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
 - (2) 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.
 - (3) 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.
 - (4) 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.
 - (5) 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.

- (6) For a single compartment dust collector 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).
- (7) For a single compartment dust collector 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 emissions unit. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions).

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, or dust traces.

These monitoring conditions are necessary because the dust collectors for the listed facilities must operate properly to ensure compliance with 326 IAC 6.5-1-2 (Particulate Limitations except Lake County) and 326 IAC 2-7 (Part 70).

3. The fume scrubbers (FS-1 and FS-2) have applicable compliance monitoring conditions as specified below:
 - (1) Daily visible emission notations of each of the fume scrubber stack exhausts shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
 - (2) 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.
 - (3) 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.
 - (4) 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.
 - (5) 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.
 - (6) The Permittee shall monitor and record the pH and flow rate of each of the scrubbers, at least once daily when the units are in operation. When for any one reading, the flow rate of either of the fume scrubbers is less than the range specified below or a range established during the latest stack test, or the pH of the scrubber is less than the value specified below or a value established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions or Exceedances. A flow rate that is less than the range specified below or a pH reading that is less than the value specified below 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.

<u>Scrubber</u>	<u>Flow rate</u>	<u>pH</u>
FS-1	150 gallons per minute	above 7
FS-2	75 gallons per minute	above 7

These monitoring conditions are necessary because the fume scrubbers for the pickling operations must operate properly to ensure compliance with 326 IAC 6.5-1-2 (Particulate Limitations except Lake County) and 326 IAC 2-7 (Part 70).

Conclusion

The operation of this stationary rolling, drawing, and extruding of nonferrous metal foundry operation that produces nonferrous metal alloys shall be subject to the conditions of this Part 70 permit T067-18070-00009.

Appendix A: Emission Calculations

Company Name: Haynes International, Inc.
Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
Operating Permit No.: T067-18070-00009
Plt ID: 067-00009
Reviewer: Trish Earls

Uncontrolled Potential Emissions (tons/year)								
	PM	PM-10	SO2	NOx	VOC	CO	Single HAP*	Total HAPs*
AOD Vessel (DC-14)	374.49	374.49	--	--	--	13.14	280.87	329.55
ESR Furnaces (DC-18)	494.74	494.74	--	36.20	0.10	--	371.06	435.37
EAF Furnace (DC-22)	608.60	1,833.03	5.26	7.01	3.94	47.96	456.45	536.27
AOD/EAF Canopy Hood (DC-38)	1,310.93	2,755.02	5.26	7.01	3.94	30.55	983.20	1,154.32
Grind/Saw (DC-8)	85.63	8.56	--	--	--	--	64.22	75.35
Grind/Saw (DC-9)	74.46	7.45	--	--	--	--	55.85	65.52
Rotoblast (DC-10)	111.69	96.05	--	--	--	--	83.77	98.29
Sawing (DC-31)	297.84	29.78	--	--	--	--	223.38	262.10
Grinder (DC-32)	223.38	22.34	--	--	--	--	167.54	196.57
Rotoblast (DC-36)	595.68	512.28	--	--	--	--	446.76	524.20
Grind 1 (DC-1, DC-3, DC-4)	418.84	41.88	--	--	--	--	314.13	368.58
Grind 2 (DC-24, DC-25)	647.80	64.78	--	--	--	--	485.85	570.06
Saw 1 (DC-2, DC-5, DC-23)	625.46	62.55	--	--	--	--	469.10	550.40
CMI Grinder (DC-37)	223.38	22.34	--	--	--	--	167.54	196.57
Fume Scrubber (FS-1)	0.13	0.13	--	4.40	--	--	2.15	3.54
Fume Scrubber (FS-2)	0.08	0.08	--	17.25	--	--	--	--
Natural gas combustion	3.41	13.64	1.08	179.48	9.87	150.76	3.23	3.39
Insignificant Activities (a)	3.53	3.53	--	--	2.50	--	--	--
TOTAL Uncontrolled PE	6,100.07	6,342.68	11.60	251.35	20.35	242.41	4,569.69	5,370.10

Nickel

(a) Includes estimated potential emissions from the insignificant degreasing operations, the insignificant R-24 weigh room controlled by DC-33 and the vacuum induction melt furnace.

* Single HAP emissions from the melting and machining operations listed above were calculated using a worst case 75% Nickel PM fraction in Alloy 214.

