Indiana Department of Environmental Management
We Protect Hoosiers and Our Environment.
100 N. Senate Avenue • Indianapolis, IN 46204
(800) 451-6027 • (317) 232-8603 • www.idem.IN.gov

Michael R. Pence
Governor

Carol S. Comer
Commissioner

NOTICE OF 30-DAY PERIOD
FOR PUBLIC COMMENT

Preliminary Findings Regarding a
Signficant Modification to a
Part 70 Operating Permit
for Jupiter Aluminum Corporation in Lake County

Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201

The Indiana Department of Environmental Management (IDEM) has received an application from Jupiter Aluminum Corporation, located at 1745 165th Street, Hammond, Indiana, for a significant modification of its Part 70 Operating Permit Renewal issued on October 22, 2015. If approved by IDEM's Office of Air Quality (OAQ), this proposed modification would allow Jupiter Aluminum Corporation to make certain changes at its existing source. Jupiter Aluminum Corporation has applied to construct and operate two (2) Aluminum Recovery Systems and to remove the existing Rotary Dross Cooler (DC-1).

The applicant intends to construct and operate new equipment that will emit air pollutants; therefore, the permit contains new or different permit conditions. In addition, some conditions from previously issued permits/approvals have been corrected, changed, or removed. These corrections, changes, and removals may include Title I changes (e.g. changes that add or modify synthetic minor emission limits). IDEM has reviewed this application and has developed preliminary findings, consisting of a draft permit and several supporting documents, which would allow the applicant to make this change.

A copy of the permit application and IDEM's preliminary findings are available at:

Hammond Public Library
564 State Street
Hammond, IN 46320

and

IDEM Northwest Regional Office
330 W. US Highway 30, Suites E & F
Valparaiso, IN 46385

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

How can you participate in this process?

The date that this notice is published in a newspaper marks the beginning of a 30-day public comment period. If the 30th day of the comment period falls on a day when IDEM offices are closed for business, all comments must be postmarked or delivered in person on the next business day that IDEM is open.

You may request that IDEM hold a public hearing about this draft permit. If adverse comments concerning the **air pollution impact** of this draft permit are received, with a request for a public hearing, IDEM will decide whether or not to hold a public hearing. IDEM could also decide to hold a public meeting instead of, or in addition to, a public hearing. If a public hearing or meeting is held, IDEM will make a separate announcement of the date, time, and location of that hearing or meeting. At a hearing, you would have an opportunity to submit written comments and make verbal comments. At a meeting,

you would have an opportunity to submit written comments, ask questions, and discuss any air pollution concerns with IDEM staff.

Comments and supporting documentation, or a request for a public hearing should be sent in writing to IDEM at the address below. If you comment via e-mail, please include your full U.S. mailing address so that you can be added to IDEM's mailing list to receive notice of future action related to this permit. If you do not want to comment at this time, but would like to receive notice of future action related to this permit application, please contact IDEM at the address below. Please refer to permit number SSM 089-37335-00201 and SPM 089-37419-00201 in all correspondence.

Comments should be sent to:

Joshua Levering
IDEM, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
(800) 451-6027, ask for extension 4-6543
Or dial directly: (317) 234-6543
Fax: (317) 232-6749 attn: Joshua Levering
E-mail: JLeverin@idem.IN.gov

All comments will be considered by IDEM when we make a decision to issue or deny the permit. Comments that are most likely to affect final permit decisions are those based on the rules and laws governing this permitting process (326 IAC 2), air quality issues, and technical issues. IDEM does not have legal authority to regulate zoning, odor, or noise. For such issues, please contact your local officials.

For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

What will happen after IDEM makes a decision?

Following the end of the public comment period, IDEM will issue a Notice of Decision stating whether the permit has been issued or denied. If the permit is issued, it may be different than the draft permit because of comments that were received during the public comment period. If comments are received during the public notice period, the final decision will include a document that summarizes the comments and IDEM's response to those comments. If you have submitted comments or have asked to be added to the mailing list, you will receive a Notice of the Decision. The notice will provide details on how you may appeal IDEM's decision, if you disagree with that decision. The final decision will also be available on the Internet at the address indicated above, at the local library indicated above, at the IDEM Regional Office indicated above, and the IDEM public file room on the 12th floor of the Indiana Government Center North, 100 N. Senate Avenue, Indianapolis, Indiana 46204-2251.

If you have any questions, please contact Joshua Levering of my staff at the above address.

Jason R. Krawczyk, Section Chief
Permits Branch
Office of Air Quality

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DRAFT

Mr. Mark Volkmann
Jupiter Aluminum Corporation
1745 165th Street
Hammond, IN 46320

Re: 089-37335-00201
Significant Source Modification

Dear Mr. Mark Volkmann:

Jupiter Aluminum Corporation was issued Part 70 Operating Permit Renewal No. T089-34861-00201 on October 22, 2015, for a stationary secondary aluminum production plant located at 1745 165th Street, Hammond, Indiana. An application to modify the source was received on June 30, 2016. Pursuant to the provisions of 326 IAC 2-7-10.5, a Significant Source Modification is hereby approved as described in the attached Technical Support Document.

Pursuant to 326 IAC 2-7-10.5, the following emission units are approved for construction at the source:

(a) Aluminum Recovery Systems

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under 40 CFR 63, Subpart RRR, each of the ARS coolers is considered an affected facility.

The following construction conditions are applicable to the proposed modification:

General Construction Conditions

1. The data and information supplied with the application shall be considered part of this source modification approval. Prior to any proposed change in construction which may affect the potential to emit (PTE) of the proposed project, the change must be approved by the Office of Air Quality (OAQ).

2. This approval to construct does not relieve the Permittee of the responsibility to comply with the provisions of the Indiana Environmental Management Law (IC 13-11 through 13-20; 13-22 through 13-25; and 13-30), the Air Pollution Control Law (IC 13-17) and the rules promulgated thereunder, as well as other applicable local, state, and federal requirements.

Effective Date of the Permit

3. Pursuant to IC 13-15-5-3, this approval becomes effective upon its issuance.

DRAFT

Commenced Construction

4. Pursuant to 326 IAC 2-1.1-9 and 326 IAC 2-7-10.5(j), the Commissioner may revoke this approval if construction is not commenced within eighteen (18) months after receipt of this approval or if construction is suspended for a continuous period of one (1) year or more.

5. All requirements and conditions of this construction approval shall remain in effect unless modified in a manner consistent with procedures established pursuant to 326 IAC 2.

Approval to Construct

6. Pursuant to 326 IAC 2-7-10.5(h)(2), this Significant Source Modification authorizes the construction of the new emission unit(s), when the Significant Source Modification has been issued.

Pursuant to 326 IAC 2-7-10.5(m), the emission units constructed under this approval shall not be placed into operation prior to revision of the source's Part 70 Operating Permit to incorporate the required operation conditions.

Pursuant to 326 IAC 2-7-12, operation of the new emission unit(s) is not approved until the Significant Permit Modification has been issued. Operating conditions shall be incorporated into the Part 70 Operating Permit as a Significant Permit Modification in accordance with 326 IAC 2-7-10.5(m)(2) and 326 IAC 2-7-12 (Permit Modification).

A copy of the permit is available on the Internet at: http://www.in.gov/ai/appfiles/idem-caats/. For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

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 Joshua Levering of my staff, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, or call at (800) 451-6027, and ask for Joshua Levering or extension 4-6543 or dial (317) 234-6543.

Sincerely,

Jason R. Krawczyk, Section Chief
Permits Branch
Office of Air Quality

Attachments: Significant Source Modification and Technical Support Document

cc: File - Lake County
Lake County Health Department
U.S. EPA, Region 5
Compliance and Enforcement Branch
IDEM Northwest Regional Office

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Significant Source Modification to a Part 70 Source

OFFICE OF AIR QUALITY

Jupiter Aluminum Corporation
1745 165th Street
Hammond, Indiana 46320

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

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-7 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17. This permit also addresses certain new source review requirements for new and/or existing equipment and is intended to fulfill the new source review procedures pursuant to 326 IAC 2-7-10.5, applicable to those conditions.

Significant Source Modification No.: 089-37335-00201	
Issued by: Jason R. Krawczyk Section Chief, Permits Branch Office of Air Quality	Issuance Date:

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SECTION A SOURCE SUMMARY

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

A.1 General Information [326 IAC 2-7-4(c)][326 IAC 2-7-5(14)][326 IAC 2-7-1(22)]

The Permittee owns and operates a stationary secondary aluminum production plant.

Source Address:	1745 165th Street, Hammond, Indiana 46320
General Source Phone Number:	(219) 933-2752
SIC Code:	3353 (Aluminum Sheet, Plate, and Foil)
County Location:	Lake
Source Location Status:	Nonattainment for 8-hour ozone standard Attainment for all other criteria pollutants
Source Status:	Part 70 Operating Permit Program Minor Source, under PSD and Emission Offset Rules Major Source, Section 112 of the Clean Air Act 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

Six (6) Annealing Furnaces

(a) Annealing Furnace #1 (AS-3)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #1, modified in 1995, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 9.0 MMBtu/hr, using a fume filtration system (FFS-AN1) to control visible emissions from the annealing process (stack AS-3.3), and exhausting (combustion gas only) to stacks AS-3.1 and 3.2.

(b) Annealing Furnace #2 (AS-4)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #2, installed in 1988, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 16.0 MMBtu/hr, using a fume filtration system (FFS-AN2) to control visible emissions from the annealing process (stack AS-4.5), and exhausting (combustion gas only) to stacks AS-4.1, 4.2, 4.3, and 4.4.

(c) Annealing Furnace #3 (AS-5)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #3, installed in 1989, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 16.0 MMBtu/hr, using a fume filtration system (FFS-AN3) to control visible emissions from the annealing process (stack AS-5.4), and exhausting (combustion gas only) to stacks AS-5.1, 5.2, and 5.3.

(d) Annealing Furnace #4 (AS-6)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #4, installed in 1999, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input

capacity of 13.5 MMBtu/hr, using a fume filtration system (FFS-AN4) to control visible emissions from the annealing process (stack AS-6.1), and exhausting (combustion gas only) to stack AS-6.2.

(e) Annealing Furnace #5 (AS-7)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #5, installed in 1999, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 13.5 MMBtu/hr, using a fume filtration system (FFS-AN5) to control visible emissions from the annealing process (stack AS-7.1), and exhausting (combustion gas only) to stack AS-7.2.

(f) Annealing Furnace #6 (AS-8)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #6, installed in 2011, with a rated capacity of 9.73 tons of aluminum coil per hour and a heat input capacity of 20 MMBtu/hr, using a fume filtration system (FFS-AN6) to control visible emissions from the annealing process (stack AS-21A), and exhausting (combustion gas only) to stack S-21.

Aluminum Melting Furnaces & Dross Cooling

(g) Aluminum Reverberatory Furnace #2 (MS-1A)
One (1) aluminum reverberatory furnace, identified as Furnace #2, modified in 2000, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using baghouses (BHS-9 and BHS 12) as control, and exhausting to stacks S-19 and S-24.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #2 is defined as a Sidewell Group 1 furnace with add-on control.

(h) Aluminum Reverberatory Furnace #6 (MS-1E)
One (1) aluminum reverberatory furnace, identified as Furnace #6, modified in 1998, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using baghouses (BHS-6 and 7) as control, and exhausting to stacks S-12 and S-11.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #6 is defined as a Sidewell Group 1 furnace with add-on control.

(i) Aluminum Reverberatory Furnace #9 (MS-1H)
One (1) aluminum reverberatory furnace, identified as Furnace #9, approved in 2008 for construction, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using a baghouse (BHS-11) as control, and exhausting to stack S-23.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #9 is defined as a Sidewell Group 1 furnace with add-on control.

(j) Holding Furnace (HS-2)
One (1) aluminum holding furnace, identified as Holding Furnace #1, installed in 1985 and rebuilt in 2007, receiving and holding molten aluminum prior to casting, with a heat input capacity of 10 MMBtu/hr using natural gas only, and exhausting to stack S-16. Under NESHAP 40 CFR 63, Subpart RRR, Holding Furnace #1 is defined as a Group 2 furnace that holds or processes only clean charge.

(k) Aluminum Recovery Systems

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under 40 CFR 63, Subpart RRR, each of the ARS coolers is considered an affected facility.

(l) Dross Cooling Operation

One (1) dross cooling operation, processing up to 4.0 tons of aluminum dross per hour, utilizing a dross press to reduce fugitive emissions, and exhausting into the building.

Hot Mill - Cold Mills - Tension Levelers

(m) Hot Rolling Mill (HM-1)

One (1) hot rolling mill, identified as the Hot Mill, installed in 1985 and reconstructed in 2007, with a rated capacity of 34.2 tons of aluminum coil per hour, using an oil mist collection and removal system (HMC-1) for reduction of particulates and VOC, and exhausting to stack S-20.

(n) Cold Mill 2 (CM-2)

One (1) cold rolling mill, identified as Cold Mill 2, installed in 1985 and reconstructed in 2007, with a rated capacity of 22 tons of aluminum coil per hour, using two (2) identical oil mist collection and removal systems (CM-2-FFS-A and B) for control of particulates and VOC, and exhausting to stacks S-30A and S-30B.

(o) Cold Mill 3 (CM-3)

One (1) cold rolling mill, identified as Cold Mill 3, installed in 1985 and reconstructed in 2007, with a rated capacity of 22 tons of aluminum coil per hour, using an oil mist collection and removal system (CM-3-FFS-A) for control of particulates and VOC, and exhausting to stack S-40.

(p) Cold Mill 4 (CM-4)

One (1) cold rolling mill, identified as Cold Mill 4, constructed in 2010, with a rated capacity of 22 tons of aluminum coil per hour, using an oil mist collection and removal system (CM-4-FFS-A) for control of particulates and VOC, and exhausting to stack S-50.

(q) Tension Leveler 1 (TLV-1)

One (1) tension leveler, identified as Tension Leveler 1, installed in 1989, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

(r) Tension Leveler 2 (TLV-2)

One (1) tension leveler, identified as Tension Leveler 2, installed in 1998, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

(s) Tension Leveler 3 (TLV-3)
One (1) tension leveler, identified as Tension Leveler 3, installed in 2006, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

(t) Tension Leveler 4 (TLV-4)
One (1) tension leveler, identified as Tension Leveler 4, approved for construction in 2013, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

A.3 Insignificant Activities [326 IAC 2-7-1(21)][326 IAC 2-7-4(c)][326 IAC 2-7-5(14)]

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

(a) One (1) natural gas-fired boiler, identified as Boiler #1 (BS-10.1), installed in 2001, with a rated heat input capacity of 4.185 MMBtu/hr, and exhausting to stack S-17.

Under NESHAP 40 CFR 63, Subpart DDDDD, Boiler #1 is an affected facility.

(b) One (1) natural gas-fired boiler, identified as Boiler #2 (BS-10.2), installed in 1999, with a rated heat input capacity of 4.185 MMBtu/hr, and exhausting to stack S-18.

Under NESHAP 40 CFR 63, Subpart DDDDD, Boiler #2 is an affected facility.

(c) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) Btu per hour.

(d) Fuel oil-fired combustion sources with heat input equal to or less than two million (2,000,000) Btu per hour and firing fuel containing less than five-tenths percent (0.5%) sulfur by weight.

(e) A petroleum fuel, other than gasoline, dispensing facility, having a storage tank capacity less than or equal to ten thousand five hundred (10,500) gallons, and dispensing three thousand five hundred (3,500) gallons per day or less.

(f) Vessels storing hydraulic oils, lubricating oils, machining oils, or machining fluids.

(g) Refractory storage not requiring air pollution control equipment.

(h) Application of oils as temporary protective coatings.

(i) Machining where an aqueous cutting coolant continuously floods the machining interface.

(j) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6; consisting of five (5) degreasing units.

(k) Rolling oil recovery systems.

(l) Forced and induced draft cooling tower system not regulated under a NESHAP.

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

(n) Heat exchanger cleaning and repair.

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

(p) Blowdown for any of the following: sight glass, boiler, compressors, pumps, or cooling tower.

(q) Activities associated with emergencies, including natural gas turbines or reciprocating engines not exceeding sixteen thousand (16,000) horsepower or stationary fire pump engines, consisting of:

(1) One (1) natural gas-fired emergency power generator, identified as Stand-by Generator, constructed and installed in January 2005, with a maximum rating of 147 hp.

Under 40 CFR 63, Subpart ZZZZ, Stand-by Generator is considered an affected source.

(r) Filter or coalescer media changeout.

(s) Water-based Primer Applicator Line.

(t) One (1) diesel-fired mobile bale breaker, with a rated capacity of 10 tons per hour of baled aluminum scrap, with no controls, and exhausting indoors.

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

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

(a) It is a major source, as defined in 326 IAC 2-7-1(22);

(b) It is a source in a source category designated by the United States Environmental Protection Agency (U.S. EPA) under 40 CFR 70.3 (Part 70 - Applicability).

SECTION B GENERAL CONDITIONS

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

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

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

(a) This permit, T089-34861-00201, is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect, including any permit shield provided in 326 IAC 2-7-15, until the renewal permit has been issued or denied.

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

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

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

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

B.4 Enforceability [326 IAC 2-7-7][IC 13-17-12]

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

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

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

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

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

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

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. Upon request, the Permittee shall also furnish to IDEM, OAQ copies of records required to be kept by this permit.

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

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

(a) A certification required by this permit meets the requirements of 326 IAC 2-7-6(1) if:

(1) it contains a certification by a "responsible official" as defined by 326 IAC 2-7-1(35), and

(2) the certification states that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) A "responsible official" is defined at 326 IAC 2-7-1(35).

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

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

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

and

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

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

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

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

(2) The compliance status;

(3) Whether compliance was continuous or intermittent;

(4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-7-5(3); and

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

The submittal by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

B.10 Preventive Maintenance Plan [326 IAC 2-7-5(12)][326 IAC 1-6-3]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

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

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

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

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit where no PMP was previously required, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) no later than ninety (90) days after issuance of this permit or ninety (90) days after initial start-up, whichever is later, including the following information on each facility:

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

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

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

If, due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

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

The PMP extension notification does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions. The PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.11 Emergency Provisions [326 IAC 2-7-16]

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

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

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

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

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

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

Telephone Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance and Enforcement Branch), or
Telephone Number: 317-233-0178 (ask for Office of Air Quality, Compliance and Enforcement Branch)
Facsimile Number: 317-233-6865
Northwest Regional Office phone: (219) 464-0233; fax: (219) 464-0553.

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

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

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

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

(A) A description of the emergency;

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

(C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

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

(e) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ may require that the Preventive Maintenance Plans required under 326 IAC 2-7-4(c)(8) be revised in response to an emergency.

(f) Failure to notify IDEM, OAQ by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-7 and any other applicable rules.

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

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

(a) Pursuant to 326 IAC 2-7-15, the Permittee has been granted a permit shield. The permit shield provides that compliance with the conditions of this permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that either the applicable requirements are included and specifically identified in this permit or the permit contains an explicit determination or concise summary of a determination that other specifically identified requirements are not applicable. The Indiana statutes from IC 13 and rules from 326 IAC, referenced in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a Part 70 permit under 326 IAC 2-7 or for applicable requirements for which a permit shield has been granted.

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

(b) If, after issuance of this permit, it is determined that the permit is in nonconformance with an applicable requirement that applied to the source on the date of permit issuance, IDEM, OAQ shall immediately take steps to reopen and revise this permit and issue a compliance order to the Permittee to ensure expeditious compliance with the applicable requirement until the permit is reissued. The permit shield shall continue in effect so long as the Permittee is in compliance with the compliance order.

(c) No permit shield shall apply to any permit term or condition that is determined after issuance of this permit to have been based on erroneous information supplied in the permit application. Erroneous information means information that the Permittee knew to be false, or in the exercise of reasonable care should have been known to be false, at the time the information was submitted.

(d) Nothing in 326 IAC 2-7-15 or in this permit shall alter or affect the following:

(1) The provisions of Section 303 of the Clean Air Act (emergency orders), including the authority of the U.S. EPA under Section 303 of the Clean Air Act;

(2) The liability of the Permittee for any violation of applicable requirements prior to or at the time of this permit's issuance;

(3) The applicable requirements of the acid rain program, consistent with Section 408(a) of the Clean Air Act; and

(4) The ability of U.S. EPA to obtain information from the Permittee under Section 114 of the Clean Air Act.

(e) This permit shield is not applicable to any change made under 326 IAC 2-7-20(b)(2) (Sections 502(b)(10) of the Clean Air Act changes) and 326 IAC 2-7-20(c)(2) (trading based on State Implementation Plan (SIP) provisions).

(f) This permit shield is not applicable to modifications eligible for group processing until after IDEM, OAQ, has issued the modifications. [326 IAC 2-7-12(c)(7)]

(g) This permit shield is not applicable to minor Part 70 permit modifications until after IDEM, OAQ, has issued the modification. [326 IAC 2-7-12(b)(8)]

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

(a) All terms and conditions of permits established prior to T089-34861-00201 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised under 326 IAC 2-7-10.5, or

(3) deleted under 326 IAC 2-7-10.5.

(b) Provided that all terms and conditions are accurately reflected in this permit, all previous registrations and permits are superseded by this Part 70 operating permit.

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

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

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination [326 IAC 2-7-5(6)(C)][326 IAC 2-7-8(a)][326 IAC 2-7-9]

(a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a Part 70 Operating Permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-7-

5(6)(C)] The notification by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(1) That this permit contains a material mistake.

