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

Joseph E. Kernan
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Commissioner

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

April 27, 2004

TO: Interested Parties / Applicant

RE: General Aluminum Manufactruing Company / 151-18437-00032

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FN-REGIS.dot 9/16/03

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

Frank O'Bannon
Governor

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April 27, 2004

Mr. John Jordan
General Aluminum Manufacturing Company
P.O. Box 757
Fremont, IN 46737

Re: 151-18437
Revised Registration to
151-3369-00032

Dear Mr. Jordan:

The application from General Aluminum Manufacturing Company, received on December 4, 2003, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following aluminum die casting source, located at 303 East Swager Street, Fremont, Indiana, is classified as registered:

(a) Six (6) die cutting machine holding furnaces, equipped with two (2) torches, torch capacity: 0.5 million British thermal units per hour, each.

(b) Six (6) die cast machines, using a maximum of 8.69 tons of die lube per year, two (2) constructed in 1985, one (1) constructed in 1996, one (1) constructed in 1999, one (1) constructed in 2000 and one (1) constructed in 2003, capacity: 2.5 tons of metal per hour, total.

(c) Four (4) space heaters, constructed between 1990 and 1995, capacity: 0.035 million British thermal units per hour, each.

(d) One (1) ladle preheater, constructed in 1985, capacity: 0.9 million British thermal units per hour.

(e) One (1) reverberatory furnace, exhausting to stack RF-STK, melting only clean aluminum sows or ingot, constructed in July 2003, capacity: 2.5 tons of metal per hour.

(f) Seven (7) parts washers, constructed n the 1990s, including:

(1) Three (3) enclosed parts washers, which do not employ a cleaning solvent.

(2) Four (4) enclosed parts washers which employ a cleaning solvent, identified as Walsh Washer on Lowers, Walsh Waster on SUV collector, Walsh Washer on oil filter adapter and Rainbow Line Hurricane Washer, maximum solvent usage rate: 0.47 tons of Permatreat per year, total.

(3) Seven (7) parts washer heaters, capacity: 4.7 million British thermal units per hour, total.

(g) One (1) makeup air unit, constructed in 1995, capacity: 1.0 million British thermal units per hour.

The following conditions shall be applicable:

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

(1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

(b) Pursuant to 326 IAC 6-3-2, the particulate from the one (1) reverberatory furnace shall not exceed 7.58 pounds per hour when operating at a process weight rate of 2.5 tons per hour. This limitation is based upon the following:

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

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

(c) Pursuant to 326 IAC 8-3-4, for the four (4) enclosed parts washers, identified as Walsh Washer on Lowers, Walsh Waster on SUV collector, Walsh Washer on oil filter adapter, and Rainbow Line Hurricane Washer, the Permittee shall:

(1) minimize carryout emissions by:

(A) racking parts for best drainage;

(B) maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);

(2) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;

(3) repair solvent leaks immediately, or shut down the degreaser;

(4) not use workplace fans near the degreaser opening;

(5) not allow water in solvent exiting the water separator; and

(6) provide a permanent, conspicuous label summarizing the operating requirements.

This registration is a revised registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to 326 IAC 2-5.5-4(a)(3). The annual notice shall be submitted to:

Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original Signed by Paul Dubenetzky

Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

CAP/MES

cc: File - Steuben County
Steuben County Health Department
Air Compliance - Doyle Houser
Northern Regional Office
Permit Tracking
Compliance Data Section
Office of Enforcement

Registration
Annual Notification

This form should be used to comply with the notification requirements under 326 IAC 2-5.5-4(a)(3)

Company Name:	**General Aluminum Manufacturing Company**
Address:	**303 East Swager Street**
City:	**Fremont**
Authorized individual:	**General Manager**
Phone #:	**(260) 495-2600**
Registration #:	**151-18437-00032**

I hereby certify that General Aluminum Manufacturing Company is still in operation and is in compliance with the requirements of Registration 151-18437-00032.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name:	**General Aluminum Manufacturing Company**
Source Location:	**303 East Swager Street, Fremont, IN 46737**
County:	**Steuben**
SIC Code:	**3365**
Registration No.:	**151-18437-00032**
Reviewer:	**CarrieAnn Paukowits**

The Office of Air Quality (OAQ) has reviewed an application from General Aluminum Manufacturing Company relating to the operation of an aluminum die casting source.