* Total HAP emissions were calculated using a worst-case 88% Cobalt/Chromium PM fraction in Alloy 6B.

* HAP emissions from the fume scrubbers FS-1 and FS-2 were obtained from Title V permit T067-729-00009, issued on June 24, 1999.

Limited/Controlled Potential to Emit (tons/year)								
	PM	PM-10	SO2	NOx	VOC	CO	Single HAP	Total HAPs
AOD Vessel (DC-14)	3.74	3.74	--	--	--	13.14	2.81	3.29
ESR Furnaces (DC-18)	4.95	4.95	--	36.20	0.10	--	3.71	4.36
EAF Furnace (DC-22)	6.09	18.33	5.26	7.01	3.94	47.96	4.57	6.06
AOD/EAF Canopy Hood (DC-38)	13.11	27.55	5.26	7.01	3.94	30.55	9.83	12.24
Grind/Saw (DC-8)	0.86	0.09	--	--	--	--	0.65	0.76
Grind/Saw (DC-9)	0.74	0.07	--	--	--	--	0.56	0.65
Rotoblast (DC-10)	1.12	0.96	--	--	--	--	0.84	0.99
Sawing (DC-31)	2.98	0.30	--	--	--	--	2.24	2.62
Grinder (DC-32)	2.23	0.22	--	--	--	--	1.67	1.96
Rotoblast (DC-36)	5.96	5.12	--	--	--	--	4.47	5.24
Grind 1 (DC-1, DC-3, DC-4)	4.19	0.42	--	--	--	--	3.14	3.69
Grind 2 (DC-24, DC-25)	6.48	0.65	--	--	--	--	4.86	5.70
Saw 1 (DC-2, DC-5, DC-23)	6.25	0.63	--	--	--	--	4.69	5.50
CMI Grinder (DC-37)	2.23	0.22	--	--	--	--	1.67	1.96
Fume Scrubber (FS-1)	0.13	0.13	--	4.09	--	--	0.32	0.36
Fume Scrubber (FS-2)	0.08	0.08	--	12.47	--	--	--	--
Natural gas combustion	3.11	12.44	0.98	163.73	9.01	137.53	2.95	3.09
Insignificant Activities (a)	0.06	0.06	--	--	2.50	--	--	--
TOTAL Controlled PTE	64.31	75.96	11.50	230.51	19.49	229.18	45.70	58.47

Nickel

(a) Includes estimated potential emissions from the insignificant degreasing operations, the insignificant R-24 weigh room controlled by DC-33 and the vacuum induction melt furnace.

See Appendix A, pages 2-8 for detailed emissions calculations of the units listed above.

Appendix A: Emissions Calculations

Company Name: Haynes International, Inc.
 Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
 Operating Permit No.: T067-18070-00009
 Pit ID: 067-00009
 Reviewer: Trish Earls

AOD (DC-14)		LBS/HR		TON/HR		Control Device: Dust Collector DC-14	
TYPE OF MATERIAL		Metal Throughput				Control Efficiency: 99.00%	
Metal		10000	5				
	PM lb/ton metal 0.171	PM10 lb/ton metal 0.171	SOx lb/ton metal --	NOx lb/ton metal --	VOC lb/ton metal --	CO lbs/ton metal 0.60	Lead lbs/ton metal 0.00
Potential Uncontrolled Emissions lbs/hr	85.50	85.50	0.00	0.00	0.00	3.0	0.0
Potential Uncontrolled Emissions tons/year	374.49	374.49	0.00	0.00	0.00	13.14	0.00
Controlled Emissions lbs/hr	0.86	0.86	0.00	0.00	0.00	3.00	0.00
Controlled Emissions tons/yr	3.74	3.74	0.00	0.00	0.00	13.14	0.00
Note: PM and PM10 emission factors are based on emission factor obtained from stack test conducted on 9/27/04 on the AOD vessel dust collector stack DC-14. Uncontrolled emissions were based on overall dust collector control efficiency of 99%. CO emission factor from USEPA's AP-42, Draft section 12.5.1, Table 12.5.1-5.							
EAF (DC-22)		LBS/HR		TON/HR		Control Device: Dust Collector DC-22	
TYPE OF MATERIAL		Metal Throughput				Control Efficiency: 99.00%	
Metal		10000	5				
	PM lb/ton metal 0.2779	PM10 lb/ton metal 0.837	SOx lb/ton metal 0.24	NOx lb/ton metal 0.32	VOC lb/ton metal 0.18	CO lbs/ton metal 2.19	Lead lbs/ton metal 0.03
Potential Uncontrolled Emissions lbs/hr	138.95	418.50	1.20	1.60	0.90	10.95	0.16
Potential Uncontrolled Emissions tons/year	608.60	1833.03	5.26	7.01	3.94	47.96	0.70
Controlled Emissions lbs/hr	1.39	4.19	1.20	1.60	0.90	10.95	0.16
Controlled Emissions tons/yr	6.09	18.33	5.26	7.01	3.94	47.96	0.70
Note: PM and PM10 emission factors are based on emission factor obtained from stack test conducted on 9/8/04 on the EAF dust collector stack DC-22. Uncontrolled emissions were based on overall dust collector control efficiency of 99%. CO emission factor is based on emission factor obtained from stack test conducted on 8/5/05 on the EAF dust collector stack DC-22. SO2, NOx, and VOC emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24. Lead emission factor from USEPA's AP-42, Draft section 12.5.1, Table 12.5.1-7 and represents controlled emissions.							