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

(3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-7-9(a)(3)]

(c) Proceedings by IDEM, OAQ to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-7-9(b)]

(d) The reopening and revision of this permit, under 326 IAC 2-7-9(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-7-9(c)]

B.16 Permit Renewal [326 IAC 2-7-3][326 IAC 2-7-4][326 IAC 2-7-8(e)]

(a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and shall include the information specified in 326 IAC 2-7-4. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(42). The renewal application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

Request for renewal shall be submitted to:

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

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

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

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

(c) If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-7 until IDEM, OAQ takes final action on the renewal application, except that this protection shall cease to apply if,

subsequent to the completeness determination, the Permittee fails to submit by the deadline specified, pursuant to 326 IAC 2-7-4(a)(2)(D), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.17 Permit Amendment or Modification [326 IAC 2-7-11][326 IAC 2-7-12]

(a) Permit amendments and modifications are governed by the requirements of 326 IAC 2-7-11 or 326 IAC 2-7-12 whenever the Permittee seeks to amend or modify this permit.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.18 Permit Revision Under Economic Incentives and Other Programs [326 IAC 2-7-5(8)][326 IAC 2-7-12(b)(2)]

(a) No Part 70 permit revision or notice shall be required under any approved economic incentives, marketable Part 70 permits, emissions trading, and other similar programs or processes for changes that are provided for in a Part 70 permit.

(b) Notwithstanding 326 IAC 2-7-12(b)(1) and 326 IAC 2-7-12(c)(1), minor Part 70 permit modification procedures may be used for Part 70 modifications involving the use of economic incentives, marketable Part 70 permits, emissions trading, and other similar approaches to the extent that such minor Part 70 permit modification procedures are explicitly provided for in the applicable State Implementation Plan (SIP) or in applicable requirements promulgated or approved by the U.S. EPA.

B.19 Operational Flexibility [326 IAC 2-7-20][326 IAC 2-7-10.5]

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

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

(2) Any preconstruction approval required by 326 IAC 2-7-10.5 has been obtained;

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

(4) The Permittee notifies the:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality

100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

and

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

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

(5) The Permittee maintains records on-site, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-7-20(b)(1) and (c)(1). The Permittee shall make such records available, upon reasonable request, for public review.

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

(b) The Permittee may make Section 502(b)(10) of the Clean Air Act changes (this term is defined at 326 IAC 2-7-1(37)) without a permit revision, subject to the constraint of 326 IAC 2-7-20(a). For each such Section 502(b)(10) of the Clean Air Act change, the required written notification shall include the following:

(1) A brief description of the change within the source;

(2) The date on which the change will occur;

(3) Any change in emissions; and

(4) Any permit term or condition that is no longer applicable as a result of the change.

The notification which shall be submitted is not considered an application form, report or compliance certification. Therefore, the notification by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

(d) Alternative Operating Scenarios [326 IAC 2-7-20(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-7-5(9). No prior notification of IDEM, OAQ or U.S. EPA is required.

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

B.20 Source Modification Requirement [326 IAC 2-7-10.5]

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

B.21 Inspection and Entry [326 IAC 2-7-6][IC 13-14-2-2][IC 13-30-3-1][IC 13-17-3-2]

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

(a) Enter upon the Permittee's premises where a Part 70 source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;

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

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

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

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

B.22 Transfer of Ownership or Operational Control [326 IAC 2-7-11]

(a) The Permittee must comply with the requirements of 326 IAC 2-7-11 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.

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

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

Any such application does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

B.23 Annual Fee Payment [326 IAC 2-7-19][326 IAC 2-7-5(7)][326 IAC 2-1.1-7]

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

(b) Except as provided in 326 IAC 2-7-19(e), failure to pay may result in administrative enforcement action or revocation of this permit.

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

B.24 Credible Evidence [326 IAC 2-7-5(3)][326 IAC 2-7-6][62 FR 8314][326 IAC 1-1-6]

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

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of twenty percent (20%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

C.2 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.3 Incineration [326 IAC 4-2][326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

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

The Permittee shall not allow fugitive dust to escape beyond the property line or boundaries of the property, right-of-way, or easement on which the source is located, in a manner that would violate 326 IAC 6-4 (Fugitive Dust Emissions). 326 IAC 6-4-2(4) is not federally enforceable.

C.5 Fugitive Particulate Matter Emissions [326 IAC 6.8-10-3]

Pursuant to 326 IAC 6.8-10-3 (formerly 326 IAC 6-1-11.1) (Lake County Fugitive Particulate Matter Control Requirements), the particulate matter emissions from source wide activities shall meet the following requirements:

(a) The average instantaneous opacity of fugitive particulate emissions from a paved road shall not exceed ten percent (10%).

(b) The average instantaneous opacity of fugitive particulate emissions from an unpaved road shall not exceed ten percent (10%).

(c) The opacity of fugitive particulate emissions from exposed areas shall not exceed ten percent (10%) on a six (6) minute average.

(d) The opacity of fugitive particulate emissions from continuous transfer of material onto and out of storage piles shall not exceed ten percent (10%) on a three (3) minute average.

(e) The opacity of fugitive particulate emissions from storage piles shall not exceed ten percent (10%) on a six (6) minute average.

(f) There shall be a zero (0) percent frequency of visible emission observations of a material during the inplant transportation of material by truck or rail at any time.

(g) The opacity of fugitive particulate emissions from the inplant transportation of material by front end loaders and skip hoists shall not exceed ten percent (10%).

(h) Material processing facilities shall include the following:

(1) There shall be a zero (0) percent frequency of visible emission observations from a building enclosing all or part of the material processing equipment, except from a vent in the building.

(2) The PM_{10} emissions from building vents shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

(3) The PM_{10} stack emissions from a material processing facility shall not exceed twenty-two thousandths (0.022) grains per dry standard cubic foot and ten percent (10%) opacity.

(4) The opacity of fugitive particulate emissions from the material processing facilities, except a crusher at which a capture system is not used, shall not exceed ten percent (10%) opacity.

(5) The opacity of fugitive particulate emissions from a crusher at which a capture system is not used shall not exceed fifteen percent (15%).

(i) The opacity of particulate emissions from dust handling equipment shall not exceed ten percent (10%).

(j) Material transfer limits shall be as follows:

(1) The average instantaneous opacity of fugitive particulate emissions from batch transfer shall not exceed ten percent (10%).

(2) Where adequate wetting of the material for fugitive particulate emissions control is prohibitive to further processing or reuse of the material, the opacity shall not exceed ten percent (10%), three (3) minute average.

(3) Slag and kish handling activities at integrated iron and steel plants shall comply with the following particulate emissions limits:

(A) The opacity of fugitive particulate emissions from transfer from pots and trucks into pits shall not exceed twenty percent (20%) on a six (6) minute average.

(B) The opacity of fugitive particulate emissions from transfer from pits into front end loaders and from transfer from front end loaders into trucks shall comply with the fugitive particulate emission limits in 326 IAC 6.8-10-3(9).

(k) Any facility or operation not specified in 326 IAC 6.8-10-3 shall meet a twenty percent (20%), three (3) minute average opacity standard.

The Permittee shall achieve these limits by controlling fugitive particulate matter emissions according to the attached Fugitive Dust Control Plan.

C.6 Particulate Matter Contingency Measures [326 IAC 6.8-11]

The Permittee is subject to 326 IAC 6.8-11 (Lake County Particulate Matter Contingency Measures) and shall comply with 326 IAC 6.8-11-4, 326 IAC 6.8-11-5, and 326 IAC 6.8-11-6 as required.

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. The provisions of 326 IAC 1-7-1(3), 326 IAC 1-7-2, 326 IAC 1-7-3(c) and (d), 326 IAC 1-7-4, and 326 IAC 1-7-5(a), (b), and (d) are not federally enforceable.

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

The Permittee shall comply with the applicable requirements of 326 IAC 14-10, 326 IAC 18, and 40 CFR 61.140.

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

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

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

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

(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 a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

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

(a) For new units:
Unless otherwise specified in the approval for the new emission unit(s), compliance monitoring for new emission units shall be implemented on and after the date of initial start-up.

(b) For existing units:
Unless otherwise specified in this permit, for all monitoring requirements not already legally required, the Permittee shall be allowed up to ninety (90) days from the date of permit issuance to begin such monitoring. If, due to circumstances beyond the Permittee's control, any monitoring equipment required by this permit cannot be installed and operated no later than ninety (90) days after permit issuance, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

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

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.12 Instrument Specifications [326 IAC 2-1.1-11][326 IAC 2-7-5(3)][326 IAC 2-7-6(1)]

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

(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.13 Continuous Compliance Plan [326 IAC 6.8-8-1][326 IAC 6.8-8-8)]

(a) Pursuant to 326 IAC 326 IAC 6.8-8-1, the Permittee shall submit to IDEM and maintain at source a copy of the Continuous Compliance Plan (CCP). The Permittee shall perform the inspections, monitoring and record keeping in accordance with the information in 326 IAC 6.8-8-5 through 326 IAC 6.8-8-7 or applicable procedures in the CCP.

(b) Pursuant to 326 IAC 6.8-8-8, the Permittee shall update the CCP, as needed, retain a copy of any changes and updates to the CCP at the source and make the updated CCP available for inspection by the department. The Permittee shall submit the updated CCP, if required to IDEM, OAQ within thirty (30) days of the update.

(c) Pursuant to 326 IAC 6.8-8, failure to submit a CCP, maintain all information required by the CCP at the source, or submit update to a CCP is a violation of 326 IAC 6.8-8.

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

C.14 Emergency Reduction Plans [326 IAC 1-5-2][326 IAC 1-5-3]

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

(a) The Permittee shall maintain the most recently submitted written emergency reduction plans (ERPs) consistent with safe operating procedures.

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

C.15 Risk Management Plan [326 IAC 2-7-5(12)][40 CFR 68]

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

C.16 Response to Excursions or Exceedances [326 IAC 2-7-5][326 IAC 2-7-6]

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

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

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

(1) initial inspection and evaluation;

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

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

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

(1) monitoring results;

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

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

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

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

C.17 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-7-5][326 IAC 2-7-6]

(a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall submit a description of its response actions to IDEM, OAQ no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) days is not practicable, IDEM, OAQ may extend the retesting deadline.

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

The response action documents submitted pursuant to this condition do require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

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

C.18 Emission Statement [326 IAC 2-7-5(3)(C)(iii)][326 IAC 2-7-5(7)][326 IAC 2-7-19(c)][326 IAC 2-6]

(a) In accordance with the compliance schedule specified in 326 IAC 2-6-3(b)(1), the Permittee shall submit by July 1 an emission statement covering the previous calendar year as follows:

(1) starting in 2004 and every three (3) years thereafter, and

(2) any year not already required under (1) if the source emits volatile organic compounds or oxides of nitrogen into the ambient air at levels equal to or greater than twenty-five (25) tons during the previous calendar year.

(b) The emission statement shall contain, at a minimum, the information specified in 326 IAC 2-6-4(c) and shall meet the following requirements:

(1) Indicate estimated actual emissions of all pollutants listed in 326 IAC 2-6-4(a);

(2) Indicate estimated actual emissions of regulated pollutants as defined by 326 IAC 2-7-1(33) (“Regulated pollutant, which is used only for purposes of Section 19 of this rule”) from the source, for purpose of fee assessment.

The statement must be submitted to:

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

The emission statement does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35).

C.19 General Record Keeping Requirements [326 IAC 2-7-5(3)][326 IAC 2-7-6]

(a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring

sample, measurement, report, or application. Support information includes the following, where applicable:

(AA) All calibration and maintenance records.
(BB) All original strip chart recordings for continuous monitoring instrumentation.
(CC) Copies of all reports required by the Part 70 permit.

Records of required monitoring information include the following, where applicable:

(AA) The date, place, as defined in this permit, and time of sampling or measurements.
(BB) The dates analyses were performed.
(CC) The company or entity that performed the analyses.
(DD) The analytical techniques or methods used.
(EE) The results of such analyses.
(FF) The operating conditions as existing at the time of sampling or measurement.

These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

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

C.20 General Reporting Requirements [326 IAC 2-7-5(3)(C)][326 IAC 2-1.1-11]

(a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of this paragraph. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported except that 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. This report shall be submitted not later than thirty (30) days after the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

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

(d) 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.21 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 applicable standards for recycling and emissions reduction.

SECTION D.0 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Entire Source

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

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

D.0.1 Prevention of Significant Deterioration (PSD) Minor Limits [326 IAC 2-2]

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(a) PM emissions from the entire source, including insignificant activities and fugitive emissions, shall be less than 99.85 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(b) PM_{10} emissions from the entire source, including insignificant activities and fugitive emissions, shall be less than 99.01 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(c) $PM_{2.5}$ emissions from the entire source, including insignificant activities and fugitive emissions, shall be less than 99.01 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(d) VOC emissions from the entire source, including insignificant activities and fugitive emissions shall be less than 99.22 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits in combination with other PM, PM_{10}, $PM_{2.5,}$ and VOC emissions from the source, will limit the source-wide PM, PM_{10}, $PM_{2.5}$, and VOC emissions to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), not applicable.

D.0.2 Specific VOC Reduction Requirements for Lake County [326 IAC 8-7]

Pursuant to 326 IAC 8-7-3, VOC emissions shall be reduced by implementing one of the two emission reduction measures outlined below.

(a) Achieve an overall VOC reduction from baseline actual emissions of at least ninety-eight percent (98%) by the documented reduction in use of VOC containing materials or install an add-on control system that achieves an overall control efficiency of ninety-eight percent (98%).

Or

(b) Where it can be demonstrated by the source that control technology does not exist that is reasonably available and both technologically and economically feasible to achieve a ninety - eight percent (98%) reduction in VOC emissions, a source shall achieve an overall VOC reduction of at least eighty-one percent (81%) from baseline actual emissions with the documented reduction in use of VOC containing materials or install an add-on control system that achieves an overall control efficiency of eighty-one percent (81%).

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

D.0.3 PM, PM_{10}, VOC, and $PM_{2.5}$ Compliance Determination

Compliance with the PM, PM_{10}, $PM_{2.5}$ and VOC emission limits in Condition D.0.1 shall be determined using the following equations:

PM emissions = PM emissions calculated in Conditions D.1.4, D.2.5, D.3.5, D.4.3, D.7.1, and insignificant activities and fugitive emissions.

PM_{10} emissions = PM_{10} emissions calculated in Conditions D.1.4, D.2.5, D.3.5, D.4.3, D.7.1, and insignificant activities and fugitive emissions.

$PM_{2.5}$ emissions = $PM_{2.5}$ emissions calculated in Conditions D.1.4, D.2.5, D.3.5, D.4.3, D.7.1, and insignificant activities and fugitive emissions.

VOC emissions = VOC emissions calculated in Conditions D.1.4, D.2.5, D.3.5, D.4.3, D.5.3, D.7.1, and insignificant activities and fugitive emissions.

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

D.0.4 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.0.1 shall be submitted using the reporting forms located at the end of this permit, or their equivalent, not later than thirty (30) days following the end of each calendar quarter. The report submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-7-6(1) by a "responsible official" as defined by 326 IAC 2-7-1(35). Section C - General Reporting Requirements contains the Permittee's obligations with regard to the reporting required by this condition.

SECTION D.1 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) Annealing Furnace #1 (AS-3)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #1, modified in 1995, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 9.0 MMBtu/hr, using a fume filtration system (FFS-AN1) to control visible emissions from the annealing process (stack AS-3.3), and exhausting (combustion gas only) to stacks AS-3.1 and 3.2.

(b) Annealing Furnace #2 (AS-4)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #2, installed in 1988, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 16.0 MMBtu/hr, using a fume filtration system (FFS-AN2) to control visible emissions from the annealing process (stack AS-4.5), and exhausting (combustion gas only) to stacks AS-4.1, 4.2, 4.3, and 4.4.

(c) Annealing Furnace #3 (AS-5)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #3, installed in 1989, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 16.0 MMBtu/hr, using a fume filtration system (FFS-AN3) to control visible emissions from the annealing process (stack AS-5.4), and exhausting (combustion gas only) to stacks AS-5.1, 5.2, and 5.3.

(d) Annealing Furnace #4 (AS-6)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #4, installed in 1999, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 13.5 MMBtu/hr, using a fume filtration system (FFS-AN4) to control visible emissions from the annealing process (stack AS-6.1), and exhausting (combustion gas only) to stack AS-6.2.

(e) Annealing Furnace #5 (AS-7)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #5, installed in 1999, with a rated capacity of 4.86 tons of aluminum coil per hour and a heat input capacity of 13.5 MMBtu/hr, using a fume filtration system (FFS-AN5) to control visible emissions from the annealing process (stack AS-7.1), and exhausting (combustion gas only) to stack AS-7.2.

(f) Annealing Furnace #6 (AS-8)
One (1) natural gas-fired annealing furnace, identified as Annealing Furnace #6, installed in 2011, with a rated capacity of 9.73 tons of aluminum coil per hour and a heat input capacity of 20 MMBtu/hr, using a fume filtration system (FFS-AN6) to control visible emissions from the annealing process (stack AS-21A), and exhausting (combustion gas only) to stack S-21.

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

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

D.1.1 Particulate Matter less than ten (10) microns in diameter (PM_{10}) [326 IAC 6.8]

(a) Pursuant to 326 IAC 6.8-2-18, Annealing Furnaces #1, #2, and #3 shall fire natural gas only.

(b) Pursuant to 326 IAC 6.8-1-2, particulate matter emissions from Annealing Furnaces #4, #5, and #6 shall not exceed 0.03 grain per dry standard cubic foot (dscf).

D.1.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these units and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.1.3 Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-1.1-11][326 IAC 2-2]

In order to demonstrate compliance with Condition D.0.1, the Permittee shall perform PM, PM_{10}, $PM_{2.5}$ and VOC testing on the exhaust stack of the fume filtration system from either Annealing Furnace #4 or Annealing Furnace #5, utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall be alternated between Annealing Furnace #4 and Annealing Furnace #5 for each test cycle, so that each fume filtration system shall be tested once every ten (10) years.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} and $PM_{2.5}$ includes filterable and condensable particulate matter.

D.1.4 PM, PM_{10}, $PM_{2.5}$, and VOC Calculations

Emissions of PM, PM_{10}, $PM_{2.5}$, and VOC in Condition D.0.1 shall be determined using the following equations:

(a) PM, PM_{10}, and $PM_{2.5}$ emissions from the annealing furnaces (Annealing Furnace #1, Annealing Furnace #2, Annealing Furnace #3, Annealing Furnace #4, Annealing Furnace #5, Annealing Furnace #6) in tons per month =
[E_{af} (lbs/ton) x M_{af} (tons/month) + Eg (lbs/mmcf) x Ng (mmcf/month)] x (1 ton/2000 pounds).

Where:

E_{af} =	8.696E-6 pounds PM, PM_{10}, and $PM_{2.5}$ per ton of metal throughput or the emission factor determined from the most recent IDEM approved stack test.
M_{af}=	Total metal throughput to all of the Annealing Furnaces (tons/month).
Eg $PM_{2.5}$ =	7.6 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.
Eg PM_{10} =	7.6 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.
Eg PM =	1.9 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.
Ng =	Amount of natural gas burned in the Annealing Furnaces (mmcf/month).

(b) VOC emissions from the Annealing Furnaces (Annealing Furnace #1, Annealing Furnace #2, Annealing Furnace #3, Annealing Furnace #4, Annealing Furnace #5, Annealing

Furnace #6) in tons per month =
(E_v (lbs/ton) x M_v (tons/month) + 5.5 lbs/mmcf x Ng (mmcf/month) x (1 ton/2000 pounds).

Where:

E_v =	The emission factor determined from the most recent IDEM approved stack test.
M_v =	Total metal throughput to all of the Annealing Furnaces (tons/month).
5.5 lbs/mmcf =	Emission factor from AP- 42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.
Ng =	Amount of natural gas burned in the Annealing Furnaces.

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

D.1.5 Record Keeping Requirement

(a) To document the compliance status with Condition D.1.4, the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be complete and sufficient to establish compliance with the emission limits in Condition D.0.1.

(1) The total of tons of aluminum coil processed each month for the Annealing Furnaces (Annealing Furnace #1 - #6).

(2) The most recent valid PM, PM_{10}, $PM_{2.5}$, and VOC emission factors for the Annealing Furnaces.

(3) The monthly natural gas usage from the Annealing Furnaces.

(4) The total monthly PM, PM_{10}, $PM_{2.5}$, and VOC emissions from the Annealing Furnaces.

(b) Section C - General Record Keeping Requirements, contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(g) Aluminum Reverberatory Furnace #2 (MS-1A)
One (1) aluminum reverberatory furnace, identified as Furnace #2, modified in 2000, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using baghouses (BHS-9 and BHS-12) as control, and exhausting to stacks S-19 and S-11.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #2 is defined as a Sidewell Group 1 furnace with add-on control.

(h) Aluminum Reverberatory Furnace #6 (MS-1E)
One (1) aluminum reverberatory furnace, identified as Furnace #6, modified in 1998, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using baghouses (BHS-6 and 7) as control, and exhausting to stacks S-12 and S-24.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #6 is defined as a Sidewell Group 1 furnace with add-on control.

(i) Aluminum Reverberatory Furnace #9 (MS-1H)
One (1) aluminum reverberatory furnace, identified as Furnace #9, approved in 2008 for construction, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using a baghouse (BHS-11) as control, and exhausting to stack S-23.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #9 is defined as a Sidewell Group 1 furnace with add-on control.

(j) Holding Furnace (HS-2)
One (1) aluminum holding furnace, identified as Holding Furnace #1, installed in 1985 and rebuilt in 2007, receiving and holding molten aluminum prior to casting, with a heat input capacity of 10 MMBtu/hr using natural gas only, and exhausting to stack S-16.

Under NESHAP 40 CFR 63, Subpart RRR, Holding Furnace #1 is defined as a Group 2 furnace that holds or processes only clean charge.

(k) Aluminum Recovery Systems

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under 40 CFR 63, Subpart RRR, each of the ARS coolers is considered an affected facility.

