



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: October 24, 2008

RE: Keihin Aircon North America, Inc. / 035-26421-00065

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

Notice of Decision – Approval

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to 326 IAC 2, this approval was effective immediately upon submittal of the application.

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

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

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

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

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

Enclosures
FNPER-AM.dot12/3/07



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October 24, 2008

Ken VanDevender
Keihin Aircon North America, Inc.
4400 North Superior Drive
Muncie, IN 47303

Re: Exempt Construction and Operation Status,
035-26421-00065

Dear Mr. VanDevender:

The application from Keihin Aircon North America, Inc., received on April 15, 2008, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-1.1-3, it has been determined that the following stationary plastic injection molding process located at 4400 North Superior Drive, Muncie, Indiana 47303 is classified as exempt from air pollution permit requirements:

- (a) Five (5) injection molding machines, identified as Press 1, Press 2, Press 3, Press 4, and Press 5, constructed in 2001, 2001, 2004, 2000, and 2007 respectively, with a combined maximum capacity of 1,000 pounds per hour, utilizing no control devices, and exhausting within the building.
- (b) One (1) plastics grinding booth, identified as Grinder 1, constructed in 2001, with a maximum capacity of 1,000 pounds per hour, utilizing a cyclone as particulate control, and exhausting within the building.
- (c) Natural gas fired combustion sources consisting of:
 - (1) Eleven (11) natural gas air makeup units, identified as RTU-01 through RTU-05, RTU-07, RTU-08, RTU-13 through RTU-15, and ARU with a combined rated capacity of 3.43 MMBtu/hr.
 - (2) Two (2) natural gas fired space heaters, identified as Space Heater-01 and Space Heater-02, with a combined rated capacity of 0.445 MMBtu/hr.
 - (3) One (1) natural gas fired water heater, identified as Gas Water Heater, with a rated capacity of 0.04 MMBtu/hr.
- (d) Two (2) degreasing parts washers, with a combined maximum capacity of 55 gallons solvent per year, and exhausting within the building.
- (e) Two (2) raw material storage silos, identified as Marlex and Polyone, constructed in 2001, each with a maximum capacity of 55,000 pounds, with particulate controlled by fabric filters, and exhausting to ambient air.
- (f) One pneumatic conveying system for transferring raw materials.
- (g) Paved and unpaved roads and parking lots with public access.
- (h) One (1) diesel storage tank, with a maximum capacity of 300 gallons, constructed in 2004.
- (i) One diesel fuel generator, identified as Generator 1, constructed in 2004, with a heat input capacity of 0.5 MMBtu.

The following conditions shall be applicable:

1. 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 this permit:
 - (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

2. 326 IAC 6-3-2 (Particulate Emissions Limitations)
Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the particulate emissions from each of the following processes shall not exceed the pound per hour limits as follows:

Emission Unit	Maximum Process Weight (lb/hr)	Particulate Emissions (lb/hr)
Press 1	200	0.88
Press 2	200	0.88
Press 3	200	0.88
Press 4	200	0.88
Press 5	200	0.88
Grinder 1	1,000	2.58
Marlex	1,000	2.58
Polyone	1,000	2.58
Pneumatic Conveying System	1,000	2.58

The pound per hour limitations shall be calculated using the following equation:

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

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

3. 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
4. 326 IAC 8-3-2 (Cold Cleaner Operations)
Pursuant to 326 IAC 8-3-2, for cold cleaning operations constructed after January 1, 1980, the Permittee shall:
 - (a) Equip the cleaner with a cover;
 - (b) Equip the cleaner with a facility for draining cleaned parts;
 - (c) Close the degreaser cover whenever parts are not being handled in the cleaner;
 - (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (e) Provide a permanent, conspicuous label summarizing the operation requirements;

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

5. 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)

Pursuant to 326 IAC 8-3-5(a), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:

- (a) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (i) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (ii) The solvent is agitated; or
 - (iii) The solvent is heated.
- (b) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
- (c) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
- (d) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
- (e) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury) or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (i) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (ii) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (iii) Other systems of demonstrated equivalent control such as a refrigerated chiller or carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

This exemption is the first air approval issued from this source. A copy of the Exemption 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's Guide for Citizen

Participation and Permit Guide on the Internet at: www.idem.in.gov

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. If you have any questions on this matter, please contact Jason R. Krawczyk, OAQ, 100 North Senate Avenue, MC 61-53 IGCN 1003, Indianapolis, Indiana, 46204-2251, at 317-234-5175 or at 1-800-451-6027 (ext 45175).