Appendix A: Emissions Calculations

Company Name: Haynes International, Inc.
Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
Operating Permit No.: T067-18070-00009
Plt ID: 067-00009
Reviewer: Trish Earls

ESR (DC-18)							
TYPE OF MATERIAL	LBS/HR		TON/HR		Control Device: Dust Collector DC-18		
Metal	Metal Throughput	11020	5.51	Control Efficiency: 99.00%			
	PM lbs/ton metal 0.205	PM10 lbs/ton metal 0.205	SOx lbs/ton metal 0.00	NOx lbs/ton metal 1.50	VOC lbs/ton metal 0.004	CO lbs/ton metal 0.00	Lead lbs/ton metal 0.00
Potential Uncontrolled Emissions lbs/hr	112.96	112.96	0.00	8.27	0.02	0.00	0.00
Potential Uncontrolled Emissions tons/year	494.74	494.74	0.00	36.20	0.10	0.00	0.00
Controlled Emissions lbs/hr	1.13	1.13	0.00	8.27	0.02	0.00	0.00
Controlled Emissions tons/yr	4.95	4.95	0.00	36.20	0.10	0.00	0.00

Note: PM and PM10 emission factors are based on emission factors obtained from stack test conducted on 2/11/02 on the ESR dust collector stack DC-18. Uncontrolled emissions were based on overall dust collector control efficiency of 99%. NOx and VOC emission factors were obtained from Title V permit 067-7729-00009, issued on June 24, 1999.

AOD/EF Canopy Hood (DC-38)							
TYPE OF MATERIAL	Maximum Throughput LBS/HR		TON/HR		Control Device: Dust Collector DC-38		
Metal	Metal Throughput	10000	5	Control Efficiency: 99.00%			
	PM lbs/ton metal 0.5986	PM10 lbs/ton metal 1.258	SOx lbs/ton metal 0.24	NOx lbs/ton metal 0.32	VOC lbs/ton metal 0.180	CO lbs/ton metal 1.40	Lead lbs/ton metal 0.032
Potential Uncontrolled Emissions lbs/hr	299.30	629.00	1.20	1.60	0.90	6.98	0.16
Potential Uncontrolled Emissions tons/year	1310.93	2755.02	5.26	7.01	3.94	30.55	0.70
Controlled Emissions lbs/hr	2.99	6.29	1.20	1.60	0.90	6.98	0.16
Controlled Emissions tons/yr	13.11	27.55	5.26	7.01	3.94	30.55	0.70

Note: PM and PM10 emission factors are based on emission factor obtained from stack test conducted on 9/27/04 on the canopy hood dust collector stack DC-38. Uncontrolled emissions were based on overall dust collector control efficiency of 99%. CO emission factor is based on the average of the CO emission factors for the EAF and AOD. SO2, NOx, and VOC emission factors from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24. Lead emission factor from USEPA's AP-42, Draft section 12.5.1, Table 12.5.1-7 and represents controlled emissions.