(l) Dross Cooling Operation
One (1) dross cooling operation, processing up to 4.0 tons of aluminum dross per hour, utilizing a dross press to reduce fugitive emissions, and exhausting into 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 2-7-5(1)]

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

(a) Pursuant to 326 IAC 6.8-1-2, emissions of particulate matter from Reverberatory Furnaces #2, #6, and #9, Holding Furnace #1, Aluminum Recovery Systems ARS-1 and ARS-2, and the Dross Cooling Operation shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf), each.

(b) Pursuant to 326 IAC 6.8-2-18, emissions of particulate matter less than ten (10) microns in diameter (PM_{10}) shall not exceed the following:

Unit ID:	PM_{10} Emissions Limit	
Reverberatory Furnace #2	0.130 lbs/ton	1.137 lbs/hr
Reverberatory Furnace #6	0.060 lbs/ton	0.970 lbs/hr

D.2.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these units and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.2.3 Particulate Control

(a) In order to assure compliance with Condition D.2.1, the baghouses for particulate control shall be in operation and control emissions at all times that the furnaces are in operation. When a furnace is operating in stand-by mode (i.e., no fresh material is being charged and fuel is being burned to maintain furnace temperature to prevent equipment damage), the baghouse may be temporarily shut down for maintenance activities at the baghouse.

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

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

(a) In order to demonstrate compliance with Condition D.0.1, the Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ stack testing at the baghouse exhausts of Reverberatory Furnaces #2, #6, and #9, utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

(b) Not later than ninety (90) days of configuring Reverberatory Furnace #2, #6, and #9 to combust waste oil, and in order to demonstrate compliance with Condition D.0.1, the Permittee shall perform PM, PM_{10}, $PM_{2.5}$, and VOC stack testing on the baghouse exhaust(s) of the baghouse(s) controlling emissions from one (1) representative

reverberatory furnace (Reverberatory Furnace #2, #6, and/or #9), while combusting waste oil, utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall alternate between the baghouse(s) controlling emissions from Reverberatory Furnace #2, #6, and #9 for each test cycle, so that each baghouse shall be tested, at a minimum, once every fifteen (15) years.

(c) In order to demonstrate compliance with Condition D.0.1, the Permittee shall perform VOC stack testing on the baghouse exhaust(s) of the baghouse(s) controlling emissions from one (1) representative reverberatory furnace (Reverberatory Furnace #2, #6, and/or #9), while charging clean scrap, utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall alternate between the baghouse(s) controlling emissions from Reverberatory Furnace #2, #6, and #9 for each test cycle, so that each baghouse shall be tested, at a minimum, once every fifteen (15) years.

(d) Within the same calendar year of having performed the test as required by condition D.2.4(c), and in order to demonstrate compliance with Condition D.0.1, the Permittee shall perform VOC stack testing at the baghouse exhaust(s) of the baghouse(s) controlling emissions from the same representative reverberatory furnace (Reverberatory Furnace #2, #6, and/or #9) tested pursuant to Condition D.2.4(c), while charging other than clean (OTC) scrap, utilizing methods approved by the Commissioner. Testing shall alternate between the baghouse(s) controlling emissions from Reverberatory Furnace #2, #6, and #9 on the same test cycle as required by Condition D.2.4(c), so that each baghouse shall be tested, at a minimum, once every fifteen (15) years.

(e) Not later than 180 days after initial startup of the Aluminum Recovery Systems, identified as ARS-1 and ARS-2, and in order to demonstrate compliance with Conditions D.0.1 and D.2.1, the Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ testing on one (1) representative baghouse controlling the Aluminum Recovery Systems, utilizing methods approved by the commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall alternate between the baghouses controlling emissions from ARS-1 and ARS-2, so that each baghouse shall be tested, at a minimum, once every ten (10) years.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} and $PM_{2.5}$ includes filterable and condensable particulate matter.

D.2.5 PM, PM_{10}, $PM_{2.5}$, and VOC Calculations

Emissions of PM, PM_{10}, $PM_{2.5}$, and VOC in Condition D.0.1 shall be determined using the following equations:

(a) PM, PM_{10}, and $PM_{2.5}$ emissions from Furnaces #2, #6, and #9 in tons per month = [E_f (lbs/ton) x M_f (tons/month) + Eg (lbs/mmcf) x Ng (mmcf/month) + Ewo (lbs/10^3 gal/month) x WO (lbs/10^3 gal/month)] x 1 (ton/2000 pounds).

Where:

E_f = The emission factor determined from the most recent IDEM approved stack test.

M_f= Total metal throughput to the three (3) furnaces (tons/month).

E_f = 0.21 lbs/ton when using natural gas; and

Eg $PM_{2.5}$ = 7.6 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Eg PM_{10} = 7.6 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Eg PM = 1.9 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Ng = Amount of natural gas burned in furnaces.

Ewo $PM_{2.5}$ = 51A lbs/10^3gal, emission factor from AP-42 Chapter 1.11, Table 1.11-1, October 1996 where A is the percent ash content, or the most current factor from the applicable section of AP-42.

Ewo PM_{10} = 51A lbs/10^3gal, emission factor from AP-42 Chapter 1.11, Table 1.11-1, October 1996 where A is the percent ash content, or the most current factor from the applicable section of AP-42.

Ewo PM= 64A lbs/10^3gal, emission factor from AP-42 Chapter 1.11, Table 1.11-1, October 1996 where A is the percent ash content, or the most current factor from the applicable section of AP-42.

WO = Amount of waste oil burned in furnaces.

(b) PM, PM_{10}, and $PM_{2.5}$ emissions from the Aluminum Recovery Systems (ARS-1 and ARS-2) in tons per month =

$[(E_c + U_c \text{ (lbs/ton)}) \times M_c \text{ (tons/month)}) \times (1 \text{ ton}/2000 \text{ pounds})]$

Where:

$E_{c\ PM2.5}$ = 0.51 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.

$E_{c\ PM10}$ = 0.51 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.

$E_{c\ PM}$ = 0.17 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.

$U_{c\ PM2.5}$ = 0.271 lb/ton.

$_{Uc\ PM10}$ = 0.271 lb/ton

$U_{c\ PM}$ = 0.088 lb/ton

M_c = Total metal throughput to the Aluminum Recovery Systems (tons/month).

Note: Uncaptured (U_c) emission factors are based on the calculated uncontrolled emission factors multiplied by one minus the capture efficiency (95%) of the control devices.

(c) VOC emissions from Furnaces #2, #6, and #9 in tons per month =
$[E_{v[OTC]}$ (lbs/ton) x $M_{v[OTC]}$ (tons/month) + $E_{v[CS]}$ (lbs/ton) x $M_{v[CS]}$ (tons/month) + Eg (lbs/mmcf) x Ng (mmcf/month) + Ewo (lbs/10^3 gal/month) x WO (lbs/10^3 gal/month)] x 1 (ton/2000 pounds).

Where:

$E_{v[OTC]}$ or $E_{v[CS]}$ = The emission factor determined from the most recent IDEM approved stack test:

Source	$E_{v[OTC]}$ Other Than Clean (OTC) Scrap (lb VOC per ton of metal throughput)	$E_{v[CS]}$ VOC Clean Scrap (lb VOC per ton of metal throughput)
Furnace #2	0.489	0.077
Furnace #6	0.414	0.077
Furnace #9	0.442	0.077

VOC Clean Scrap means: Scrap that is delivered to the reverberatory furnaces that can be either:

(1) purchased, inspected, and inventoried as clean scrap or

(2) the following internal runaround scrap: sows, furnace heel slitter scrap, tail end scrap, and full and partial coils from the hot mill, cold mills or finishing operations.

The scrap shall be essentially free of paints, coatings, and lubricants and is acceptable as VOC Clean Scrap based on successful performance tests required under Section D.2.4(c).

and

$M_{v[OTC]}$= Total metal throughput to the furnaces (tons/month), designated as Other Than Clean (OTC) Scrap.

$M_{v[CS]}$= Total metal throughput to the furnaces (tons/month), designated as VOC Clean Scrap.

Eg VOC = 5.5 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Ng = Amount of natural gas burned in furnaces.

Ewo VOC= 1.0 lbs/10^3gal, emission factor from AP-42 Chapter 1.11, Table 1.11-1, October 1996 or the most current factor from the applicable section of AP-42.

WO = Amount of waste oil burned in furnaces.

(d) PM, PM_{10}, and $PM_{2.5}$ emissions from the Holding Furnace #1 due to the combustion of natural gas in tons per month =
Eg (lbs/mmcf) x Ng (mmcf/month) x (1 ton/2000 pounds).

Where:

Eg $PM_{2.5}$ = 7.6 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Eg PM_{10} = 7.6 lbs/mmcf, emission factor from AP- 42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Eg PM = 1.9 lbs/mmcf, emission factor from AP- 42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Ng = Amount of natural gas burned in the furnace.

(e) VOC emissions from Holding Furnace #1 due to the combustion of natural gas in tons per month = 5.5 lbs/mmcf x Ng (mmcf/month) x (1 ton/2000 pounds).

Where:

5.5lbs/mmcf = Emission factor from AP- 42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Ng = Amount of natural gas burned in the furnace.

(f) PM, PM_{10}, and $PM_{2.5}$ emissions from Dross Cooling in tons per month =
[E_c (lbs/ton) x M_c (tons/month)] x (1 ton/2000 pounds).

Where:

E_c = The emission factor determined from the most recent IDEM approved stack test; and

M_c = Total metal throughput to the Dross Cooling operation (tons/month).

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

D.2.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with Reverberatory Furnace #2, Reverberatory Furnace #6, Reverberatory Furnace #9, and the Aluminum Recovery Systems at least once per day when the three (3) furnaces and the Aluminum Recovery Systems ARS-1 and ARS-2 are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for these units is a pressure drop between 1.0 and 8.0 inches of water, unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this 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 or replaced at least once every six (6) months or in accordance with manufacturer's specifications provided that these specifications are available onsite with the preventive maintenance plan.

D.2.7 Reverberatory Furnace Charge Monitoring

(a) The Permittee shall measure the amount of Other Than Clean (OTC) Scrap charged to each of the reverberatory furnaces (#2, #6, and #9) for melting. This includes purchased scrap.

(b) The Permittee shall measure the amount of VOC Clean Scrap charged to each of the reverberatory furnaces (#2, #6, and #9) for melting. This includes purchased scrap and internal runaround scrap.

(c) A trained employee shall inspect and approve the scrap as delivered to the Permittee's loading dock in order to designate the scrap as either Other Than Clean (OTC) Scrap or VOC Clean Scrap.

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

D.2.8 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.5 and D.2.7, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the emission limits in Condition D.0.1.

(1) The tons of dross processed each month for the Aluminum Recovery Systems ARS-1 and ARS-2 and tons of metal processed each month for each reverberatory furnace (Furnaces #2, #6, and #9) except Holding Furnace #1.

(2) The most recent valid emission factors for each reverberatory furnace.

(3) The amount of Other Than Clean (OTC) Scrap charged to each of the reverberatory furnaces (Furnace #2, #6, and #9) for melting.

(4) The amount of VOC Clean Scrap charged to each of the reverberatory furnaces (Furnace #2, #6, and #9) for melting.

(5) The monthly natural gas or waste oil usage from the reverberatory furnaces.

(b) To document the compliance status with Condition D.2.6 - Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings for the baghouses, identified as BHS-6, BHS-7, BHS-9, BHS-10, BHS-11, BHS 12, and BHS-14 used in conjunction with the three (3) reverberatory furnaces and the two (2) aluminum recovery systems. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(c) Section C - General Record Keeping Requirements, contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.3 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Hot Mill - Cold Mills - Tension Levelers

(m) Hot Rolling Mill (HM-1)
One (1) hot rolling mill, identified as the Hot Mill, installed in 1985 and reconstructed in 2007, with a rated capacity of 34.2 tons of aluminum coil per hour, using an oil mist collection and removal system (HMC-1) for reduction of particulates and VOC, and exhausting to stack S-20.

(n) Cold Mill 2 (CM-2)
One (1) cold rolling mill, identified as Cold Mill 2, installed in 1985 and reconstructed in 2007, with a rated capacity of 22 tons of aluminum coil per hour, using two (2) identical oil mist collection and removal systems (CM-2-FFS-A and B) for control of particulates and VOC, and exhausting to stacks S-30A and S-30B.

(o) Cold Mill 3 (CM-3)
One (1) cold rolling mill, identified as Cold Mill 3, installed in 1985 and reconstructed in 2007, with a rated capacity of 22 tons of aluminum coil per hour, using an oil mist collection and removal system (CM-3-FFS-A) for control of particulates and VOC, and exhausting to stack S-40.

(p) Cold Mill 4 (CM-4)
One (1) cold rolling mill, identified as Cold Mill 4, constructed in 2010, with a rated capacity of 22 tons of aluminum coil per hour, using an oil mist collection and removal system (CM-4-FFS-A) for control of particulates and VOC, and exhausting to stack S-50.

(q) Tension Leveler 1 (TLV-1)
One (1) tension leveler, identified as Tension Leveler 1, installed in 1989, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

(r) Tension Leveler 2 (TLV-2)
One (1) tension leveler, identified as Tension Leveler 2, installed in 1998, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

(s) Tension Leveler 3 (TLV-3)
One (1) tension leveler, identified as Tension Leveler 3, installed in 2006, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

(t) Tension Leveler 4 (TLV-4)
One (1) tension leveler, identified as Tension Leveler 4, approved for construction in 2013, with a rated capacity of 22 tons of aluminum coil per hour, using a low volatile finishing lubricant, with no controls and no stack.

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

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

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

Pursuant to 326 IAC 6.8-1-2, emissions of particulate matter from the Hot Mill and Cold Mills shall not exceed 0.03 grain per dry standard cubic foot (gr/dscf).

D.3.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for these units and their control devices. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.3.3 Particulate Control

In order to assure compliance with Condition D.3.1, the oil mist collection and removal systems for particulate control shall be in operation and control emissions at all times that the Hot Mill and Cold Mills are in operation.

D.3.4 Testing Requirements [326 IAC 2-7-6(1)][326 IAC 2-1.1-11][326 IAC 2-2]

(a) In order to demonstrate compliance with Condition D.0.1, the Permittee shall perform PM, PM_{10}, $PM_{2.5}$, and VOC testing on the respective exhaust stack of oil mist collection and removal systems HMC-1 and CM-3-FFS-A controlling emissions from Hot Mill and Cold Mill 3, utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

(b) In order to demonstrate compliance with Condition D.0.1, the Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ testing on the respective exhaust stack of oil mist collection and removal systems CM-2-FFS-A and B, and CM-4-FFS-A controlling emissions from Cold Mill 2 or Cold Mill 4, utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall alternate between (CM-2-FFS-A and B) and (CM-4-FFS-A) for each test cycle, so that each oil mist collection and removal system shall be tested once every ten (10) years.

(c) In order to demonstrate compliance with Condition D.0.1, the Permittee shall perform VOC testing on the respective exhaust stack of oil mist collection and removal systems CM-2-FFS-A and B, and CM-4-FFS-A controlling emissions from Cold Mill 2 and Cold Mill 4, utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

Testing shall be conducted in accordance with the provisions of 326 IAC 3-6 (Source Sampling Procedures). Section C - Performance Testing contains the Permittee's obligation with regard to the performance testing required by this condition. PM_{10} and $PM_{2.5}$ contain filterable and condensable particulate matter.

D.3.5 PM, PM_{10}, $PM_{2.5}$, and VOC Calculations

Emissions of PM, PM_{10}, $PM_{2.5}$, and VOC in Condition D.0.1 shall be determined using the following equations:

(a) PM, PM_{10}, and $PM_{2.5}$ emissions from the Hot Mill in tons per month =
E_h (lbs/ton) x M_h (tons/month) x (1 ton/2000 pounds).

Where:
E_h = The emission factor determined from the most recent IDEM approved stack test.
M_h = Total metal throughput to the Hot Mill (tons/month).

(b) PM, PM_{10}, and $PM_{2.5}$ emissions from the Cold Mills (Cold Mill 2, Cold Mill 3, and Cold Mill 4) in tons per month = E_c (lbs/ton) x M_c (tons/month) x (1 ton/2000 pounds).

Where:
E_c = The emission factor determined from the most recent IDEM approved stack test.
M_c = Total metal throughput to the Cold Mills (tons/month).

(c) VOC emissions from the Hot Mill in tons per month =
E_{vh} (lbs/ton) x M_{vh} (tons/month) x (1 ton/2000 pounds).

Where:
E_{vh} = The emission factor determined from the most recent IDEM approved stack test.
M_{vh} = Total metal throughput to the Hot Mill (tons/month).

(d) VOC emissions from the Cold Mills (Cold Mill 2, Cold Mill 3, and Cold Mill 4) in tons per month = E_{vc} (lbs/ton) x M_{vc} (tons/month) x (1 ton/2000 pounds).

Where:
E_{vc} = The emission factor determined from the most recent IDEM approved stack test.
M_{vc} = Total metal throughput to the Cold Mills (tons/month).

(e) VOC emissions from the cooling of cold rolled coils in tons per month =
E_{CR} (lb/ton) x M_{CR} (ton/month) x (1 ton/2,000 pounds)

Where:
E_{CR} = 0.025 pounds VOC per ton of cold rolled aluminum.
M_{CR} = total tons of cold rolled aluminum produced (ton/month).

(f) VOC emissions from the levelers (TLV-1, TLV-2, TLV-3, and TLV-4) in tons per month = 0.03 lbs/ton x Mk (tons/month) x (1ton/2000 pounds).

Where:
0.03 = Emission limit in pounds VOC per ton of metal throughput.
M_k = total tons of aluminum coils to the levelers (tons/month).

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

D.3.6 Visible Emissions Notations

(a) Visible emission notations of the Hot Mill and Cold Mill stack exhausts shall be performed once per day during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.

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

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

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

(e) If abnormal emissions are observed, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response steps shall be considered a deviation from this permit.

D.3.7 Parametric Monitoring

(a) The Permittee shall record the pressure drop across the oil mist collection filters used in conjunction with the Hot Mill and Cold Mill 2, Cold Mill 3, and Cold Mill 4, at least once per day when the mills are in operation. When for any one reading, the pressure drop across a filter is outside the normal range, the Permittee shall take a reasonable response. The normal ranges for these units are included in the table below unless different upper-bound or lower bound values for these ranges are determined during the latest stack test Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the below-mentioned ranges is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

Unit ID	Pressure Drop Range ("H_2O)
Cold Mill 1	1-8
Cold Mill 2	1-8
Cold Mill 3	0.2-4

(b) The Permittee shall record the outlet coolant temperature for the mills identified as Cold Mill 2, Cold Mill 3 and Cold Mill 4, at least once per day when the mills are in operation. When, for any one reading, the temperature is above 125°F, the Permittee shall take reasonable response steps. Section C — Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A coolant temperature reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(c) The Permittee shall record the outlet coolant temperature for the Hot Mill at least once per day when the mill is in operation. When, for any one reading, the temperature is above 145°F, the Permittee shall take reasonable response steps. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A coolant temperature reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

(d) The Permittee shall maintain daily records of the percentage oil content of the coolant in use at the Hot Mill.

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 or replaced at least once every six (6) months or in accordance with manufacturer's specifications provided that these specifications are available onsite with the preventive maintenance plan.

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

D.3.8 Record Keeping Requirements

(a) To document the compliance status with Conditions D.3.5 and D.3.7(d), the Permittee shall maintain records in accordance with (1) through (6) below. Record maintained for (1) through (6) shall be complete and sufficient to establish compliance with the emission limits in Condition D.0.1.

(1) Except as noted in D.3.8(4), the total tons of aluminum coil processed each month to the Hot Mill, Cold Mill 2, Cold Mill 3 and Cold Mill 4.

(2) The most recent valid emission factors for these mills.

(3) Daily records required by Condition D.3.7(d).

(4) The total tons of aluminum coil processed each month to the Hot Mill, Cold Mill 2, Cold Mill 3 and Cold Mill 4.

(5) The most recent valid emission factors for each of these mills.

(6) To document the compliance status with Condition D.3.5(f), the Permittee shall record the total tons of aluminum coils processed at the Tension Levelers 1, 2, 3, and 4 monthly.

(b) To document the compliance status with Condition D.3.6 - Visible Emission Notation, the Permittee shall maintain records of the daily visible emission notations of the Hot Mill and Cold Mills stack exhausts. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(c) To document the compliance status with Condition D.3.7(a) - Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings for the oil mist collection filters used in conjunction with the Hot Mill and Cold Mills. The Permittee shall include the dates of filter changes and type of filter used. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

(d) To document the compliance status with Condition D.3.7(b) and (c) - Parametric Monitoring, the Permittee shall maintain records of the daily outlet coolant temperature readings for the Hot Mill and Cold Mills. The Permittee shall include in its daily record when the outlet coolant temperature is not taken and the reason for the lack of outlet coolant temperature reading (e.g. the process did not operate that day).

(e) Section C - General Record Keeping Requirements, contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.4 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

(a) One (1) natural gas-fired boiler, identified as Boiler #1 (BS-10.1), installed in 2001, with a rated heat input capacity of 4.185 MMBtu/hr, and exhausting to stack S-17.

Under 40 CFR 63, Subpart DDDDD, Boiler #1 is an affected facility.

(b) One (1) natural gas-fired boiler, identified as Boiler #2 (BS-10.2), installed in 1999, with a rated heat input capacity of 4.185 MMBtu/hr, and exhausting to stack S-18.

Under 40 CFR 63, Subpart DDDDD, Boiler #2 is an affected facility.

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

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

D.4.1 Particulate Matter less than ten (10) microns in diameter (PM_{10}) [326 IAC 6.8]

Pursuant to 326 IAC 6.8-2-18(b) (Lake County: PM10 Emission Requirements), these combustion sources shall fire natural gas only.

D.4.2 Preventive Maintenance Plan [326 IAC 2-7-5(12)]

A Preventive Maintenance Plan (PMP) is required for this unit and its control device. Section B - Preventive Maintenance Plan contains the Permittee's obligations with regard to the preventive maintenance plan required by this condition.

