INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: December 21, 2007

RE: Valbruna Slater Stainless, Inc. / 003-25324-00011

FROM: Matthew Stuckey, Deputy Branch Chief
Permits Branch
Office of Air Quality

Notice of Decision – Approval

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 326 IAC 2, this approval was effective immediately upon submittal of the application.

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days from the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER-AM.dot12/3/07

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100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(317) 232-8603
(800) 451-6027
www.IN.gov/idem

Jonathan Hacker
Valbruna Slater Stainless, Inc.
P.O. Box 630
Fort Wayne, Indiana 46801

December 21, 2007

Re: 003-25324-00011
First Administrative Amendment to
F003-23815-00011

Dear Mr. Hacker:

Valbruna Slater Stainless, Inc. was issued a FESOP Renewal No. 003-23815-00011 on September 6, 2007 for a stationary stainless steel products processing plant. located at 2400 Taylor Street West, Fort Wayne, Indiana 46802. On September 24, 2007, the Office of Air Quality (OAQ) received an application from the source

(1) describing the addition of a new process identified as Vacuum Arc Remelting (VAR),
(2) requesting the permit be revised to correct typographical errors, and
(3) requesting that their permit term be extended to ten (10) years.

Equipment used for the VAR operation is similar to the type used in Valbruna's existing Electro Slag Remelting (ESR) operation. The VAR process, which remelts a stainless steel ingot in a crucible while under vacuum to improve metal quality, consists of six (6) insignificant emission units. The emission units are identified as two (2) VAR furnaces with attached vacuum pumps, one (1) Crucible Cleaning Station, two (2) natural gas-fired Hot Boxes, and one (1) metal inert gas (MIG) welding station. The VAR process will increase the potential to emit (PTE) by 3.2 tons of particulates, 0.66 tons combined HAPs and 0.46 tons of the single HAP, chromium, per twelve (12) consecutive month period. See attached table for updated source PTE totals.

The addition of these units is considered a change by administrative amendment, since the potential emissions of regulated criteria pollutants and hazardous air pollutants are less than the ranges specified 326 IAC 2-8-11.1(d)(4) and 326 IAC 2-8-11.1(f)(1)(G), respectively. The entire source will continue to limit PM10 emissions to less than 100 tons per twelve (12) consecutive month period, rendering the requirements of 326 IAC 2-7 not applicable. The addition of these units will not cause the source's potential to emit to be greater than the threshold levels specified in 326 IAC 2-2 or 326 IAC 2-3.

The maximum capacity for Valbruna's ingot grinding operation was mistakenly written as 13.163 tons per hour instead of 10.274 tons per hour. Conditions A.2, D.1, and D.1.1 have been revised to correct this error. This typographical error did not affect the source's permit level. A revision to correct typographical errors in the permit is considered a change by administrative amendment pursuant to 326 IAC 2-8-10(a)(1).

Regarding Valbruna's request that the FESOP Renewal permit term be extended to ten (10) years, on December 16, 2007, rule revisions to 326 IAC 2-1.1-9 and 326 IAC 2-8-4 were finalized allowing for ten (10) year permit terms on FESOP renewals. IDEM has determined that this change to the permit will be processed as an administrative amendment pursuant to 326 IAC 2-8-10**.**

Pursuant to the provisions of 326 IAC 2-8-10, the permit is hereby administratively amended as follows with the deleted language as ~~strikeouts~~ and new language **bolded**.

(a) The expiration date on the cover page has been extended by five (5) years as follows:

Expiration Date: ~~September 6, 2012~~ **September 6, 2017**

(b) Condition B.2 has been revised to reflect the ten (10) year permit renewal term.

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

(a) This permit, F003-23815-00011, is issued for a fixed term of ~~five (5)~~ **ten (10)** years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(c) Conditions A.2, D.1, and D.1.1 have been revised to reflect the correction of the typographical error.

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

...

(a) Primary Mill

(1) One (1) ingot grinding operation (ID# B1), constructed in 1988, with a maximum capacity of ~~13.163~~ **10.27** tons per hour, controlled by a voluntary dust collection house ID # E4, and exhausting through vent E4;

...

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Primary Mill

(1) One (1) ingot grinding operation (ID# B1), constructed in 1988, with a maximum capacity of ~~13.163~~ **10.27** tons per hour, controlled by a voluntary dust collection house ID # E4, and exhausting through vent E4;

...

D.1.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (e), (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate matter (PM) emissions from the Ingot grinding shall not exceed ~~23.05~~ **19.53** pounds per hour emission rate established by the equation:

...

$E = 4.10 P^{0.67}$

Where:

P = process weight rate in tons per hour (**10.27** ~~13.163~~ tons/hour); and
E = rate of emission in pounds per hour.

...

(d) The entire section A.3 Insignificant Activities will be deleted and replaced with the following that lists all of the insignificant activities:

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

~~This stationary source also includes the following insignificant activities, as defined in [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(1)]:~~

~~(a) Billet Conditioning~~

~~(1) One (1) dry grinding operation (ID# C3), constructed in 1989, with a maximum capacity of 1.6 tons per hour, emissions uncontrolled and exhausting through vent E6;~~

~~(2) One (1) CMI grinder (ID# C5), constructed in 1985, with a maximum capacity of 1.60 tons per hour, controlled by a voluntary baghouse (ID# E8a), and exhausting inside the building.~~

~~(b) Continuous Bar Mill and Annealing~~

~~One (1) CBM cut-off saw (ID# D2), constructed in 1990, with a maximum processing capacity of 5.14 tons of bars per hour, controlled by a voluntary baghouse (ID# E10), and exhausting through stack E10;~~

~~(c) One (1) natural gas-fired boiler, identified as # 2, constructed in 1979, with a maximum heat input capacity of 3.5 million Btu per hour, exhausting through stack E15 [326 IAC 6-2-3];~~

~~(d) One (1) natural gas fired boiler, identified as # 3, constructed in 1990, with a maximum heat input capacity of 8.0 million Btu per hour, exhausting through stack E16 [326 IAC 6-2-4];~~

~~(e) One (1) natural gas-fired boiler, identified as CDC boiler, constructed in 1998, with a maximum heat input capacity of 10.0 million Btu per hour, exhausting through CDC boiler stacks. [326 IAC 6-2-4];~~

~~(f) The sawing operation is attached to a baghouse (ID# CDC-BH) that has a design maximum outlet grain loading of 0.003 gr/dscf and a gas flow rate of 2,942 actual cubic feet of air per minute [326 IAC 6-3-2]; and~~

~~(g) The oxidizing operation uses nitric acid solution to oxidize the surface of stainless steel bars. It is designed with water curtains as an integral part of the process to recover and neutralize nitric acid fumes and to prevent cross contamination with the intermediate and final alkaline cleaning operations [326 IAC 6-3-2].~~

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

This stationary source also includes the following insignificant activities, as defined in [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(1)]:

…

(a) Billet Conditioning

(1) One (1) dry grinding operation (ID# C3), constructed in 1989, with a maximum capacity of 1.6 tons per hour, emissions uncontrolled and exhausting through vent E6; and

(2) One (1) CMI grinder (ID# C5), constructed in 1985, with a maximum capacity of 1.60 tons per hour, voluntarily controlled by a voluntary baghouse (ID# E8a), and exhausting inside the building.