Appendix A: Emissions Calculations

Company Name: Haynes International, Inc.
 Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
 Operating Permit No.: T067-18070-00009
 Plt ID: 067-00009
 Reviewer: Trish Earls

TYPE OF MATERIAL		Maximum Throughput		Control Device: Fume Scrubber FS-1 Control Efficiency: 7.15% for NOx			
		LBS/HR	TON/HR				
Metal Throughput		30000	15				
Metal							
	PM lbs/ton metal 0.002	PM10 lbs/ton metal 0.002	SOx lbs/ton metal 0.0	NOx lbs/ton metal 0.067	VOC lbs/ton metal 0.0	CO lbs/ton metal 0.00	Lead lbs/ton metal 0.000
Potential Uncontrolled Emissions lbs/hr	3.00E-02	3.00E-02	0.00	1.01	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year	0.13	0.13	0.00	4.40	0.00	0.00	0.00
Potential Controlled Emissions lbs/hr	3.00E-02	3.00E-02	0.00	0.93	0.00	0.00	0.00
Potential Controlled Emissions tons/year	0.13	0.13	0.00	4.09	0.00	0.00	0.00

Note: PM and PM10 emission factors based on stack test performed on 2/4/2003 on FS-1 and FS-2 and the NOx emission factor based on stack test performed on 2/11/2002 on FS-1 and FS-2.

TYPE OF MATERIAL		Maximum Throughput		Control Device: Fume Scrubber FS-2 Control Efficiency: 27.67% for NOx			
		LBS/HR	TON/HR				
Metal Throughput		15000	7.5				
Metal							
	PM lbs/ton metal 0.0025	PM10 lbs/ton metal 0.0025	SOx lbs/ton metal 0.00	NOx lbs/ton metal 0.525	VOC lbs/ton metal 0.00	CO lbs/ton metal 0.00	Lead lbs/ton metal 0.000
Potential Uncontrolled Emissions lbs/hr	0.02	0.02	0.0	3.94	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year	0.08	0.08	0.00	17.25	0.00	0.00	0.00
Potential Controlled Emissions lbs/hr	0.02	0.02	0.0	2.85	0.00	0.00	0.00
Potential Controlled Emissions tons/year	0.08	0.08	0.0	12.47	0.00	0.00	0.00

Note: PM and PM10 emission factors based on stack test performed on 2/4/2003 on FS-1 and FS-2 and the NOx emission factor based on stack test performed on 9/24/2004 on FS-2.

TYPE OF MATERIAL		Maximum Throughput		Control Device: N/A Control Efficiency:			
		LBS/HR	TON/HR				
Metal Throughput		2000	1				
Metal							
	PM lb/ton metal 0.9	PM10 lb/ton metal 0.86	SOx lb/ton metal 0.00	NOx lb/ton metal 0.00	VOC lb/ton metal 0.00	CO lbs/ton metal 0.00	Lead lbs/ton metal 0.00
Potential Uncontrolled Emissions lbs/hr	0.08	0.86	0.00	0.00	0.00	0.00	0.00
Potential Uncontrolled Emissions tons/year	0.03	0.03	0.00	0.00	0.00	0.00	0.00

Note: PM and PM10 emission factors are from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24.

The only emissions from this unit are fugitive (resulting from the furnace door being opened a maximum of 5 minutes twice a day).

Potential hourly emissions are calculated assuming an open door for 5 minutes during that hour.

Potential annual emissions are calculated based on the furnace door being opened 10 minutes per day for 365 days per year or 60.83 hours.

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

Company Name: Haynes International, Inc.
Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
Operating Permit No.: T067-18070-00009
Plt ID: 067-00009
Reviewer: Trish Earls