Sincerely,

Original signed by

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

IC/JRK

cc: File - Delaware County
Delaware County Health Department
Air Compliance Section
Compliance Data Section
Permits Administrative and Development
Billing, Licensing and Training Section

Attachment A:

**Injection Molding
Emission Factor Determination**



Emission Calculation Fact Sheet

Michigan Department Of Environmental Quality ♦ Environmental Science And Services Division ♦ (800) 662-9278

PLASTIC PRODUCTION AND PRODUCTS MANUFACTURING

This document lists Source Classification Codes (SCC) and emission factors for plastic production and product manufacturing facilities. They are provided as an aid in calculating emissions. Emissions factors for rubber and fiberglass manufacturing facilities are not included in this fact sheet; however, they must also be calculated and reported.

It is not required that facilities use these factors to estimate their emissions. If a facility disagrees with any emission factor in this document, other emission factors or methods of estimating emissions may be used provided the emission factors or methods correctly characterize the processes and the resulting emissions at the facility. A facility doing so must submit calculations and documentation showing the source of the factors or method used and justification for their use. For example, stack test data and site specific emission calculations provide more accurate emission estimates than the use of general emission factors.

Control Factors

The listed emission factors are for uncontrolled emissions. If a facility has control equipment, such as a fabric filter or

thermal oxidizer, the emissions can be multiplied by the control factor. Calculate the control factor by subtracting the percent control efficiency from 100 and then divide that number by 100. For example, if the control efficiency is 87%, the control factor would be $(100 - 87)/100 = 0.13$. Control efficiencies may be listed on the equipment or in the equipment documentation. Alternatively, equipment suppliers can provide control efficiency values.

Scientific Notation

The emission factors are expressed in scientific notation, which means that the decimal point has been moved. If the exponent is negative, move the decimal point to the left. If the exponent is positive, move the decimal point to the right. If the exponent is zero, the decimal point does not move. For example, if a number is expressed as 2.0E-1, move the decimal point one place to the left to get 0.20. If a number is expressed as 2.0E2, move the decimal point 2 places to the right to get 200. If a number is expressed as 2.0E0, the decimal point does not move – the number is 2.0.

PLASTIC PRODUCTION

SCC	DESCRIPTION	POLLUTANT	EMISSION FACTORS
3-01-018-01	Polyvinyl Chlorides and Copolymers	NOX PM10,FLTRBLE SOX VOC	2.0E2 LB/TON PRODUCT 2.3E1 LB/TON PRODUCT 2.5E-2 LB/TON PRODUCT 1.7E1 LB/TON PRODUCT
3-01-018-02	Polypropylene and Copolymers	NOX PM10,FLTRBLE VOC	1.31E2 LB/TON PRODUCT 2.0E0 LB/TON PRODUCT 7.0E-1 LB/TON PRODUCT
3-01-018-07	General: Polyethylene (High Density)	PM10,FLTRBLE	6.6E-1 LB/TON PRODUCT
3-01-018-09	Extruder	VOC	1.1E1 LB/TON POLYETHYLENE
3-01-018-10	Conveying	VOC	4.6E-1 LB/TON POLYETHYLENE
3-01-018-11	Storage	PM,FLTRBLE VOC	8.0E-1 LB/TON POLYETHYLENE 1.0E-2 LB/TON POLYETHYLENE
3-01-018-12	General: Polyethylene (Low Density)	PM10,FLTRBLE	6.6E-1 LB/TON POLYETHYLENE
3-01-018-14	Extruder	VOC	6.6E1 LB/TON POLYETHYLENE

Plastic Production and Products Manufacturing Fact Sheet

PLASTIC PRODUCTION (continued)

