



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: July 24, 2008

RE: Jarden Home Brands / 035-26677-00001

FROM: Matthew Stuckey, Branch 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, Suite N 501E, 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 1/2/08



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REREGISTRATION OFFICE OF AIR QUALITY

**Jarden Home Brands
1501 E. Ninth Street
Muncie, Indiana 47302**

Pursuant to 326 IAC 2-5.1 (Construction of New Sources: Registrations) and 326 IAC 2-5.5 (Registrations), (herein known as the Registrant) is hereby authorized to construct and operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this registration.

Re-Registration No. 035-26677-00001	
Issued by: <i>Original document signed by</i> Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: July 24, 2008

SECTION A

SOURCE SUMMARY

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

A.1 General Information

The Registrant owns and operates a stationary metal stamping operating facility.

Source Address:	1501 E. Ninth Street, Muncie, IN 47302
Mailing Address:	1501 E. Ninth Street, Muncie, IN 47302
General Source Phone Number:	(765) 557-3189
SIC Code:	3714
County Location:	Delaware County
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Registration

A.2 Emission Units and Pollution Control Equipment Summary

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

- (a) Four (4) Plastisol curing ovens, identified as L1, L2, L4 and L5, constructed in 1975, with a maximum heating capacity of 1.2 MMBtu/hr each, processing 87.25 pounds per hour of plastisol (a non-VOC compound) each line, and 510 pounds per hour of metal each line, and exhausting through vents L1, L2, L4 and L5 respectively.
- (b) Two (2) Plastisol curing ovens, identified as 9E and 9W, constructed in 1975, with a maximum capacity of 2.4 MMBtu/hr each, processing 95 pounds per hour of plastisol (a non-VOC compound) each line, and 510 pounds per hour of metal each line, and exhausting through vents 9E and 9W.

SECTION B

GENERAL CONDITIONS

B.1 Definitions [326 IAC 2-1.1-1]

Terms in this registration shall have the definition assigned to such terms in the referenced regulation. In the absence of definitions in the referenced regulation, the applicable definitions found in the statutes or regulations (IC 13-11, 326 IAC 1-2 and 326 IAC 2-1.1-1) shall prevail.

B.2 Effective Date of Registration [IC 13-15-5-3]

Pursuant to IC 13-15-5-3, this registration 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.

B.3 Registration Revocation [326 IAC 2-1.1-9]

Pursuant to 326 IAC 2-1.1-9 (Revocation), this registration to operate may be revoked for any of the following causes:

- (a) Violation of any conditions of this registration.
- (b) Failure to disclose all the relevant facts, or misrepresentation in obtaining this registration.
- (c) Changes in regulatory requirements that mandate either a temporary or permanent reduction of discharge of contaminants. However, the amendment of appropriate sections of this registration shall not require revocation of this registration.
- (d) For any cause which establishes in the judgment of IDEM, the fact that continuance of this registration is not consistent with purposes of this article.

B.4 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of permits established prior to Re-Registration No. 035-26677-00001 and issued pursuant to permitting programs approved into the state implementation plan have been either:
 - (1) incorporated as originally stated,
 - (2) revised, or
 - (3) deleted.
- (b) All previous registrations and permits are superseded by this registration.

B.5 Annual Notification [326 IAC 2-5.1-2(f)(3)] [326 IAC 2-5.5-4(a)(3)]

Pursuant to 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3):

- (a) An annual notification shall be submitted by an authorized individual to the Office of Air Quality stating whether or not the source is in operation and in compliance with the terms and conditions contained in this registration.
- (b) The annual notice shall be submitted in the format attached no later than March 1 of each year to:

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

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

B.6 Source Modification Requirement [326 IAC 2-5.5-6(a)]

Pursuant to 326 IAC 2-5.5-6(a), 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.

B.7 Registrations [326 IAC 2-5.1-2(i)]

Pursuant to 326 IAC 2-5.1-2(i), this registration does not limit the source's potential to emit.