Unit I.D.	Number of Units	Heat Input Capacity per unit MMBtu/hr	Potential Throughput MMBtu/yr	Emission Factor in lb/MMCF						
				PM*	PM10*	SO2	NOx**	VOC	CO	
Boiler 1 and Boiler 2	2	16.000	280.320	Potential Emission in tons/yr	0.27	1.07	0.08	14.02	0.77	11.77
Four (4) 3-Hi Mill preheat furnaces	4	10.350	362.664	Potential Emission in tons/yr	0.34	1.38	0.11	18.13	1.00	15.23
One (1) 2-Hi Mill preheat furnace	1	22.000	192.720	Potential Emission in tons/yr	0.18	0.73	0.06	9.64	0.53	8.09
One (1) annealing furnace #6	1	14.800	129.648	Potential Emission in tons/yr	0.12	0.49	0.04	6.48	0.36	5.45
One (1) annealing furnace #16	1	16.000	140.160	Potential Emission in tons/yr	0.13	0.53	0.04	7.01	0.39	5.89
One (1) annealing furnace #20	1	12.000	105.120	Potential Emission in tons/yr	0.10	0.40	0.03	5.26	0.29	4.42
Five (5) 4-Hi mill preheat furnaces	5	15.000	657.000	Potential Emission in tons/yr	0.62	2.50	0.20	32.85	1.81	27.59
Two (2) 4-Hi mill Steckle furnaces	2	20.000	350.400	Potential Emission in tons/yr	0.33	1.33	0.11	17.52	0.96	14.72
One (1) strip annealing furnace A&K line	1	10.000	87.600	Potential Emission in tons/yr	0.08	0.33	0.03	4.38	0.24	3.68
Insignificant Activities*	20	146.570	1283.953	Potential Emission in tons/yr	1.22	4.88	0.39	64.20	3.53	53.93
Total		282.720	3589.585	Total Potential Emissions (tons/yr)	3.41	13.64	1.08	179.48	9.87	150.76

*Heat Input Capacity for Insignificant activities represents total combined heat input capacity of all units.

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

Unit I.D.	Number of Units	Heat Input Capacity per unit MMBtu/hr	Limited Throughput MMBtu/yr	Emission Factor in lb/MMCF						
				PM*	PM10*	SO2	NOx**	VOC	CO	
Boiler 1 and Boiler 2	2	16.000	280.320	Limited Emissions in tons/yr	0.27	1.07	0.08	14.02	0.77	11.77
Four (4) 3-Hi Mill preheat furnaces	4	10.350	362.664	Limited Emissions in tons/yr	0.34	1.38	0.11	18.13	1.00	15.23
One (1) 2-Hi Mill preheat furnace	1	22.000	192.720	Limited Emissions in tons/yr	0.18	0.73	0.06	9.64	0.53	8.09
One (1) annealing furnace #6	1	14.800	129.648	Limited Emissions in tons/yr	0.12	0.49	0.04	6.48	0.36	5.45
One (1) annealing furnace #16	1	16.000	140.160	Limited Emissions in tons/yr	0.13	0.53	0.04	7.01	0.39	5.89
One (1) annealing furnace #20	1	12.000	105.120	Limited Emissions in tons/yr	0.10	0.40	0.03	5.26	0.29	4.42
Five (5) 4-Hi mill preheat furnaces	5	15.000	780.000	Limited Emissions in tons/yr	0.74	2.96	0.23	39.00	2.15	32.76
Two (2) 4-Hi mill Steckle furnaces	2	20.000								
One (1) strip annealing furnace A&K line	1	10.000								
Insignificant Activities*	20	146.570	1283.953	Limited Emissions in tons/yr	1.22	4.88	0.39	64.20	3.53	53.93
Total		282.720	3274.585	Total Limited Emissions (tons/yr)	3.11	12.44	0.98	163.73	9.01	137.53

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

HAPs Emissions

Company Name: Haynes International, Inc.
Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
Operating Permit No.: T067-18070-00009
Plt ID: 067-00009
Reviewer: Trish Earls

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emissions in tons/yr	3.769E-03	2.154E-03	0.13	3.23	6.102E-03
Limited Emissions in tons/yr	3.438E-03	1.965E-03	0.12	2.95	5.567E-03

HAPs - Metals

Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03	Total
Potential Emission in tons/yr	8.974E-04	1.974E-03	2.513E-03	6.820E-04	3.769E-03	3.39
Limited Emissions in tons/yr	8.186E-04	1.801E-03	2.292E-03	6.222E-04	3.438E-03	3.09

Methodology is the same as previous page.