SCC	DESCRIPTION	POLLUTANT	EMISSION FACTORS
3-01-018-17	General*	VOC	1.07E1 LB/TON POLYSTYR RES
3-01-018-19	Solvent Recovery	VOC	3.2E0 LB/TON POLYSTYR RES
3-01-018-21	Extruding / Pelletizing / Conveying / Storage	VOC	3.0E-1 LB/TON POLYSTYR RES
3-01-018-27	Polyamide Resins	NOX	1.0E0 LB/TON POLYAMID RES
3-01-018-32	Urea-Formaldehyde Resins	VOC	1.47E1 LB/TON UREA-FOR RES
3-01-018-42	Melamine Resins	VOC	5.0E1 LB/TON MELAMINE RES
3-01-018-47	Epoxy Resins	VOC	5.1E0 LB/TON EPOXY RESIN
3-01-018-49	Acrylonitrile-Butadiene-Styrene (ABS) Resin	VOC	6.0E1 LB/TON ABS RESIN
3-01-018-70	Reactor (Polyether Resins)	VOC	5.0E1 LB/TON POLYETHRRESN
3-01-018-80	Reactor (Polyurethane)	VOC	5.2E1 LB/TON POLYURETHANE
3-01-018-92	Separation Process	VOC	2.0E0 LB/TON PRODUCT

* This factor may be used to calculate total emissions from a polystyrene resin production plant.

PLASTIC PRODUCTS MANUFACTURING

SCC	DESCRIPTION	POLLUTANT	EMISSION FACTORS
3-08-010-01	Adhesives Production	VOC	1.25E1 LB/TON ADHESIVE
3-08-010-02	Extruder	PM,PRIMARY VOC	9.58E-2 LB/TON PLASTIC 7.06E-2 LB/TON PLASTIC
3-08-010-03	Film Production, Die (Flat/Circular)	PM,PRIMARY VOC	8.02E-2 LB/TON PLASTIC 2.84E-2 LB/TON PLASTIC
3-08-010-04	Sheet Production, Polymerizer	VOC	3.5E0 LB/TON PLASTIC
3-08-010-05	Foam Production, General Process	VOC	6.0E1 LB/TON PLASTIC
3-08-010-06	Lamination, Kettles/Oven	VOC	2.05E1 LB/TON PLASTIC
3-08-010-07	Molding Machine	PM,PRIMARY VOC	1.302E-1 LB/TON PLASTIC 6.14E-2 LB/TON PLASTIC

RUBBER MANUFACTURING AND PRODUCTS: MAERS does not have the capability to calculate emissions for these SCC codes. Check "Other" on the MAERS E-101 Form and use an alternate method for calculating emissions. Be sure to submit documentation to support any calculations. For assistance in calculating emissions, refer to EPA's Clearinghouse for Inventories and Emission Factors (CHIEF) Internet Site at www.epa.gov/ttn/chief or contact your industry trade group/organization.

FIBERGLASS RESIN PRODUCTS: MAERS does not have the capability to calculate emissions for these SCC codes. Check "Other" on the MAERS E-101 Form and use an alternate method for calculating emissions. Be sure to submit documentation to support any calculations. Unified Emission Factors are available from the American Composites Manufacturers Association (ACMA) web site www.cfa-hq.org/ga/index.cfm.

The Michigan Department of Environmental Quality (MDEQ) will not discriminate against any individual or group on the basis of race, sex, religion, age, national origin, color, marital status, disability, or political beliefs. Questions or concerns should be directed to the MDEQ Office of Personnel Services, PO Box 30473, Lansing, MI 48909.

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for an Exemption

Source Description and Location

Source Name: Keihin Aircon North America, Inc.
Source Location: 4400 North Superior Drive, Muncie, IN 47303
County: Delaware
SIC Code: 3714
Registration (or Exemption) No.: 035-26421-00065
Permit Reviewer: Jason R. Krawczyk

On April 15, 2008, the Office of Air Quality (OAQ) has received an application from Keihin Aircon North America, Inc. related to the continued operation of an existing plastic injection molding process.

Existing Approvals

There have been no previous approvals issued to this source.

County Attainment Status

The source is located in Delaware County.

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective January 3, 2006, for the Muncie area, including Delaware County, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.
¹ Unclassifiable or attainment effective October 18, 2000, for the 1-hour ozone standard which was revoked effective June 15, 2005. Unclassifiable or attainment effective April 5, 2005, for PM _{2.5} .	

(a) Ozone Standards

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. Delaware County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

(b) PM_{2.5}

Delaware County has been classified as attainment for PM_{2.5}. On May 8, 2008 U.S. EPA promulgated the requirements for Prevention of Significant Deterioration (PSD) for PM_{2.5} emissions, and the effective date of these rules was July 15th, 2008. Indiana has three years from the publication of these rules to revise its PSD rules, 326 IAC 2-2, to include those requirements. The May 8, 2008 rule revisions require IDEM to regulate PM₁₀ emissions as a surrogate for PM_{2.5} emissions until 326 IAC 2-2 is revised.