SECTION C

SOURCE OPERATION CONDITIONS

Entire Source

Emission Limitations and Standards [326 IAC 2-5.1-2(g)] [326 IAC 2-5.5-4(b)]

C.1 Opacity [326 IAC 5-1]

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

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

C.2 Fugitive Dust Emissions [326 IAC 6-4]

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

SECTION D.1

OPERATION CONDITIONS

Facility Description [326 IAC 2-5.1-2(f)(2)] [326 IAC 2-5.5-4(a)(2)]:

- (a) Four (4) Plastisol curing ovens, identified as L1, L2, L4 and L5, constructed in 1975, with a maximum heating capacity of 1.2 MMBtu/hr each, processing 87.25 pounds per hour of Plastisol (a non-VOC compound) each line, and 510 pounds per hour of metal each line, and exhausting through vents L1, L2, L4 and L5 respectively.
- (b) Two (2) Plastisol curing ovens, identified as 9E and 9W, constructed in 1975, with a maximum capacity of 2.4 MMBtu/hr each, processing 95 pounds per hour of plastisol (a non-VOC compound) each line, and 510 pounds per hour of metal each line, and exhausting through vents 9E and 9W.

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

Emission Limitations and Standards [326 IAC 2-5.1-2(f)(1)] [326 IAC 2-5.5-4(a)(1)]

D.1.1 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes)

- (a) Pursuant to 326 IAC 6-3-2(e), the particulate from the four (4) Plastisol curing ovens, identified as L1, L2, L4, and L5 combined shall not exceed 4.63 pounds per hour, when operating at a combined process weight rate of 1.2 tons per hour of metal and plastisol total.
- (b) Pursuant to 326 IAC 6-3-2(e), the particulate from the two (2) Plastisol curing ovens, identified as 9E, and 9W combined shall not exceed 2.94 pounds per hour, when operating at a combined process weight rate of 0.605 tons per hour of metal and plastisol total.

The pound per hour limitation for (a) and (b) was calculated with 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:

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

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH**

**REGISTRATION
ANNUAL NOTIFICATION**

This form should be used to comply with the notification requirements under 326 IAC 2-5.1-2(f)(3) and 326 IAC 2-5.5-4(a)(3).

Company Name:	Jarden Home Brands
Address:	1501 E. Ninth Street
City:	Muncie, Indiana 47302
Phone Number:	(765) 557-3189
Registration No.:	R035-26677-00001

I hereby certify that Jarden Home Brands is :

- still in operation.
- no longer in operation.
- in compliance with the requirements of Registration No.:035-26677-00001
- not in compliance with the requirements of Registration No. 35-26677-00001.

I hereby certify that Jarden Home Brands is :

Authorized Individual (typed):
Title:
Signature:
Phone Number:
Date:

If there are any conditions or requirements for which the source is not in compliance, provide a narrative description of how the source did or will achieve compliance and the date compliance was, or will be achieved.

Noncompliance:

Indiana Department of Environmental Management
Office of Air Quality

Technical Support Document (TSD) for a Reregistration

Source Description and Location

Source Name: Jarden Home Brands
Source Location: 1501 E. Ninth Street
County: Delaware County
SIC Code: 3466
Registration No.: 035-26677-00001
Permit Reviewer: Swarna Prabha

On June 23, 2008, the Office of Air Quality (OAQ) received an application from Jarden Home Brands, related to the company name change from Ball Corporation to Jarden Home Brands.

Existing Approvals

This source has been operating under the Registration No.: 18-06-88-0229 issued on May 18, 1989.

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 PM2.5.	

(a) Ozone Standards

- (1) On October 25, 2006, the Indiana Air Pollution Control Board finalized a rule revision to 326 IAC 1-4-1 revoking the one-hour ozone standard in Indiana.
- (2) On September 6, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Allen, Clark, Elkhart, Floyd, LaPorte, St. Joseph as attainment for the 8-hour ozone standard.
- (3) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Boone, Clark, Elkhart, Floyd, LaPorte, Hamilton, Hancock, Hendricks, Johnson, Madison, Marion, Morgan, Shelby, and St. Joseph as attainment for the 8-hour ozone standard.
- (4) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) 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 NOx 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 NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) Delaware County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) Other Criteria Pollutants
Delaware County has been classified as attainment or unclassifiable in Indiana for 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 2-5.1-2 (Registrations) applicability.

Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Jarden Home Brands on June 23, 2008, relating to the name change of Ball Corporation to Jarden Home Brands. The Jarden Home Brands operate metal stamping plant, applying PVC plastisol compound to the metal lids for canning jars. The PVC plastisol applied to the metal lids is cured and sealed to the metal in the Plastisol curing ovens.

Following are the existing emission units:

- (a) Four (4) Plastisol curing ovens, identified as L1, L2, L4 and L5, constructed in 1975, with a maximum heating capacity of 1.2 MMBtu/hr each, processing 87.25 pounds per hour of plastisol (a non-VOC compound), and 510 pounds per hour of metal lids each line, and exhausting through vents L1, L2, L4 and L5 respectively.
- (b) Two (2) Plastisol curing ovens, identified as 9E and 9W, constructed in 1975, with a maximum capacity of 2.4 MMBtu/hr each, processing 95 pounds per hour of plastisol (a non-VOC compound), and 510 pounds per hour of metal lids each line, and exhausting through vents 9E and 9W.

Enforcement Issues

- (a) IDEM is aware that the source has been operating without the proper permit because pursuant to 326 IAC 2-5.5-2(b), the source was required to apply for a re-registration under this rule no later than twenty-four (24) months from the effective date of this rule. The rule became effective on (Air Pollution Control Board; 326 IAC 2-5.5-2; filed Nov 25, 1998, 12:13 p.m.: 22 IR 1012; readopted filed Oct 22, 2004, 10:35 a.m.: 28 IR 793).
- (b) IDEM is reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the operation permit rules.

Emission Calculations

See Appendix A of this TSD for detailed emission calculations.

Permit Level Determination –Registration

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*	SO ₂	NO _x	VOC	CO	Total HAPs	Worst Single HAP
Natural gas-fired combustion-Plastisol ovens 1, 2, 4, 5, 9E and 9W	0.08	0.32	.025	4.20	0.23	3.5	0.079	0.076 (Hexane)
Plastisol processing 1, 2, 4, 5, 9E and 9W	9.21	9.21	-	-	-	-	-	-
Total PTE of Entire Source	9.29	9.53	.025	4.20	0.23	3.5	0.079	0.076 (Hexane)
Exemptions Levels	5	5	10	10	5 or 10	25	2.5	1
Registration Levels	25	25	25	25	25	100	-	-
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". US EPA has directed states to regulate PM10 emissions as surrogate for PM2.5 emissions.								

- (a) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of all criteria pollutants are within the ranges listed in 326 IAC 2-5.1-2(a)(1). Therefore, the source is subject to the provisions of 326 IAC 2-5.1-2 (Registrations). The source will be re-registered pursuant to 326 IAC 2-5.5-2.
- (b) The potential to emit (PTE) (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is less than ten (10) tons per year and the PTE 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 2-7.

Federal Rule Applicability Determination

New Source Performance Standards (NSPS)

- (a) The Plastisol curing ovens do not burn solid waste, as defined in 40 CFR 60, Subpart CCCC. Therefore, the requirements of the New Source Performance Standards for Commercial and Industrial Solid Waste Incineration Units for Which Construction Is Commenced After November 30, 1999 or for Which Modification or Reconstruction Is Commenced on or After June 1, 2001, 40 CFR 60, Subpart CCCC, are not included in this permit.
- (b) The Plastisol curing ovens are not a small municipal waste combustion unit or institutional waste incineration unit, as defined in 40 CFR 60, Subpart EEEE. Therefore, the requirements of the New Source Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After December 9, 2004, or for Which Modification or Reconstruction is Commenced on or After June 16, 2006, 40 CFR 60, Subpart EEEE, are not included in this permit.

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

National Emission Standards for Hazardous Air Pollutants (NESHAP)

- (d) 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 for this source.

Compliance Assurance Monitoring (CAM)

- (e) 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 2-5.1-2 (Registrations)
Registration applicability is discussed under the Permit Level Determination – Registration 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.

