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

Mitchell E. Daniels, Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: June 29, 2006

RE: Keihin IPT Mfg., Inc. / 059-23201I-00013

FROM: Nisha Sizemore
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Effective Immediately

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 13-15-5-3, this permit is effective immediately, unless a petition for stay of effectiveness is filed and granted according to IC 13-15-6-3, and may be revoked or modified in accordance with the provisions of IC 13-15-7-1.

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **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
FNPER.dot 03/23/06

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
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Mr. Daniel J. O'Connor
Manager, Environment, Health, and Safety
Keihin IPT Manufacturing, Inc.
400 West New Road
Greenfield, Indiana 46140

June 29, 2006

Re: Interim Minor Source Modification Approval
059-23201I-00013

Dear Mr. O'Connor:

On June 8, 2006, the Office of Air Quality (OAQ) received an interim minor source modification petition from Keihin IPT Manufacturing, Inc., 400 West New Road, Greenfield, Indiana 46140. The interim minor source modification petition was supplemented with additional information on June 13, 2006. Based on the data and information submitted in the petition and the provisions in 326 IAC 2-13-1, this interim minor source modification petition is hereby approved for:

(1) Two (2) closed-system crucible magnesium melt furnaces melting magnesium ingots under an inert cover gas, identified as Magnesium Furnaces #1 and #2, each with a 200 kW electric heater, 200 kW electric holding furnace, and 60 kW electric ingot pre-heater, and each with a maximum capacity of 992 pounds per hour;

(2) One (1) aluminum melt furnace processing aluminum ingots and flux, identified as Spool Valve Furnace, with a maximum capacity of 1,650 pounds per hour, and exhausting at stack EF-48b;

(3) Two (2) high pressure magnesium die casting machines processing magnesium, identified as Mag Casting MC #1 and Mag Casting MC #2, each with a maximum capacity of 1,500 pounds per hour;

(4) Two (2) high pressure aluminum die casting machines processing aluminum, identified as SV Casting MC #1 and SV Casting MC #2, each with a maximum capacity of 400 pounds per hour; and

(5) One (1) shot blasting unit, identified as unit 8, with a maximum throughput rate of 2.05 pounds of zinc shot per hour.

Detailed conditions will be specified in the final Minor Source Modification No. 059-23201-00013. This interim minor source modification expires on the effective date of the final minor source modification approval. This interim minor source modification may be revoked after its effective date upon a written finding by OAQ that any of the reasons for denial in 326 IAC 2-13-1(h) exist or if the final minor source modification is denied. The facilities subject to this approval may operate when the final minor source modification is issued by OAQ.

If you have any questions regarding this interim significant source modification petition, please contact Dr. Trip Sinha of my staff at 317-233-3031, or at 1-800-451-6027 (ask for extension 3-3031).

Sincerely,

Original signed by
Nisha Sizemore, Chief
Permits Branch
Office of Air Quality

TPS
Enclosures: Interim Permit Evaluation (3 pages); and
Petition for Interim Minor Source Modification
cc: File – Hancock County
Hancock County Health Department
Air Compliance Section – D. J. Knotts
Permit Tracking

039-23201-0013

KEIHIN INDIANA PRECISION TECHNOLOGY, INC.
400 WEST NEW ROAD
GREENFIELD, IN 46140
WWW.IPT-INC.COM
TEL 317-462-3015
FAX 317-462-2983
An ISO 9002 Registered Company

June 6, 2006

Ms. Nisha Sizemore, Chief
Air Permits Branch
Indiana Department of Environmental Management
100 N. Senate Avenue
Indianapolis, Indiana

Re: Interim Permit Application
Keihin IPT Manufacturing, Inc.
Greenfield, Indiana

Dear Ms. Sizemore:

The attached Interim Construction Permit application is for modifications at our existing die casting facility in Greenfield, Indiana. This application is being submitted in conjunction with the Title V Permit Modification application submitted under separate cover. Applicable state and federal rules are identified in the Petition for Interim Permit.

If you have questions regarding our application, please do not hesitate to contact me at (317) 462-3015 ext. 1020.