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

Fugitive Emissions

The fugitive emissions of criteria pollutants and hazardous air pollutants are counted toward the determination of 326 IAC 2-1.1-3 (Exemptions) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Keihin Aircon North America, Inc. on April 15, 2008, relating to the continued operation of its plastic injection molding process.

The source consists of the following existing emission unit(s):

- (a) Five (5) injection molding machines, identified as Press 1, Press 2, Press 3, Press 4, and Press 5, constructed in 2001, 2001, 2004, 2000, and 2007 respectively, with a combined maximum capacity of 1,000 pounds per hour, utilizing no control devices, and exhausting within the building.
- (b) One (1) plastics grinding booth, identified as Grinder 1, constructed in 2001, with a maximum capacity of 1,000 pounds per hour, utilizing a cyclone as particulate control, and exhausting within the building.
- (c) Natural gas fired combustion sources consisting of:
- (1) Eleven (11) natural gas air makeup units, identified as RTU-01 through RTU-05, RTU-07, RTU-08, RTU-13 through RTU-15, and ARU with a combined rated capacity of 3.43 MMBtu/hr.
- (2) Two (2) natural gas fired space heaters, identified as Space Heater-01 and Space Heater-02, with a combined rated capacity of 0.445 MMBtu/hr.
- (3) One (1) natural gas fired water heater, identified as Gas Water Heater, with a rated capacity of 0.04 MMBtu/hr.
- (d) Two (2) degreasing parts washers, with a combined maximum capacity of 55 gallons solvent per year, and exhausting within the building.
- (e) Two (2) raw material storage silos, identified as Marlex and Polyone, constructed in 2001, each with a maximum capacity of 55,000 pounds, with particulate controlled by fabric filters, and exhausting to ambient air.
- (f) One pneumatic conveying system for transferring raw materials.
- (g) Paved and unpaved roads and parking lots with public access.
- (h) One (1) diesel storage tank, with a maximum capacity of 300 gallons, constructed in 2001.
- (i) One diesel fuel generator, identified as Generator 1, constructed in 2004, with a heat input capacity of 0.5 MMBtu.

Enforcement Issues

There are no pending enforcement actions related to this source.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination – Exemption

The following table reflects the unlimited potential to emit (PTE) of the entire source before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Process/ Emission Unit	Potential To Emit of the Entire Source (tons/year)								
	PM	PM10*	PM2.5	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Injection Molding	0.29	0.29	0.29	negl.	negl.	0.13	negl.	negl.	negl.
Grinding	2.19	2.19	2.19	negl.	negl.	negl.	negl.	negl.	negl.
Natural Gas Combustion	0.03	0.13	0.13	0.01	1.71	0.09	1.44	0.03	0.03 Hexane
Degreasing Operations	negl.	negl.	negl.	negl.	negl.	0.19	negl.	negl.	negl.
Storage and Handling	1.75	1.75	1.75	negl.	negl.	negl.	negl.	negl.	negl.
Diesel Emergency Generator	0.03	0.03	0.03	1.10	0.31	0.01	0.08	negl.	negl.
Total PTE of Entire Source	4.29	4.39	4.39	1.11	2.03	0.42	1.52	0.03	0.03 Hexane
Exemptions Levels	5	5	5	10	10	10	25	25	10
Registration Levels	25	25	25	25	25	25	100	25	10

negl. = negligible
* Under the Part 70 Permit program (40 CFR 70), particulate matter with an aerodynamic diameter less than or equal to a nominal 10 micrometers (PM10), not particulate matter (PM), is considered as a "regulated air pollutant".

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of all regulated criteria pollutants are less than the levels listed in 326 IAC 2-1.1-3(e)(1). Therefore, the source is subject to the provisions of 326 IAC 2-1.1-3 (Exemptions).

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) There are no New Source Performance Standards (NSPS)(40 CFR Part 60) included in the permit.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in the permit.

Compliance Assurance Monitoring (CAM)

- (c) Pursuant to 40 CFR 64.2, Compliance Assurance Monitoring (CAM) is not included in the permit, because the unlimited potential to emit of the source is less than the Title V major source thresholds and the source is not required to obtain a Part 70 or Part 71 permit.