Plastisol Curing:

- (g) Pursuant to 326 IAC 6-3-2(e), the particulate from the four (4) Plastisol curing ovens, identified as L1, L2, L4, and L5 combined shall not exceed 4.63 pounds per hour, when operating at a combined process weight rate of 1.2 tons per hour of metal and plastisol total.
- (h) Pursuant to 326 IAC 6-3-2(e), the particulate from the two (2) Plastisol curing ovens, identified as 9E, and 9W combined shall not exceed 2.94 pounds per hour, when operating at a combined process weight rate of 0.61 tons per hour of metal and plastisol total.

The pound per hour limitation for (g) and (h) was calculated with 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:

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

Since the potential to emit PM/PM10 from the Plastisol curing operations are less than the allowable, the plastisol operations will comply with this rule. (Attachment- Appendix A for emission calculations)

Natural Gas Combustion Ovens-L1, L 2, L4, L5, 9E and 9W:

- (h) 326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)
The natural gas-fired ovens, and heaters are not subject to 326 IAC 6-2 as they are not sources of indirect heating.
- (i) 326 IAC 6-3 (Particulate Limitations for Manufacturing Processes)
Pursuant to 326 IAC 6-3-1(b)(14), the natural gas-fired ovens, are each exempt from the requirement of 326 IAC 6-3, because they each have a potential particulate emissions less than five hundred forty-one thousandths (0.551) pound 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 June 23, 2008. Additional information was submitted by the source by email July 7, 2008, and July 9, 2008.

The operation of this source shall be subject to the conditions of the attached proposed Re-Registration No. 035-26677-00001. The staff recommends to the Commissioner that this Re-Registration be approved.

IDEM Contact

- (a) Questions regarding this proposed permit can be directed to Swarna Prabha 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) 234-5376 or toll free at 1-800-451-6027 extension (45376).
- (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.

**Appendix A: Emissions Calculations
Summary**

**Company Name: Jarden Home Brands
Address City IN Zip: 1501 E. Ninth Street, Muncie, IN 47302
Reregistration No: R035-26677-00001
Reviewer: Swarna Prabha**

Uncontrolled Potential Emissions (tons/year)				
Emission Generating Activities				
Category	Pollutant	Natural Gas Combustion	Plastisol curing ovens 1, 2, 4, 5, 9E, 9W	TOTAL
		Plastisol Ovens 1, 2, 4, 5, 9E and 9W		
Criteria Pollutants	PM	0.08	9.21	9.29
	PM10	0.32	9.21	9.53
	SO2	2.5E-02	-	0.03
	NOx	4.20	-	4.20
	VOC	0.23	-	0.23
	CO	3.53	-	3.53
Hazardous Air Pollutant	Hexane	7.6E-02	-	7.6E-02
	Chromium	5.9E-05	-	5.9E-05
	Manganese	1.6E-05	-	1.6E-05
	Nickel	4.4E-05	-	4.4E-05
	Toluene	1.4E-04	-	1.4E-04
	Benzene	8.8E-05	-	8.8E-05
	Dichlorobenzene	5.0E-05	-	5.0E-05
	Formaldehyde	3.2E-03	-	3.2E-03
	Lead	2.1E-05	-	2.1E-05
	Cadmium	4.6E-05	-	4.6E-05
	Totals HAPs	7.9E-02		7.9E-02

Total emissions based on rated capacity at 8,760 hours/year.

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

**Company Name: Jarden Home Brands
Address City IN Zip: 1501 E. Ninth Street, Muncie, IN 47302
Reregistration No: R035-26677-00001
Reviewer: Swarna Prabha**

Emission Unit	Number of Units	Unit Heat Input Capacity (MMBtu/hr)	Combined Total Heat Input Capacity (MMBtu/hr)	Potential Throughput (MMCF/yr)	Pollutant					
					PM*	PM10*	SO2	NOx**	VOC	CO
					Emission Factor (lb/MMCF)					
					1.9	7.6	0.6	100	5.5	84.0
					Potential to Emit (tons/yr)					
					PM*	PM10*	SO2	NOx**	VOC	CO
Plastisol ovens-1, 2, 4, 5	4	1.20	4.80	42.05	0.040	0.160	0.013	2.102	0.116	1.766
Plastisol ovens-9E and 9W	2	2.40	4.80	42.05	0.040	0.160	0.013	2.102	0.116	1.766
Totals		3.60	9.6	84.1	0.080	0.320	0.025	4.205	0.231	3.532