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

**Appendix A: Emissions Calculations
Machining Operations**

Company Name: Haynes International, Inc.
Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
Operating Permit No.: T067-18070-00009
Pit ID: 067-00009
Reviewer: Trish Earls

Unit I.D.	Maximum Metal Throughput (tons/hr)	Uncontrolled Potential Emissions (tons/yr)						
		Emission Factor in lb/ton metal	PM*	PM10*	SO2	NOx	VOC	CO
Sawing Operation (DC-31)	4.000		17.0	1.7	0.0	0.0	0.0	0.0
CMI automatic abrasive billet grinder (DC-32)	3.000		223.38	22.34	0.00	0.00	0.00	0.00
One (1) new CMI grinder (DC-37)	3.000		223.38	22.34	0.00	0.00	0.00	0.00
Abrasive grind machines (Grind 1) (DC-1)	1.875		139.61	13.96	0.00	0.00	0.00	0.00
Abrasive grind machines (Grind 1) (DC-3)	1.875		139.61	13.96	0.00	0.00	0.00	0.00
Abrasive grind machines (Grind 1) (DC-4)	1.875		139.61	13.96	0.00	0.00	0.00	0.00
One (1) grinder operation (Grind 2) (DC-24)	4.350		323.90	32.39	0.00	0.00	0.00	0.00
One (1) grinder operation (Grind 2) (DC-25)	4.350		323.90	32.39	0.00	0.00	0.00	0.00
One (1) Sawing operation (Saw 1) (DC-2)	2.800		208.49	20.85	0.00	0.00	0.00	0.00
One (1) Sawing operation (Saw 1) (DC-5)	2.800		208.49	20.85	0.00	0.00	0.00	0.00
One (1) Sawing operation (Saw 1) (DC-23)	2.800		208.49	20.85	0.00	0.00	0.00	0.00
One (1) grinding and sawing operation (DC-8)	1.150		85.63	8.56	0.00	0.00	0.00	0.00
One (1) grinding and sawing operation (DC-9)	1.000		74.46	7.45	0.00	0.00	0.00	0.00
			PM*	PM10*	SO2	NOx	VOC	CO
		Emission Factor in lb/ton metal	17.0	14.6	0.0	0.0	0.0	0.0
One (1) rotoblast shot blaster (DC-36)	8.000		595.68	512.28	0.00	0.00	0.00	0.00
One (1) rotoblast shot blaster (DC-10)	1.500		111.69	96.05	0.00	0.00	0.00	0.00
Total Potential Emissions (tons/yr)			3321.16	882.64	0.00	0.00	0.00	0.00

Note: PM and PM10 emission factor from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24 for similar operation at gray iron foundry.
The PM10 emissions from the rotoblast shot blasters (DC-10 and DC-36) were calculated using a 0.86 lb PM10/ lb PM ration pursuant to Stappa Alapco, Section 3 for steel shot media.

**Appendix A: Emissions Calculations
Machining Operations**

Company Name: Haynes International, Inc.
Address City IN Zip: 2000 West Deffenbaugh Street, Kokomo, IN 46904
Operating Permit No.: T067-18070-00009
Pit ID: 067-00009
Reviewer: Trish Earls

Unit I.D.	Maximum Metal Throughput (tons/hr)	Control Efficiency (%)	Controlled Potential Emissions (tons/yr)						
			Emission Factor in lb/ton metal	PM*	PM10*	SO2	NOx	VOC	CO
Sawing Operation (DC-31)	4.000	99.00%		2.98	0.30	0.00	0.00	0.00	0.00
CMI automatic abrasive billet grinder (DC-32)	3.000	99.00%		2.23	0.22	0.00	0.00	0.00	0.00
One (1) new CMI grinder (DC-37)	3.000	99.00%		2.23	0.22	0.00	0.00	0.00	0.00
Abrasive grind machines (Grind 1) (DC-1)	1.875	99.00%		1.40	0.14	0.00	0.00	0.00	0.00
Abrasive grind machines (Grind 1) (DC-3)	1.875	99.00%		1.40	0.14	0.00	0.00	0.00	0.00
Abrasive grind machines (Grind 1) (DC-4)	1.875	99.00%		1.40	0.14	0.00	0.00	0.00	0.00
One (1) grinder operation (Grind 2) (DC-24)	4.350	99.00%		3.24	0.32	0.00	0.00	0.00	0.00
One (1) grinder operation (Grind 2) (DC-25)	4.350	99.00%		3.24	0.32	0.00	0.00	0.00	0.00
One (1) Sawing operation (Saw 1) (DC-2)	2.800	99.00%		2.08	0.21	0.00	0.00	0.00	0.00
One (1) Sawing operation (Saw 1) (DC-5)	2.800	99.00%		2.08	0.21	0.00	0.00	0.00	0.00
One (1) Sawing operation (Saw 1) (DC-23)	2.800	99.00%		2.08	0.21	0.00	0.00	0.00	0.00
One (1) grinding and sawing operation (DC-8)	1.150	99.00%		0.86	0.09	0.00	0.00	0.00	0.00
One (1) grinding and sawing operation (DC-9)	1.000	99.00%		0.74	0.07	0.00	0.00	0.00	0.00
			Emission Factor in lb/ton metal	PM*	PM10*	SO2	NOx	VOC	CO
One (1) rotoblast shot blaster (DC-36)	8.000	99.00%		5.96	5.12	0.00	0.00	0.00	0.00
One (1) rotoblast shot blaster (DC-10)	1.500	99.00%		1.12	0.96	0.00	0.00	0.00	0.00
Total Potential Emissions (tons/yr)				50.04	23.30	0.00	0.00	0.00	0.00