Sincerely,

Daniel J. O'Connor

Daniel J. O'Connor
Manager
Environment, Health & Safety

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

PETITION FOR INTERIM CONSTRUCTION PERMIT
for
Keihin IPT Manufacturing, Inc.
Greenfield, Indiana

Description of the Operation or Equipment:

Installation of two 992 lb/hr magnesium melt furnaces, two 1,500 lb/hr high pressure casting machines, one 1,650 lb/hr aluminum melt furnace, two 400 lb/hr high pressure casting machines, and one shot blast unit.

Potential Emissions for Modification (before controls):

Pollutant	Before Controls	After Controls
	(tons/yr)	(tons/yr)
VOC	NA	NA
NO_x	NA	NA
CO	NA	NA
SO_2	NA	NA
PM10	15.76	15.76
PM	21.89	21.89
Pb	NA	NA
Single HAP	NA	NA
Total HAPs	NA	NA

PSD Requirements:

The potential emissions are less than the PSD major modification thresholds and therefore, PSD rules and requirements do not apply.

NESHAP and NSPS Requirements:

There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) or New Source Performance Standards (NSPS) that would apply to the proposed modification.

State Rules & Requirements:

326 IAC 5-1-2, Opacity Limitations states that sources of visible emissions in attainment areas shall limit visible emissions to an average of 40% opacity in 24 consecutive readings and that visible emissions shall not exceed 60% opacity for more than a cumulative total of 15 minutes (60 readings) in

a six-hour period. The opacity limits found in 326 IAC 5-1-2(1) would apply to this facility, since it is located in Hancock County, an attainment area, and not in one of the Counties listed in the rule which have more stringent limits.

326 IAC 6, Particulate Rules Rule 1 of Article 6 does not apply since Hancock County is not in a nonattainment area for particulate matter. Rule 3, Process Operations, of Article 6 would apply to the proposed modification.

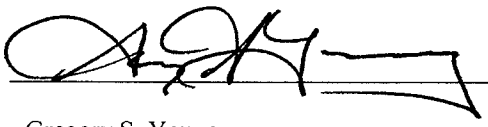
The allowable emission rate for the proposed modification would be determined by the following formula:

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

Where E = allowable emission in lbs/hr
P= process weight rate in tons/hr.

Federal Enforceability:

Keihin IPT Manufacturing, Inc. consents to the federal enforceability of this interim construction permit.

Signature: 

Printed Name: Gregory S. Young

Title or Position: Vice President

Date: June 6, 2006

RECEIVED
JUN 08 2006
State of Indiana
Department of Environmental Management
Office of Air Quality

Affidavit of Construction

I, Gregory S. Young, being duly sworn upon my oath, depose and say:
(Name of the Authorized Representative)

1. I live in Hancock County, Indiana and being of sound mind and over twenty-one (21) years of age, I am competent to give this affidavit.

2. I hold the position of Vice President for Keihin Indiana Precision Technology, Inc.

3. By virtue of my position with Keihin Indiana Precision Technology, Inc. I have personal knowledge of the representations contained in this affidavit and am authorized to make these representations on behalf of Keihin IPT Mfg., Inc.

4. I, undersigned, have submitted an interim construction permit application or registration petition to the Office of Air Management for the construction of two magnesium melt furnaces, one aluminum melt furnace, four die casting machines, and one shot blast machine.

5. Keihin IPT Mfg, Inc. recognizes the following risks:

(a) own financial risk, (b) that IDEM may require additional or different control technology for the final construction permit, (c) that IDEM may deny issuance of the final construction permit, and (d) any additional air permitting requirements.

Further Affiant said not.

I affirm under penalties of perjury that the representations contained in this affidavit are true, to the best of my information and belief.

Signature

Name Gregory S. Young

Date

STATE OF Indiana

COUNTY OF Hancock)

Subscribed and sworn to me, a notary public in and for Hancock County and State of Indiana

on this 6th day of June, 2006.