(b) Continuous Bar Mill and Annealing

(1) One (1) CBM cut-off saw (ID# D2), constructed in 1990, with a maximum processing capacity of 5.14 tons of bars per hour, controlled by a voluntary baghouse (ID# E10), and exhausting through stack E10;

(c) One (1) natural gas-fired boiler, identified as # 2, constructed in 1979, with a maximum heat input capacity of 3.5 million Btu per hour, exhausting through stack E15 [326 IAC 6-2-3];

(d) One (1) natural gas-fired boiler, identified as # 3, constructed in 1990, with a maximum heat input capacity of 8.0 million Btu per hour, exhausting through stack E16 [326 IAC 6-2-4];

(e) One (1) natural gas-fired boiler, identified as CDC boiler, constructed in 1998, with a maximum heat input capacity of 10.0 million Btu per hour, exhausting through CDC boiler stacks [326 IAC 6-2-4];

(f) One (1) natural gas-fired heat treat furnace with heat input capacities less than or equal to 10 million Btu per hour;

(g) Continuous Draw Cell Line

(1) The precoat operation utilizes a calcium hydroxide (lime) aqueous solution, which does not contain any VOC or HAP, to protect the steel bars during the drawing operation;

(2) The draw bench operation uses small amount of oil, a nonvolatile material, to protect the drawing dies from scratching;

(3) The three (3) alkaline operations utilize HAP-free aqueous solutions containing 1% by weight of VOC;

(4) The sawing operation is attached to a baghouse (ID# CDC-BH) that has a design maximum outlet grain loading of 0.003 gr/dscf and a gas flow rate of 2,942 actual cubic feet of air per minute [326 IAC 6-3-2]; and

(5) The oxidizing operation uses nitric acid solution to oxidize the surface of stainless steel bars. It is designed with water curtains as an integral part of the process to recover and neutralize nitric acid fumes and to prevent cross contamination with the intermediate and final alkaline cleaning operations [326 IAC 6-3-2].

(h) Vacuum Arc Remelting

(1) One (1) MIG Welding Station (ID# MWS), approved for construction in 2007, with a maximum capacity of four (4) welds and four (4) cuts per 24 hours, controlled by a baghouse (ID# MWS-1), and exhausting inside the building;

(2) Two (2) Vacuum Arc Remelting furnaces (ID# VAR1 & VAR2), approved for construction in 2007, each with a heat input capacity of 1680 Kilo Volt Amperes (kVA), each with a maximum capacity of two (2) ten thousand (10,000) pound ingots per 24 hours, each controlled by a 50 horsepower (HP) vacuum mist eliminator (ID# VAR1-V & VAR2-V), and exhausting inside

the building;

(3) Two (2) natural gas fired Hot Boxes (ID# HB1 & HB2), approved for construction in 2007, each with a maximum capacity of two (2) ten thousand (10,000) pound ingots per 24 hours, with a maximum heat input capacity of 0.4 million British thermal units per hour, with emissions uncontrolled and exhausting inside the building;

(4) One (1) Crucible Cleaning Station (ID# CCS) constructed in 2007, with a maximum capacity of four (4) crucibles per 24 hours, controlled by a baghouse (ID# CCS-1), and exhausting inside the building.

(i) Electro slag remelt operation, identified as ESR;

(j) Combustion source flame safety purging start up;

(k) One (1) gasoline 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;

(l) One (1) petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month;

(m) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(n) Refractory storage not requiring air pollution control equipment;

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

(p) Machining where an aqueous cutting coolant continuously floods the machining interface;

(q) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kilopascals; 15 mm Hg; or 0.3 psi measured at 38 C (I00 F); or

(2) having a vapor pressure equal to or less than 0.7 kilopascal; 5 mm Hg; or 0.1 psi measured at 20 C (68 F);

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

(r) Closed loop heating and cooling systems;

(s) Forced and induced draft noncontact cooling tower system not regulated under a NESHAP;

(t) Quenching operations used with heat treating processes;

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

(v) Heat exchanger cleaning and repair;

(w) Process vessel degassing and cleaning to prepare for internal repairs;

(x) Paved roads and parking lots with public access;

(y) Equipment used to collect any material that might be released during a malfunction, process upset, or spill clean up, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment;

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

(aa) Furnaces used for melting metal other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume;

(bb) A laboratory as defined in 326 IAC 2-7-1(21)(D);

(cc) Safety clean parts washers for maintenance work;

(dd) Noncontact cooling towers used with chiller systems (no chromates);

(ee) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations [326 IAC 6-3-2];

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

(e) IDEM, OAQ has decided to make additional revisions to the permit as described below. The permit is revised as follows with deleted language as ~~strikeouts~~ and new language **bolded**:

(1) All occurrences of IDEM mailing addresses have been revised to include a mail code (MC) as follows:

Asbestos Section:	**MC 61-52 IGCN 1003**
Compliance Branch:	**MC 61-53 IGCN 1003**
Permits Branch:	**MC 61-53 IGCN 1003**
Technical Support and Modeling Section:	**MC 61-50 IGCN 1003**

All other conditions of the permit shall remain unchanged and in effect. A copy of the revised permit is attached to this document.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Sandra Carr, of my staff, at 317-234-5377 or 1-800-451-6027, and ask for extension 4-5377

Sincerely/Original Signed By:

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Updated PTE table, updated Permit

IC/sec

cc: File - Allen County
Allen County Health Department
U.S. EPA, Region V
Air Compliance Section: Patrick Burton
Compliance Data Section
Technical Support and Modeling
Permits Administrative and Development
Billing, Licensing and Training Section – Dan Stamatkin

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Indianapolis, Indiana 46204-2251
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Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Valbruna Slater Stainless, Inc
2400 Taylor Street West
Fort Wayne, Indiana 46802

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

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

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

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

Operation Permit No.: F003-23815-00011	
Original Issued by: Nisha Sizemore, Chief Permits Branch Office of Air Quality	Issuance Date: September 6, 2007 Expiration Date: September 6, 2017

Administrative Amendment No.: 003-25324-00011	
Issued by/Original Signed By: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: December 21, 2007 Expiration Date: September 6, 2017

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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 2-8-3(b)]

The Permittee owns and operates a stationary Stainless Steel Products Processing Plant.

Source Address:	2400 Taylor Street West, Fort Wayne, Indiana 46802
Mailing Address:	P.O. Box 630, Fort Wayne, IN 46801
General Source Phone Number:	260-434-2955
SIC Code:	3312
County Location:	Allen
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rule Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

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

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

(a) Primary Mill

(1) One (1) ingot grinding operation (ID# B1), constructed in 1988, with a maximum capacity of 10.27 tons per hour, controlled by a voluntary dust collection house ID# E4, and exhausting through vent E4;

(2) Eight (8) natural gas-fired preheat charge furnaces (ID#s B2a through B2h), constructed in 1968, with a maximum combined preheat capacity of 10.27 tons per hour, with a maximum heat input capacity of 31.6 million Btu per hour, each, emissions uncontrolled and exhausting inside the building; and

(3) Four (4) natural gas-fired annealing furnaces (ID#s B4a through B4d), constructed in 1968, with a maximum combined annealing capacity of 10.27 tons per hour, with a maximum heat input capacity of 13.0 million Btu per hour, each, emission uncontrolled and exhausting inside the building.

(b) Continuous Bar Mill and Annealing

(1) One (1) natural gas-fired annealing furnace (ID# D3), constructed in 1990, with a maximum heat input capacity of 13.9 million Btu per hour, emissions uncontrolled, and exhausting inside the building.

(c) Billet Conditioning

(1) One (1) billet shot blasting operation (ID# C4), constructed in 1973, with a maximum processing capacity of 4.0 tons of billets per hour, controlled by a baghouse (ID# E9), and exhausting through stack E9.

(d) Cold Finishing

(1) One (1) passivation system (ID# E3), constructed in 1993, with a maximum capacity of 4.0 tons of stainless steel bars per hour, voluntarily controlled by a mist eliminator (ID# E12), and exhausting through stack E12;

(2) One (1) old bar shot blasting operation (ID# E6), constructed in 1974, with two blasting stations, with a total maximum capacity of 1.83 tons of stainless steel bar per hour, controlled by a baghouse (ID# E15), and exhausting inside the building; and

(3) One (1) #1 shot blasting operation (ID# E7) constructed in 1980, with a maximum capacity of 1.83 tons of stainless steel bar per hour, controlled by a baghouse (ID# E16), and exhausting inside the building.

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

This stationary source also includes the following insignificant activities, as defined in [326 IAC 2-7-1(21)][326 IAC 2-8-3(c)(3)(1):

(a) Billet Conditioning

(1) One (1) dry grinding operation (ID# C3), constructed in 1989, with a maximum capacity of 1.6 tons per hour, emissions uncontrolled and exhausting through vent E6; and

(2) One (1) CMI grinder (ID# C5), constructed in 1985, with a maximum capacity of 1.60 tons per hour, voluntarily controlled by a voluntary baghouse (ID# E8a), and exhausting inside the building.