Permitted Emission Units and Pollution Control Equipment

A Registration (151-3369-00032) was issued to this source on May 18, 1994. The two (2) reverberatory furnaces in that Registration have been removed and replaced with one (1) larger furnace. As a result the capacities of the die cast machines have increased from 1.5 tons per hour, total, to 2.5 tons per hour, total. The source consists of the following registered emission units and pollution control devices:

(a) Six (6) die cutting machine holding furnaces, equipped with two (2) torches, torch capacity: 0.5 million British thermal units per hour, each.

(b) Six (6) die cast machines, using a maximum of 8.69 tons of die lube per year, two (2) constructed in 1985, one (1) constructed in 1996, one (1) constructed in 1999, one (1) constructed in 2000 and one (1) constructed in 2003, capacity: 2.5 tons of metal per hour, total. (this was registered at a capacity of 1.5 tons per hour)

(c) Four (4) space heaters, constructed between 1990 and 1995, capacity: 0.035 million British thermal units per hour, each.

(d) One (1) ladle preheater, constructed in 1985, capacity: 0.9 million British thermal units per hour.

Unpermitted Emission Units and Pollution Control Equipment

The source also consists of the following unpermitted emission units:

(e) One (1) reverberatory furnace, exhausting to stack RF-STK, melting only clean aluminum sows or ingot, constructed in July 2003, capacity: 2.5 tons of metal per hour.

(f) Seven (7) parts washers, constructed n the 1990s, including:

(1) Three (3) enclosed parts washers, which do not employ a cleaning solvent.

(2) Four (4) enclosed parts washers which employ a cleaning solvent, identified as Walsh Washer on Lowers, Walsh Waster on SUV collector, Walsh Washer on oil filter adapter and Rainbow Line Hurricane Washer, maximum solvent usage rate: 0.47 tons of Permatreat per year, total.

(3) Seven (7) parts washer heaters, capacity: 4.7 million British thermal units per hour, total.

(g) One (1) makeup air unit, constructed in 1995, capacity: 1.0 million British thermal units per hour.

At the time the parts washers and makeup air unit were constructed, prior approval was not required based on the potential emissions of the new units. The construction and operation of the reverberatory furnace required a prior Registration Revision under 326 IAC 2-5.5-6.

Existing Approvals

The source has been operating under previous approvals including, but no limited to, the following:

Registration 151-3369-00032 issued on May 18, 1994

All conditions from previous approvals were incorporated into this Registration. This Registration is a revised Registration to 151-3369, pursuant to 326 IAC 2-5.5.

Enforcement Issue

(a) IDEM is aware that equipment has been constructed and operated prior to receipt of the proper approval. The subject equipment is listed in this Technical Support Document under the condition entitled "Unpermitted Emission Units and Pollution Control Equipment".

(b) IDEM is reviewing this matter and will take appropriate action. This Registration is intended to satisfy the requirements of the registration rules.

(c) IDEM is aware that the source did not apply for a Registration in a timely manner. IDEM is reviewing this matter and will take appropriate action. Pursuant to 326 IAC 2-5.5-2(b), any existing source that has a valid air registration shall apply for a Registration approval under 326 IAC 2-5.5, Registrations, no later than November 25, 2000.