My Commission expires:
7/01/07

Signature Alta R. Hunter

Name (typed or printed)

ALTA R. HUNTER
NOTARY PUBLIC STATE OF INDIANA
HANCOCK COUNTY
MY COMMISSION EXPIRES 7/01/07

Manufacturing, Inc.
Aluminum Melt Furnace
Emission Calculations
Proposed Spool Valve Furnace

Emission Unit	Melt Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Spool Valve Furnace	1650	4.3	2.6	15.54	9.40	3.55	3.60
Total				15.54	9.40	3.55	3.60

Emission Calculations

Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs

Potential to Emit (tons/yr) = Maximum throughput (tons/hour) * Emission Factor (lb/ton) * 1ton/2000 lbs * 8760 hours/yr

Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)

Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67

Emission factors are from AP-42, Table 12.8-2, SC 3-04-001-03 for Secondary Aluminum Operations, Reverbatory Furnace

KEIHIN IPT Manufacturing, Inc.
Die Casting
Emission Calculations
Proposed Units Mag Casting MCs #1 and #2 and SV Casting MCs #1 and #2

Emission Unit	Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Mag Casting MC #1	1500	0.18	0.18	0.59	0.59	0.14	3.38
Mag Casting MC #2	1500	0.18	0.18	0.59	0.59	0.14	3.38
SV Casting Machine # 1	400	0.18	0.18	0.16	0.16	0.04	1.39
SV Casting Machine # 2	400	0.18	0.18	0.16	0.16	0.04	1.39
Total				1.50	1.50	0.35	9.55

Note: Emission factor is from Keihin IPT Manufacturing Title V Permit, 059-16006-00013

Emission Calculations:

Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs

Potential Emissions (tons/yr) = Maximum throughput (tons/hour) x Emission Factor (lb/ton)
x 1ton/2000 lbs x 8760 hours/yr

Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)

Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67

KEIHIN IPT Manufacturing, Inc.
Aluminum Melt Furnace
Emission Calculations
Modified Unit 1-A

Currently Permitted

Emission Unit	Melt Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Furnace # 1	2500	4.3	2.6	23.54	14.24	5.38	4.76
Furnace #2	2500	4.3	2.6	23.54	14.24	5.38	4.76
Total				**47.09**	**28.47**	**5.38**	**4.76**

Throughput Corrected to Account for Bottle-Neck in System

Emission Unit	Melt Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Furnace # 1	1245	4.3	2.6	11.72	7.09	2.68	2.98
Furnace #2	1245	4.3	2.6	11.72	7.09	2.68	2.98
Total				23.45	14.18	2.68	2.98

Emission Calculations

Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs
Potential to Emit (tons/yr) = Maximum throughput (tons/hour) * Emission Factor (lb/ton) * 1ton/2000 lbs * 8760 hours/yr
Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)
Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67

Emission factors are from AP-42, Table 12.8-2, SC 3-04-001-03 for Secondary Aluminum Operations, Reverbatory Furnace

KEIHIN IPT Manufacturing, Inc.
Aluminum Melt Furnace
Emission Calculations
Exisiting Unit 1-B, HPDC 3, Unit 9 and Unit 10

Emission Unit	Furnace No.	Melt Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
			PM	PM/10	PM	PM10		
Unit 1B	4	1100	4.3	2.6	10.36	6.26	2.37	2.75
Unit 1B	5	1100	4.3	2.6	10.36	6.26	2.37	2.75
Unit 1B	6	1100	4.3	2.6	10.36	6.26	2.37	2.75
Unit 1B	7	1100	4.3	2.6	10.36	6.26	2.37	2.75
Unit 1B	8	1100	4.3	2.6	10.36	6.26	2.37	2.75
HPDC 3	3	1100	4.3	2.6	10.36	6.26	2.37	2.75
Unit 9	9	1500	4.3	2.6	14.13	8.54	3.23	3.38
Unit 10	10	1500	4.3	2.6	14.13	8.54	3.23	3.38
Total					90.40	54.66	20.64	23.24

Emission Calculations

Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs

Potential to Emit (tons/yr) = Maximum throughput (tons/hour) * Emission Factor (lb/ton) * 1ton/2000 lbs * 8760 hours/yr

Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)

Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67

Emission factors are from AP-42, Table 12.8-2, SC 3-04-001-03 for Secondary Aluminum Operations, Reverbatory Furnace

KEIHIN IPT Manufacturing, Inc.
Aluminum Melt Furnace
Emission Calculations
Existing Unit 2

Emission Unit	Throughput (tons/hr)	Emission Factor (lb/ton)					Control Efficiency (%)
		PM	PM10	SOx	NOx	VOC	
11 Shell Core Machines	1.25	1.1	1.1	0.32	0.50	0.00	99%
20 Die-Casting Machines	0.38	0.18	0.18	0.00	0.00	0.00	99%
9 Core Knockout Machines	4.39	3.2	2.24	0.00	0.00	1.20	99%

Emission Unit	Uncontrolled Emissions (tons/yr)					Uncontrolled Emissions (tons/yr)				
	PM	PM10	SOx	NOx	VOC	PM	PM10	SOx	NOx	VOC
11 Shell Core Machines	6.04	6.04	1.76	2.75	0.00	0.06	0.06	1.76	2.75	0.00
20 Die-Casting Machines	0.30	0.30	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
9 Core Knockout Machines	61.50	43.05	0.00	0.00	23.06	0.61	0.43	0.00	0.00	23.06
Total	**67.83**	**49.38**	**1.76**	**2.75**	**23.06**	**0.68**	**0.49**	**1.76**	**2.75**	**23.06**

Emission Unit	Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
11 Shell Core Machines	1.38	4.77
20 Die-Casting Machines	0.07	2.13
9 Core Knockout Machines	14.04	11.04
Total	**15.49**	**17.94**

Potential to Emit (tons/yr) = Maximum throughput (tons/hour) * Emission Factor (lb/ton) * 1ton/2000 lbs * 8760 hours/yr
Potential PM Emissions (lbs/hr) = Maximum throughput (tons/hr) x Emission Factor (lb/ton)
Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (tons/hr)]^0.67

Material	Max. Usage Rate (gal/hr)	Density (lb/gal)	VOC (wt%)	PTE of VOC (lb/hr)	PTE of VOC (tons/yr)
Injector Lube	0.05	0.97	30%	0.01	0.06
Total				0.01	0.06

Emissions (tons/yr) = Max. Usage Rate (gal/hr) x Density (lb/gal) x Weight % VOC x 1 ton/2,000 lbs x 8,760 hrs/yr

KEIHIN IPT Manufacturing, Inc.
Machining and Washing
Emission Calculations
Exisiting Units

Unit	Emission Unit	Density (lb/gal)	Max. Usage Rte (gal/hr)	VOC Content (wt%)	% Control Efficiency	VOC Emission (tons/yr)	
						Uncontrolled	Controlled
4	Machining and Washing	6.42	1.35	100%	85%	37.96	5.69
	Degreasing	8.7	0.017	100%	0%	0.65	0.10
Total						38.61	5.79

Emissions (tons/yr) = Density (lb/gal) x Max. Usage (gal/hr) x VOC content (wt%) x 1 ton/2,000 lbs x 8,760 hrs/yr
Controlled Emissions (tons/yr) = Emissions (tons/yr) x (1 - Control Efficiency)

KEIHIN IPT Manufacturing, Inc.
Shot Blast
Emission Calculations
Existing and Proposed Units

Emission Unit	Material	Max Throughput Rate (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (tons/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
			PM	PM10	PM	PM10		
Existing Unit 3	Zinc Shot Blast	3.88	17	1.7	0.144	0.173	0.033	0.062
Existing Unit 5	Glass Shot Blast	1.37	17	1.7	0.051	0.061	0.012	0.031
Total Existing Equipment					**0.195**	**0.235**	**0.045**	**0.094**
Proposed Unit 8	*Zinc Shot Blast*	*2.05*	*17*	*1.7*	*0.076*	*0.092*	*0.017*	*0.041*
Total Proposed Equipment					**0.076**	**0.092**	**0.017**	**0.041**
Total (Existing + Proposed)					0.272	0.326	0.062	0.134