(b) Continuous Bar Mill and Annealing

(1) One (1) CBM cut-off saw (ID# D2), constructed in 1990, with a maximum processing capacity of 5.14 tons of bars per hour, controlled by a voluntary baghouse (ID# E10), and exhausting through stack E10;

(c) One (1) natural gas-fired boiler, identified as # 2, constructed in 1979, with a maximum heat input capacity of 3.5 million Btu per hour, exhausting through stack E15 [326 IAC 6-2-3];

(d) One (1) natural gas-fired boiler, identified as # 3, constructed in 1990, with a maximum heat input capacity of 8.0 million Btu per hour, exhausting through stack E16 [326 IAC 6-2-4];

(e) One (1) natural gas-fired boiler, identified as CDC boiler, constructed in 1998, with a maximum heat input capacity of 10.0 million Btu per hour, exhausting through CDC boiler stacks [326 IAC 6-2-4];

(f) One (1) natural gas-fired heat treat furnace with heat input capacities less than or equal to 10 million Btu per hour;

(g) Continuous Draw Cell Line

(1) The precoat operation utilizes a calcium hydroxide (lime) aqueous solution, which does not contain any VOC or HAP, to protect the steel bars during the drawing operation;

(2) The draw bench operation uses small amount of oil, a nonvolatile material, to protect the drawing dies from scratching;

(3) The three (3) alkaline operations utilize HAP-free aqueous solutions containing 1% by weight of VOC;

(4) The sawing operation is attached to a baghouse (ID# CDC-BH) that has a design maximum outlet grain loading of 0.003 gr/dscf and a gas flow rate of 2,942 actual cubic feet of air per minute [326 IAC 6-3-2]; and

(5) The oxidizing operation uses nitric acid solution to oxidize the surface of stainless steel bars. It is designed with water curtains as an integral part of the process to recover and neutralize nitric acid fumes and to prevent cross contamination with the intermediate and final alkaline cleaning operations [326 IAC 6-3-2].

(h) Vacuum Arc Remelting

(1) One (1) MIG Welding Station (ID# MWS), approved for construction in 2007, with a maximum capacity of four (4) welds and four (4) cuts per 24 hours, controlled by a baghouse (ID# MWS-1), and exhausting inside the building

(2) Two (2) Vacuum Arc Remelting furnaces (ID# VAR1 & VAR2), approved for construction in 2007, each with a heat input capacity of 1680 Kilo Volt Amperes (kVA), each with a maximum capacity of two (2) ten thousand (10,000) pound ingots per 24 hours, each controlled by a 50 horsepower (HP) vacuum mist eliminator (ID# VAR1-V & VAR2-V), and exhausting inside the building

(3) Two (2) natural gas-fired Hot Boxes (ID# HB1 & HB2), approved for construction in 2007, each with a maximum capacity of two (2) ten thousand (10,000) pound ingots per 24 hours, with a maximum heat input capacity of 0.4 million British thermal units per hour, with emissions uncontrolled and exhausting inside the building;

(4) One (1) Crucible Cleaning Station (ID# CCS) constructed in 2007, with a maximum capacity of four (4) crucibles per 24 hours, controlled by a baghouse (ID# CCS-1), and exhausting inside the building.

(i) Electro slag remelt operation, identified as ESR;

(j) Combustion source flame safety purging start up;

(k) One (1) gasoline 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;

(l) One (1) petroleum fuel, other than gasoline, dispensing facility, having a storage capacity of less than or equal to 10,500 gallons, and dispensing less than or equal to 230,000 gallons per month;

(m) Vessels storing lubricating oils, hydraulic oils, machining oils, and machining fluids;

(n) Refractory storage not requiring air pollution control equipment;

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

(p) Machining where an aqueous cutting coolant continuously floods the machining interface;

(q) Cleaners and solvents characterized as follows:

(1) having a vapor pressure equal to or less than 2 kilopascals; 15 mm Hg; or 0.3 psi measured at 38 C (I00 F); or

(2) having a vapor pressure equal to or less than 0.7 kilopascal; 5 mm Hg; or 0.1 psi measured at 20 C (68 F);

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

(r) Closed loop heating and cooling systems;

(s) Forced and induced draft noncontact cooling tower system not regulated under a NESHAP;

(t) Quenching operations used with heat treating processes;

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

(v) Heat exchanger cleaning and repair;

(w) Process vessel degassing and cleaning to prepare for internal repairs;

(x) Paved roads and parking lots with public access;

(y) Equipment used to collect any material that might be released during a malfunction, process upset, or spill clean up, including catch tanks, temporary liquid separators, tanks, and fluid handling equipment;

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

(aa) Furnaces used for melting metal other than beryllium with a brim full capacity of less than or equal to 450 cubic inches by volume;

(bb) A laboratory as defined in 326 IAC 2-7-1(21)(D);

(cc) Safety clean parts washers for maintenance work;

(dd) Noncontact cooling towers used with chiller systems (no chromates);

(ee) Grinding and machining operations controlled with fabric filters, scrubbers, mist collectors, wet collectors and electrostatic precipitators with a design grain loading of less than or equal to 0.03 grains per actual cubic foot and a gas flow rate less than or equal to 4,000 actual cubic feet per minute, including the following: deburring, buffing, polishing, abrasive blasting, pneumatic conveying, and woodworking operations [326 IAC 6-3-2];

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

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

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

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, F003-23815-00011, is issued for a fixed term of ten (10) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

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

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

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

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

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

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

(a) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) including the following information on each facility:

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

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

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

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

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

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

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

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

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

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

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

(4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ, 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 2-8-4(3)(C)(ii) and must contain the following:

(A) A description of the emergency;

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

(C) Corrective actions taken.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(a) All terms and conditions of permits established prior to F003-23815-00011 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted

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

B.14 Termination of Right to Operate [326 IAC 2-8-9][326 IAC 2-8-3(h)]

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

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

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

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

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

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

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

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

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Federally Enforceable State Operating

Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

(1) That this permit contains a material mistake.

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

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

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

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

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

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

(4) The Permittee notifies the:

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

and

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

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

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

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

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

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

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

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

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

B.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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

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

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

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

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

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

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

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

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

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

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

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

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

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

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

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

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

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

(a) Pursuant to 326 IAC 2-8:

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

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

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

(b) The potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

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

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

C.3 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.4 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.5 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.6 Fugitive Dust Emissions [326 IAC 6-4]

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

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

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

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

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

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

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

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

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

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

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

All required notifications shall be submitted to:

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

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

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

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

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

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

C.9 Performance Testing [326 IAC 3-6]

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

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

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

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

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

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

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

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

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

C.11 Compliance Monitoring [326 IAC 2-8-4(3)][326 IAC 2-8-5(a)(1)]

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

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

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

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

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

C.12 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.13 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

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

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

C.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

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

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

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

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

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

(e) The Permittee shall maintain the following records:

(1) monitoring data;

(2) monitor performance data, if applicable; and

(3) corrective actions taken.

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

C.15 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

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

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

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

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

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

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

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

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

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

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

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

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

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

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

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

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

(e) The first report shall cover the period commencing on the date of issuance of this permit and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

Stratospheric Ozone Protection

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

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

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

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

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

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Primary Mill

(1) One (1) ingot grinding operation (ID# B1), constructed in 1988, with a maximum capacity of 10.27 tons per hour, controlled by a voluntary dust collection house ID# E4, and exhausting through vent E4;

(2) Eight (8) natural gas-fired preheat charge furnaces (ID#s B2a through B2h), constructed in 1968, with a maximum combined preheat capacity of 10.27 tons per hour, with a maximum heat input capacity of 31.6 million Btu per hour, each, emissions uncontrolled and exhausting inside the building; and

(3) Four (4) natural gas-fired annealing furnaces (ID#s B4a through B4d), constructed in 1968, with a maximum combined annealing capacity of 10.27 tons per hour, with a maximum heat input capacity of 13.0 million Btu per hour, each, emissions uncontrolled and exhausting inside the building.