State Rule Applicability Determination

The following state rules are applicable to the source:

- (a) 326 IAC 2-1.1-3 (Exemptions)
Exemption applicability is discussed under the Permit Level Determination – Exemption section above.
- (b) 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))
The potential to emit of any single HAP is less than ten (10) tons per year and the potential to emit of a combination of HAPs is less than twenty-five (25) tons per year. Therefore, this source is an area source under Section 112 of the Clean Air Act (CAA) and not subject to the provisions of 326 IAC 2-4.1.
- (c) 326 IAC 2-6 (Emission Reporting)
Pursuant to 326 IAC 2-6-1, this source is not subject to this rule, because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, 326 IAC 2-6 does not apply.
- (d) 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 this permit:
- (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 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.
- (e) 326 IAC 6-4 (Fugitive Dust Emissions Limitations)
Pursuant to 326 IAC 6-4 (Fugitive Dust Emissions Limitations), the source 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.
- (f) 326 IAC 6-5 (Fugitive Particulate Matter Emission Limitations)
The source is not subject to the requirements of 326 IAC 6-5, because the source does not have potential fugitive particulate emissions greater than 25 tons per year. Therefore, 326 IAC 6-5 does not apply.
- (g) 326 IAC 8-1-6 (VOC Rules: General Reduction Requirements for New Facilities)
Each of the emission units at this source is not subject to the requirements of 326 IAC 8-1-6, since the unlimited VOC potential emissions from each emission unit is less than twenty-five (25) tons

per year.

Injection Molding

- (h) 326 IAC 6-3-2 (Particulate Emissions Limitations)
The injection molding lines identified as Press 1 through Press 5 at this source each have a maximum process rate of 200 lbs/hr. Pursuant to 326 IAC 6-3-2(e), particulate emissions from each molding line shall not exceed 0.88 lbs/hr.

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:

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

Grinding Booth

- (i) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
The grinding operation at this source has a maximum process rate of 1,000 lbs/hr. Pursuant to 326 IAC 6-3-2(e), particulate emissions from this grinding operation shall not exceed 2.58 lbs/hr.

Particulate emission limitations for process weight rate up to sixty thousand (60,000) pounds per hour were accomplished by use of the equation:

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

Natural Gas Combustion

- (j) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The natural gas-fired combustion units are not subject to 326 IAC 6-2 because they are not sources of indirect heating.
- (k) 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes)
The natural gas-fired combustion units are not subject to the requirements of 326 IAC 6-3 because manufacturing processes with potential emissions less than five hundred fifty-one thousandths (0.551) pounds per hour are exempt from the provisions of this rule.
- (l) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
The natural gas-fired combustion units are not subject to the requirements of 326 IAC 7-1.1, because the potential sulfur dioxide emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour.

Degreasing Operations

- (m) 326 IAC 8-3-2 (Cold Cleaner Operations)
Pursuant to 326 IAC 8-3-2, for cold cleaning operations constructed after January 1, 1980, the Permittee shall:
- (a) Equip the cleaner with a cover;
 - (b) Equip the cleaner with a facility for draining cleaned parts;
 - (c) Close the degreaser cover whenever parts are not being handled in the cleaner;

- (d) Drain cleaned parts for at least fifteen (15) seconds or until dripping ceases;
 - (e) Provide a permanent, conspicuous label summarizing the operation requirements;
 - (f) Store waste solvent only in covered containers and not dispose of waste solvent or transfer it to another party, in such a manner that greater than twenty percent (20%) of the waste solvent (by weight) can evaporate into the atmosphere.
- (n) 326 IAC 8-3-5 (Cold Cleaner Degreaser Operation and Control)
Pursuant to 326 IAC 8-3-5(a), the owner or operator of a cold cleaner degreaser facility shall ensure that the following control equipment requirements are met:
- (1) Equip the degreaser with a cover. The cover must be designed so that it can be easily operated with one (1) hand if:
 - (A) The solvent volatility is greater than two (2) kiloPascals (fifteen (15) millimeters of mercury or three-tenths (0.3) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F));
 - (B) The solvent is agitated; or
 - (C) The solvent is heated.
 - (2) Equip the degreaser with a facility for draining cleaned articles. If the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), then the drainage facility must be internal such that articles are enclosed under the cover while draining. The drainage facility may be external for applications where an internal type cannot fit into the cleaning system.
 - (3) Provide a permanent, conspicuous label which lists the operating requirements outlined in subsection (b).
 - (4) The solvent spray, if used, must be a solid, fluid stream and shall be applied at a pressure which does not cause excessive splashing.
 - (5) Equip the degreaser with one (1) of the following control devices if the solvent volatility is greater than four and three-tenths (4.3) kiloPascals (thirty-two (32) millimeters of mercury or six-tenths (0.6) pounds per square inch) measured at thirty-eight degrees Celsius (38°C) (one hundred degrees Fahrenheit (100°F)), or if the solvent is heated to a temperature greater than forty-eight and nine-tenths degrees Celsius (48.9°C) (one hundred twenty degrees Fahrenheit (120°F)):
 - (A) A freeboard that attains a freeboard ratio of seventy-five hundredths (0.75) or greater.
 - (B) A water cover when solvent is used is insoluble in, and heavier than, water.
 - (C) Other systems of demonstrated equivalent control such as a refrigerated chiller of carbon adsorption. Such systems shall be submitted to the U.S. EPA as a SIP revision.