Emission Calculation:
Potential Emissions (tons/yr) = Max. Throughput (lb/month) x 1 ton/2,000 lbs x Emission Factor (lb/ton) x 12 mo./year x 1 ton/2,000 lbs
Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/mo) x mo./30 day x day/24 hr x 1 ton/2,000 lbs x Emission Factor (lb/ton)
Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67

Emission Factor is from FIRE, Chapter 14, Grey Iron Foundries (SCC 3-04-003-4)

KEIHIN IPT Manufacturing, Inc.
Removed Emission Units
Emission Calculations

Aluminum Melt Furnace

Emission Unit	Melt Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Unit 1-A, Furnace #2	1245	4.3	2.6	11.72	7.09	2.68	2.98
Total				11.72	7.09	2.68	2.98

Emission Calculations

Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs
Potential to Emit (tons/yr) = Maximum throughput (tons/hour) * Emission Factor (lb/ton) * 1ton/2000 lbs * 8760 hours/yr
Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)
Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67

Die Casting Machine

Emission Unit	Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Casting Machine	751	0.18	0.18	0.30	0.30	0.07	2.13
Casting Machine	751	0.18	0.18	0.30	0.30	0.07	2.13
Total				0.59	0.59	0.14	4.25

Emission Calculations:

Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs
Potential Emissions (tons/yr) = Maximum throughput (tons/hour) x Emission Factor (lb/ton) x 1ton/2000 lbs x 8760 hours/yr
Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)
Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67
Note: Emission factor is from Keihin IPT Manufacturing Title V Permit, 059-16006-00013

KEIHIN IPT Manufacturing, Inc.
Removed Emission Units
Emission Calculations

Shell Core Machines

Emission Unit	Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Shell Core Machine	228	1.1	1.1	0.55	0.55	0.13	0.96
Shell Core Machine	228	1.1	1.1	0.55	0.55	0.13	0.96
Total				1.10	1.10	0.25	1.91

Emission Calculations:
Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs
Potential Emissions (tons/yr) = Maximum throughput (tons/hour) x Emission Factor (lb/ton) x 1ton/2000 lbs x 8760 hours/yr
Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)
Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67
Note: Emission factor is from FIRE, Industrial Processes - Gray Iron Foundries (SCC 3-04-003-70) and AP-42, Table 12.10-7 (SCC 3-04-003-19)

Core Knockout Machines

Emission Unit	Capacity (lb/hr)	Emission Factor (lb/ton)		Potential Emissions (ton/yr)		Potential PM Emissions (lbs/hr)	Allowable PM Emissions (lbs/hr)
		PM	PM/10	PM	PM10		
Core Knockout Machine	975	3.2	2.24	6.83	4.78	1.56	2.53
Core Knockout Machine	975	3.2	2.24	6.83	4.78	1.56	2.53
Core Knockout Machine	975	3.2	2.24	6.83	4.78	1.56	2.53
Total				20.50	14.35	4.68	7.60

Emission Calculations:
Maximum Throughput (tons/hour) = Maximum throughput (lbs/hour) x 1ton/2000 lbs
Potential Emissions (tons/yr) = Maximum throughput (tons/hour) x Emission Factor (lb/ton) x 1ton/2000 lbs x 8760 hours/yr
Potential PM Emissions (lbs/hr) = Maximum throughput (lbs/hr) x 1 ton/2,000 lbs x Emission Factor (lb/ton)
Allowable PM Emissions (lbs/hr) = 4.1x [Maximum Throughput (lbs/hr) x 1ton/2,000 lbs]^0.67
Note: Emission factor is from FIRE, Industrial Processes - Gray Iron Foundries (SCC 3-04-003-31)