Note: PM and PM10 emission factor from USEPA's Factor Information Retrieval (FIRE) Data System, version 6.24 for similar operation at gray iron foundry.
The PM10 emissions from the rotoblast shot blasters (DC-10 and DC-36) were calculated using a 0.86 lb PM10/ lb PM ration pursuant to Stappa Alapco, Section 3 for steel shot media.

Appendix A: Emissions Calculations for ATPA Test
Haynes International, Inc.
Kokomo, IN
Past-Actual to Future Projected Actual Emissions
EAF Shell Project

Unit Description	Time Period ¹	Pollutant Emissions (tpy)						
		CO	NO _x	Pb	PM	PM ₁₀	SO ₂	VOC
Boiler 1	2001	1.50	1.79	0.00	0.14	0.14	0.01	0.10
	2002	1.62	1.93	0.00	0.15	0.15	0.01	0.11
	Projected Actual ³	1.93	2.30	0.00	0.17	0.17	0.01	0.13
Boiler 2	2001	1.50	1.79	0.00	0.14	0.14	0.01	0.10
	2002	1.62	1.93	0.00	0.15	0.15	0.01	0.11
	Projected Actual ³	1.93	2.30	0.00	0.17	0.17	0.01	0.13
Furnaces - Indoor Vent	2001	15.17	18.06	0.00	1.37	1.37	0.11	0.99
	2002	20.23	24.08	0.00	1.83	1.83	0.14	1.32
	Projected Actual ³	21.84	26.00	0.00	1.98	1.98	0.16	1.43
Furnaces - Outdoor Vent	2001	7.85	9.35	0.00	0.71	0.71	0.06	0.51
	2002	10.47	12.47	0.00	0.95	0.95	0.07	0.69
	Projected Actual ³	11.31	13.46	0.00	1.02	1.02	0.08	0.74
AOD	2001	4.87	N/A	N/A	11.19	11.19	N/A	N/A
	2002	3.15	N/A	N/A	7.56	7.56	N/A	N/A
	Projected Actual ³	4.95	N/A	N/A	11.57	11.57	N/A	N/A
ESR Furnaces	2001	N/A	13.59	N/A	1.65	1.65	N/A	0.04
	2002	N/A	8.96	N/A	1.65	1.65	N/A	0.02
	Projected Actual ³	N/A	13.91	N/A	2.04	2.04	N/A	0.04
EAF	2001	7.85	2.60	0.26	1.91	1.91	1.95	1.46
	2002	5.08	1.68	0.17	1.23	1.23	1.26	0.95
	Projected Actual ³	18.10	2.64	0.26	3.59	3.59	1.98	1.49
DC-38 ²	2001	6.36	2.60	0.26	21.99	21.99	1.95	0.03
	2002	4.12	1.68	0.17	14.85	14.85	1.26	0.02
	Projected Actual ³	11.52	2.64	0.26	22.73	22.73	1.98	1.49
DC-8	2001	N/A	N/A	N/A	0.19	0.02	N/A	N/A
	2002	N/A	N/A	N/A	0.12	0.01	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.19	0.02	N/A	N/A
DC-9	2001	N/A	N/A	N/A	0.19	0.02	N/A	N/A
	2002	N/A	N/A	N/A	0.12	0.01	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.19	0.02	N/A	N/A
DC-10	2001	N/A	N/A	N/A	1.31	1.13	N/A	N/A
	2002	N/A	N/A	N/A	0.79	0.68	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	1.29	1.11	N/A	N/A
DC-31	2001	N/A	N/A	N/A	0.94	0.09	N/A	N/A
	2002	N/A	N/A	N/A	0.63	0.06	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.96	0.10	N/A	N/A
DC-32	2001	N/A	N/A	N/A	0.94	0.09	N/A	N/A
	2002	N/A	N/A	N/A	0.63	0.06	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.96	0.10	N/A	N/A
DC-36	2001	N/A	N/A	N/A	0.54	0.46	N/A	N/A
	2002	N/A	N/A	N/A	0.46	0.40	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.62	0.53	N/A	N/A
DC-1	2001	N/A	N/A	N/A	0.08	0.01	N/A	N/A
	2002	N/A	N/A	N/A	0.12	0.11	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.13	0.01	N/A	N/A
DC-3	2001	N/A	N/A	N/A	0.07	0.01	N/A	N/A