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

D.4.3 PM, PM_{10}, $PM_{2.5}$, and VOC Calculations

Emissions of PM, PM_{10}, $PM_{2.5}$, and VOC in Condition D.0.1 shall be determined using the following equations:

(a) PM, PM_{10}, and $PM_{2.5}$ emissions from the Boilers (Boiler #1 and Boiler #2) in tons per month = Eg lbs/mmcf x Ng (mmcf/month)) x (1 ton/2000 pounds).

Where:

Eg $PM_{2.5}$ = 7.6 lbs/mmcf, emission factor from AP-42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Eg PM_{10} = 7.6 lbs/mmcf, emission factor from AP- 42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Eg PM = 1.9 lbs/mmcf, emission factor from AP- 42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Ng = Amount of natural gas burned in boilers.

(b) VOC emissions from the Boilers (Boiler #1 and Boiler #2) in tons per month = 5.5 lbs/mmcf x Ng (mmcf/month) x (1 ton/2000 pounds).

Where:

5.5 lbs/mmcf = Emission factor from AP- 42 Chapter 1.4, Table 1.4-2, July 1998 or the most current factor from the applicable section of AP-42.

Ng = Amount of natural gas burned in boilers.

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

D.4.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.4.3, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be complete and sufficient to establish compliance with the emission limits in Condition D.0.1.

(1) The most recent valid PM, PM_{10}, $PM_{2.5}$, and VOC emission factors for the Boilers (Boiler #1 and Boiler #2).

(2) The monthly natural gas usage from the Boilers (Boiler #1 and Boiler #2).

(3) The total monthly PM, PM_{10}, $PM_{2.5}$, and VOC emissions from the Boilers (Boiler #1 and Boiler #2).

(b) Section C - General Record Keeping Requirements, contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.5 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(j) Degreasing operations that do not exceed one hundred forty-five (145) gallons per twelve (12) months, except if subject to 326 IAC 20-6; consisting of five (5) degreasing units.

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

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

D.5.1 Organic Solvent Degreasing Operations: Cold Cleaner Operations [326 IAC 8-3-2]

Pursuant to 326 IAC 8-3-2 (Cold Cleaner Degreaser Control Equipment and Operating Requirements), the Permittee shall:

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

(1) Equip the degreaser with a cover.

(2) Equip the degreaser with a device for draining cleaned parts.

(3) Close the degreaser cover whenever parts are not being handled in the degreaser.

(4) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases.

(5) Provide a permanent, conspicuous label that lists the operating requirements in subdivisions (3), (4), (6), and (7).

(6) Store waste solvent only in closed containers.

(7) Prohibit the disposal or transfer of waste solvent in such a manner that could allow greater than twenty percent (20%) of the waste solvent (by weight) to evaporate into the atmosphere.

(b) Ensure the following additional control equipment and operating requirements are met:

(1) Equip the degreaser with one (1) of the following control devices if the solvent is heated to a temperature of greater than forty-eight and nine-tenths (48.9) degrees Celsius (one hundred twenty (120) degrees Fahrenheit):

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

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

(C) A refrigerated chiller.

(D) Carbon adsorption.

(E) An alternative system of demonstrated equivalent or better control as those outlined in clauses (A) through (D) that is approved by the

department. An alternative system shall be submitted to the U.S. EPA as a SIP revision.

(2) Ensure the degreaser cover is designed so that it can be easily operated with one (1) hand if the solvent is agitated or heated.

(3) If used, solvent spray:

(A) must be a solid, fluid stream; and

(B) shall be applied at a pressure that does not cause excessive splashing.

D.5.2 Material Requirements for Cold Cleaner Degreasers [326 IAC 8-3-8]

Pursuant to 326 IAC 8-3-8 (Material Requirements for Cold Cleaner Degreasers), the Permittee shall not operate a cold cleaning degreaser with a solvent that has a VOC composite partial vapor pressure that exceeds one (1) millimeter of mercury (nineteen-thousandths (0.019) pound per square inch) measured at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

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

D.5.3 VOC Calculations

In order to demonstrate compliance with Condition D.0.1, VOC emissions from the degreasing operations shall be determined using the following equation:

VOC emissions from Degreasing Operations in tons per month =

$[E_D$ (ton/yr/unit) x N_D x (1 - ER)] / 12

Where:
E_D = The emission factor from AP-42 Chapter 4.6, Table 4.6-2 (Cold Cleaner - Entire Unit);
N_D = The number of degreasing units in operation;
ER = 50% emission reduction factor; and
12 = The number of months/yr.

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

D.5.4 Record Keeping Requirements

(a) To document the compliance status with Condition D.5.2, the Permittee shall maintain the following records for each purchase of solvent used in the cold cleaner degreasing operations. These records shall be retained on-site or accessible electronically for the most recent three (3) year period and shall be reasonably accessible for an additional two (2) year period.

(1) The name and address of the solvent supplier.

(2) The date of purchase.

(3) The type of solvent purchased.

(4) The total volume of the solvent purchased.

(5) The true vapor pressure of the solvent measured in millimeters of mercury at twenty (20) degrees Celsius (sixty-eight (68) degrees Fahrenheit).

(b) To document the compliance status with Condition D.5.3, the Permittee shall maintain records in accordance with (1) and (2) below. Records maintained for (1) and (2) shall be taken monthly and shall be complete and sufficient to establish compliance with the emission limits in Condition D.0.1.

(1) The number of degreasing units.

(2) The total monthly VOC emissions from the degreasing operations.

(c) Section C - General Record Keeping Requirements contains the Permittee's obligation with regard to the records required by this condition.

SECTION D.6 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description: Insignificant Activities

(t) One (1) diesel-fired mobile bale breaker, with a rated capacity of 10 tons per hour of baled aluminum scrap, with no controls, and exhausting indoors.

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

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

D.6.1 Particulate Matter (PM) [326 IAC 6.8]

Pursuant to 326 IAC 6.8-1-2, particulate matter (PM) emissions from the mobile bale breaker shall not exceed 0.03 grain per dry standard cubic foot (gr/dscf).

SECTION D.7 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

Insignificant Activities

(q) Activities associated with emergencies, including natural gas turbines or reciprocating engines not exceeding sixteen thousand (16,000) horsepower or stationary fire pump engines, consisting of:

(1) One (1) natural gas-fired emergency power generator, identified as Stand-by Generator, constructed and installed in January 2005, with a maximum rating of 147 hp.

Under 40 CFR 63, Subpart ZZZZ, Stand-by Generator is considered an affected source.

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

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

D.7.1 PM, PM_{10}, $PM_{2.5}$, and VOC Calculations

Emissions of PM, PM_{10}, $PM_{2.5}$, and VOC in Condition D.0.1 shall be determined using the following equations:

(a) PM, PM_{10}, and $PM_{2.5}$ emissions from the Emergency Stand-by Generator in tons per month = Eg lbs/MMBtu x (147 HP x 7,600 (Btu/hp-hr) x Hrs (hr/month) x (1 MMBtu/1,000,000 Btu))x (1 ton/2000 pounds).

Where:

Eg PM = 0.0095 lbs/MMBtu, emission factor from AP- 42 Chapter 3.2, Table 3.2-3, August 2000 or the most current factor from the applicable section of AP-42.

Eg PM_{10} = 0.0194 lbs/MMBtu, emission factor from AP- 42 Chapter 3.2, Table 3.2-3, August 2000 (condensable PM + filterable PM_{10}) or the most current factor from the applicable section of AP-42.

Eg $PM_{2.5}$ = 0.0194 lbs/MMBtu, emission factor from AP- 42 Chapter 3.2, Table 3.2-3, August 2000 (condensable PM + filterable $PM_{2.5}$) or the most current factor from the applicable section of AP-42.

Hrs = Amount of hours the Stand-by Generator was operated.

(b) VOC emissions from the Emergency Stand-by Generator in tons per month = Eg g/hp-hr x (147 HP x Hrs (hr/month) x (1 lb/453.592 g)) x (1 ton/2000 pounds).

Where:

Eg VOC= 0.11 grams/hp-hr as certified by the engine manufacturer or the most current factor from the applicable section of AP-42.

Hrs = Amount of hours the Stand-by Generator was operated.

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

D.7.2 Record Keeping Requirements

(a) To document the compliance status with Condition D.7.1, the Permittee shall maintain records in accordance with (1) through (3) below. Records maintained for (1) through (3) shall be complete and sufficient to establish compliance with the emission limits in Condition D.0.1.

(1) The most recent valid PM, PM_{10}, $PM_{2.5}$, and VOC emission factors for the Stand-by Generator.

(2) The hours of operation of the Stand-by Generator.

(3) The total monthly PM, PM_{10}, $PM_{2.5}$, and VOC emissions from the Stand-by Generator.

(b) Section C - General Record Keeping Requirements, contains the Permittee's obligation with regard to the records required by this condition.

SECTION E.1 NESHAP

Emissions Unit Description:

Aluminum Melting Furnaces & Aluminum Recovery Systems

(g) Aluminum Reverberatory Furnace #2 (MS-1A)
One (1) aluminum reverberatory furnace, identified as Furnace #2, modified in 2000, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using baghouses (BHS-9 and BHS-12) as control, and exhausting to stacks S-19 and S-24.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #2 is defined as a Sidewell Group 1 furnace with add-on control.

(h) Aluminum Reverberatory Furnace #6 (MS-1E)
One (1) aluminum reverberatory furnace, identified as Furnace #6, modified in 1998, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using baghouses (BHS-6 and 7) as control, and exhausting to stacks S-12 and S-11.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #6 is defined as a Sidewell Group 1 furnace with add-on control.

(i) Aluminum Reverberatory Furnace #9 (MS-1H)
One (1) aluminum reverberatory furnace, identified as Furnace #9, approved in 2008 for construction, with a rated scrap aluminum feed/charge capacity of 18 tons per hour and a heat input capacity of 20 MMBtu/hr using natural gas or waste oil, using a baghouse (BHS-11) as control, and exhausting to stack S-23.

Under NESHAP 40 CFR 63, Subpart RRR, Furnace #9 is defined as a Sidewell Group 1 furnace with add-on control.

(j) Holding Furnace (HS-2)
One (1) aluminum holding furnace, identified as Holding Furnace #1, installed in 1985 and rebuilt in 2007, receiving and holding molten aluminum prior to casting, with a heat input capacity of 10 MMBtu/hr using natural gas only, and exhausting to stack S-16. Under NESHAP 40 CFR 63, Subpart RRR, Holding Furnace #1 is defined as a Group 2 furnace that holds or processes only clean charge.

(k) Aluminum Recovery System

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under 40 CFR 63, Subpart RRR, each of the ARS coolers is considered an affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants (NESHAPs) [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.1518, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A-General Provisions, which are incorporated by reference as 326 IAC 20-1, for the emission units described in this section except when otherwise specified in 40 CFR 63, Subpart RRR.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.1.2 NESHAP Subpart RRR Requirements [40 CFR 63, Subpart RRR]

Pursuant to 40 CFR, Subpart RRR, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart RRR (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-70, for existing emission units described in this section:

40 CFR 63.1500 Applicability.
40 CFR 63.1500(a)
40 CFR 63.1500(b)(4)
40 CFR 63.1500(b)(6)
40 CFR 63.1500(b)(7)
40 CFR 63.1500(b)(8)

40 CFR 63.1501 Dates.
40 CFR 63.1501(a)
40 CFR 63.1501(b)
40 CFR 63.1501(e)

40 CFR 63.1502 Incorporation by Reference.

40 CFR 63.1503 Definitions.

40 CFR 63.1505 Emission standards for affected sources and emission units.
40 CFR 63.1505(a)
40 CFR 63.1505(g)(1)
40 CFR 63.1505(h)(1)
40 CFR 63.1505(i)(1)
40 CFR 63.1505(i)(3)
40 CFR 63.1505(i)(4)
40 CFR 63.1505(i)(6)
40 CFR 63.1505(i)(7)

40 CFR 63.1506 Operating Requirements

40 CFR 63.1506(a)(1)
40 CFR 63.1506(a)(4)
40 CFR 63.1506(a)(5)
40 CFR 63.1506(b)(1)
40 CFR 63.1506(b)(2)
40 CFR 63.1506(c)(1)
40 CFR 63.1506(c)(2)
40 CFR 63.1506(c)(3)
40 CFR 63.1506(d)
40 CFR 63.1506(i)(1)
40 CFR 63.1506(i)(3)
40 CFR 63.1506(j)(1)
40 CFR 63.1506(m)
40 CFR 63.1506(o)
40 CFR 63.1506(p)

40 CFR 63.1510 Monitoring requirements.

40 CFR 63.1510(a)
40 CFR 63.1510(b)
40 CFR 63.1510(c)
40 CFR 63.1510(d)(1)
40 CFR 63.1510(d)(2)
40 CFR 63.1510(e)
40 CFR 63.1510(f)(1)
40 CFR 63.1510(h)
40 CFR 63.1510(i)
40 CFR 63.1510(l)
40 CFR 63.1510(n)
40 CFR 63.1510(r)
40 CFR 63.1510(u)
40 CFR 63.1510(w)

40 CFR 63.1511 Performance test/compliance demonstration general requirements.

40 CFR 63.1511(a)
40 CFR 63.1511(b)
40 CFR 63.1511(c)
40 CFR 63.1511(d)
40 CFR 63.1511(e)
40 CFR 63.1511(g)

40 CFR 63.1512 Performance test/compliance demonstration requirements and procedures.

40 CFR 63.1512(d)
40 CFR 63.1512(g)
40 CFR 63.1512(i)
40 CFR 63.1512(k)
40 CFR 63.1512(q)
40 CFR 63.1512(r)
40 CFR 63.1512(s)

40 CFR 63.1513 Equations for determining compliance.

40 CFR 63.1513(b)
40 CFR 63.1513(d)

40 CFR 63.1515 Notifications.

40 CFR 63.1515(a)(2)
40 CFR 63.1515(a)(3)
40 CFR 63.1515(a)(4)
40 CFR 63.1515(a)(5)
40 CFR 63.1515(a)(6)
40 CFR 63.1515(b)(1)
40 CFR 63.1515(b)(3)
40 CFR 63.1515(b)(4)
40 CFR 63.1515(b)(5)
40 CFR 63.1515(b)(6)
40 CFR 63.1515(b)(9)
40 CFR 63.1515(b)(10)

40 CFR 63.1516 Reports.

40 CFR 63.1516(a)
40 CFR 63.1516(b)(1)(i)
40 CFR 63.1516(b)(1)(iv)
40 CFR 63.1516(b)(1)(v)
40 CFR 63.1516(b)(1)(vi)
40 CFR 63.1516(b)(2)(ii)
40 CFR 63.1516(b)(2)(iii)
40 CFR 63.1516(b)(2)(v)
40 CFR 63.1516(b)(3)
40 CFR 63.1516(c)
40 CFR 63.1516(d)
40 CFR 63.1516(e)

40 CFR 63.1517 Records

40 CFR 63.1517(a)
40 CFR 63.1517(b)(1)(i)
40 CFR 63.1517(b)(7)
40 CFR 63.1517(b)(9)
40 CFR 63.1517(b)(10)
40 CFR 63.1517(b)(12)
40 CFR 63.1517(b)(13)
40 CFR 63.1517(b)(14)
40 CFR 63.1517(b)(15)
40 CFR 63.1517(b)(16)(i)
40 CFR 63.1517(b)(16)(ii)
40 CFR 63.1517(b)(18)

40 CFR 63.1518 Applicability of general provisions.
40 CFR 63.1519 Implementation and enforcement.

SECTION E.2 NESHAP

Emissions Unit Description:

Insignificant Activities:

(a) One (1) natural gas-fired boiler, identified as Boiler #1, installed in 2001, with a rated heat input capacity of 4.185 MMBtu/hr, and exhausting to stack S-17.

Under 40 CFR 63, Subpart DDDDD, Boiler #1 is an affected facility.

(b) Boiler #2 (BS-10.2)
One (1) natural gas-fired boiler, identified as Boiler #2, installed in 1999, with a rated heat input capacity of 4.185 MMBtu/hr, and exhausting to stack S-18.

Under 40 CFR 63, Subpart DDDDD, Boiler #2 is an affected facility.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.2.1 General Provisions Relating to NESHAP Subpart DDDDD (National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial, and Institutional Boilers and Process Heaters) [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.3340, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A-General Provisions, which are incorporated by reference as 326 IAC 20-1-1, as specified in 40 CFR 63, Subpart DDDDD in accordance with the schedule in 40 CFR 63, Subpart DDDDD.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.2.2 NESHAP Subpart DDDDD Requirements [40 CFR 63, Subpart DDDDD]

Pursuant to 40 CFR, Subpart DDDDD, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart DDDDD (included as Attachment C to the operating permit), which are incorporated by reference as 326 IAC 20-95, for the units listed in this section:

(1) 40 CFR 63.7480
(2) 40 CFR 63.7485
(3) 40 CFR 63.7490(a), (d)
(4) 40 CFR 63.7495(b), (d)
(5) 40 CFR 63.7499(l)
(6) 40 CFR 63.7500(a)(1), (a)(3), (b), (e), (f)
(7) 40 CFR 63.7501
(8) 40 CFR 63.7505(a)
(9) 40 CFR 63.7510(e)

(10) 40 CFR 63.7515(d)
(11) 40 CFR 63.7530(d), (e), (f)
(12) 40 CFR 63.7540(a)(12), (a)(13), (b)
(13) 40 CFR 63.7545(a), (b), (e)(1), (e)(8)(i), (e)(8)(ii), (f), (h)
(14) 40 CFR 63.7550(a), (b), (c), (h)(1), (h)(3)
(15) 40 CFR 63.7555(a), (i), (j)
(16) 40 CFR 63.7560
(17) 40 CFR 63.7565
(18) 40 CFR 63.7570
(19) 40 CFR 63.7575
(20) Table 3 (Item1 and 4)
(21) Table 9
(22) Table 10

SECTION E.3 NESHAP

Emissions Unit Description:

Insignificant Activities:

(q) Activities associated with emergencies, including natural gas turbines or reciprocating engines not exceeding sixteen thousand (16,000) horsepower or stationary fire pump engines, consisting of:

(1) One (1) natural gas-fired emergency power generator, identified as Stand-by Generator, constructed and installed in January 2005, with a maximum rating of 147 hp, exhausting uncontrolled to unidentified vent.

Under 40 CFR 63, Subpart ZZZZ, Stand-by Generator is considered an affected source.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements [326 IAC 2-7-5(1)]

E.3.1 General Provisions Relating to NESHAP Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines) [326 IAC 20-1-1][40 CFR Part 63, Subpart A]

(a) Pursuant to 40 CFR 63.6580, the Permittee shall comply with the provisions of 40 CFR Part 63, Subpart A-General Provisions, which are incorporated by reference as 326 IAC 20-1, for the unit listed in this section, except as otherwise specified in 40 CFR 63, Subpart ZZZZ.

(b) Pursuant to 40 CFR 63.10, the Permittee shall submit all required notifications and reports to:

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

E.3.2 NESHAP Subpart ZZZZ Requirements [40 CFR 63, Subpart ZZZZ]

Pursuant to 40 CFR, Subpart ZZZZ, Stand-by Generator shall comply with the following provisions of 40 CFR Part 63, Subpart ZZZZ (included as Attachment D to the operating permit), which are incorporated by reference as 326 IAC 20-95, for the units listed in this section:

(1) 40 CFR 63.6580
(2) 40 CFR 63.6585
(3) 40 CFR 63.6590(a)(1)(ii) and (iv)
(4) 40 CFR 63.6595(a)(1) and (c)
(5) 40 CFR 63.6602
(6) 40 CFR 63.6605
(7) 40 CFR 63.6625(e)(2), (f), (h), and (j)
(8) 40 CFR 63.6635
(9) 40 CFR 63.6640(a), (b), (e), and (f)

(10) 40 CFR 63.6650
(11) 40 CFR 63.6655
(12) 40 CFR 63.6660
(13) 40 CFR 63.6665
(14) 40 CFR 63.6670
(15) 40 CFR 63.6675
(16) Table 2c (item 6)
(17) Table 6 (item 9)
(18) Table 8

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
CERTIFICATION

Source Name: Jupiter Aluminum Corporation
Source Address: 1745 165th Street, Hammond, Indiana 46320
Part 70 Permit No.: T089-34861-00201

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

Please check what document is being certified:

☐ Annual Compliance Certification Letter

☐ Test Result (specify)

☐ Report (specify)

☐ Notification (specify)

☐ Affidavit (specify)

☐ Other (specify)

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

Signature:
Printed Name:
Title/Position:
Phone:
Date:

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: (317) 233-0178
Fax: (317) 233-6865

PART 70 OPERATING PERMIT
EMERGENCY OCCURRENCE REPORT

Source Name: Jupiter Aluminum Corporation
Source Address: 1745 165th Street, Hammond, Indiana 46320
Part 70 Permit No.: T089-34861-00201

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**) daytime business hours (1-800-451-6027 or 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), and follow the other requirements of 326 IAC 2-7-16.