Pursuant to 326 IAC 8-3-5(b), the owner or operator of a cold cleaning facility shall ensure that the following operating requirements are met:

- (1) Close the cover whenever articles are not being handled in the degreaser.
- (2) Drain cleaned articles for at least fifteen (15) seconds or until dripping ceases.
- (3) Store waste solvent only in covered containers and prohibit the disposal or transfer of

waste solvent in any manner in which greater than twenty percent (20%) of the waste solvent by weight could evaporate.

Storage and Handling

- (o) 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-2(e), the particulate emission from the storage and handling facilities, identified as Marlex and Polyone, and the pneumatic conveying system for conveying polyethylene raw materials, shall not exceed 2.58 lbs/hr when operating at a maximum process rate of 1,000 lbs/hr.

Particulate emission limitations for process weight rate up to sixty thousand (60,000) pounds per hour were accomplished by use of the equation:

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

Emergency Generator

- (p) 326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)
The emergency diesel generator is not subject to the requirements of 326 IAC 7-1.1, because the potential sulfur dioxide emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour.

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 April 15, 2008.

The operation of this source shall be subject to the conditions of the attached proposed Exemption No. 035-26421-00065. The staff recommends to the Commissioner that this Exemption be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Jason R. Krawczyk 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) (234-5175) or toll free at 1-800-451-6027 extension (4-5175).
- (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's Guide for Citizen Participation and Permit Guide on the Internet at: www.idem.in.gov

SUMMARY OF EMISSIONS

Company Name: Keihin Aircon North America, Inc.
Address: 4400 North Superior Drive, Muncie, IN 47303
Registration: 035-26421-00065
Plant ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

Uncontrolled Emissions (Tons/Yr)							
Pollutant	Combustion	Injection Molding	Grinding	Cold Cleaning	Storage and Handling	Diesel Generator	Total PTE
PM	0.03	0.29	2.19	-	1.75	0.03	4.29
PM10	0.13	0.29	2.19	-	1.75	0.03	4.39
VOC	0.09	0.13	-	0.19	-	0.01	0.42
NOx	1.71	-	-	-	-	0.31	2.03
SO2	0.01	-	-	-	-	1.10	1.11
CO	1.44	-	-	-	-	0.08	1.52
Single HAP	0.03	-	-	-	-	-	0.03
Combined HAPs	0.03	-	-	-	-	0.00	0.03

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

Company Name: Keihin Aircon North America, Inc.
Address City IN Zip: 4400 North Superior Drive, Muncie, IN 47303
Permit Number: 035-26421-00065
Plt ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr
0.205	RTU-01	1.80
0.090	RTU-02	0.79
0.150	RTU-03	1.31
0.090	RTU-04	0.79
0.205	RTU-05	1.80
0.250	RTU-07	2.19
0.090	RTU-08	0.79
0.350	RTU-13	3.07
0.350	RTU-14	3.07
0.400	RTU-15	3.50
0.045	Space Heater-01	0.39
0.400	Space Heater-02	3.50
1.250	ARU	10.95
0.040	Gas Water Heater	0.35
3.915		34.30

Emission Factor in lb/MMCF	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
	1.9	7.6	0.6	100	5.5	84
				**see below		
Potential Emission in tons/yr	0.03	0.13	0.01	1.71	0.09	1.44

*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

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/1,000 MMBtu

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

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

Company Name: Keihin Aircon North America, Inc.
Address City IN Zip: 4400 North Superior Drive
Permit Number: 035-26421-00065
Plt ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: August 13, 2008