Emission Unit	Pollutant									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
	Emission Factor (lb/MMCF)									
	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
	Potential to Emit (tons/yr)									
	Benzene	DCB	Formaldehyde	Hexane	Toluene	Pb	Cd	Cr	Mn	Ni
Natural gas-fired Space Heaters	8.8E-05	5.0E-05	3.2E-03	7.6E-02	1.4E-04	2.1E-05	4.6E-05	5.9E-05	1.6E-05	4.4E-05
Totals	8.8E-05	5.0E-05	3.2E-03	0.076	1.4E-04	2.1E-05	4.6E-05	5.9E-05	1.6E-05	4.4E-05

Total HAPs (tons/yr) 0.079

*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

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

Methodology

Potential Throughput (MMCF/yr) = [Combined Total Heat Input Capacity (MMBtu/hr)] * [8,760 hrs/yr] * [1 MMCF/1,000 MMBtu]

Potential to Emit (tons/yr) = [Potential Throughput (MMCF/yr)] * [Emission Factor (lb/MMCF)] * [ton/2,000 lbs]

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)

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu, MMCF = 1,000,000 Cubic Feet of Gas

Abbreviations

PM = Particulate Matter

NOx = Nitrous Oxides

DCB = Dichlorobenzene

Cr = Chromium

PM10 = Particulate Matter (<10 um)

VOC - Volatile Organic Compounds

Pb = Lead

Mn = Manganese

SO2 = Sulfur Dioxide

CO = Carbon Monoxide

Cd = Cadmium

Ni = Nickel

**Appendix A: Emissions Calculations
Plastisol Application**

**Company Name: Jarden Home Brands
Address City IN Zip: 1501 E. Ninth Street, Muncie, IN 47302
Reregistration No: R035-26677-00001
Reviewer: Swarna Prabha**

Unit ID	Maximum Plastisol throughput		*Emission Factor	PTE of PM/PM10	**PTE of PM/PM10	PTE of PM/PM10	Allowable PM/PM10
	lbs/hr	tons/yr	EF	tons/yr	tons/yr	lbs/hr	lbs/hr
Plastisol processing- 1, 2, 4, 5	349	1528.62	0.003	4.59	5.96	1.36	4.61
Plastisol processing- 9E and 9W	190	832.2	0.003	2.50	3.25	0.74	2.94
Total				7.08	9.21		

Plastisol process does not release VOCs to the atmosphere, because the solvent used in the plastisol compound does not contain volatile organic compounds. There are no HAPs based on MSDS data.

*The 3% of plastisol is volatilized in the drying oven of which 10% is emitted as particulates, and the rest is considered water and CO2.

*This number is based on the Registration Permit # 18-06-88-0229 issued May 18, 1989.

**To be conservative the PTE of PM and PM10 have been increased by 30%

Methodology:

Maximum Plastisol Throughput (tons/yr) = [Maximum Plastisol throughput (lbs/hr)] * [8760 (hrs /yr)] * [tons/2000lbs]

*Emission Factor PM/PM10 (EF) = [process evaporation rate 3%] * [particulate emissions 10%] = 0.003

PTE of PM/PM10 (tons/yr) = [Maximum Plastisol throughput (tons/yr)] * EF

PTE of PM/PM10 (lbs/hr) = [PTE of PM/PM10 (tons/yr)] * [2000 lbs/ton] * [yr/hrs 8760]

Compliance with 326 IAC 6-3-2:

<p>Allowable Emissions, $E = 4.10 * P^{0.67}$ (for weight rates up to 60,000 lb/hr) where E = emissions in lbs/hr P = process weight in tons/hr Process weight rate for L1, L2, L4, and L5 (lbs/hr) = $[87.25 * 4 \text{ (plastisol)} + 510 * 4 \text{ (metal)}]$ lbs/hr = 2,389 pounds per hour Process weight rate for 9E and 9W (lbs/hr) = $[95 * 2 \text{ (plastisol)} + 510 * 2 \text{ (metal)}]$ lbs/hr = 1,210 pounds per hour</p>
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PM = Particulate Matter

PM10 = Particulate Matter (<10 um)

PTE = Potential to Emit