(b) Continuous Bar Mill and Annealing

(1) One (1) natural gas-fired annealing furnace (ID# D3), constructed in 1990, with a maximum heat input capacity of 13.9 million Btu per hour, emissions uncontrolled, and exhausting inside the building.

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

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

D.1.1 Particulate Emissions Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (e), (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate matter (PM) emissions from the Ingot grinding shall not exceed 19.53 pounds per hour emission rate established by the equation:

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

$E = 4.10 P^{0.67}$

Where:
P = process weight rate in tons per hour (10.27 tons/hour); and
E = rate of emission in pounds per hour.

D.1.2 Part 70 Minor Limits [326 IAC 2-8-4]

The natural gas usage of the eight (8) preheat charge furnaces, four (4) annealing furnaces, one (1) annealing furnace and the insignificant activities shall be less than 1,500 million cubic feet of natural gas per twelve (12) consecutive month period, with compliance determined at the end of each month, and the NOx and CO emissions shall not exceed 100 and 84.0 pounds per million cubic feet of natural gas, respectively.

Compliance with the above limits and Condition D.3.2, will limit the source wide NOx and CO emissions to less than 100 tons per twelve (12) consecutive month period, each, and will render 326 IAC 2-7 (Part 70) not applicable to the source.

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

D.1.3 Record Keeping Requirements

(a) To document compliance with Condition D.1.2, the Permittee shall maintain a log of monthly natural gas usage.

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

D.1.4 Reporting Requirements

A quarterly summary of the natural gas usage to document compliance with Condition D.1.2 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 "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(c) Billet Conditioning

(1) One (1) billet shot blasting operation (ID# C4), constructed in 1973, with a maximum processing capacity of 4.0 tons of billets per hour, controlled by a baghouse (ID# E9), and exhausting through stack E9.

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

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

D.2.1 PSD Minor Limit [326 IAC 2-2]

The PM emissions from the billet shot blasting operation, shall be limited to less than 10.4 pounds per hour.

Compliance with the above limit in combination with Condition D.3.1 and the potential PM emissions from the eight (8) pre-heat charger furnaces, four (4) annealing furnaces, one (1) annealing furnace, and the insignificant activities will limit sourcewide PM emissions to less than 250 tons per twelve (12) consecutive month period, and will render 326 IAC 2-2 (PSD) not applicable to this source.

D.2.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate matter (PM) emissions from the billet shot blasting operation, shall not exceed the emission limit shown in the table below:

Operation	Process Weight (tons/hr)	Allowable Limits (lbs/hr)
Billet Shot Blasting (C4)	4.0	10.4

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

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

Where:

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

Compliance Determination Requirements

D.2.3 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

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

D.2.4 Particulate Matter (PM)

(a) Inorder to comply with Conditions D.2.1 and D.2.2, the baghouse for PM control shall be in operation at all times when the billet shot blasting process is in operation.

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

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

D.2.5 Visible Emissions Notations

(a) Visible emission notations of the billet shot blasting stack exhaust (stack E9) 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 record the pressure drop across the billet shot blasting baghouse used in conjuction with the billet shot blasting operations at least once per day when the billet shot blasting operations are in operation. When for any one reading, the pressure drop across the baghouse are outside the normal range of 1.0 and 4.0 inches of water or a range established during the latest stack test, the Permittee shall take reasonable response steps in accordance with Section C- Response to Excursions and Exceedances . A pressure reading that is outside the above mentioned range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions and Exceedances shall be considered deviation from the permit.

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

D.2.7 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.

(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.

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 2-8-4(3)]

D.2.8 Record Keeping Requirements

(a) To document compliance with Condition D.2.5, the Permittee shall maintain daily records of the visible emission notations of the billet shot blasting operations stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of a visible emission notation, (e.g. the process did not operate that day).

(b) To document compliance with Condition D.2.6 the Permittee shall maintain the daily records of the pressure drop across the baghouse controlling the billet shot blasting operations. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of a pressure drop reading, (e.g. the process did not operate that day).

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

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(d) Cold Finishing

(1) One (1) passivation system (ID# E3), constructed in 1993, with a maximum capacity of 4.0 tons of stainless steel bars per hour, controlled by a mist eliminator (ID# E12), and exhausting through stack E12;

(2) One (1) old bar shot blasting operation (ID# E6), constructed in 1974, with two blasting stations, with a total maximum capacity of 1.83 tons of stainless steel bar per hour, controlled by a baghouse (ID# E15), and exhausting inside the building; and

(3) One (1) #1 shot blasting operation (ID# E7) constructed in 1980, with a maximum capacity of 1.83 tons of stainless steel bar per hour, controlled by a baghouse (ID# E16), and exhausting inside the building.

.

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

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

D.3.1 PSD Minor Limit [326 IAC 2-2]

The PM emissions from the old bar shot blasting and #1 shot blasting operations, shall be limited to less than 6.15 pounds per hour, each.

Compliance with the above limits in combination with Condition D.2.1 and the potential PM emissions from the passivation system will limit sourcewide PM emissions to less than 250 tons per twelve (12) consecutive month period, and will render 326 IAC 2-2 (PSD) not applicable to this source.

D.3.2 Part 70 Minor Limit [326 IAC 2-8-4]

The passivation production for the passivation system shall be less than 35,000 tons of steel per 12 consecutive month period, with compliance determined at the end of each month, and the NOx emissions from the passivation system shall not exceed 1.23 pounds per ton of metal.

Compliance with the above limits and Condition D.1.2, will limit the source wide NOx emissions to less than 100 tons per twelve (12) consecutive month period, and will render 326 IAC 2-7 (Part 70) not applicable to the source.

D.3.3 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate matter (PM) emissions from the passivation system, old bar shot blasting operation and #1 shot blasting operation shall not exceed the emission limits shown in the table below:

Operation	Process Weight (tons/hr)	Allowable Limits (lbs/hr)
Passivation System	4.0	10.4
Old Bar Shot Blasting	1.83	6.15
#1 Shot Blasting	1.83	6.15

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

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

Where:

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

Compliance Determination Requirements

D.3.4 Particulate Matter (PM)

(a) Inorder to comply with Conditions D.3.1 and D.3.3, the baghouses for PM control shall be in operation at all times when the old bar shot blasting and #1 shot blasting operation 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 inclued the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

D.3.5 Nitrogen Oxides (NOx)

The chemical suppression blanket for NOx emissions and the mist eliminator shall be in operation at all times the passivation system is in operation.

D.3.6 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventative Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan of this permit, is required for this facility and their control devices.

D.3.7 Testing requirements [326 IAC 2-8-5(a)(1), (4)][326 IAC 2-1.1-11]

Within sixty (60) days after the restart of the passivation system, the Permittee shall perform NOx testing on the passivation system utilizing methods as approved by the Commisioner. This testing shall be repeated at least once every five (5) years from the date of this valid compliance demonstration. Testing shall be conducted in accodance with Section C-Performance Testing.

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

D.3.8 Broken or Failed Bag Detection

(a) For a single compartment baghouse controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has been repaired or replaced.

(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.

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.

D.3.9 Monitoring of Surface Tension of Each Passivation Bath

The Permittee shall maintain the surface tension of the passivation bath such that the surface tension does not exceed 24 dynes per centimeter. The Permittee shall take a reasonable response step if the surface tension is greater than 24 dynes per centimeter for any one reading 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.

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

D.3.10 Record Keeping Requirements

(a) To document compliance with Condition D.3.9, the Permittee shall maintain daily records of the surface tension of the passivation bath. The Permittee shall include in its daily record when the record of the surface tension of the passivation bath is not taken and the reason for the lack of surface tension records, (e.g. the process did not operate that day).

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

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(a) One (1) natural gas-fired boiler, identified as # 2, constructed in 1979, with a maximum heat input capacity of 3.5 million Btu per hour, exhausting through stack E15 [326 IAC 6-2-3];

(b) One (1) natural gas-fired boiler, identified as # 3, constructed in 1990, with a maximum heat input capacity of 8.0 million Btu per hour, exhausting through stack E16 [326 IAC 6-2-4]; and

(c) One (1) natural gas-fired boiler, identified as CDC boiler, constructed in 1998, with a maximum heat input capacity of 10.0 million Btu per hour, exhausting through CDC boiler stacks [326 IAC 6-2-4].