HAPs - Organics					
Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential Emission in tons/yr	3.601E-05	2.058E-05	1.286E-03	3.087E-02	5.830E-05

HAPs - Metals					
Emission Factor in lb/MMcf	Lead 5.0E-04	Cadmium 1.1E-03	Chromium 1.4E-03	Manganese 3.8E-04	Nickel 2.1E-03
Potential Emission in tons/yr	8.574E-06	1.886E-05	2.401E-05	6.516E-06	3.601E-05

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: Emission Calculations
VOC, CO, and PM/PM10 Emissions
From the Injection Molding**

**Company Name: Keihin Aircon North America, Inc.
Address: 4400 North Superior Drive, Muncie, IN 47303
Registration: 035-26421-00065
Plant ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008**

Emission Unit	Max. Throughput Rate (lbs/hr)	VOC		CO		PM/PM10			326 IAC 6-3-2(e)		
		VOC Emission Factor* (lbs/ton)	PTE of VOC (tons/yr)	CO Emission Factor** (lbs/ton)	PTE of CO (tons/yr)	PM/PM10 Emission Factor* (lbs/ton)	PTE of PM/PM10 (lbs/hr)	PTE of PM/PM10 (tons/yr)	Process Weight Rate (tons/hr)	Allowable Emissions (lbs/hr)	Allowable Emissions (tons/yr)
Press 1	200.0	0.0614	2.69E-02	-	-	0.1302	1.30E-02	5.70E-02	0.10	0.88	3.84
Press 2	200.0	0.0614	2.69E-02	-	-	0.1302	1.30E-02	5.70E-02	0.10	0.88	3.84
Press 3	200.0	0.0614	2.69E-02	-	-	0.1302	1.30E-02	5.70E-02	0.10	0.88	3.84
Press 4	200.0	0.0614	2.69E-02	-	-	0.1302	1.30E-02	5.70E-02	0.10	0.88	3.84
Press 5	200.0	0.0614	2.69E-02	-	-	0.1302	1.30E-02	5.70E-02	0.10	0.88	3.84
Total	1,000		0.13		-			0.29			

Notes:

*VOC and PM emission factors are from Fact Sheet #9847 (revised 11/05) from the Michigan Department of Environmental Quality. There are no emission factors for the type of process in AP-42 or FIRE. Assume PM 10 emissions are equal to PM emissions. Please see Attachment A for emission factor determination.

** Based on engineering assumptions provided by the source, the PTE of CO emissions from the injection molding are minimal.

*** Based on the calculations, these molding lines comply with 326 IAC 6-3-2(e).

Methodology:

PTE (lbs/hr) = Max. Throughput Rate (lbs/hr) x Emission Factor (lbs/ton) x 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Particulate Emissions
From the Plastic Grinding Operation**

Company Name: Keihin Aircon North America, Inc.
Address City IN Zip: 4400 North Superior Drive, Muncie, IN 47303
Permit Number: 035-26421-00065
Pit ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

Emission Unit	Max. Scrap Throughput Rate (lbs/hr)	Uncontrolled PM/PM10 Emission Factor* (lbs/lbs)	Uncontrolled PTE of PM/PM10 (lbs/hr)	Uncontrolled PTE of PM/PM10 (tons/yr)
Grinding Operation	50.0	0.01	0.50	2.19
Total				2.19

Note:

The PM/PM10 Emission Factor is calculated by assuming the maximum scrap rate at the facility is 5 percent of total throughput, and that the maximum amount of reprocessed scrap that escapes capture and becomes a fugitive emission is 1 percent.
 Maximum Scrap Throughput Rate = 1,000 (lb/hr) * 5%

There are no emission factors available in AP-42 or FIRE for plastic grinding process.

Methodology:

PTE (lbs/hr) = Max. Throughput Rate (lbs/hr) x Emission Factor (lbs/lbs)

PTE (tons/yr) = Max. Throughput Rate (lbs/hr) x Emission Factor (lbs/lbs) x 8760 hrs/yr x 1 ton/2000 lbs

Appendix A: Emission Calculations

**VOC Emissions
From Cold Cleaners**

Company Name: Keihin Aircon North America, Inc.
Address City IN Zip: 4400 North Superior Drive, Muncie, IN 47303
Permit Number: 035-26421-00065
Plt ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