	2002	N/A	N/A	N/A	0.03	0.00	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.07	0.01	N/A	N/A
DC-4	2001	N/A	N/A	N/A	0.29	0.03	N/A	N/A
	2002	N/A	N/A	N/A	0.44	0.04	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.45	0.04	N/A	N/A
DC-24	2001	N/A	N/A	N/A	0.51	0.05	N/A	N/A
	2002	N/A	N/A	N/A	0.23	0.02	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.46	0.05	N/A	N/A
DC-25	2001	N/A	N/A	N/A	0.07	0.01	N/A	N/A
	2002	N/A	N/A	N/A	0.03	0.00	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.07	0.01	N/A	N/A
DC-2	2001	N/A	N/A	N/A	0.30	0.03	N/A	N/A
	2002	N/A	N/A	N/A	0.46	0.05	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.47	0.05	N/A	N/A
DC-5	2001	N/A	N/A	N/A	0.05	0.00	N/A	N/A
	2002	N/A	N/A	N/A	0.02	0.00	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.04	0.00	N/A	N/A
DC-23	2001	N/A	N/A	N/A	0.05	0.00	N/A	N/A
	2002	N/A	N/A	N/A	0.02	0.00	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.04	0.00	N/A	N/A
DC-37	2001	N/A	N/A	N/A	0.94	0.09	N/A	N/A
	2002	N/A	N/A	N/A	0.63	0.06	N/A	N/A
	Projected Actual ³	N/A	N/A	N/A	0.96	0.10	N/A	N/A
FS-1	2001	N/A	0.35	N/A	0.20	0.20	N/A	N/A
	2002	N/A	0.19	N/A	0.11	0.11	N/A	N/A
	Projected Actual ³	N/A	0.33	N/A	0.19	0.19	N/A	N/A
FS-2	2001	N/A	0.93	N/A	0.02	0.02	N/A	N/A
	2002	N/A	0.50	N/A	0.01	0.01	N/A	N/A
	Projected Actual ³	N/A	4.64	N/A	0.02	0.02	N/A	N/A
Total	2001	45.10	51.05	0.52	45.78	41.37	4.08	3.23
	2002	46.30	53.42	0.34	33.20	29.99	2.76	3.21
	Baseline Actual Emissions (tpy)	45.70	52.24	0.43	39.49	35.68	3.42	3.22
	Projected Actual Emissions (tpy)	71.57	68.22	0.53	50.39	45.63	4.22	5.43
Project Emissions Increase (tpy)		25.87	15.98	0.10	10.90	9.95	0.80	2.21
PSD SER (tpy)		100.00	40.00	0.60	25.00	15.00	40.00	40.00
Over SERs?		No	No	No	No	No	No	No

1. Past actual (baseline) period for each pollutant consists of 24-consecutive months for the duration of the 2001 and 2002 Calendar Years. These years were selected based on their respective EAF metal melt rates.

2. Please note that DC-38 was installed in 2002 to control existing fugitive emissions from the EAF and AOD. For the purposes of comparing adjusted past actuals to future projected actuals, Haynes has included DC-38 emissions for both Calendar Years 2001 and 2002.

3. Projected actual emissions at the EAF are based on a ratio of past actual (baseline actual) metal melt throughput at the EAF and projected actual metal throughput at the EAF (based on projected business parameters). This percentage increase from baseline EAF metal melt to projected actual EAF metal melt is then conservatively applied to the remaining facility emission units. It should be noted that the EAF is the only unit which experienced a physical modification as part of this project, no other units were physically or operationally changed.