Stack Summary

Stack ID	Operation	Height (ft)	Diameter (ft)	Flow Rate (acfm)	Temperature (^{o}F)
RF-STK	Reverberatory Furnace	30.0	3.00	Unknown	400

Recommendation

The staff recommends to the Commissioner that the operation be approved. This recommendation is based on the following facts and conditions:

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

An application for the purposes of this review was received on December 4, 2003, with additional information received on January 12, February 12 and March 31, 2004.

Emission Calculations

See pages 1 through 4 of 4 of Appendix A of this document for detailed emission calculations. The applicant requested the use of emission factors from the STAPPA/ALAPCA Handbook, Section 11 (5/30/91) for clean scrap only. These emission factors were approved in a Notice Only Change (089-18244), issued on January 8, 2004, to a General Aluminum Manufacturing Company source in Huntington, Indiana.

Potential to Emit (of the Source or Revision) Before Controls

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as "the maximum capacity of a stationary source or emissions 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, inclulding air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA, the department, or the appropriate local air pollution control agency."

Pollutant	Potential to Emit (tons/yr)
PM	12.1
PM_{10}	11.8
SO_2	10.1
VOC	11.4
CO	2.85
NO_x	11.8

HAPs	Potential to Emit (tons/yr)
Benzene	0.00007
Dichlorobenzene	0.00004
Formaldehyde	0.003
Hexane	0.061
Toluene	0.0001
Lead	0.00002
Cadmium	0.00004
Chromium	0.00005
Manganese	0.00001

Nickel	0.00007
Total	0.064

(a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM and PM_{10} are greater than five (5) tons per year and less than twenty-five (25) tons per year, and the potential to emit SO_2, VOC and NOx are greater than ten (10) tons per year and less than twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-5.5. A registration will be issued.

(b) Fugitive Emissions
Since this type of operation is one of the twenty-eight (28) listed source categories under 326 IAC 2-2, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are counted toward determination of PSD and Emission Offset applicability.

County Attainment Status

The source is located in Steuben County.

Pollutant	Status
PM_{10}	Attainment
SO_2	Attainment
NO_2	Attainment
Ozone	Attainment
CO	Attainment
Lead	Attainment

(a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Steuben County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

(b) Steuben County has been classified as attainment or unclassifiable for all remaining crieria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2. See the State Rule Applicability for the source section.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This existing source, including the emissions from this approval 151-18437-00032, is still not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

(a) criteria pollutant is less than 100 tons per year,

(b) Single hazardous air pollutant (HAP) is less than 10 tons per year, and

(c) combination of HAPs is less than 25 tons per year.

This status is based on all the air approvals issued to the source.

Federal Rule Applicability

(a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.

(b) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR Part 60.260, Subpart Z, because it does not operate an electric submerged arc furnace.

(c) This source is not subject to the requirements of the New Source Performance Standard, 326 IAC 12, 40 CFR Part 60.190, Subpart S, because it is not a primary aluminum reduction plant.

(d) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14, 326 IAC 20, 40 CFR 61 and 40 CFR Part 63) applicable to this source.

(e) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63.840, Subpart LL, because it is not a primary aluminum reduction plant.

(f) The parts washers at this source do not use halogenated solvents. Therefore, the requirements of 40 CFR 63, Subpart T, are not applicable.

(g) Pursuant to 40 CFR 63.1503, Subpart RRR, the definition of a secondary aluminum production states that for purposes of this subpart, aluminum die casting facilities, aluminum foundries, and aluminum extrusion facilities are not considered to be secondary aluminum production facilities if the only materials they melt are clean charge, customer returns, or internal scrap, and if they do not operate sweat furnaces, thermal chip dryers, or scrap dryers/delacquering kilns/decoating kilns. This source melts only clean charge, customer returns or internal scrap and does not operate a sweat furnace, thermal chip dryer or scrap dryer/delacquering kiln/decoating kiln. Therefore, this source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs), 40 CFR 63.1500, Subpart RRR.