(2) Cold Cleaner Degreasing Operations

Material	Process	Density (lb/gal)	Annual Usage (gal)*	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non Volatiles (Solids)	Gal of Mat (gal/day)	Potential VOC (lb/hr)	Potential VOC (lb/day)	Potential VOC (tons/yr)
Solvtech AG-6	Degreaser	6.84	55	100.00%	0.00%	100.00%	0.00%	0.00%	0.15	0.04	1.03	0.19
Total:										0.04	1.03	0.19

Notes:

Annual Usage = Annual Purchase

Methodology:

Gallons of Material (gal/day) = Annual emissions / 365

**Appendix A: Emissions Calculations
Microhoppers**

Company Name: Keihin Aircon North America, Inc.
Address City IN Zip: 4400 North Superior Drive, Muncie, IN 47303
Permit Number: 035-26421-00065
Plt ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

Emission Unit	Maximum Capacity			Emission Factor		Uncontrolled Potential to Emit (TPY)	
	lbs/hr	Tons/year	MMlb/year	PM10 (lb/ton)	PM (lb/ton)	PM10	PM
Thirteen (13) Microhoppers*	1,000	4,380	8.76	0.10	0.20	0.22	0.44
					Total in TPY	0.22	0.44

Note:

The PM and PM10 emission factors used in silos are from the FIRE database (SCC 3-01-018-11).

Methodology:

PM/PM10 Emission (ton/year) = Maximum Capacity Tons/year * Emission Factor (lb/ton) / 8,760 hours.

**Appendix A: Emissions Calculations
Storage and Handling**

Company Name: Keihin Aircon North America, Inc.
Address City IN Zip: 4400 North Superior Drive, Muncie, IN 47303
Permit Number: 035-26421-00065
Plt ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

Facility	Capacity lbs/hr*	PM/PM10 Emission Factor lbs/ton	Potential to emit PM/PM10 (Uncontrolled) lbs/hr**	Potential to emit PM/PM10 (Uncontrolled) tons/yr	326 IAC 6-2-3(e) Allowable PM Emission Rate lbs/hr**
Raw material receiving and handling Silo-01/ Silo-02	1000.00	0.8	0.40	1.75	2.58
		Totals	0.40	1.75	2.58

Notes:

*Capacity is calculated from an estimated 1,000 pound per hour combined throughput from the injection molding machines and an 8,760 hour per year operating

**Based on the calculations, these storage and handling operations comply with 326 IAC 6-3-2(e).

Emission Factor from AP-42 Chapter 6.6.2, Table 6.6.2-1 (0.4 g/kg) = 0.8 lb/ton

Methodology:

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil

Company Name: Keihin Aircon North America, Inc.
Address City IN Zip: 4400 North Superior Drive, Muncie, IN 47303
Permit Number: 035-26421-00065
Plt ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

Heat Input Capacity Potential Throughput S = Weight % Sulfur
MMBtu/hr kgals/year 0.5

0.50

31.1

Emission Factor in lb/kgal	Pollutant				
	PM*	SO2	NOx	VOC	CO
	2.0	71 <i>(142.0S)</i>	20.0	0.34	5.0
Potential Emission in tons/yr	0.03	1.10	0.31	0.01	0.08

Note:
Potential Throughput is based on a maximum operating schedule of 500 hours per year.

Methodology:
1 gallon of No. 2 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

See page 2 for HAPs emission calculations.

Appendix A: Emissions Calculations
Commercial/Institutional/Residential Combustors (< 100 mmBtu/hr)
#2 Fuel Oil
HAPs Emissions

Company Name: Keihin Aircon North America, Inc.
Address, City IN Zip: 4400 North Superior Drive, Muncie, IN 47303
Permit Number: 035-26421-00065
Plt ID: 035-00065
Reviewer: Jason R. Krawczyk
Date: October 14, 2008

HAPs - Metals					
Emission Factor in lb/mmBtu	Arsenic 4.0E-06	Beryllium 3.0E-06	Cadmium 3.0E-06	Chromium 3.0E-06	Lead 9.0E-06
Potential Emission in tons/yr	8.71E-06	6.53E-06	6.53E-06	6.53E-06	1.96E-05

HAPs - Metals (continued)				
Emission Factor in lb/mmBtu	Mercury 3.0E-06	Manganese 6.0E-06	Nickel 3.0E-06	Selenium 1.5E-05
Potential Emission in tons/yr	6.53E-06	1.31E-05	6.53E-06	3.27E-05

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