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

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

D.4.1 Particulate Matter (Particulate Emission Limitations for Sources of Indirect Heating) [326 IAC 6-2-3]

Pursuant to 326 IAC 6-2-3(e), particulate matter (PM) emissions from Boiler #2 shall not exceed 0.6 pounds of PM per million British thermal units.

D.4.2 Particulate Matter (Particulate Emission Limitations for Sources of Indirect Heating) [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4, particulate matter (PM) emissions from the Boiler #3 and the CDC Boiler shall not exceed 0.58 and 0.49 pounds of PM per million British thermal units, respectively.

The limits were calculated using the equation below:

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

Where:

Pt = Pounds of particulate matter emitted per million Btu (lb/MMBtu) heat input; and

Q = Total source maximum operating capacity (MMBtu/hr) = 11.35 MMBtu/hr for boiler # 3 and 21.35 MMBtu/hr for CDC boiler.

D.4.3 General Provision Relating to New Source Performance Standards [326 IAC 12-1] [40 CFR 60, Subpart A]

(a) Pursuant to 40 CFR 60.1, the Permittee shall comply with the provisions of 40 CFR Part 60 Subpart A – General Provisions, which are incorporated by reference as 326 IAC 12-1 for the CDC Boiler except as otherwise specified in 40 CFR Part 60, Subpart Dc.

(b) Pursuant to 40 CFR 60.10, the Permittee shall submit all required notifications and reports 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

D.4.4 Standard of Performance for Small Industrial-Commercial Institutional Steam Generating Units [326 IAC 12-1] [40 CFR 60, Subpart Dc]

Pursuant to 40 CFR 60 Subpart Dc, the Permittee shall comply with the provisions of Standard of Performance for Small Industrial-Commercial Institutional Steam Generating Units for the CDC Boiler as specified as follows:

§ 60.40c Applicability and delegation of authority.

(a) Except as provided in paragraph (d) of this section, the affected facility to which this subpart applies is each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts (MW) (100 million Btu per hour (Btu/hr)) or less, but greater than or equal to 2.9 MW (10 million Btu/hr).

(b) In delegating implementation and enforcement authority to a State under section 111(c) of the Clean Air Act, §60.48c(a)(4) shall be retained by the Administrator and not transferred to a State.

Facility covered by an EPA approved State or Federal section 111(d)/129 plan implementing subpart BBBB of this part is not covered by this subpart.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996; 71 FR 9884, Feb. 27, 2006]

§ 60.41c Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Annual capacity factor means the ratio between the actual heat input to a steam generating unit from an individual fuel or combination of fuels during a period of 12 consecutive calendar months and the potential heat input to the steam generating unit from all fuels had the steam generating unit been operated for 8,760 hours during that 12-month period at the maximum design heat input capacity. In the case of steam generating units that are rented or leased, the actual heat input shall be determined based on the combined heat input from all operations of the affected facility during a period of 12 consecutive calendar months.

Coal means all solid fuels classified as anthracite, bituminous, subbituminous, or lignite by the American Society of Testing and Materials in ASTM D388–77, 90, 91, 95, or 98a, Standard Specification for Classification of Coals by Rank (IBR—see §60.17), coal refuse, and petroleum coke. Coal-derived synthetic fuels derived from coal for the purposes of creating useful heat, including but not limited to solvent refined coal, gasified coal, coal-oil mixtures, and coal-water mixtures, are also included in this definition for the purposes of this subpart.

Coal refuse means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (kJ/kg) (6,000 Btu per pound (Btu/lb) on a dry basis.

Cogeneration steam generating unit means a steam generating unit that simultaneously produces both electrical (or mechanical) and thermal energy from the same primary energy source.

Combined cycle system means a system in which a separate source (such as a stationary gas turbine, internal combustion engine, or kiln) provides exhaust gas to a steam generating unit.

Combustion research means the experimental firing of any fuel or combination of fuels in a steam generating unit for the purpose of conducting research and development of more efficient combustion or more effective prevention or control of air pollutant emissions from combustion, provided that, during these periods of research and development, the heat generated is not used for any purpose other than preheating combustion air for use by that steam generating unit (i.e., the heat generated is released to the atmosphere without being used for space heating, process heating, driving pumps, preheating combustion air for other units, generating electricity, or any other purpose).

Conventional technology means wet flue gas desulfurization technology, dry flue gas desulfurization technology, atmospheric fluidized bed combustion technology, and oil hydrodesulfurization technology.

Distillate oil means fuel oil that complies with the specifications for fuel oil numbers 1 or 2, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, "Standard Specification for Fuel Oils" (incorporated by reference—see §60.17).

Dry flue gas desulfurization technology means a sulfur dioxide (SO_2) control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a dry powder material. This definition includes devices where the dry powder material is subsequently converted to another form. Alkaline reagents used in dry flue gas desulfurization systems include, but are not limited to, lime and sodium compounds.

Duct burner means a device that combusts fuel and that is placed in the exhaust duct from another source (such as a stationary gas turbine, internal combustion engine, kiln, etc.) to allow the firing of additional fuel to heat the exhaust gases before the exhaust gases enter a steam generating unit.

Emerging technology means any SO_2 control system that is not defined as a conventional technology under this section, and for which the owner or operator of the affected facility has received approval from the Administrator to operate as an emerging technology under §60.48c(a)(4).

Federally enforceable means all limitations and conditions that are enforceable by the Administrator, including the requirements of 40 CFR Parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

Fluidized bed combustion technology means a device wherein fuel is distributed onto a bed (or series of beds) of limestone aggregate (or other sorbent materials) for combustion; and these materials are forced upward in the device by the flow of combustion air and the gaseous products of combustion. Fluidized bed combustion technology includes, but is not limited to, bubbling bed units and circulating bed units.

Fuel pretreatment means a process that removes a portion of the sulfur in a fuel before combustion of the fuel in a steam generating unit.

Heat input means heat derived from combustion of fuel in a steam generating unit and does not include the heat derived from preheated combustion air, recirculated flue gases, or exhaust gases from other sources (such as stationary gas turbines, internal combustion engines, and kilns).

Heat transfer medium means any material that is used to transfer heat from one point to another point.

Maximum design heat input capacity means the ability of a steam generating unit to combust a stated maximum amount of fuel (or combination of fuels) on a steady state basis as determined by the physical design and characteristics of the steam generating unit.

Natural gas means (1) a naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane, or (2) liquefied petroleum (LP) gas, as defined by the American Society for Testing and Materials in ASTM D1835–86, 87, 91, or 97, “Standard Specification for Liquefied Petroleum Gases” (incorporated by reference—see §60.17).

Noncontinental area means the State of Hawaii, the Virgin Islands, Guam, American Samoa, the Commonwealth of Puerto Rico, or the Northern Mariana Islands.

Oil means crude oil or petroleum, or a liquid fuel derived from crude oil or petroleum, including distillate oil and residual oil.

Potential sulfur dioxide emission rate means the theoretical SO_2emissions (nanograms per joule [ng/J], or pounds per million Btu [lb/million Btu] heat input) that would result from combusting fuel in an uncleaned state and without using emission control systems.

Process heater means a device that is primarily used to heat a material to initiate or promote a chemical reaction in which the material participates as a reactant or catalyst.

Residual oil means crude oil, fuel oil that does not comply with the specifications under the definition of distillate oil, and all fuel oil numbers 4, 5, and 6, as defined by the American Society for Testing and Materials in ASTM D396–78, 89, 90, 92, 96, or 98, “Standard Specification for Fuel Oils” (incorporated by reference—see §60.17).

Steam generating unit means a device that combusts any fuel and produces steam or heats water or any other heat transfer medium. This term includes any duct burner that combusts fuel and is part of a combined cycle system. This term does not include process heaters as defined in this subpart.

Steam generating unit operating day means a 24-hour period between 12:00 midnight and the following midnight during which any fuel is combusted at any time in the steam generating unit. It is not necessary for fuel to be combusted continuously for the entire 24-hour period.