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

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

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

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

Form Completed by:_____

Title / Position: _____

Date:_____

Phone: _____

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

Part 70 Quarterly Report

Source Name: Jupiter Aluminum Corporation
Source Address: 1745 165th Street, Hammond, Indiana 46320
Part 70 Permit No.: T089-34861-00201
Facility: Entire Source
Parameter: PM
Limit: less than 99.85 tons per twelve (12) consecutive month period

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Source-wide PM Emissions This Month (Tons)	Source-wide PM Emissions Previous 11 Months (Tons)	Source-wide PM Emissions 12 Month Total (Tons)

□ No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Jupiter Aluminum Corporation
Source Address: 1745 165th Street, Hammond, Indiana 46320
Part 70 Permit No.: T089-34861-00201
Facility: Entire Source
Parameter: PM10
Limit: less than 99.01 tons per twelve (12) consecutive month period

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Source-wide PM10 Emissions This Month (Tons)	Source-wide PM10 Emissions Previous 11 Months (Tons)	Source-wide PM10 Emissions 12 Month Total (Tons)

☐ No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Jupiter Aluminum Corporation
Source Address: 1745 165th Street, Hammond, Indiana 46320
Part 70 Permit No.: T089-34861-00201
Facility: Entire Source
Parameter: PM2.5
Limit: less than 99.01 tons per twelve (12) consecutive month period

QUARTER : YEAR:

Month	Column 1	Column 2	Column 1 + Column 2
	Source-wide PM2.5 Emissions This Month (Tons)	Source-wide PM2.5 Emissions Previous 11 Months (Tons)	Source-wide PM2.5 Emissions 12 Month Total (Tons)

☐ No deviation occurred in this quarter.

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

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

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

Part 70 Quarterly Report

Source Name: Jupiter Aluminum Corporation
Source Address: 1745 165th Street, Hammond, Indiana 46320
Part 70 Permit No.: T089-34861-00201
Facility: Entire Source
Parameter: VOC
Limit: less than 99.22 tons per twelve (12) consecutive month period.

QUARTER : YEAR:

Charge Type for Reverberatory Furnaces (#2, #6, and #9) (units)	Column 1	Column 2	Column 1 + Column 2	Column 4	Column 5	Column 4 + Column 5
	Usage This Month	Usage Previous 11 Months	Usage 12 Month Total	Total VOC Emissions From Reverberatory Furnaces (#2, #6, and #9) (tons per 12 month consecutive period)	Total VOC Emissions from All Other Facilities and Fugitives (tons per 12 month consecutive period)	Total VOC Emissions from Entire Source (tons per 12 month consecutive period)
VOC Clean Charge (tons)						
Other Than Clean Charge (tons)						
VOC Clean Charge (tons)						
Other Than Clean Charge (tons)						
VOC Clean Charge (tons)						
Other Than Clean Charge (tons)						

☐ No deviation occurred in this quarter.

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

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

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE AND ENFORCEMENT BRANCH
PART 70 OPERATING PERMIT
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Jupiter Aluminum Corporation
Source Address: 1745 165th Street, Hammond, Indiana 46320
Part 70 Permit No.: T089-34861-00201

Months: _____ to _____ Year: _____

This report shall be submitted quarterly based on a calendar year. Proper notice submittal under Section B -Emergency Provisions satisfies the reporting requirements of paragraph (a) of Section C-General Reporting. Any deviation from the requirements of this permit, 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: _____

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Part 70 Significant Source Modification and Significant Permit Modification

Source Description and Location

Source Name:	**Jupiter Aluminum Corporation**
Source Location:	**1745 165th Street, Hammond, Indiana 46320**
County:	**Lake**
SIC Code:	**3353 (Aluminum Sheet, Plate, and Foil)**
Operation Permit No.:	**T089-34861-00201**
Operation Permit Issuance Date:	**October 22, 2015**
Significant Source Modification No.:	**089-37335-00201**
Significant Permit Modification No.:	**089-37419-00201**
Permit Reviewer:	**Joshua Levering**

Existing Approvals

The source was issued Part 70 Operating Permit Renewal No. T089-34861-00201 on October 22, 2015. The source has since received the following approvals:

Permit Type	Permit Number	Issuance Date
Administrative Amendment	089-36935-00201	March 24, 2016
Administrative Amendment	089-37062-00201	May 2, 2016

County Attainment Status

The source is located in Lake County.

Pollutant	Designation
SO_2	Better than national standards.
CO	Attainment effective February 18, 2000, for the part of the city of East Chicago bounded by Columbus Drive on the north; the Indiana Harbor Canal on the west; 148th Street, if extended, on the south; and Euclid Avenue on the east. Unclassifiable or attainment effective November 15, 1990, for the remainder of East Chicago and Lake County.
O_3	On June 11, 2012, the U.S. EPA designated Lake County nonattainment, for the 8-hour ozone standard. [12]
$PM_{2.5}$	Unclassifiable or attainment effective February 6, 2012, for the annual $PM_{2.5}$ standard.
$PM_{2.5}$	Unclassifiable or attainment effective December 13, 2009, for the 24-hour $PM_{2.5}$ standard.
PM_{10}	Attainment effective March 11, 2003, for the cities of East Chicago, Hammond, Whiting, and Gary. Unclassifiable effective November 15, 1990, for the remainder of Lake County.
NO_2	Cannot be classified or better than national standards.
Pb	Unclassifiable or attainment effective December 31, 2011.

[1]The U. S. EPA has acknowledged in both the proposed and final rulemaking for this redesignation that the anti-backsliding provisions for the 1-hour ozone standard no longer apply as a result of the redesignation under the 8-hour ozone standard. Therefore, permits in Lake County are no longer subject to review pursuant to Emission Offset, 326 IAC 2-3 for the 1-hour standard.
[2]The department has filed a legal challenge to U.S. EPA's designation in 77 FR 34228.

(a) Ozone Standards
U.S. EPA, in the Federal Register Notice 77 FR 112 dated June 11, 2012, designated Lake County as nonattainment for ozone. On August 1, 2012, the air pollution control board issued an emergency rule adopting the U.S. EPA's designation. This rule became effective August 9, 2012. IDEM does not agree with U.S. EPA's designation of nonattainment. IDEM filed a suit against U.S. EPA in the U.S. Court of Appeals for the DC Circuit on July 19, 2012. However, in order to assure that sources are not potentially liable for a violation of the Clean Air Act, the OAQ is following the U.S. EPA's designation. Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to ozone. Therefore, VOC and NO_x emissions were evaluated pursuant to the requirements of Emission Offset, 326 IAC 2-3.

(b) $PM_{2.5}$
Lake County has been classified as attainment for $PM_{2.5}$. Therefore, direct $PM_{2.5}$, SO_2, and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(c) Other Criteria Pollutants
Lake County has been classified as attainment or unclassifiable in Indiana for all the other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Fugitive Emissions

Since this source is classified as a secondary metal production plant, it is considered one (1) of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2, 326 IAC 2-3, or 326 IAC 2-7. Therefore, fugitive emissions are counted toward the determination of PSD, Emission Offset, and Part 70 Permit applicability.

Greenhouse Gas (GHG) Emissions

On June 23, 2014, in the case of *Utility Air Regulatory Group v. EPA*, cause no. 12-1146, (available at http://www.supremecourt.gov/opinions/13pdf/12-1146_4g18.pdf) the United States Supreme Court ruled that the U.S. EPA does not have the authority to treat greenhouse gases (GHGs) as an air pollutant for the purpose of determining operating permit applicability or PSD Major source status. On July 24, 2014, the U.S. EPA issued a memorandum to the Regional Administrators outlining next steps in permitting decisions in light of the Supreme Court's decision. U.S. EPA's guidance states that U.S. EPA will no longer require PSD or Title V permits for sources "previously classified as 'Major' based solely on greenhouse gas emissions."

The Indiana Environmental Rules Board adopted the GHG regulations required by U.S. EPA at 326 IAC 2-2-1(zz), pursuant to Ind. Code § 13-14-9-8(h) (Section 8 rulemaking). A rule, or part of a rule, adopted under Section 8 is automatically invalidated when the corresponding federal rule, or part of the rule, is invalidated. Due to the United States Supreme Court Ruling, IDEM, OAQ cannot consider GHG emissions to determine operating permit applicability or PSD applicability to a source or modification.

Source Status - Existing Source

The table below summarizes the potential to emit of the entire source, prior to the proposed modification, after consideration of all enforceable limits established in the effective permits:

Process/ Emission Unit	Source-Wide Emissions Before Modification (ton/year)								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs	Worst Single HAP (HCl)
Annealing Furnace #1				0.02	3.86		3.25	0.07	0.00
Annealing Furnace #2				0.04	6.87		5.77	0.12	0.00
Annealing Furnace #3				0.04	6.87		5.77	0.12	0.00
Annealing Furnace #4				0.03	5.80		4.87	0.10	0.00
Annealing Furnace #5				0.03	5.80		4.87	0.10	0.00
Annealing Furnace #6				0.05	8.59		7.21	0.15	0.00
Alu. Reverberatory Fur. #2				11.55	8.59		7.21	0.76	0.61
Alu. Reverberatory Fur. #6				11.55	8.59		7.21	0.39	0.24
Alu. Reverberatory Fur. #9				11.55	8.59		7.21	21.68	21.52
Holding Furnace #1				0.03	4.29		3.61	0.08	0.00
Rotary Dross Cooler				0.00	0.00		0.00	0.00	0.00
Dross Cooling Operation				0.00	0.00		0.00	0.00	0.00
Hot Rolling Mill	less	less	less	0.00	0.00	less	0.00	3.00	0.00
Cold Mill 2	than	than	than	0.00	0.00	than	0.00	0.00	0.00
Cold Mill 3	99.85	99.01	99.01	0.00	0.00	99.22	0.00	0.00	0.00
Cold Mill 4				0.00	0.00		0.00	0.00	0.00
Tension Leveler 1				0.00	0.00		0.00	0.00	0.00
Tension Leveler 2				0.00	0.00		0.00	0.00	0.00
Tension Leveler 3				0.00	0.00		0.00	0.00	0.00
Tension Leveler 4				0.00	0.00		0.00	0.00	0.00
Boiler #1				0.01	1.80		1.51	0.03	0.00
Boiler #2				0.01	1.80		1.51	0.03	0.00
Mobile Bale Breaker									
Insignificant Combustion				14.24	5.44		3.39	0.07	0.00
Stand-by Generator				Negl.	0.62		1.04	0.01	0.00
Degreasing Operations				0.00	0.00		0.00	0.00	0.00
Fugitives***				0.00	0.00		0.00	0.00	0.00
Total PTE of Entire Source	**<99.85**	**<99.01**	**<99.01**	**49.15**	**77.50**	**<99.22**	**64.44**	**26.73**	**22.37**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	100	100	100	100	100	NA	100	NA	NA
Emission Offset Major Source Thresholds	NA	NA	NA	NA	100	100	NA	NA	NA

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
***Fugitive emissions estimations from Part 70 Operating Permit Renewal No. T089-15690-00201.

(a) This existing source is not a major stationary source, under PSD (326 IAC 2-2), because no PSD regulated pollutant is emitted at a rate of one hundred (100) tons per year or more and it is one of the twenty-eight (28) listed source categories, as specified in 326 IAC 2-2-1(ff)(1).

(b) This existing source is not a major stationary source under Emission Offset (326 IAC 2-3) because no nonattainment regulated pollutant is emitted at a rate of 100 tons per year or more.

(c) This existing source is a major source of HAPs, as defined in 40 CFR 63.2, because HAP emissions are equal to or greater than ten (10) tons per year for a single HAP and equal to or greater than twenty-five (25) tons per year for a combination of HAPs. Therefore, this source is a major source under Section 112 of the Clean Air Act (CAA).

(d) These emissions are based on the TSD for Part 70 Operating Permit Renewal No. T089-34861-00201, issued on October 22, 2015.

Description of Proposed Modification

The Office of Air Quality (OAQ) has reviewed an application, submitted by Jupiter Aluminum Corporation on June 30, 2016, relating to the construction and operation of two (2) Aluminum Recovery Systems, as well as the removal of the existing Rotary Dross Cooler (DC-1).

The following is a list of the proposed emission units and pollution control devices:

(a) Aluminum Recovery Systems

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under 40 CFR 63, Subpart RRR, each of the ARS coolers is considered an affected facility.

The following is a list of the emission units and pollution control devices to be removed:

(a) Rotary Dross Cooler (DC-1)
One (1) rotary dross cooler, identified as the Rotary Dross Cooler, approved in 2008 for construction, with a rated aluminum dross process capacity of 4.0 tons per hour, using a jet pulse baghouse (BHS-10) as control, and exhausting to stack S-22.

Note: Baghouse (BHS-10) will remain onsite and be used for particulate control of ARS-1.

Enforcement Issues

There are no pending enforcement actions related to this modification.

Emission Calculations

See Appendix A of this Technical Support Document for detailed emission calculations.

Permit Level Determination – Part 70 Modification to an Existing Source

Pursuant to 326 IAC 2-1.1-1(12), Potential to Emit is defined as "the maximum capacity of a stationary source or emission unit to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U. S. EPA, IDEM, or the appropriate local air pollution control agency."

The following table is used to determine the appropriate permit level under 326 IAC 2-7-10.5 and 326 IAC 2-7-11. This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit. If the control equipment has been determined to be integral, the table reflects the PTE after consideration of the integral control device.

	PTE Before Controls of the New Emission Units (ton/year)								
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$**	**SO_2**	**NO_X**	**VOC**	**CO**	**Single HAP**	**Combined HAPs**
ARS-1	27.26	83.42	83.42	--	--	--	--	--	--
ARS-2	27.26	83.42	83.42	--	--	--	--	--	--
Total:	54.53	166.83	166.83	--	--	--	--	--	--

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

(a) Approval to Construct
Pursuant to 326 IAC 2-7-10.5(g)(4), a Significant Source Modification is required because this modification has the potential to emit PM/PM10/direct PM2.5 at greater than or equal to twenty-five (25) tons per year.

(b) Approval to Operate
Pursuant to 326 IAC 2-7-12(d)(1), this change to the permit is being made through a Significant Permit Modification because this modification makes a significant change to existing monitoring conditions.

Permit Level Determination – PSD

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

	Project Emissions (ton/year)						
Process / Emission Unit	**PM**	**PM_{10}**	**$PM_{2.5}$***	**SO_2**	**NO_X**	**VOC**	**CO**
ARS-1	<99.85	<99.01	<99.01	--	--	--	--
ARS-2				--	--	--	--
Total for Modification	<99.85	<99.01	<99.01	--	--	--	--
PSD Major Source Thresholds	100	100	100	100	100	NA	100
Emission Offset Major Source Thresholds	NA	NA	NA	NA	100	100	NA

*$PM_{2.5}$ listed is direct $PM_{2.5}$.

(a) This modification to an existing minor PSD stationary source is not major because the emissions increase of each PSD regulated pollutant is less than the PSD significant level. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(b) This modification to an existing minor Emission Offset stationary source is not major because the emissions increase of NOx and VOC are less than the Emission Offset major source thresholds. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

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

Process/ Emission Unit	**Source-Wide Emissions after Issuance (ton/year)**								
	PM	PM_{10}*	$PM_{2.5}$**	SO_2	NO_x	VOC	CO	Total HAPs	Worst Single HAP (HCl)
Annealing Furnace #1	less than 99.85	less than 99.01	less than 99.01	0.02	3.86	less than 99.22	3.25	0.07	0.00
Annealing Furnace #2				0.04	6.87		5.77	0.12	0.00
Annealing Furnace #3				0.04	6.87		5.77	0.12	0.00
Annealing Furnace #4				0.03	5.80		4.87	0.10	0.00
Annealing Furnace #5				0.03	5.80		4.87	0.10	0.00
Annealing Furnace #6				0.05	8.59		7.21	0.15	0.00
Alu. Reverberatory Fur. #2				11.55	8.59		7.21	0.76	0.61
Alu. Reverberatory Fur. #6				11.55	8.59		7.21	0.39	0.24
Alu. Reverberatory Fur. #9				11.55	8.59		7.21	21.68	21.52
Holding Furnace #1				0.03	4.29		3.61	0.08	0.00
ARS-1				0.00	0.00		0.00	0.00	0.00
ARS-2				0.00	0.00		0.00	0.00	0.00
Dross Cooling Operation				0.00	0.00		0.00	0.00	0.00
Hot Rolling Mill				0.00	0.00		0.00	3.00	0.00
Cold Mill 2				0.00	0.00		0.00	0.00	0.00
Cold Mill 3				0.00	0.00		0.00	0.00	0.00
Cold Mill 4				0.00	0.00		0.00	0.00	0.00
Tension Leveler 1				0.00	0.00		0.00	0.00	0.00
Tension Leveler 2				0.00	0.00		0.00	0.00	0.00
Tension Leveler 3				0.00	0.00		0.00	0.00	0.00
Tension Leveler 4				0.00	0.00		0.00	0.00	0.00
Boiler #1				0.01	1.80		1.51	0.03	0.00
Boiler #2				0.01	1.80		1.51	0.03	0.00
Mobile Bale Breaker				0.00	0.00		0.00	0.00	0.00
Insignificant Combustion				14.24	5.44		3.39	0.07	0.00
Stand-by Generator				Negl.	0.62		1.04	0.01	0.00
Degreasing Operations				0.00	0.00		0.00	0.00	0.00
Fugitives***				0.00	0.00		0.00	0.00	0.00
Total PTE of Entire Source	**<99.85**	**<99.01**	**<99.01**	**49.15**	**77.50**	**<99.22**	**64.44**	**26.73**	**22.37**
Title V Major Source Thresholds	NA	100	100	100	100	100	100	25	10
PSD Major Source Thresholds	100	100	100	100	100	NA	100	NA	NA
Emission Offset Major Source Thresholds	NA	NA	NA	NA	100	100	NA	NA	NA

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), PM10 and PM2.5, not particulate matter (PM), are each considered as a regulated air pollutant".
**$PM_{2.5}$ listed is direct $PM_{2.5}$.
***Fugitive emissions estimations from Part 70 Operating Permit Renewal No. T089-15690-00201.

(a) This existing minor PSD stationary source will continue to be minor under 326 IAC 2-2 because the emissions of each PSD regulated pollutant will continue to be less than the PSD major source thresholds. Therefore, pursuant to 326 IAC 2-2, the PSD requirements do not apply.

(b) This existing minor Emission Offset stationary source will continue to be minor under 326 IAC 2-3 because the emissions of the nonattainment pollutant NOx and VOC will continue to be less than the Emission Offset major source thresholds. Therefore, pursuant to 326 IAC 2-3, the Emission Offset requirements do not apply.

Federal Rule Applicability Determination

Due to the modification at this source, federal rule applicability has been reviewed as follows:

New Source Performance Standards (NSPS):

(a) The requirements of the New Source Performance Standard for Primary Aluminum Reduction Plants, 40 CFR 60, Subpart S and 326 IAC 12, are not included in the permit for this source, because it is not a primary aluminum reduction plant, as defined in 40 CFR 60.191.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP):

(a) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Primary Aluminum Reduction Plants, 40 CFR 63, Subpart LL and 326 IAC 20-24 are not included in the permit for these units because ARS-1 and ARS-2 are not a new or existing pitch storage tank, potline, paste production plant, or an anode bake furnace associated with primary aluminum production.

(b) The unit is subject to the National Emission Standards for Hazardous Air Pollutants for Secondary Aluminum Production, 40 CFR 63, Subpart RRR and 326 IAC 20-70, because the unit is a new rotary dross cooler located at a secondary aluminum production facility that is a major source of hazardous air pollutants (HAPs). The units subject to this rule include the following:

(1) Aluminum Recovery Systems

(A) One (1) Aluminum Recovery Systems, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(B) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under 40 CFR 63, Subpart RRR, each of the ARS coolers is considered an affected facility.

These emission units are subject to the following portions of Subpart RRR:

(1) 40 CFR 63.1500(b)(7)
(2) 40 CFR 63.1501(e)
(3) 40 CFR 63.1503
(4) 40 CFR 63.1505(a);(h)(1)
(5) 40 CFR 63.1506(a)(1),(4),(5);(c)(1),(2)(3);(j)(1);(p)
(6) 40 CFR 63.1510(a);(b);(d)(1),(2);(f)(1)
(7) 40 CFR 63.1511(a);(b);(c);(e)
(8) 40 CFR 63.1512(i);(q);(s)
(9) 40 CFR 63.1515(a)(3),(6);(b)(1),(5),(6),(9)
(10) 40 CFR 63.1516(b)(1),(2),(3);(c);(d);(e)
(11) 40 CFR 63.1517(a);(b)(1),(14),(16),(18)

The requirements of 40 CFR Part 63, Subpart A – General Provisions, which are incorporated as 326 IAC 20-1, apply to the unit except as otherwise specified in 40 CFR 63, Subpart RRR.

(c) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Area Source Standards for Aluminum, Copper, and Other Nonferrous Foundries, 40 CFR 63, Subpart ZZZZZZ are not included in the permit for these units because ARS-1 and ARS-2 are not located at an area source of hazardous air pollutants (HAPs).

(d) There are no other National Emission Standards for Hazardous Air Pollutants under 40 CFR 63, 326 IAC 14 and 326 IAC 20 included for this proposed modification.

Compliance Assurance Monitoring (CAM):

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

(1) has a potential to emit before controls equal to or greater than the major source threshold for the pollutant involved;

(2) is subject to an emission limitation or standard for that pollutant; and

(3) uses a control device, as defined in 40 CFR 64.1, to comply with that emission limitation or standard.

(b) Pursuant to 40 CFR 64.2(b)(1)(i), emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act are exempt from the requirements of CAM. Therefore, an evaluation was not conducted for any emission limitations or standards proposed after November 15, 1990 pursuant to a NSPS or NESHAP under Section 111 or 112 of the Clean Air Act.

(c) Pursuant to 40 CFR 64.2(b)(1)(iii), Acid Rain requirements pursuant to Sections 404, 405, 406, 407(a), 407(b), or 410 of the Clean Air Act are exempt emission limitations or standards. Therefore, CAM was not evaluated for emission limitations or standards for SO_2 and NO_X under the Acid Rain Program.

(d) Pursuant to 40 CFR 64.3(d), if a continuous emission monitoring system (CEMS) is required pursuant to other federal or state authority, the owner or operator shall use the CEMS to satisfy the requirements of CAM according to the criteria contained in 40 CFR 64.3(d).