State Rule Applicability – Entire Source

326 IAC 2-6 (Emission Reporting)

This source does not emit five (5) tons per year or more of lead, does not require a Part 70 Operating Permit, and is not located in Lake or Porter County. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

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

State Rule Applicability – Individual Facilities

326 IAC 2-4.1 (New Source Toxics Control)

This source does not have the potential to emit 10 tons per year or more of a single HAP or 25 tons per year or more of a combination of HAPs. Therefore, 326 IAC 2-4.1 does not apply.

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

(a) Pursuant to 326 IAC 6-3-2, the particulate from the one (1) reverberatory furnace shall not exceed 7.58 pounds per hour when operating at a process weight rate of 2.5 tons per hour. Since the unrestricted potential particulate emissions from the one (1) reverberatory furnace are 2.75 pounds per hour, the reverberatory furnace will comply with this rule. This limitation is based upon the following:

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

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

(b) All other facilities at this source have the potential particulate emissions less than 0.551 pounds per hour. Therefore, pursuant to 326 IAC 6-3-1(b)(14), the other facilities listed in this document are exempt from the requirements of 326 IAC 6-3.

326 IAC 8-3 (Organic Solvent Degreasing)

Four (4) enclosed parts washers, identified as Walsh Washer on Lowers, Walsh Waster on SUV collector, Walsh Washer on oil filter adapter, and Rainbow Line Hurricane Washer, use a cleaning solvent which contains organic materials. Therefore, the requirements of 326 IAC 8-3 are applicable. Pursuant to 326 IAC 1-2-21.5, these parts washers are conveyorized degreasers because they are continuous systems that, for the purpose of cleaning or degreasing articles, transport the articles through or over an organic solvent bath which is heated to its boiling point.

(a) The parts washers were constructed after January 1, 1980. Therefore, the requirements of 326 IAC 8-3-4 are applicable. Pursuant to this rule, the Permittee shall:

(1) minimize carryout emissions by:

(A) racking parts for best drainage;

(B) maintaining the vertical conveyor speed at less than 3.3 meters per minute (eleven (11) feet per minute);

(2) store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere;

(3) repair solvent leaks immediately, or shut down the degreaser;

(4) not use workplace fans near the degreaser opening;

(5) not allow water in solvent exiting the water separator; and

(6) provide a permanent, conspicuous label summarizing the operating requirements.

(b) The four (4) conveyorized degreasers, constructed in the 1990s, have air to solvent interfaces less than two (2) square meters (twenty-one and six-tenths (21.6) square feet). Therefore, the requirements of 326 IAC 8-3-7 are not applicable.

Conclusion

The operation of this aluminum die casting source shall be subject to the conditions of the Registration 151-18437-00032.

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

Company Name: General Aluminum Manufacturing Company
Address City IN Zip: 303 East Swager Street, Fremont, IN 46737
Permit No./Plt ID: 151-18437-00032
Reviewer: CarrieAnn Paukowits
Date: December 4, 2003

Die cutting machine holding furnace torches, 2 @ 0.5 MMBtu/hr, each
Space heaters, 4 @ 0.035 MMBtu/hr, each
Parts washer heaters, 4.7 MMBtu/hr, total
Makeup air unit, 1 @ 1.0 MMBtu/hr
Ladle preheater, 1 @ 0.9 MMBtu/hr

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr
7.74	68

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.90	7.60	0.600	100 **see below	5.50	84.0
Potential Emission in tons/yr	0.064	0.258	0.020	3.39	0.186	2.85

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology
All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton
See page 2 for HAPs emissions calculations.