KEIHIN IPT Manufacturing, Inc.
Emission Summary

Emission Unit	Potential Emissions (tons/yr)					
	PM	PM10	SOx	NOx	VOC	CO
Unit 1-A	23.45	14.18	0.00	0.00	0.00	0.00
Unit 1-B, 3, 9, and 10	90.40	54.66	0.00	0.00	0.00	0.00
Unit 2	67.83	49.38	1.76	2.75	23.06	0.00
Unit 4	0.00	0.00	0.00	0.00	38.61	0.00
Shot Blast	0.20	0.23	0.00	0.00	0.00	0.00
Machining & Washing	0.00	0.00	0.00	0.00	38.61	0.00
Combustion	1.42	1.42	0.11	18.71	1.03	15.71
Total Existing Equipment	**183.30**	**119.88**	**1.87**	**21.45**	**101.31**	**15.71**
Magnesium Melt Furnace	4.78	4.78	0.00	0.00	0.00	0.00
Aluminum Spool Valve Furnace	15.54	9.40	0.00	0.00	0.00	0.00
Die Casting Machines	1.50	1.50	0.00	0.00	0.00	0.00
Shot Blast SB1	0.08	0.09	0.00	0.00	0.00	0.00
Total New Equipment	**21.89**	**15.76**	**0.00**	**0.00**	**0.00**	**0.00**
Unit 1-A, Furnace #2	(11.72)	(7.09)	-	-	-	-
Casting Machines	(0.59)	(0.59)	-	-	-	-
Shell Core Machines	(1.10)	(1.10)	-	-	-	-
Core Knockout Machines	(20.50)	(14.35)	-	-	-	-
Combustion Associated w/Unit 1-A, Furnace #2	(0.21)	(0.21)	(0.02)	(2.72)	(0.15)	(2.28)
Total Removed Equipment	**(34.12)**	**(23.34)**	**(0.02)**	**(2.72)**	**(0.15)**	**(2.28)**
Total Emissions	**171.07**	**112.31**	**1.85**	**18.73**	**101.16**	**13.43**

Total Emissions = Total Existing Equipment + Total New Equipment - Total Removed Equipment

Indiana Department of Environmental Management
Office of Air Management

Interim Minor Source Modification Evaluation Sheet

Company Name: Keihin IPT Manufacturing, Inc.
Location: 400 West New Road, Greenfield, Indiana 46140 Permit No: 059-23201I-00013
Permit Reviewer: Dr. Trip Sinha Date the Application was received: 6-8-06 Supplemental Information Received: 6-13-06 Date of review: 6-23-06
Description of the Interim Construction: (1) Two (2) closed-system crucible magnesium melt furnaces melting magnesium ingots under an inert cover gas, identified as Magnesium Furnaces #1 and #2, each with a 200 kW electric heater, 200 kW electric holding furnace, and 60 kW electric ingot pre-heater, and each with a maximum capacity of 992 pounds per hour; (2) One (1) aluminum melt furnace processing aluminum ingots and flux, identified as Spool Valve Furnace, with a maximum capacity of 1,650 pounds per hour, and exhausting at stack EF-48b; (3) Two (2) high pressure magnesium die casting machines processing magnesium, identified as Mag Casting MC #1 and Mag Casting MC #2, each with a maximum capacity of 1,500 pounds per hour; (4) Two (2) high pressure aluminum die casting machines processing aluminum, identified as SV Casting MC #1 and SV Casting MC #2, each with a maximum capacity of 400 pounds per hour; and (5) One (1) shot blasting unit, identified as unit 8, with a maximum throughput rate of 2.05 pounds of zinc shot per hour.
Date the Supplemental Information on the application was Received + 19 days: 7-2-06

Interim Petition Applicability: 326 IAC 2-13-1

(a) Existing source with valid permit;

(b) Exemptions:
- (1) construction of a PSD source;
- (2) construction or modification in nonattainment area that would emit those pollutants for which the nonattainment designation is based; and
- (3) any modification subject to 326 IAC 2-4.1.

Instructions: Check (√) appropriate answers and make a recommendation.

1. Did the applicant submit a written petition for an interim permit?
   - √ Yes — Go to question 2.
   - _____ No — Ignore verbal request.

2. Did the applicant pay the $500 interim permit fee?
   - √ Yes — Go to question 3.
   - _____ No — Deny the application, pursuant to 326 IAC 2-13-1(c)(1).