The following table is used to identify the applicability of CAM to each existing emission unit and each emission limitation or standard for a specified pollutant based on the criteria specified under 40 CFR 64.2:

Emission Unit / Pollutant	Control Device	Applicable Emission Limitation	Uncontrolled PTE (tons/year)	Controlled PTE (tons/year)	CAM Applicable (Y/N)	Large Unit (Y/N)
ARS-1 PM	BH (BHS-10)	326 IAC 2-2 326 IAC 6.8	--	--	N [2]	N
ARS-1 PM10	BH (BHS-10)	326 IAC 2-2	<100	--	N [1]	N
ARS-1 PM2.5	BH (BHS-10)	326 IAC 2-2	<100	--	N [1]	N
ARS-2 PM	BH (BHS-14)	326 IAC 2-2 326 IAC 6.8	--	--	N [2]	N
ARS-2 PM10	BH (BHS-14)	326 IAC 2-2	<100	--	N [1]	N
ARS-2 PM2.5	BH (BHS-14)	326 IAC 2-2	<100	--	N [1]	N

Uncontrolled PTE (tpy) and controlled PTE (tpy) are evaluated against the Major Source Threshold for each pollutant. Major Source Threshold for criteria pollutants (PM10, PM2.5, SO2, NOX, VOC and CO) is 100 tpy, for a single HAP ten (10) tpy, and for total HAPs twenty-five (25) tpy

N [1] CAM does not apply for PM10 and PM2.5 because the uncontrolled PTE of PM, PM10, and PM2.5 is less than the major source threshold.

N [2] Under the Part 70 Permit program (40 CFR 70), PM is not a regulated pollutant. Under 326 IAC 2-2 there is no surrogate for PM. Therefore, CAM does not apply to sources of PM.

Controls: BH = Baghouse, C = Cyclone, DC = Dust Collection System, RTO = Regenerative or Recuperative Thermal Oxidizer, WS = Wet Scrubber, ESP = Electrostatic Preciptator

Emission units without air pollution controls are not subject to CAM. Therefore, they are not listed.

Based on this evaluation, the requirements of 40 CFR Part 64, CAM, are not applicable to any of the new units as part of this modification.

State Rule Applicability Determination

Due to the modification at this source, state rule applicability has been reviewed as follows:

326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 2-3 (Emission Offset)
PSD and Emission Offset applicability is discussed under the Permit Level Determination – PSD and Emission Offset section.

In order to render 326 IAC 2-2 not applicable, the Permittee shall comply with the following:

(1) PM emissions from the entire source, including insignificant activities and fugitive emissions, shall be less than 99.85 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(2) PM_{10} emissions from the entire source, including insignificant activities and fugitive emissions, shall be less than 99.01 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

(3) $PM_{2.5}$ emissions from the entire source, including insignificant activities and fugitive emissions, shall be less than 99.01 tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Compliance with these limits in combination with other PM, PM_{10}, and $PM_{2.5}$ emissions from the source, will limit the source-wide PM, PM_{10}, $PM_{2.5}$ emissions to less than one hundred (100) tons per twelve (12) consecutive month period, each, and shall render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), not applicable.

326 IAC 2-7-6(5) (Annual Compliance Certification)
The U.S. EPA Federal Register 79 FR 54978 notice does not exempt Title V Permittees from the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D), but the submittal of the Title V annual compliance certification to IDEM satisfies the requirement to submit the Title V annual compliance certifications to EPA. IDEM does not intend to revise any permits since the requirements of 40 CFR 70.6(c)(5)(iv) or 326 IAC 2-7-6(5)(D) still apply, but Permittees can note on their Title V annual compliance certifications that submission to IDEM has satisfied reporting to EPA per Federal Register 79 FR 54978. This only applies to Title V Permittees and Title V compliance certifications.

Aluminum Recovery Systems
326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The requirements of 326 IAC 6-3 are not applicable to the Aluminum Recovery Systems (ARS-1 and ARS-2) because these units have a more stringent particulate matter limitation established in 326 IAC 6.8 concerning particulate matter emissions.

326 IAC 6.8-1-2 (Particulate Matter Limitations for Lake County)
Pursuant to 326 IAC 6.8-1-2, particulate matter (PM) emissions from the Aluminum Recovery Systems (ARS-1 and ARS-2) shall not exceed 0.03 grain per dry standard cubic foot (gr/dscf).

Compliance Determination and Monitoring Requirements

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

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

The Compliance Determination Requirements applicable to this modification are as follows:

(a) PM, PM_{10}, and $PM_{2.5}$ emissions from the Aluminum Recovery Systems (ARS-1 and ARS-2) in tons per month =

$[(E_c + U_c \text{ (lbs/ton)}) \times M_c \text{ (tons/month)}) \times (1 \text{ ton}/2000 \text{ pounds})]$

Where:
$E_{c\ PM2.5}$ = 0.51 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.
$E_{c\ PM10}$ = 0.51 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.
$E_{c\ PM}$ = 0.17 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.
$U_{c\ PM2.5}$ = 0.271 lb/ton.
$U_{c\ PM10}$ = 0.271 lb/ton
$U_{c\ PM}$ = 0.088 lb/ton
M_c = Total metal throughput to the Aluminum Recovery Systems (tons/month).

Note: Uncaptured (U_c) emission factors are based on the calculated uncontrolled emission factors multiplied by one minus the capture efficiency (95%) of the control devices.

Summary of Testing Requirements					
Emission Unit	**Control Device**	**Timeframe for Testing**	**Pollutant**	**Frequency of Testing**	**Authority**
ARS-1 and ARS-2	Baghouses** (BHS-10 and BHS-14)	Not later than180 days after startup	PM, PM10, and PM2.5	Every five (5) years*	326 IAC 2-2 and 326 IAC 6.8

*Every five (5) years from the date of the most recent valid compliance demonstration on one (1) representative baghouse.
** Testing shall alternate between the baghouses controlling emissions from ARS-1 and ARS-2, so that each baghouse shall be tested, at a minimum, once every ten (10) years.

(b) The Compliance Monitoring Requirements applicable to this proposed modification are as follows:

Emission Unit/Control	Operating Parameters	Frequency
Baghouses controlling ARS-1 and ARS-2	Pressure Drop	Once per day

These monitoring conditions are necessary because the baghouses for ARS-1 and ARS-2 must operate properly to assure compliance with 326 IAC 2-2 (Prevention of Significant Deterioration) and 326 IAC 6.8-1-2 (Particulate Matter Limitations for Lake County).

Proposed Changes

The following changes listed below are due to the proposed modification. Deleted language appears as ~~strikethrough~~ text and new language appears as **bold** text:

(1) The new Aluminum Recovery Systems (ARS-1 and ARS-2) are being added to Sections A.2, D.2, and E.1; and the existing Rotary Dross Cooler (DC-1) is being removed as part of this modification.
(2) Section D.2.1 updated to show ARS-1 and ARS-2 are subject to 326 IAC 6.8.
(3) Section D.2.4 includes testing requirements for ARS-1 and ARS-2.
(4) Section D.2.5 includes compliance determination equation for the Aluminum Recovery Systems.
(5) Section D.2.6 includes pressure drop reading requirements for Aluminum Recovery Systems.
(6) Section D.2.8 includes recording keeping for dross throughput and parametric monitoring for the Aluminum Recovery Systems.
(7) Section E.1.2 includes updated federal rule requirements.

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-7-4(c)(3)][326 IAC 2-7-5(14)]

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

***

Aluminum Melting Furnaces & Dross Cooling

***

~~(k) Rotary Dross Cooler (DC-1)~~
~~One (1) rotary dross cooler, identified as the Rotary Dross Cooler, approved in 2008 for construction, with a rated aluminum dross process capacity of 4.0 tons per hour, using a jet pulse baghouse (BHS-10) as control, and exhausting to stack S-22.~~

(k) Aluminum Recovery Systems

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour),

using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under ~~NESHAP~~ 40 CFR 63, Subpart RRR, ~~Rotary Dross Cooler (DC-1)~~ **each of the ARS coolers** is **considered an affected facility**~~defined as a rotary dross cooler with emissions controlled by a fabric filter~~.

***

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

Emissions Unit Description:

***

~~(k) Rotary Dross Cooler (DC-1)~~

~~One (1) rotary dross cooler, identified as the Rotary Dross Cooler, approved in 2008 for construction, with a rated aluminum dross process capacity of 4.0 tons per hour, using a jet pulse baghouse (BHS-10) as control, and exhausting to stack S-22.~~

(k) Aluminum Recovery Systems

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under ~~NESHAP~~ 40 CFR 63, Subpart RRR, ~~Rotary Dross Cooler (DC-1)~~ **each of the ARS coolers** is **considered an affected facility**~~defined as a rotary dross cooler with emissions controlled by a fabric filter~~.

***

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

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

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

(a) Pursuant to 326 IAC 6.8-1-2, emissions of particulate matter from Reverberatory Furnaces #2, #6, and #9, Holding Furnace #1, ~~the Rotary Dross Cooler~~ **Aluminum Recovery Systems ARS-1 and ARS-2**, and the Dross Cooling Operation shall not exceed three-hundredths (0.03) grain per dry standard cubic foot (dscf), each.

***

D.2.3 Particulate Control

(a) In order to ~~ensure~~ **assure** compliance with Condition D.2.1, the baghouses for particulate control shall be in operation and control emissions at all times that the furnaces are in operation. When a furnace is operating in stand-by mode (i.e., no fresh material is being

charged and fuel is being burned to maintain furnace temperature to prevent equipment damage), the baghouse may be temporarily shut down for maintenance activities at the baghouse.

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

***

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

(a) In order to demonstrate compliance with Condition D.0.1, the Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ stack testing at the baghouse exhausts of Reverberatory Furnaces #2, #6, and #9, ~~and the Rotary Dross Cooler,~~ utilizing methods approved by the Commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration.

***

(e) Not later than 180 days after initial startup of the Aluminum Recovery Systems, identified as ARS-1 and ARS-2, and in order to demonstrate compliance with Conditions D.0.1 and D.2.1, the Permittee shall perform PM, PM_{10}, and $PM_{2.5}$ testing on one (1) representative baghouse controlling the Aluminum Recovery Systems, utilizing methods approved by the commissioner at least once every five (5) years from the date of the most recent valid compliance demonstration. Testing shall alternate between the baghouses controlling emissions from ARS-1 and ARS-2, so that each baghouse shall be tested, at a minimum, once every ten (10) years.

***

D.2.5 PM, PM_{10}, $PM_{2.5}$, and VOC Calculations

Emissions of PM, PM_{10}, $PM_{2.5}$, and VOC in Condition D.0.1 shall be determined using the following equations:

***

(b) PM, PM_{10}, and $PM_{2.5}$ emissions from the ~~Rotary Dross Cooler~~ **Aluminum Recovery Systems (ARS-1 and ARS-2)** in tons per month =

~~E_c~~ [(**E_c + U_c** (lbs/ton)**)** x M_c (tons/month)) x (1 ton/2000 pounds)]

Where:

$E_{cPM2.5}$ = 0.51 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.

E_{cPM10} = **0.51 lb/ton, or** ~~T~~**t**he emission factor determined from the most recent IDEM approved stack test~~; and~~**.**

E_{cPM} = 0.17 lb/ton, or the emission factor determined from the most recent IDEM approved stack test.

$U_{c\ PM2.5}$ = 0.271 lb/ton.

$U_{c\ PM10}$ = 0.271 lb/ton

$Uc_{\ PM}$ = 0.088 lb/ton

M_c = Total metal throughput to the ~~Rotary Dross Cooler~~ **Aluminum Recovery Systems** (tons/month).

Note: Uncaptured (U_c) emission factors are based on the calculated uncontrolled emission factors multiplied by one minus the capture efficiency (95%) of the control devices.

***

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

D.2.6 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses used in conjunction with

Reverberatory Furnace #2, Reverberatory Furnace #6, Reverberatory Furnace #9, and the ~~rotary dross cooler~~ **Aluminum Recovery Systems** at least once per day when the three (3) furnaces and the ~~rotary dross cooler~~ **Aluminum Recovery Systems ARS-1 and ARS-2** are in operation. When for any one reading, the pressure drop across a baghouse is outside the normal range, the Permittee shall take a reasonable response. The normal range for these units is a pressure drop between 1.0 and 8.0 inches of water, unless a different upper-bound or lower-bound value for this range is determined during the latest stack test. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the above-mentioned range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

***

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

D.2.8 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.5 and D.2.7, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be complete and sufficient to establish compliance with the emission limits in Condition D.0.1.

(1) The tons of dross processed each month for the ~~rotary dross cooler~~ **Aluminum Recovery Systems ARS-1 and ARS-2** and tons of metal processed each month for each reverberatory furnace (Furnaces #2, #6, and #9) except Holding Furnace #1.

***

(b) To document the compliance status with Condition D.2.6 - Parametric Monitoring, the Permittee shall maintain records of the daily pressure drop readings for the baghouses, identified as BHS-6, BHS-7, BHS-9, BHS-10, BHS-11, ~~and~~ BHS 12**, and BHS-14** used in conjunction with the three (3) reverberatory furnaces and the ~~rotary dross cooler~~ **two (2) aluminum recovery systems**. The Permittee shall include in its daily record when a pressure drop reading is not taken and the reason for the lack of pressure drop reading (e.g. the process did not operate that day).

***

D.3.3 Particulate Control

In order to ~~ensure~~ **assure** compliance with Condition D.3.1, the oil mist collection and removal systems for particulate control shall be in operation and control emissions at all times that the Hot Mill and Cold Mills are in operation.

***

SECTION E.1 NESHAP

Emissions Unit Description:

Aluminum Melting Furnaces & ~~Rotary Dross Cooler~~**Aluminum Recovery Systems**

***

~~(k) Rotary Dross Cooler (DC-1)~~

~~One (1) rotary dross cooler, identified as the Rotary Dross Cooler, approved in 2008 for construction, with a rated aluminum dross process capacity of 4.0 tons per hour, using a jet pulse baghouse (BHS-10) as control, and exhausting to stack S-22.~~

(k) Aluminum Recovery Systems

(1) One (1) Aluminum Recovery System, identified as ARS-1, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-10 as particulate control, and exhausting to stack

S-22.

(2) One (1) Aluminum Recovery System, identified as ARS-2, consisting of dross processing machine, cooled dross supplier, transfer unit, cooler, residual dross particle classifier, and conveyor; approved in 2016 for construction, with a maximum capacity of 7,040 lb/hour (3.52 tons/hour), using baghouse BHS-14 as particulate control, and exhausting to stack S-25.

Under ~~NESHAP~~ 40 CFR 63, Subpart RRR, ~~Rotary Dross Cooler (DC-1)~~ **each of the ARS coolers** is **considered an affected facility**~~defined as a rotary dross cooler with emissions controlled by a fabric filter~~.

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

E.1.2 NESHAP Subpart RRR Requirements [40 CFR 63, Subpart RRR]

Pursuant to 40 CFR, Subpart RRR, the Permittee shall comply with the following provisions of 40 CFR Part 63, Subpart RRR (included as Attachment B to the operating permit), which are incorporated by reference as 326 IAC 20-70, for existing emission units described in this section:

***

40 CFR 63.1501 Dates.
40 CFR 63.1501(a)
40 CFR 63.1501(b)
40 CFR 63.1501(e)

***

40 CFR 63.1506 Operating Requirements
40 CFR 63.1506(a)(1)
40 CFR 63.1506(a)(4)
40 CFR 63.1506(a)(5)
40 CFR 63.1506(b)(1)
40 CFR 63.1506(b)(2)
40 CFR 63.1506(c)**(1)**
40 CFR 63.1506(c)(2)
40 CFR 63.1506(c)(3)
40 CFR 63.1506(d)
40 CFR 63.1506(i)(1)
40 CFR 63.1506(i)(3)
40 CFR 63.1506(j)(1)
40 CFR 63.1506(m)
40 CFR 63.1506(o)
40 CFR 63.1506(p)

40 CFR 63.1510 Monitoring requirements.
40 CFR 63.1510(a)
40 CFR 63.1510(b)
40 CFR 63.1510(c)
40 CFR 63.1510(d)**(1)**
40 CFR 63.1510(d)(2)
40 CFR 63.1510(e)
40 CFR 63.1510(f)(1)
40 CFR 63.1510(h)
40 CFR 63.1510(i)
40 CFR 63.1510(l)
40 CFR 63.1510(n)
40 CFR 63.1510(r)
40 CFR 63.1510(u)

40 CFR 63.1510(w)

***

40 CFR 63.1516 Reports.
40 CFR 63.1516(a)
40 CFR 63.1516(b)(1)(i)
40 CFR 63.1516(b)(1)(iv)
40 CFR 63.1516(b)(1)(v)
40 CFR 63.1516(b)(1)(vi)
40 CFR 63.1516(b)(2)(ii)
40 CFR 63.1516(b)(2)(iii)
40 CFR 63.1516(b)(2)(v)
40 CFR 63.1516(b)(3)
40 CFR 63.1516(c)
40 CFR 63.1516(d)
40 CFR 63.1516(e)

40 CFR 63.1517 Records
40 CFR 63.1517(a)
40 CFR 63.1517(b)(1)(i)
40 CFR 63.1517(b)(7)
40 CFR 63.1517(b)(9)
40 CFR 63.1517(b)(10)
40 CFR 63.1517(b)(12)
40 CFR 63.1517(b)(13)
40 CFR 63.1517(b)(14)
40 CFR 63.1517(b)(15)
40 CFR 63.1517(b)(16)(i)
40 CFR 63.1517(b)(16)(ii)
40 CFR 63.1517(b)(18)

40 CFR 63.1518 Applicability of general provisions.
40 CFR 63.1519 Implementation and enforcement.

***

Conclusion and Recommendation

Unless otherwise stated, information used in this review was derived from the application and additional information submitted by the applicant. An application for the purposes of this review was received on June 30, 2016.

The construction of this proposed modification shall be subject to the conditions of the attached proposed Part 70 Significant Source Modification No. 089-37335-00201. The operation of this proposed modification shall be subject to the conditions of the attached Significant Permit Modification.

The staff recommends to the Commissioner that the Part 70 Significant Source Modification and Significant Permit Modification be approved.

IDEM Contact

(a) Questions regarding this proposed permit can be directed to Joshua Levering at the Indiana Department Environmental Management, Office of Air Quality, Permits Branch, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana 46204-2251 or by telephone at (317) 234-6543 or toll free at 1-800-451-6027, extension 4-6543.

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

(c) For additional information about air permits and how the public and interested parties can participate, refer to the IDEM Permit Guide on the Internet at: http://www.in.gov/idem/5881.htm; and the Citizens' Guide to IDEM on the Internet at: http://www.in.gov/idem/6900.htm.

Appendix A: Emission Calculations
Emissions Summary

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Uncontrolled Potential Emissions (tons/yr)

Emission Unit	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP (HCl)
Annealing Furnace #1	0.07	0.29	0.29	0.02	3.86	4.47	3.25	0.07	0.00
Annealing Furnace #2	0.13	0.52	0.52	0.04	6.87	4.64	5.77	0.12	0.00
Annealing Furnace #3	0.13	0.52	0.52	0.04	6.87	4.64	5.77	0.12	0.00
Annealing Furnace #4	0.11	0.44	0.44	0.03	5.80	4.58	4.87	0.10	0.00
Annealing Furnace #5	0.11	0.44	0.44	0.03	5.80	4.58	4.87	0.10	0.00
Annealing Furnace #6	0.16	0.65	0.65	0.05	8.59	9.00	7.21	0.15	0.00
Alu. Reverberatory Fur. #2*	349.45	213.31	213.31	11.55	8.59	39.18	7.21	0.76	0.61
Alu. Reverberatory Fur. #6*	349.45	213.31	213.31	11.55	8.59	33.27	7.21	0.39	0.24
Alu. Reverberatory Fur. #9*	349.45	213.31	213.31	11.55	8.59	35.47	7.21	21.68	21.52
Holding Furnace #1	0.08	0.33	0.33	0.03	4.29	0.24	3.61	0.08	0.00
ARS-1	27.26	83.42	83.42	0.00	0.00	0.00	0.00	0.00	0.00
ARS-2	27.26	83.42	83.42	0.00	0.00	0.00	0.00	0.00	0.00
Dross Cooling Operation	3.85	3.50	3.50	0.00	0.00	0.00	0.00	0.00	0.00
Hot Rolling Mill	18.87	18.87	18.87	0.00	0.00	26.81	0.00	3.00	0.00
Cold Mill 2	104.07	104.07	104.07	0.00	0.00	36.62	0.00	0.00	0.00
Cold Mill 3	104.07	104.07	104.07	0.00	0.00	36.62	0.00	0.00	0.00
Cold Mill 4	104.07	104.07	104.07	0.00	0.00	36.62	0.00	0.00	0.00
Tension Leveler 1	0.00	0.00	0.00	0.00	0.00	2.89	0.00	0.00	0.00
Tension Leveler 2	0.00	0.00	0.00	0.00	0.00	2.89	0.00	0.00	0.00
Tension Leveler 3	0.00	0.00	0.00	0.00	0.00	2.89	0.00	0.00	0.00
Tension Leveler 4	0.00	0.00	0.00	0.00	0.00	2.89	0.00	0.00	0.00
Boiler #1	0.03	0.14	0.14	0.01	1.80	0.10	1.51	0.03	0.00
Boiler #2	0.03	0.14	0.14	0.01	1.80	0.10	1.51	0.03	0.00
Mobile Bale Breaker	0.23	0.23	0.23	0.00	0.00	0.12	0.00	0.00	0.00
Insignificant Combustion	0.27	0.50	0.47	14.24	5.44	0.22	3.39	0.07	0.00
Stand-by Generator	2.65E-03	0.01	0.01	1.64E-04	0.62	0.01	1.04	0.01	0.00
Degreasing Operations	0.00	0.00	0.00	0.00	0.00	1.65	0.00	0.00	0.00
Fugitives**	11.45	8.11	8.11	0.00	0.00	2.02	0.00	0.00	0.00
Total Emissions	**1,450.64**	**1,153.65**	**1,153.62**	**49.15**	**77.50**	**292.49**	**64.44**	**26.73**	**22.37**

Emissions from the Annealing Furnaces (#1-6) and Reverberatory Furnaces (#2, 6, 9) include process emissions and emissions from combustion
*Reverberatory Furnaces #2, #6, and #9 are permitted to burn either waste oil or natural gas; the worst case emissions is represented.
**Fugitive emissions estimations from Part 70 Operating Permit Renewal No. 089-15690-00201.