Wet flue gas desulfurization technology means an SO_2control system that is located between the steam generating unit and the exhaust vent or stack, and that removes sulfur oxides from the combustion gases of the steam generating unit by contacting the combustion gases with an alkaline slurry or solution and forming a liquid material. This definition includes devices where the liquid material is subsequently converted to another form. Alkaline reagents used in wet flue gas desulfurization systems include, but are not limited to, lime, limestone, and sodium compounds.

Wet scrubber system means any emission control device that mixes an aqueous stream or slurry with the exhaust gases from a steam generating unit to control emissions of particulate matter (PM) or SO_2.

Wood means wood, wood residue, bark, or any derivative fuel or residue thereof, in any form, including but not limited to sawdust, sanderdust, wood chips, scraps, slabs, millings, shavings, and processed pellets made from wood or other forest residues.

[55 FR 37683, Sept. 12, 1990, as amended at 61 FR 20736, May 8, 1996; 65 FR 61752, Oct. 17, 2000; 71 FR 9884, Feb. 27, 2006]

§ 60.48c Reporting and recordkeeping requirements.

(a) The Permittee of each affected facility shall submit notification of the date of construction or reconstruction, anticipated startup, and actual startup, as provided by §60.7 of this part. This notification shall include:

(1) The design heat input capacity of the affected facility and identification of fuels to be combusted in the affected facility.

(g) The permittee of each affected facility shall record and maintain records of the amounts of each fuel combusted during each day. The Permittee of an affected facility that only burns very low sulfur fuel oil or other liquid or gaseous fuels with potential sulfur dioxide emissions rate of 140 ng/J (0.32 lb/MMBtu) heat input or less shall record and maintain records of the fuels combusted during each calendar month.

(i) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of two years following the date of such record.

(j) The reporting period for the reports required under this subpart is each six-month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

[55 FR 37683, Sept. 12, 1990, as amended at 64 FR 7465, Feb. 12, 1999; 65 FR 61753, Oct. 17, 2000; 71 FR 9886, Feb. 27, 2006]

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(a) Billet Conditioning

(1) One (1) dry grinding operation (ID# C3), constructed in 1989, with a maximum capacity of 1.6 tons per hour, emissions uncontrolled and exhausting through vent E6; and

(2) One (1) CMI grinder (ID# C5), constructed in 1985, with a maximum capacity of 1.60 tons per hour, controlled by a voluntary baghouse (ID# E8a), and exhausting inside the building.

(b) Continuous Bar Mill and Annealing

(1) One (1) CBM cut-off saw (ID# D2), constructed in 1990, with a maximum processing capacity of 5.14 tons of bars per hour, controlled by a voluntary baghouse (ID# E10), and exhausting through stack E10;

(c) Continuous Draw Cell Line

(1) The sawing operation is attached to a baghouse (ID# CDC-BH) that has a design maximum outlet grain loading of 0.003 gr/dscf and a gas flow rate of 2,942 actual cubic feet of air per minute [326 IAC 6-3-2]; and

(2) The oxidizing operation uses nitric acid solution to oxidize the surface of stainless steel bars. It is designed with water curtains as an integral part of the process to recover and neutralize nitric acid fumes and to prevent cross contamination with the intermediate and final alkaline cleaning operations [326 IAC 6-3-2].

(d) Vacuum Arc Remelting

(1) One (1) MIG Welding Station (ID# MWS), approved for construction in 2007, with a maximum capacity of four (4) welds and four (4) cuts per 24 hours, controlled by a voluntary baghouse (ID# MWS-1), and exhausting inside the building

(2) Two (2) Vacuum Arc Remelting furnaces (ID# VAR1 & VAR2), approved for construction in 2007, each with a heat input capacity of 1680 Kilo Volt Amperes (kVA), each with a maximum capacity of two (2) ten thousand (10,000) pound ingots per 24 hours, each controlled by a 50 horsepower (HP) vacuum mist eliminator (ID# VAR1-V & VAR2-V), and exhausting inside the building

(3) Two (2) natural gas fired Hot Boxes (ID# HB1 & HB2), approved for construction in 2007, each with a maximum capacity of two (2) ten thousand (10,000) pound ingots per 24 hours, with a maximum heat input capacity of 0.4 million British thermal units per hour, with emissions uncontrolled and exhausting inside the building;

(4) One (1) Crucible Cleaning Station (ID# CCS) constructed in 2007, with a maximum capacity of four (4) crucibles per 24 hours, controlled by a voluntary baghouse (ID# CCS-1), and exhausting inside the building.

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

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

D.5.1 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emission Limitations for Manufacturing Processes), the particulate matter (PM) emissions from the sawing operation and oxidizing operation shall not exceed the pounds per hour emission rate established by the equation:

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

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

Where:

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

D.5.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e), (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate matter (PM) emissions from the dry grinding operation, CMI grinder and CBM cut-off saw shall not exceed the emission limits shown in the table below:

Operation	P (tons/hr)	Allowable Limits (lbs/hr)
Dry grinding	1.6	5.6
CMI grinder	1.6	5.6
CBM cut-off saw	5.14	12.3

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

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

Where:

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

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

D.5.2 Particulate Emission Limitations for Manufacturing Processes [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2(e), (Particulate Emissions Limitations for Manufacturing Processes), the allowable particulate matter (PM) emissions from the vacuum arc remelting furnaces (VAR1 & VAR2) and the hot boxes (HB1 & HB2) are shown in the table below:

Operation	P (tons/hr)	E (lbs/hr)	Allowable Limits (lbs/hr)
VAR1 & VAR2	0.83	0.057	3.63
HB1 & HB2	0.83	0.057	3.63

Based on calculations, a control device is not needed to comply with this limit.

D.5.4 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

(a) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from the Crucible Cleaning Station (CCS) shall not exceed 0.551 pounds per hour when operating at a process weight of 0.67 pounds per hour.

(b) Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from the MIG Welding Station (MWS) shall not exceed 0.551 pounds per hour when operating at a process weight of 1.50 pounds per hour.

Based on calculations, a control device is not needed to comply with this limit. (Calculations can be viewed in Appendix A attached to this document.)

Compliance Determination Requirements

D.5.3 Particulate Matter (PM)

(a) The baghouse for PM control shall be in operation and control emissions from the CMI grinder, CBM cut-off saw and sawing operation at all times that the CMI grinder, CBM cut-off saw sawing operation are in operation.

(b) The baghouse for PM control shall be in operation and control emissions from the CMI grinder, CBM cut-off saw and sawing operation at all times that the CMI grinder, CBM cut-off saw sawing operation are in operation.

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Valbruna Slater Stainless, Inc
Source Address: 2400 Taylor Street West, Fort Wayne, Indiana 46802
Mailing Address: P.O. Box 630, Fort Wayne, IN 46801
FESOP Permit No.: F003-23815-00011

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)_____

☐ Report (specify)_____

☐ Notification (specify)_____

☐ Affidavit (specify)_____

☐ Other (specify)_____

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

Signature:

Printed Name:

Title/Position:

Date:

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INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Valbruna Slater Stainless, Inc
Source Address: 2400 Taylor Street West, Fort Wayne, Indiana 46802
Mailing Address: P.O. Box 630, Fort Wayne, IN 46801
FESOP Permit No.: F003-23815-00011

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

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

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

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

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

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

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

A certification is not required for this report.

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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

SEMI- ANNUAL
NATURAL GAS FIRED BOILER CERTIFICATION

Source Name: Valbruna Slater Stainless, Inc
Source Address: 2400 Taylor Street West, Fort Wayne, Indiana 46802
Mailing Address: P.O. Box 630, Fort Wayne, IN 46801
FESOP Permit No.: F003-23815-00011

□ Natural Gas Only □ Alternate Fuel burned From:_____ To:_____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. Signature:
Printed Name:
Title/Position:
Date:

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Valbruna Slater Stainless, Inc
Source Address: 2400 Taylor Street West, Fort Wayne, Indiana 46802
Mailing Address: P.O. Box 630, Fort Wayne, IN 46801
FESOP Permit No.: F003-23815-00011
Facility: Cold Finishing
Parameter: Passivation System
Limit: Less than 35,000 tons of steel per twelve consecutive month period.

YEAR:_____

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

☐ No deviation occurred in this quarter.