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

Company Name: General Aluminum Manufacturing Company
Address City IN Zip: 303 East Swager Street, Fremont, IN 46737
Permit No./Plt ID: 151-18437-00032
Reviewer: CarrieAnn Paukowits
Date: December 4, 2003

Die cutting machine holding furnace torches, 2 @ 0.5 MMBtu/hr, each
Space heaters, 4 @ 0.035 MMBtu/hr, each
Parts washer heaters, 4.7 MMBtu/hr, total
Makeup air unit, 1 @ 1.0 MMBtu/hr
Ladle preheater, 1 @ 0.9 MMBtu/hr

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	0.002	0.001	0.075	1.80	0.003
Potential Emission in tons/yr	0.00007	0.00004	0.003	0.061	0.0001

	HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel	
Emission Factor in lb/MMcf	0.001	0.001	0.001	0.0004	0.002	**Total**
Potential Emission in tons/yr	0.00002	0.00004	0.00005	0.00001	0.00007	**0.064**

Methodology is the same as page 1.

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

Appendix A: Secondary Metal Production
Aluminum

Company Name: **General Aluminum Manufacturing Company**
Address City IN Zip: **303 East Swager Street, Fremont, IN 46737**
Permit No./Plt ID: **151-18437-00032**
Reviewer: **CarrieAnn Paukowits**
Date: **December 4, 2003**

SCC# 3-04-001-03
Smelting Furnace/Reverberatory

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum		5000	2000	2.5		
	PM ** lbs/ton Produced	**PM10 ** lbs/ton Produced**	**SOx lbs/ton Produced**	**NOx lbs/ton Produced**	**VOC * lbs/ton Produced**	**CO lbs/tons Produced**
	1.10	1.05	0.9	0.76	0.2	--
Potential Emissions lbs/hr	2.75	2.63	2.25	1.90	0.500	--
Potential Emissions lbs/day	66.0	63.0	54.0	45.6	12.0	--
Potential Emissions tons/year	12.0	11.5	9.86	8.32	2.19	--

SCC# 3-04-001-14
Pouring/Casting - Die Cast Machines

TYPE OF MATERIAL		Throughput LBS/HR	1 TON/2000 lbs	TON/HR		
Aluminum		5000	2000	2.5		
	PM lbs/ton metal charged	**PM10 lbs/ton metal charged**	**SOx * lbs/ton metal charged**	**NOx * lbs/ton metal charged**	**VOC * lbs/ton metal charged**	**CO lbs/tons metal charged**
	--	--	0.02	0.01	0.14	--
Potential Emissions lbs/hr	0	0	0.05	0.025	0.350	--
Potential Emissions lbs/day	0	0	1.20	0.600	8.40	--
Potential Emissions tons/year	0	0	0.219	0.110	1.53	--

* Note: Emission factor is from FIRE version 6.23.
Emission factors which are not denoted by a "*" are from older versions of FIRE and were not included in FIRE version 6.01 for various reasons.
** Note: Emission factor is from STAPPA/ALAPCA Handbook, Section 11 (5/30/91)
Emission factors which are not denoted by a "**" are from the STAPPA/ALAPCA Handbook, Section 11 (5/30/91) for clean scrap and were used in Notice Only Change 089-18244-00048, issued on January 8, 2004.

Appendix A: Emission Calculations
Solvent Usage

Company Name: General Aluminum Manufacturing Company
Address City IN Zip: 303 East Swager Street, Fremont, IN 46737
Permit No./Plt ID: 151-18437-00032
Reviewer: CarrieAnn Paukowits
Date: December 4, 2003

Material	Usage (tons/yr)	Density (lbs/gal)	Weight % VOC	Weight % HAP	VOC Emissions (tons/yr)	HAP Emissions (tons/yr)
Parts Washers						
Permatreat 435	0.47	8.74	20.00%	0.00%	0.09	0.00
Die Lube						
RDL-3499	8.69	8.01	65.00%	0.00%	5.65	0.00
RDL-9710	8.69	8.01	85.00%	0.00%	7.39	0.00
				Total:	**7.48**	**0.00**

Methodology
VOC emissions (tons/yr) = Usage (tons/yr) x Weight % VOC
HAP emissions (tons/yr) = Usage (tons/yr) x Weight % HAP
There are no HAPs in these materials.