Limited Potential Emissions (tons/yr)

Emission Unit	PM	PM10	PM2.5	SO_2	NOx	VOC	CO	Total HAPs	Worst Single HAP (HCl)
Annealing Furnace #1				0.02	3.86		3.25	0.07	0.00
Annealing Furnace #2				0.04	6.87		5.77	0.12	0.00
Annealing Furnace #3				0.04	6.87		5.77	0.12	0.00
Annealing Furnace #4				0.03	5.80		4.87	0.10	0.00
Annealing Furnace #5				0.03	5.80		4.87	0.10	0.00
Annealing Furnace #6				0.05	8.59		7.21	0.15	0.00
Alu. Reverberatory Fur. #2				11.55	8.59		7.21	0.76	0.61
Alu. Reverberatory Fur. #6				11.55	8.59		7.21	0.39	0.24
Alu. Reverberatory Fur. #9				11.55	8.59		7.21	21.68	21.52
Holding Furnace #1				0.03	4.29		3.61	0.08	0.00
ARS-1				0.00	0.00		0.00	0.00	0.00
ARS-2				0.00	0.00		0.00	0.00	0.00
Dross Cooling Operation				0.00	0.00		0.00	0.00	0.00
Hot Rolling Mill	less than	less than	less than	0.00	0.00	less than	0.00	3.00	0.00
Cold Mill 2	99.85	99.01	99.01	0.00	0.00	99.22	0.00	0.00	0.00
Cold Mill 3				0.00	0.00		0.00	0.00	0.00
Cold Mill 4				0.00	0.00		0.00	0.00	0.00
Tension Leveler 1				0.00	0.00		0.00	0.00	0.00
Tension Leveler 2				0.00	0.00		0.00	0.00	0.00
Tension Leveler 3				0.00	0.00		0.00	0.00	0.00
Tension Leveler 4				0.00	0.00		0.00	0.00	0.00
Boiler #1				0.01	1.80		1.51	0.03	0.00
Boiler #2				0.01	1.80		1.51	0.03	0.00
Mobile Bale Breaker				0.00	0.00		0.00	0.00	0.00
Insignificant Combustion				14.24	5.44		3.39	0.07	0.00
Stand-by Generator				1.64E-04	0.62		1.04	0.01	0.00
Degreasing Operations				0.00	0.00		0.00	0.00	0.00
Fugitives*				0.00	0.00		0.00	0.00	0.00
Total Emissions	**less than 99.85**	**less than 99.01**	**less than 99.01**	**49.15**	**77.50**	**less than 99.22**	**64.44**	**26.73**	**22.37**

*Fugitive emissions estimations from Part 70 Operating Permit Renewal No. 089-15690-00201.

Appendix A: Emission Calculations
Annealing Furnaces (Page 1 of 2)

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Annealing Furnace #1

Process	Rate (tons/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (lb/ton)	Emissions After Controls (lb/ton)	Type of Control	Control Efficiency (%)
Annealing Furnace #1	4.86	PM	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-10	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-2.5	8.70E-06	1.85E-04	1.85E-04	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.20	4.26	4.26		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
VOC Emission Factor based on FIRE 6.01 SCC# 3-04-001-12
PM/PM10/PM2.5 Emission factor based on May 17, 2011 Stack Test performed on Annealing Furnace #4.

Annealing Furnace #2

Process	Rate (tons/hr) (tons/hr)	Pollutant	Emission Factor (lb/ton) (lb/ton)	Before Control (lb/ton) (tons/yr)	Controls (lb/ton) (tons/yr)	Type of Control	Efficiency (%) (%)
Annealing Furnace #2	4.86	PM	8.70E-06	1.85E-04	1.85E-04	none	none
		PM-10	8.70E-06	1.85E-04	1.85E-04	none	none
		PM-2.5	8.70E-06	1.85E-04	1.85E-04	none	none
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.20	4.26	4.26		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
VOC Emission Factor based on FIRE 6.01 SCC# 3-04-001-12
PM/PM10/PM2.5 Emission factor based on May 17, 2011 Stack Test performed on Annealing Furnace #4.

Annealing Furnace #3

Process	Rate (tons/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (lb/ton)	Emissions After Controls (lb/ton)	Type of Control	Control Efficiency (%)
Annealing Furnace #3	4.86	PM	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-10	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-2.5	8.70E-06	1.85E-04	1.85E-04	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.20	4.26	4.26		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
VOC Emission Factor based on FIRE 6.01 SCC# 3-04-001-12
PM/PM10/PM2.5 Emission factor based on May 17, 2011 Stack Test performed on Annealing Furnace #4.

Appendix A: Emission Calculations
Annealing Furnaces (Page 2 of 2)

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Annealing Furnace #4

Process	Rate (tons/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (lb/ton)	Emissions After Controls (lb/ton)	Type of Control	Control Efficiency (%)
Annealing Furnace #4	4.86	PM	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-10	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-2.5	8.70E-06	1.85E-04	1.85E-04	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.20	4.26	4.26		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
VOC Emission Factor based on FIRE 6.01 SCC# 3-04-001-12
PM/PM10/PM2.5 Emission factor based on May 17, 2011 Stack Test.

Annealing Furnace #5

Process	Rate (tons/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (lb/ton)	Emissions After Controls (lb/ton)	Type of Control	Control Efficiency (%)
Annealing Furnace #5	4.86	PM	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-10	8.70E-06	1.85E-04	1.85E-04	None	None
		PM-2.5	8.70E-06	1.85E-04	1.85E-04	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.20	4.26	4.26		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
VOC Emission Factor based on FIRE 6.01 SCC# 3-04-001-12
PM/PM10/PM2.5 Emission factor based on May 17, 2011 Stack Test performed on Annealing Furnace #4.

Annealing Furnace #6

Process	Rate (tons/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (lb/ton)	Emissions After Controls (lb/ton)	Type of Control	Control Efficiency (%)
Annealing Furnace #6	9.73	PM	8.70E-06	3.71E-04	3.71E-04	None	None
		PM-10	8.70E-06	3.71E-04	3.71E-04	None	None
		PM-2.5	8.70E-06	3.71E-04	3.71E-04	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.20	8.52	8.52		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
VOC Emission Factor based on FIRE 6.01 SCC# 3-04-001-12
PM/PM10/PM2.5 Emission factor based on May 17, 2011 Stack Test performed on Annealing Furnace #4.

Appendix A: Emission Calculations
Reverberatory Furnaces

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Reverberatory Furnace #2

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Aluminum Reverberatory Furnace #2	18	PM	4.30	339.01	16.95	Baghouse	95.00%
		PM-10	2.60	204.98	10.25	Baghouse	95.00%
		PM-2.5	2.16	170.29	8.51	Baghouse	95.00%
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC*	0.489	38.55	38.55		
		CO	-	0.00	0.00		
		HCl**	0.008	0.61	0.61		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-03
*VOC emission factor from stack test conducted August 2011.
**HCl emission factor from 2011 and 2012 stack test results at the source.

Reverberatory Furnace #6

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Aluminum Reverberatory Furnace #6	18	PM	4.30	339.01	16.95	Baghouse	95.00%
		PM-10	2.60	204.98	10.25	Baghouse	95.00%
		PM-2.5	2.16	170.29	8.51	Baghouse	95.00%
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC*	0.414	32.64	32.64		
		CO	-	0.00	0.00		
		HCl**	0.003	0.24	0.24		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-03
*VOC emission factor from stack test conducted August 15, 2011.
**HCl emission factor from 2011 and 2012 stack test results at the source.

Reverberatory Furnace #9

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Aluminum Reverberatory Furnace #9	18	PM	4.30	339.01	16.95	Baghouse	95.00%
		PM-10	2.60	204.98	10.25	Baghouse	95.00%
		PM-2.5	2.16	170.29	8.51	Baghouse	95.00%
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.442	34.85	34.85		
		CO	-	0.00	0.00		
		HCl	0.273	21.52	21.52		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-03
*VOC emission factor from stack test conducted August 18, 2011.
**HCl emission factor from stack test conducted August 18, 2011.

Appendix A: Emission Calculations
Dross Cooling Operations

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Dross Cooling Operation

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Dross Cooling Operation	4.0	PM	0.220	3.85	3.85	None	None
		PM-10	0.200	3.50	3.50	None	None
		PM-2.5	0.200	3.50	3.50	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	-	0.00	0.00		
		CO	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-07
Assumed PM2.5 equals PM10.

Appendix A: Emission Calculations
Aluminum Recovery System (ARS-1 and ARS-2)

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Maximum Hot Dross Processing Rate (One Unit)	800	kg/cycle
Time for each Cycle	15	min
Maximum Hot Dross Processing Rate (One Unit)	7040	lb/hr
Maximum Hot Dross Processing Rate (One Unit)	3.52	tons/hr
Hours Per Year	8760	hrs/yr
Baghouse Control Efficiency	90	%
Capture Efficiency	95	%
Factor of Safety[1]	2	--
Rotary Dross Cooler Total PM Emission Factor (after control)[2]	0.084	lb/ton
Rotary Dross Cooler Total PM Emission Factor (before control)	0.88	lb/ton
Rotary Dross Cooler Total PM_{10} and $PM_{2.5}$ Emission Factor (after control)[2]	0.257	lb/ton
Rotary Dross Cooler Total PM10 and PM2.5 Emission Factor (before control)	2.71	lb/ton
ARS Unit Total PM Emission Factor (after control)[3]	0.17	lb/ton
ARS Unit Total PM Emission Factor (before control)	1.77	lb/ton
ARS Unit Total PM10 and PM2.5 Emission Factor (after control)[3]	0.51	lb/ton
ARS Unit Total PM10 and PM2.5 Emission Factor (before control)	5.41	lb/ton

	Emissions from One ARS Unit					Emissions from Two ARS Units				
	Emissions After Control	Emissions Before Control	Total Before Control Emissions including Uncaptured Emissions	Uncaptured Emissions	Total After Control Emissions Including Uncaptured Emissions	Emissions After Control	Emissions Before Control	Total Before Control Emissions including Uncaptured Emissions	Uncaptured Emissions	Total After Control Emissions Including Uncaptured Emissions
	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr	tons/yr
PM	2.59	25.90	27.26	1.36	3.95	5.18	51.80	54.53	2.73	7.91
PM_{10}	7.92	79.25	83.42	4.17	12.10	15.85	158.49	166.83	8.34	24.19
$PM_{2.5}$	7.92	79.25	83.42	4.17	12.10	15.85	158.49	166.83	8.34	24.19

Methodology

Emissions After Control = Maximum Hot Dross Processing Rate (tons/hr) * Total PM Emission Factor after control (lb/ton) * 8760 hrs/yr
Emissions Before Control (tons/yr) = Emissions After Control (tons/yr) * 100 / (100 - Baghouse Control Efficiency %)
Total Before Control Emissions including Uncaptured Emissions (tons/yr) = Emissions Before Control (tons/yr) * 100 / Capture Efficiency %
Uncaptured Emissions (tons/yr) = Total Before Control Emissions including Uncaptured Emissions (tons/yr) * (100 - Capture Efficiency %) / 100
Total After Control Emissions Including Uncaptured Emissions (tons/yr) = Emissions After Control (tons/yr) + Uncaptured Emissions (tons/yr)
All values for Emissions from Two ARS Units table are the values from Emissions from One ARS Unit multiplied by 2.

Notes:
[1] Factor of Safety is to account for emissions from dross processing machine, material transfer and conveying during process.
[2] Emission factors are taken from stack test performed on existing Rotary Dross Cooler (DC-1) at the facility in August, 2015.
[3] ARS emission factor is estimated by multiplying Rotary Dross Cooler emission factor by Factor of Safety.

Appendix A: Emission Calculations
Waste Oil Use, Reverberatory Furnaces

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Reverb Furnace #2
(Waste Oil Combustion)
CNTRL DEV: baghouse

MDC (mmBtu/hr): 20
MDR (mgal/hr): 0.143

HEAT CONTENT (Btu/gal): 139,586
ASH CONTENT (%): 0.26
SULFUR CONTENT (%): 0.22

Heat Content, Percent Ash and Sulfur are averages of waste oil analyses performed during SO2 testing of 3/30/04.

waste oil
air-atomized burner
SCC NO. 1-05-001-13

OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS					
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(lbs/mgal)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	**(TPY)**	(gr/dscf)
PM	16.64	0.95	2.38	57.22	10.44	0.12	0.52	N/A
PM10/PM2.5	13.26	0.95	1.90	45.60	8.32	0.09	0.42	N/A
SOx	18.4	0	2.64	63.27	11.55	2.64	11.55	N/A
NOx	8.0	0	1.15	27.51	5.02	1.15	5.02	N/A
VOC	1	0	0.14	3.44	0.63	0.14	0.63	N/A
CO	2.1	0	0.30	7.22	1.32	0.30	1.32	N/A
LEAD	0.205	0.95	0.03	0.70	0.13	0.00	0.01	N/A

Reverb Furnace #6
(Waste Oil Combustion)
CNTRL DEV: baghouse

MDC (mmBtu/hr): 20
MDR (mgal/hr): 0.143

HEAT CONTENT (Btu/gal): 139,586
ASH CONTENT (%): 0.26
SULFUR CONTENT (%): 0.22

Heat Content, Percent Ash and Sulfur are averages of waste oil analyses performed during SO2 testing of 3/30/04.

waste oil
air-atomized burner
SCC NO. 1-05-001-13

OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS					
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(lbs/mgal)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	**(TPY)**	(gr/dscf)
PM	16.64	0.95	2.38	57.22	10.44	0.12	0.52	N/A
PM10/PM2.5	13.26	0.95	1.90	45.60	8.32	0.09	0.42	N/A
SOx	18.4	0	2.64	63.27	11.55	2.64	11.55	N/A
NOx	8.0	0	1.15	27.51	5.02	1.15	5.02	N/A
VOC	1	0	0.14	3.44	0.63	0.14	0.63	N/A
CO	2.1	0	0.30	7.22	1.32	0.30	1.32	N/A
LEAD	0.205	0.95	0.03	0.70	0.13	0.00	0.01	N/A

Reverb Furnace #9
(Waste Oil Combustion)
CNTRL DEV: baghouse

MDC (mmBtu/hr): 20
MDR (mgal/hr): 0.143

HEAT CONTENT (Btu/gal): 139,586
ASH CONTENT (%): 0.26
SULFUR CONTENT (%): 0.22

Heat Content, Percent Ash and Sulfur are averages of waste oil analyses performed during SO2 testing of 3/30/04.

waste oil
air-atomized burner
SCC NO. 1-05-001-13

OPERATING HRS: **8760** hr/yr

			POTENTIAL EMISSIONS					
			BEFORE CONTROLS			AFTER CONTROLS		
POLLUTANT	EF(lbs/mgal)	CE (%)	(lbs/hr)	(lbs/day)	**(TPY)**	(lbs/hr)	**(TPY)**	(gr/dscf)
PM	16.64	0.95	2.38	57.22	10.44	0.12	0.52	N/A
PM10/PM2.5	13.26	0.95	1.90	45.60	8.32	0.09	0.42	N/A
SOx	18.4	0	2.64	63.27	11.55	2.64	11.55	N/A
NOx	8.0	0	1.15	27.51	5.02	1.15	5.02	N/A
VOC	1	0	0.14	3.44	0.63	0.14	0.63	N/A
CO	2.1	0	0.30	7.22	1.32	0.30	1.32	N/A
LEAD	0.205	0.95	0.03	0.70	0.13	0.00	0.01	N/A

Notes
PM10 assumed to equal PM2.5.
Emission Factors from ash content and SO2 stack test 3/30/04.
HCl emission factor from Subpart RRR testing.
NOx reduced 50%, O2 enriched combustion.
EF for lead from certificate of analysis - 26 ppm x 7.88 lbs/gal x 1000 = 0.205 lb/mgal.
Fugitive emissions from source Minor PSD application; PM 2.37 TPY, PM10 1.43 TPY, and VOC 0.28 TPY are based on minor limit througput 55,000 tons, submitted by the applicant for Furnaces #2, #6, and #9.

Methodology
Uncontrolled Emissions = Capacity (mgal/hr)*Emission Factor (lb/mgal)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Capacity (mgal/hr)*Emission Factor (lb/mgal)*(1-Control Efficiency%)*8760hrs/yr *1ton/2000lb

Appendix A: Emission Calculations
Mills

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Hot Rolling Mill

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Hot Rolling Mill	34.2	PM	0.126	18.87	2.74	Oil Mist Collection	85.50%
		PM-10	0.126	18.87	2.74		85.50%
		PM-2.5	0.126	18.87	2.74		85.50%
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.179	26.81	19.17	Removal System	28.50%
		CO	-	0.00	0.00		
		HAPs	0.02	3.00	0.75		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50
Assuming PM2.5 equals PM10.

Cold Mill 2

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Cold Mill 2	22	PM	1.08	104.07	55.36	Oil Mist Collection	46.80%
		PM-10	1.08	104.07	55.36		46.80%
		PM-2.5	1.08	104.07	55.36		46.80%
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.38	36.62	34.97	Removal System	4.50%
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50

Cold Mill 3

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Cold Mill 3	22.0	PM	1.08	104.07	55.36	Oil Mist Collection	46.80%
		PM-10	1.08	104.07	55.36		46.80%
		PM-2.5	1.08	104.07	55.36		46.80%
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.38	36.62	34.97	Removal System	4.50%
		CO	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50

Cold Mill 4

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Cold Mill 4	22.0	PM	1.08	104.07	55.36	Oil Mist Collection	46.80%
		PM-10	1.08	104.07	55.36		46.80%
		PM-2.5	1.08	104.07	55.36		46.80%
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.38	36.62	34.97	Removal System	4.50%
		CO	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50

Appendix A: Emission Calculations
Tension Levelers

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Tension Leveler 1

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Tension Leveler 1	22.0	PM	-	0.00	0.00	None	None
		PM-10	-	0.00	0.00	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.03	2.89	2.89		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50

Tension Leveler 2

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Tension Leveler 2	22.0	PM	-	0.00	0.00	None	None
		PM-10	-	0.00	0.00	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.03	2.89	2.89		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50

Tension Leveler 3

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Tension Leveler 3	22.0	PM	-	0.00	0.00	None	None
		PM-10	-	0.00	0.00	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.03	2.89	2.89		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50

Tension Leveler 4

Process	Rate (tons/hr)	Pollutant	Ef (lb/ton)	Ebc (tons/yr)	Eac (tons/yr)	Type of Control	Control Efficiency (%)
Tension Leveler 4	22.0	PM	-	0.00	0.00	None	None
		PM-10	-	0.00	0.00	None	None
		SO2	-	0.00	0.00		
		NOx	-	0.00	0.00		
		VOC	0.03	2.89	2.89		
		CO	-	0.00	0.00		
		Lead	-	0.00	0.00		

Methodology
Uncontrolled Emissions = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Controlled Emissions = Uncontrolled Emissions*(1- Control Efficiency)
Emission Factor based on FIRE 6.01 SCC# 3-04-001-50

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Boiler #1

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr	Boiler #1 (BS-10.1) 4.185 MMBtu/hr, stack S-17
4.185	1020	35.9	

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.03	0.14	0.14	0.01	1.80	0.10	1.51

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	3.774E-05	2.157E-05	1.348E-03	3.235E-02	6.110E-05	**3.382E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	8.985E-06	1.977E-05	2.516E-05	6.829E-06	3.774E-05	**9.848E-05**
					Total HAPs	**3.391E-02**
					Worst HAP	**3.235E-02**

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Boiler #2

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr	Boiler #2 (BS-10.2) 4.185 MMBtu/hr, stack S-18
4.185	1020	35.9	

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.03	0.14	0.14	0.01	1.80	0.10	1.51

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	3.774E-05	2.157E-05	1.348E-03	3.235E-02	6.110E-05	**3.382E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	8.985E-06	1.977E-05	2.516E-05	6.829E-06	3.774E-05	**9.848E-05**

Total HAPs	**3.391E-02**
Worst HAP	**3.235E-02**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Annealing Furnace #1

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
9.0	1020	77.3

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.07	0.29	0.29	0.02	3.86	0.21	3.25

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	8.116E-05	4.638E-05	2.899E-03	6.956E-02	1.314E-04	**7.272E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.932E-05	4.251E-05	5.411E-05	1.469E-05	8.116E-05	**2.118E-04**
					Total HAPs	**7.293E-02**
					Worst HAP	**6.956E-02**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Annealing Furnace #2

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
16.0	1020	137.4

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.13	0.52	0.52	0.04	6.87	0.38	5.77

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.443E-04	8.245E-05	5.153E-03	1.237E-01	2.336E-04	**1.293E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	3.435E-05	7.558E-05	9.619E-05	2.611E-05	1.443E-04	**3.765E-04**

Total HAPs	**1.297E-01**
Worst HAP	**1.237E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Annealing Furnace #3

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
16.0	1020	137.4

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.13	0.52	0.52	0.04	6.87	0.38	5.77

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.443E-04	8.245E-05	5.153E-03	1.237E-01	2.336E-04	**1.293E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	3.435E-05	7.558E-05	9.619E-05	2.611E-05	1.443E-04	**3.765E-04**
					Total HAPs	**1.297E-01**
					Worst HAP	**1.237E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Annealing Furnace #4

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
13.5	1020	115.9

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.11	0.44	0.44	0.03	5.80	0.32	4.87

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.217E-04	6.956E-05	4.348E-03	1.043E-01	1.971E-04	**1.091E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.899E-05	6.377E-05	8.116E-05	2.203E-05	1.217E-04	**3.177E-04**

Total HAPs	**1.094E-01**
Worst HAP	**1.043E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Annealing Furnace #5

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
13.5	1020	115.9

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.11	0.44	0.44	0.03	5.80	0.32	4.87

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.217E-04	6.956E-05	4.348E-03	1.043E-01	1.971E-04	**1.091E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.899E-05	6.377E-05	8.116E-05	2.203E-05	1.217E-04	**3.177E-04**

Total HAPs	**1.094E-01**
Worst HAP	**1.043E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Annealing Furnace #6

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
20.0	1020	171.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.16	0.65	0.65	0.05	8.59	0.47	7.21

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.804E-04	1.031E-04	6.441E-03	1.546E-01	2.920E-04	**1.616E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.294E-05	9.447E-05	1.202E-04	3.264E-05	1.804E-04	**4.706E-04**
					Total HAPs	**1.621E-01**
					Worst HAP	**1.546E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Reverberatory Furnace #2

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
20.0	1020	171.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.16	0.65	0.65	0.05	8.59	0.47	7.21

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.804E-04	1.031E-04	6.441E-03	1.546E-01	2.920E-04	**1.616E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.294E-05	9.447E-05	1.202E-04	3.264E-05	1.804E-04	**4.706E-04**

Total HAPs	**1.621E-01**
Worst HAP	**1.546E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Reverberatory Furnace #6

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
20.0	1020	171.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.16	0.65	0.65	0.05	8.59	0.47	7.21

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.804E-04	1.031E-04	6.441E-03	1.546E-01	2.920E-04	**1.616E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.294E-05	9.447E-05	1.202E-04	3.264E-05	1.804E-04	**4.706E-04**

Total HAPs	**1.621E-01**
Worst HAP	**1.546E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Reverberatory Furnace #9

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
20.0	1020	171.8

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.16	0.65	0.65	0.05	8.59	0.47	7.21

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	1.804E-04	1.031E-04	6.441E-03	1.546E-01	2.920E-04	**1.616E-01**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	4.294E-05	9.447E-05	1.202E-04	3.264E-05	1.804E-04	**4.706E-04**

Total HAPs	**1.621E-01**
Worst HAP	**1.546E-01**

Methodology is the same as above.