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

Submitted by: _____

Title / Position: _____

Signature: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

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

FESOP Quarterly Report

Source Name: Valbruna Slater Stainless, Inc
Source Address: 2400 Taylor Street West, Fort Wayne, Indiana 46802
Mailing Address: P.O. Box 630, Fort Wayne, IN 46801
FESOP Permit No.: F003-23815-00011
Facility: Sourcewide
Parameter: Annual Natural Gas Usage
Limit: Less than 1500 million cubic feet (MMCF) per twelve consecutive month period.

YEAR:_____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month (MMCF)	Previous 11 Months (MMCF)	12 Month Total (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

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)

QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Valbruna Slater Stainless, Inc
Source Address: 2400 Taylor Street West, Fort Wayne, Indiana 46802
Mailing Address: P.O. Box 630, Fort Wayne, IN 46801
FESOP Permit No.: F003-23815-00011

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

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

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

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.

Appendix A: Emissions Calculations
Emission Summary
Source Name: Valbruna Slater Stainless, Inc
Source Location: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

Uncontrolled Potential Emissions

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	Nox (tons/yr)	Pb (tons/yr)	HAPs (tons/yr)
Emission Unit								
Passivation E3	7.88	7.88	0	0	0	39.07	0	3.34
Eight (8) pre-heat charger Furnaces	2.1	8.4	0.7	6.1	93	110.7	0.0006	2.08
Four (4) Annealling Furnaces	0.4	1.7	0.1	1.3	19.1	22.8	0.0001	0.43
One (1) Annealing Furnace	0.1	0.5	0	0.3	5.1	6.1	0	0.11
Boiler #2	0	0.1	0	0.1	1.3	1.5	0	0.03
Boliers #3	0.1	0.3	0	0.2	2.9	3.5	0	0.07
CDC Bolier	0.1	0.3	0	0.2	3.7	4.4	0	0.08
Insignificant Acts-VAR	3.27	2.88	0.002	0.02	0.29	0.34	1.71765E-06	0.66
Insignificant Activities	4.8	4.8	0	0	0	0	0	0
Ingot Grinding	44.53	44.53	0	0	0	0	0.13	6.8
Dry Grinding C3	0.07	0.03	0	0	0	0	0	0.85
CMI Grinder C5	0.07	0.03	0	0	0	0	0	0.85
Billet Shot Blasting C4	297.84	29.8	0	0	0	0	0	1.6
CBM Cut-off Saw D2	4.73	4.73	0	0	0	0	0.28	1
Old Bar Shot Blast E6	136.26	13.63	0	0	0	0	0	0.72
#1Bar Shot Blast E7	136.26	13.63	0	0	0	0	0	0
Total Emissions	638.5	133.2	0.802	8.22	125.39	188.4	0.41	Single HAP <10 Combined HAPs < 25

Appendix A: Emissions Calculations
Emission Summary
Source Name: Valbruna Slater Stainless, Inc
Source Location: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

Limited Potential Emissions

	PM (tons/yr)	PM_{10} (tons/yr)	SO_2 (tons/yr)	VOC (tons/yr)	CO (tons/yr)	NOx (tons/yr)	Pb (tons/yr)	HAPs (tons/yr)
Emission Unit								
Passivation E3	7.88	7.88	0	0	less than 63.1	less than 21.49	0	3.34
Eight (8) pre-heat charger Furnaces	1.4	5.7	0.5	4.1		less than 75	0.0006	2.08
Four (4) Annealling Furnaces	0.4	1.7	0.1	1.3			0.0001	0.43
One (1) Annealing Furnace	0.1	0.5	0	0.3			0	0.11
Boiler #2	0	0.1	0	0.1			0	0.03
Boliers #3	0.1	0.3	0	0.2			0	0.07
CDC Bolier	0.1	0.3	0	0.2			0	0.08
Insignificant Activities	0.75	0.75	0	0			0	0
Insignificant Act.-VAR	0.013	0.032	0.002	0.02			1.7E-6	0.0072
Ingot Grinding	11.13	11.13	0	0	0	0	0.10	2.14
Dry Grinding C3	0.07	0.03	0	0	0	0	0	0.85
CMI Grinder C5	0.0007	0.0003	0	0	0	0	0	0.01
Billet Shot Blasting C4	2.98	0.3	0	0	0	0	0	0.01
CBM Cut-off Saw D2	0.05	0.05	0	0	0	0	0.28	0.29
Old Bar Shot Blast E6	2.73	0.27	0	0	0	0	0	0.01
#1Bar Shot Blast E7	2.73	0.27	0	0	0	0	0	0
Total Emissions	10.7	17.2	0.6	6.2	< 63.1	< 96.5	0.0007	Single HAP <10 Combined HAPs < 25

Appendix A: Emissions Calculations
Summary - Vacuum Arc Remelting Processes
Source Name: Valbruna Slater Stainless, Inc
Source Location: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

Uncontrolled Emissions (tons/year)							Process Rates			
VAR Emission Unit	PM*	PM10*	SO2	NOx	VOC	CO	**PWR (tons/hr)**	**PWR (lbs/hr)**	**PM Limits (lbs/hr)**	**PM Emissions lbs/day**
2 VAR-Vacuum Exhausts (VAR)	0.25	0.25					0.83	1666.7	3.63	87.09
Crucible Cleaning Station (CCS)	2.95	2.54					0.0003	0.67	0.02	0.46
MIG Welding Station (MWS)	0.064	0.064					0.0008	1.50	0.03	0.79
2 Hot Boxes (HB)	0.0065	0.0261	0.002	0.344	0.019	0.289	0.83	1666.7	3.63	87.09
Total Emissions =	3.27	2.88	0.00	0.34	0.02	0.29				

PM/PM10 (lb/hr) 0.0571

Methodology
Process Weight Rate = (Product processed per day in tons)/24 hours
PM Limits = 4.10 * (PWR (tons/hr)^0.67) per [326 IAC 6-3-2]
According to 326 IAC 2-7-1(40)(A)(ii)(FF), any activity or emission unit whose particulate emissions are less than one (1) pound per day are described as trivial.
Both the MWS at 0.79 and the CCS at 0.46 pounds per day qualify as trivial activities under this rule.

VAR Emission Unit	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
2 VAR-Vacuum Exhausts (VAR)	ND	ND	ND	ND	ND
Crucible Cleaning Station (CCS)					
MIG Welding Station (MWS)					
2 Hot Boxes (HB)	7.214E-06	4.122E-06	2.576E-04	6.184E-03	1.168E-05
Total Emissions =	7.214E-06	4.122E-06	2.576E-04	0.006	1.168E-05

Combined HAPs 0.66 tons/year

VAR Emission Unit	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
2 VAR-Vacuum Exhausts (VAR)			4.500E-06	ND	2.000E-05
Crucible Cleaning Station (CCS)			4.570E-01	2.900E-02	1.620E-01
MIG Welding Station (MWS)			3.500E-03	1.600E-03	1.500E-03
2 Hot Boxes (HB)	1.718E-06	3.779E-06	4.809E-06	1.305E-06	7.214E-06
Total Emissions =	1.718E-06	3.779E-06	0.461	0.031	0.164

Highest Single HAP Chromium 0.46 tons/year

* Emission data for the VAR-Vacuum exhausts were provided by the source.
Uncontrolled Emissions = (Amount collected lbs/hr)/Control Efficiency = lb/hr
Controlled Emissions = (Uncontrolled emission rate lbs/hr) x (1-control efficiency) = lb/hr

Appendix A: Emissions Calculations
Summary - Vacuum Arc Remelting Processes
Source Name: Valbruna Slater Stainless, Inc
Source Location: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

Controlled Emissions (tons/year)

VAR Emission Unit	PM*	PM10*	SO2	NOx	VOC	CO
2 VAR-Vacuum Exhausts (VAR)	0.0025	0.0025				
Crucible Cleaning Station (CCS)	0.00295	0.00253657				
MIG Welding Station (MWS)	0.00064	0.00064				
2 Hot Boxes (HB)	0.0065	0.0261	0.002	0.344	0.019	0.289
Total Emissions =	0.013	0.032	0.002	0.34	0.02	0.29