3. Did the applicant state acceptance of federal enforceability of an interim permit?
   √ Yes Go to question 4.
   ___ No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(D).

4. Did the applicant or its authorized agent sign the application?
   √ Yes Go to question 5.
   ___ No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(E).

5. Did the applicant submit a notarized affidavit stating that the applicant will proceed at its own risk (if the interim permit is issued), including, but not limited to:
   (a) Financial risk,
   (b) Risk that additional emission controls may be required,
   (c) Risk that the final permit may be denied.
   √ Yes Go to question 6.
   ___ No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(F).

6. Did the applicant begin construction prior to submitting the interim permit application?
   ___ Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(6).
   √ No Go to question 7.

7. What is the type of the interim construction?
   ___ New Source Deny the application, pursuant to 326 IAC 2-13-1(a)
   √ Modification to an existing source Go to question 8.

8. Did the applicant present data in the interim permit that is sufficient to determine PSD, NSPS, NESHAP, and state rule compliance?
   √ Yes Go to question 9.
   ___ No Deny the application pursuant to:
   326 IAC 2-13-1(c)(2)(B), for PSD;
   326 IAC 2-13-1(c)(2)(C), for NSPS or NESHAP;
   326 IAC 2-13-1(c)(2)(C), for state rules.

9. Is the proposed modification to be located in a nonattainment area?
   √ Yes Go to question 10.
   ___ No Go to question 11. County: Hancock County

10. Will the proposed modification emit the pollutant for which the area is nonattainment in quantities greater than the significant levels?
   ___ Yes Deny the application, pursuant to 326 IAC 2-13-1(a)(2).
   √ No Go to question 11.

11. Did the petition include a complete description of the process?
   √ Yes Go to question 12.
   ___ No Deny the petition, pursuant to 326 IAC 2-13-1(c)(2).

12. Did the interim permit petition contain conditions accepting either emission controls (baghouse, afterburners, scrubbers, etc.) or enforceable limits or other suitable restriction to avoid PSD applicability as well as control parameters (incinerator operating temperature, baghouse pressure drop, etc.)? The specific limits must be explicitly spelled out (i.e., the gas consumption of the boiler shall not exceed 29 million cubic feet per month); a statement such as that "the company agrees to conditions such that PSD rules are not applicable" is not acceptable.

The uncontrolled PM/PM_{10} emissions are less than the PSD threshold levels.

NA Yes Go to question 13.
NA No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(B).

13. Do the emission controls and/or throughput limits prevent PSD applicability?
NA Yes Go to question 14.
NA No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(B).

14. Will the modification, after application of all emission controls and/or throughput limitations comply with all applicable New Source Performance Standards (NSPS) (40 CFR 60)?
NA Yes Go to question 15.
NA No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).

15. Will the modification, after application of all emission controls and/or throughput limitations comply with all applicable National Emission Standards for Hazardous Air Pollutants (NESHAP)?
NA Yes Go to question 16.
NA No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).

16. Will the modification, after application of all emission controls and/or throughput limitations, comply with all applicable state rules?
√ Yes Go to question 17.
_____ No Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).

17. Does the applicant dispute applicability of any applicable state or federal rule?
_____ Yes Deny the application, pursuant to 326 IAC 2-13-1(c)(2)(C).
√ No Go to question 18.

18. Is there good reason to believe that the applicant does not intend to construct in accordance with the interim permit petition?
_____ Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(1).
√ No Go to question 19.

19. Is there good reason to believe that information in the petition has been falsified?
_____ Yes Deny the application, pursuant to 326 IAC 2-13-1(h)(7).
√ No Approve the interim permit petition.

20. Has the petition been adequately public noticed? A proof of publication copy is necessary.
NA Yes Go to question 21.
NA No Deny the application, pursuant to 326 IAC 2-13-1(e).

21. √ Issue the final interim permit approval.

Comments:

Recommendation: Approve Interim Petition

Date the applicant was informed of the decision: 6-30-06

Method of informing the applicant: By Courier