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

Appendix A: Emission Calculations
Natural Gas Combustion Only
MM BTU/HR <100
Holding Furnace #1

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
10.0	1020	85.9

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.08	0.33	0.33	0.03	4.29	0.24	3.61

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	9.018E-05	5.153E-05	3.221E-03	7.729E-02	1.460E-04	**8.080E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	2.147E-05	4.724E-05	6.012E-05	1.632E-05	9.018E-05	**2.353E-04**

Total HAPs	**8.104E-02**
Worst HAP	**7.729E-02**

Methodology is the same as above.

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

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

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Heat Input Capacity MMBtu/hr	HHV mmBtu/mmscf	Potential Throughput MMCF/yr
8.0	1020	68.7

	Pollutant						
	PM*	PM10*	direct PM2.5*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.07	0.26	0.26	0.02	3.44	0.19	2.89

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
PM2.5 emission factor is filterable and condensable PM2.5 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
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
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

HAPS Calculations

	HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene	**Total - Organics**
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	
Potential Emission in tons/yr	7.214E-05	4.122E-05	2.576E-03	6.184E-02	1.168E-04	**6.464E-02**

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	**Total - Metals**
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03	
Potential Emission in tons/yr	1.718E-05	3.779E-05	4.809E-05	1.305E-05	7.214E-05	**1.883E-04**

Total HAPs	**6.483E-02**
Worst HAP	**6.184E-02**

Methodology is the same as above.

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

Appendix A: Emission Calculations
No. 1 Fuel Oil (Kerosene)
Insignificant Combustion

Source Name: **Jupiter Aluminum Corporation**
Source Location: **1745 165th Street, Hammond, IN 46320**
Permit Number: **T089-34861-00201**
Significant Source Modification No.: **089-37335-00201**
Significant Permit Modification No.: **089-37419-00201**
Permit Reviewer: **Joshua Levering**

Heat Input Capacity MMBtu/hr	Potential Throughput kgals/year	S = Weight % Sulfur
3.2	200.23	0.5

	Pollutant						
	PM*	PM10	direct PM2.5	SO2	NOx	VOC	CO
Emission Factor in lb/kgal	2.0	2.4	2.1	142 *(142.0S)*	20.0	0.34	5.0
Potential Emission in tons/yr	0.20	0.24	0.21	14.22	2.00	0.03	0.50

Methodology
1 gallon of No. 1 Fuel Oil has a heating value of 140,000 Btu

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.140 MM Btu

Emission Factors are from AP 42, Tables 1.3-1, 1.3-2, and 1.3-3 (SCC 1-03-005-01/02/03) Supplement E 9/98 (see erata file)

*PM emission factor is filterable PM only. Condensable PM emission factor is 1.3 lb/kgal.
Emission (tons/yr) = Throughput (kgals/ yr) x Emission Factor (lb/kgal)/2,000 lb/ton

	HAPs - Metals				
	Arsenic	Beryllium	Cadmium	Chromium	Lead
Emission Factor in lb/mmBtu	4.0E-06	3.0E-06	3.0E-06	3.0E-06	9.0E-06
Potential Emission in tons/yr	5.61E-05	4.20E-05	4.20E-05	4.20E-05	1.26E-04

	HAPs - Metals (continued)			
	Mercury	Manganese	Nickel	Selenium
Emission Factor in lb/mmBtu	3.0E-06	6.0E-06	3.0E-06	1.5E-05
Potential Emission in tons/yr	4.20E-05	8.41E-05	4.20E-05	2.10E-04

Total HAPs	**6.87E-04**
Worst HAP	**2.10E-04**

Methodology
No data was available in AP-42 for organic HAPs.
Potential Emissions (tons/year) = Throughput (mmBtu/hr)*Emission Factor (lb/mmBtu)*8,760 hrs/yr / 2,000 lb/ton

Appendix A: Emission Calculations
Mobile Bale Breaker

Source Name: **Jupiter Aluminum Corporation**
Source Location: **1745 165th Street, Hammond, IN 46320**
Permit Number: **T089-34861-00201**
Significant Source Modification No.: **089-37335-00201**
Significant Permit Modification No.: **089-37419-00201**
Permit Reviewer: **Joshua Levering**

Mobile Bale Breaker

Process	Capacity (tons/hr)	Pollutant	Emission Factor (lb/ton)	Emissions Before Control (tons/yr)	Emissions After Control (tons/yr)	Potential Emissions (tons/yr)
Mobile Bale Breaker	10	PM	0.00257	0.1126	0.1126	0.23
		PM-10	0.00257	0.1126	0.1126	0.23
		PM-2.5	0.00257	0.1126	0.1126	0.23
		NOx	0.00	0.0000	0.0000	0.00
		VOC	0.00136	0.0596	0.0596	0.12
		CO	0.00	0.0000	0.0000	0.00
		HAPs	0.00	0.0000	0.0000	0.00

Methodology
Emissions Before Control = Capacity (tons/hr)*Emission Factor (lb/ton)*8760hrs/yr *1ton/2000lb
Emissions After Control = Emissions Before Control
Potential Emissions = Emissions After Control * Safety Factor (2.0)
Assumed: PM=PM10=PM2.5
PM Emission Factor based on Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" (Appendix D, Table D-10.F)
VOC Emission Factor based on Institute of Scrap Recycling Industries, Inc. "Title V Applicability Workbook" (Appendix D, Table D-11.F)

Appendix A: Emission Calculations
Reciprocating Internal Combustion Engines - Natural Gas
4-Stroke Rich-Burn (4SRB) Engines

Source Name: Jupiter Aluminum Corporation
Source Location: 1745 165th Street, Hammond, IN 46320
Permit Number: T089-34861-00201
Significant Source Modification No.: 089-37335-00201
Significant Permit Modification No.: 089-37419-00201
Permit Reviewer: Joshua Levering

Maximum Output Horsepower Rating (hp)	147
Brake Specific Fuel Consumption (BSFC) (Btu/hp-hr)	7600
Maximum Hours Operated per Year (hr/yr)	500
Potential Fuel Usage (MMBtu/yr)	559
High Heat Value (MMBtu/MMscf)	1020
Potential Fuel Usage (MMcf/yr)	0.55

Stand-by Generator, January 2005

	Pollutant						
Criteria Pollutants	PM*	PM10*	PM2.5*	SO2	NOx	VOC	CO
Emission Factor (lb/MMBtu)	9.50E-03	1.94E-02	1.94E-02	5.88E-04	2.21E+00	2.96E-02	3.72E+00
Potential Emissions (tons/yr)	2.65E-03	5.42E-03	5.42E-03	1.64E-04	0.62	8.27E-03	1.04

*PM emission factor is for filterable PM-10. PM10 emission factor is filterable PM10 + condensable PM.
PM2.5 emission factor is filterable PM2.5 + condensable PM.

Hazardous Air Pollutants (HAPs)

Pollutant	Emission Factor (lb/MMBtu)	Potential Emissions (tons/yr)
Acetaldehyde	2.79E-03	0.001
Acrolein	2.63E-03	0.001
Benzene	1.58E-03	0.000
1,3-Butadiene	6.63E-04	0.000
Formaldehyde	2.05E-02	0.006
Methanol	3.06E-03	0.001
Total PAH**	1.41E-04	0.000
Toluene	5.58E-04	0.000
Xylene	1.95E-04	0.000
	Total	**8.97E-03**

HAP pollutants consist of the nine highest HAPs included in AP-42 Table 3.2-3.
**PAH = Polyaromatic Hydrocarbon (PAHs are considered HAPs, since they are considered Polycyclic Organic Matter)

Methodology
Emission Factors are from AP-42 (Supplement F, July 2000), Table 3.2-3
Potential Fuel Usage (MMBtu/yr) = [Maximum Output Horsepower Rating (hp)] * [Brake Specific Fuel Consumption (Btu/hp-hr)] * [Maximum Hours Operated per Year (hr/yr)] / [1,000,000 Btu/MMBtu]
Potential Emissions (tons/yr) = [Potential Fuel Usage (MMBtu/yr)] * [Emission Factor (lb/MMBtu)] / [2000 lb/ton]

Appendix A: Emissions Calculations
VOC and HAPs
Degreasing Operations

Source Name: **Jupiter Aluminum Corporation**
Source Location: **1745 165th Street, Hammond, IN 46320**
Permit Number: **T089-34861-00201**
Significant Source Modification No.: **089-37335-00201**
Significant Permit Modification No.: **089-37419-00201**
Permit Reviewer: **Joshua Levering**

Material	VOC emission factor (ton/yr/unit)	Number of Units	**Uncontrolled PTE VOC (ton/yr)**	Emission Reduction Factor (%)	**Controlled PTE VOC (ton/yr)**
Crystal Clean 142^{+} Mineral Spirits	0.33	5	1.65	50%	0.83

Note
VOC Emission Factor is from AP-42, Chapter 4.6, Table 4.6-2 (Cold cleaner - entire unit).
Emission Reduction Factor from AP-42, Chapter 4.6, Table 4.6-3. (Total Emission Reduction % Range 28 - 83)
The source has requested to use the above methodology for determining potential VOC emissions from their degreasing operations in lieu of using site specific solvent usage. Based on records provided by the Permittee of actual solvent usage for 2013 and 2014, VOC emission estimations using AP-42 are more conservative than if using the source's actual solvent usage rates and VOC content.

METHODOLOGY
Uncontrolled VOC (ton/yr) = VOC Emission Factor (ton/yr/unit) * Number of Units
Controlled VOC PTE (ton/yr) = Uncontrolled VOC (ton/yr) * (1 - Emission Reduction Factor (%))

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

September 29, 2016

Mr. Mark Volkmann
Jupiter Aluminum Corporation
1745 165th Street
Hammond, IN 46320

Re: Public Notice
Jupiter Aluminum Corporation
Permit Level: Title V Significant Source Modification and Significant Permit Modification
Permit Number: 089-37335-00201 and 089-37419-00201

Dear Mr. Volkmann:

Enclosed is a copy of your draft Title V Significant Source Modification and Significant Permit Modification, Technical Support Document, emission calculations, and the Public Notice which will be printed in your local newspaper.

The Office of Air Quality (OAQ) has prepared two versions of the Public Notice Document. The abbreviated version will be published in the newspaper, and the more detailed version will be made available on the IDEM's website and provided to interested parties. Both versions are included for your reference. The OAQ has requested that the Post Tribune in Merrillville, Indiana and The Times in Munster, Indiana publish the abbreviated version of the public notice no later than October 4, 2016. You will not be responsible for collecting any comments, nor are you responsible for having the notice published in the newspaper.

OAQ has submitted the draft permit package to the Hammond Public Library, 564 State Street in Hammond, Indiana. As a reminder, you are obligated by 326 IAC 2-1.1-6(c) to place a copy of the complete permit application at this library no later than ten (10) days after submittal of the application or additional information to our department. We highly recommend that even if you have already placed these materials at the library, that you confirm with the library that these materials are available for review and request that the library keep the materials available for review during the entire permitting process.

Please review the enclosed documents carefully. This is your opportunity to comment on the draft permit and notify the OAQ of any corrections that are needed before the final decision. Questions or comments about the enclosed documents should be directed to Joshua Levering, Indiana Department of Environmental Management, Office of Air Quality, 100 N. Senate Avenue, Indianapolis, Indiana, 46204 or call (800) 451-6027, and ask for extension 4-6543 or dial (317) 234-6543.

Sincerely,

Vivian Haun

Vivian Haun
Permits Branch
Office of Air Quality

Enclosures
PN Applicant Cover letter 2/17/2016

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Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

September 29, 2016

The Post Tribune
1433 E. 83rd Avenue
Merrillville, IN 46410

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Jupiter Aluminum Corporation, Lake County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than October 4, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vivian Haun at 800-451-6027 and ask for extension 3-6878 or dial 317-233-6878.

Sincerely,

Vivian Haun

Vivian Haun
Permit Branch
Office of Air Quality

Permit Level: Title V Significant Source Modification and Significant Permit Modification
Permit Number: 089-37335-00201 and 089-37419-00201

Enclosure
PN Newspaper.dot 8/27/2015

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

ATTENTION: PUBLIC NOTICES, LEGAL ADVERTISING

September 29, 2016

The Times
601 West 45th Avenue
Munster, IN 46321

Enclosed, please find one Indiana Department of Environmental Management Notice of Public Comment for Jupiter Aluminum Corporation, Lake County, Indiana.

Since our agency must comply with requirements which call for a Notice of Public Comment, we request that you print this notice one time, no later than October 4, 2016.

Please send a notarized form, clippings showing the date of publication, and the billing to the Indiana Department of Environmental Management, Accounting, Room N1345, 100 North Senate Avenue, Indianapolis, Indiana, 46204.

To ensure proper payment, please reference account # 100174737.

We are required by the Auditor's Office to request that you place the Federal ID Number on all claims. If you have any conflicts, questions, or problems with the publishing of this notice or if you do not receive complete public notice information for this notice, please call Vivian Haun at 800-451-6027 and ask for extension 3-6878 or dial 317-233-6878.

Sincerely,

Vivian Haun

Vivian Haun
Permit Branch
Office of Air Quality

Permit Level: Title V Significant Source Modification and Significant Permit Modification
Permit Number: 089-37335-00201 and 089-37419-00201

Enclosure
PN Newspaper.dot 8/27/2015

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Michael R. Pence
Governor

Carol S. Comer
Commissioner

September 29, 2016

To: Hammond Public Library

From: Matthew Stuckey, Branch Chief
Permits Branch
Office of Air Quality

Subject: **Important Information to Display Regarding a Public Notice for an Air Permit**

Applicant Name: Jupiter Aluminum Corporation
Permit Number: 089-37335-00201 and 089-37419-00201

Enclosed is a copy of important information to make available to the public. This proposed project is regarding a source that may have the potential to significantly impact air quality. Librarians are encouraged to educate the public to make them aware of the availability of this information. The following information is enclosed for public reference at your library:

- Notice of a 30-day Period for Public Comment
- Request to publish the Notice of 30-day Period for Public Comment
- Draft Permit and Technical Support Document

You will not be responsible for collecting any comments from the citizens. Please refer all questions and request for the copies of any pertinent information to the person named below.

Members of your community could be very concerned in how these projects might affect them and their families. **Please make this information readily available until you receive a copy of the final package.**

If you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185. Questions pertaining to the permit itself should be directed to the contact listed on the notice.

Enclosures
PN Library.dot 2/16/2016

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Carol S. Comer
Commissioner

Notice of Public Comment

September 29, 2016
Jupiter Aluminum Corporation
089-37335-00201 and 089-37419-00201

Dear Concerned Citizen(s):

You have been identified as someone who could potentially be affected by this proposed air permit. The Indiana Department of Environmental Management, in our ongoing efforts to better communicate with concerned citizens, invites your comment on the draft permit.

Enclosed is a Notice of Public Comment, which has been placed in the Legal Advertising section of your local newspaper. The application and supporting documentation for this proposed permit have been placed at the library indicated in the Notice. These documents more fully describe the project, the applicable air pollution control requirements and how the applicant will comply with these requirements.

If you would like to comment on this draft permit, please contact the person named in the enclosed Public Notice. Thank you for your interest in the Indiana's Air Permitting Program.

Please Note: *If you feel you have received this Notice in error, or would like to be removed from the Air Permits mailing list, please contact Patricia Pear with the Air Permits Administration Section at 1-800-451-6027, ext. 3-6875 or via e-mail at PPEAR@IDEM.IN.GOV. If you have recently moved and this Notice has been forwarded to you, please notify us of your new address and if you wish to remain on the mailing list. Mail that is returned to IDEM by the Post Office with a forwarding address in a different county will be removed from our list unless otherwise requested.*

Enclosure
PN AAA Cover.dot 2/17/2016

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AFFECTED STATE NOTIFICATION OF PUBLIC COMMENT PERIOD
DRAFT INDIANA AIR PERMIT

September 29, 2016

A 30-day public comment period has been initiated for:

Permit Number: **089-37335-00201 and 089-37419-00201**
Applicant Name: **Jupiter Aluminum Corporation**
Location: **Hammond, Lake County, Indiana**

The public notice, draft permit and technical support documents can be accessed via the **IDEM Air Permits Online** site at:
http://www.in.gov/ai/appfiles/idem-caats/

Questions or comments on this draft permit should be directed to the person identified in the public notice by telephone or in writing to:

Indiana Department of Environmental Management
Office of Air Quality, Permits Branch
100 North Senate Avenue
Indianapolis, IN 46204

Questions or comments regarding this email notification or access to this information from the EPA Internet site can be directed to Chris Hammack at chammack@idem.IN.gov or (317) 233-2414.

Mail Code 61-53

IDEM Staff	VHAUN 9/29/2016 Jupiter Aluminum Corporation 089-37335 and 37419-00201 DRAFT		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Mark Volkmann Jupiter Aluminum Corporation 1745 165th Street Hammond IN 46320 (Source CAATS)									
2		Celal Tekeli Director Of Operations Jupiter Aluminum Corporation 1745 165th Street Hammond IN 46320 *(RO CAATS)*									
3		East Chicago City Council 4525 Indianapolis Blvd East Chicago IN 46312 *(Local Official)*									
4		Lake County Health Department-Gary 1145 W. 5th Ave Gary IN 46402-1795 *(Health Department)*									
5		WJOB / WZVN Radio 6405 Olcott Ave Hammond IN 46320 *(Affected Party)*									
6		Hammond City Council and Mayors Office 5925 Calumet Avenue Hammond IN 46320 *(Local Official)*									
7		Hammond Public Library 564 State St Hammond IN 46320-1532 *(Library)*									
8		Lowell Town Council and Town Manager PO Box 157, 501 East Main Street Lowell IN 46356 *(Local Official)*									
9		Shawn Sobocinski 1814 Laporte Street Portage IN 46368-1217 *(Affected Party)*									
10		Mr. Dennis Hahney Pipefitters Association, Local Union 597 1461 East Summit St Crown Point IN 46307 *(Affected Party)*									
11		Craig Hogarth 7901 West Morris Street Indianapolis IN 46231 *(Affected Party)*									
12		Lake County Commissioners 2293 N. Main St, Building A 3rd Floor Crown Point IN 46307 *(Local Official)*									
13		Anthony Copeland 2006 E. 140th Street East Chicago IN 46312 (Affected Party)									
14		Barbara G. Perez 506 Lilac Street East Chicago IN 46312 *(Affected Party)*									
15		Mr. Robert Garcia 3733 Parrish Avenue East Chicago IN 46312 *(Affected Party)*									

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.
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Mail Code 61-53

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Name and address of Sender	▶	Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Karen Kroczek 8212 Madison Ave Munster IN 46321-1627 (Affected Party)									
2		Joseph Hero 11723 S Oakridge Drive St. John IN 46373 *(Affected Party)*									
3		Gary City Council 401 Broadway # 209 Gary IN 46402 *(Local Official)*									
4		Ron Novak Hammond Dept. of Environmental Management 5925 Calumnet Ave. Hammond IN 46320 *(Local Official)*									
5		Mr. Larry Davis 268 South, 600 West Hebron IN 46341 *(Affected Party)*									
6		Ms. Marjorie J Fitzpatrick IES Engineers 1720 Walton Rd Blue Bell PA 19422 *(Consultant)*									
7		Ryan Dave 939 Cornwallis Munster IN 46321 *(Affected Party)*									
8		Mark Coleman PO Box 85 Beverly Shores IN 46301-0085 *(Affected Party)*									
9											
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