VAR Emission Unit	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
2 VAR-Vacuum Exhausts (VAR)			4.5E-08	ND	2.0E-07
Crucible Cleaning Station (CCS)			4.6E-04	2.9E-05	1.6E-04
MIG Welding Station (MWS)			3.5E-05	1.6E-05	1.5E-05
2 Hot Boxes (HB)	1.718E-06	3.779E-06	4.8E-06	1.3E-06	7.2E-06
Total Emissions =	1.718E-06	3.779E-06	0.00050	0.00005	0.00018

Highest Single HAP
Hexane
0.00618 tons/year

VAR Emission Unit	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
2 VAR-Vacuum Exhausts (VAR)	ND	ND	ND	ND	ND
Crucible Cleaning Station (CCS)					
MIG Welding Station (MWS)					
2 Hot Boxes (HB)	7.214E-06	4.122E-06	2.576E-04	6.184E-03	1.168E-05
Total Emissions =	7.214E-06	4.122E-06	2.576E-04	6.184E-03	1.168E-05

Combined HAPs
0.0072 tons/year

Uncontrolled Emissions (lb/hr) = (Amount collected lb/hr) / (Control Efficiency)
Controlled Emissions (lb/hr) = (uncontrolled emission rate lb/hr) x (1- Control Efficiency)

Appendix A: Emissions Calculations
Vacuum Arc Remelting Process
Natural Gas Combustion - Hot Boxes
Source Name: Valbruna Slater Stainless, Inc
Source Location: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
0.4	3.4

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100.0 **see below	5.5	84.0
Potential Emission (tons/yr) x 2*	0.0065	0.0261	0.0021	0.3435	0.0189	0.2886

*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
*There are two hot boxes so the emission values are doubled.

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/1,020 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03. (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/t

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Natural Gas Combustion - Hot Boxes
HAPs Emissions

Company Name: Valbruna Slater Stainless, Inc
Address City IN Zip: 2400 Taylor Street West, Fort Wayne , Indiana 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission (tons/yr) x 2*	7.214E-06	4.122E-06	2.576E-04	6.184E-03	1.168E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission (tons/yr) x 2*	1.718E-06	3.779E-06	4.809E-06	1.305E-06	7.214E-06

The five highest organic and metal HAPs emission factors are provided above.
Additional HAPs emission factors are available in AP-42, Chapter 1.4.
*There are two hot boxes so the emission values are doubled.

Appendix A: Emissions Calculations
Vacuum Arc Remelting Process
Crucible Cleaning Station
Source Name: Valbruna Slater Stainless, Inc
Source Location: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

Controlled emissions from a 24" crucible = 4.00 lbs PM / crucible
Max. Number of Crucibles per day = 4
Controlled emissions = 4 lbs x 4 crucibles = 16 lbs/day
Uncontrolled emissions = (4 lbs x 4 crucibles)/24 hr = (16 lbs/24 hrs)/99% = 0.673 lb/hr
Annual uncontrolled = uncontrolled emissions lb/hr x 8760hrs/yr x ton/2000 lb = 2.95 tons/yr

Table 1 - Emission Factors for Abrasives

	Emission Factor (EF)	
Abrasive	lb PM / lb abrasive	lb PM10 / lb PM
Steel Shot	0.004	0.86

Potential to Emit Before Control

EF = PM emission factor for actual abrasive from Table 1 = 0.004 lb PM/ lb abrasive
PM10 emission factor ratio for actual abrasive from Table 1 = 0.86 lb PM10 / lb PM

	PM	PM10	Units
Potential to Emit (before control) =	**0.673**	**5.791E-01**	**lb/hr**
=	**16.16**	**1.390E+01**	**lb/day**
=	**2.95**	**2.537E+00**	**ton/yr**

Potential to Emit After Control

	PM	PM10	
Emission Control Device Efficiency =	**99.9%**	**99.9%**	**Units**
Potential to Emit (after control) =	**6.7E-04**	**5.8E-04**	**lb/hr**
=	**1.616E-02**	**1.390E-02**	**lb/day**
=	**2.949E-03**	**2.537E-03**	**ton/yr**

Potential to Emit (before control)

	HAP	Chromium	Manganese	Nickel	
	Composition	15.50%	1.00%	5.50%	**Units**
	=	0.104	0.007	0.037	**lb/hr**
	=	2.505	0.162	0.889	**lb/day**
	=	0.457	0.029	0.162	**ton/yr**

Highest single HAP = Chromium = 0.457 tons/yr Total HAPS (PTE) = 0.649

Potential to Emit (after Control)

	HAP	Chromium	Manganese	Nickel	
	Composition	15.50%	1.00%	5.50%	**Units**
	=	1.0E-04	6.7E-06	3.7E-05	**lb/hr**
	=	2.5E-03	1.6E-04	8.9E-04	**lb/day**
	=	4.6E-04	2.9E-05	1.6E-04	**ton/yr**

METHODOLOGY

Emission Factors from STAPPA/ALAPCO "Air Quality Permits", Vol. I, Section 3 "Abrasive Blasting" (1991 edition)
Controlled emission Rate (tons/year) = [Uncontrolled Emission Rate (lb/hour)] x [8760 hours/year] x [ton/2000 lb]
Controlled Emission Rate(lb/hr) = [Uncontrolled Emission Rate (lb/hour)] * [1 - control efficiency]
Uncontrolled Emission Rate = (Amount collected lb/hr)/Control Efficiency = lb/hr

Emission data provided by source. Data from identical VAR process at another site.
Source will be processing 15-5 stainless in the VAR crucible cleaning station. Steel shot of the following percent composition will be used. Percentages provided by the shot manufacturer : 1% Mn, 15.50% Cr, 5.50% Nickel.

Appendix A: Emissions Calculations
Welding and Thermal Cutting

Source Name: Valbruna Slater Stainless, Inc
Source Location: 2400 Taylor Street West, Fort Wayne, IN 46802
Permit Number: 003-25324-00011
Permit Reviewer: Sandra Carr
Date: December 12, 2007

Welding wire / year = 13140 lb wire/yr
Maximum Potential Throughput (wire)= 6.57 tons wire/year
Max. Electrode Consumption/hour = 1.5 lbs wire/hr

PROCESS	Number of Stations	Max. electrode consump-tion per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode)				UNCONTROLLED EMISSIONS (lbs/hr)				HAPS (lbs/hr)	CONTROLLED EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr		PM = PM10	Mn	Ni	Cr	
Metal Inert Gas (MIG)(carbon steel)	1	1.5		0.0032	0.000245	0.000226	0.000528	0.005	0.0004	0.0003	0.000792	0.001	4.8E-5	3.7E-6	3.4E-6	7.9E-6	1.5E-5

FLAME CUTTING	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./min-ute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)	EMISSIONS (lbs/hr)				HAPS (lbs/hr)
				PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr		PM = PM10	Mn	Ni	Cr	
Oxyacetylene	1	1	1	0.1622	0.0005	0.0001	0.0003	0.010	4.9E-6	4.9E-10	1.5E-13	4.9E-6	9.7E-5	4.9E-8	4.9E-12	1.5E-15	4.9E-8
EMISSION TOTALS																	
Potential Emissions lbs/hr								0.015	0.0004	0.0003	0.0008	0.002	1.5E-4	3.7E-6	3.4E-6	7.9E-6	1.5E-5
Potential Emissions lbs/day								0.349	0.0089	0.0081	0.0190	0.036	0.0035	0.0001	0.0001	0.0002	3.6E-4
Potential Emissions tons/year								0.064	0.0016	0.0015	0.0035	0.007	6.4E-4	1.6E-5	1.5E-5	3.5E-5	6.6E-5

METHODOLOGY
Maximum Throughput = (welds/day) x (Wt. of Wire/weld) x (365 days/year)
*Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process co
**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is fo
8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.
Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 m
Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm
Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1" thick)
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode use
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,0

Emission data provided by source.
Welding and other flame cutting emission factors are from an internal training session document, "Welding and Flame Cutting". See Rebecca Mason if you n
Refer to AP-42, Chapter 12.19 for additional emission factors for welding.