**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: September 8, 2008

RE: Toyota Boshoku America / 051-25558-00050

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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# REGISTRATION
# OFFICE OF AIR QUALITY

## Toyota Boshoku America
## 1360 Dolwick Drive
## Erlanger, Ky 41018

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.

| | |
|---|---|
| Registration No. R051-25558-00050 | |
| Issued by:<br>Original document signed by<br><br>Iryn Calilung, Section Chief<br>Permits Branch<br>Office of Air Quality | Issuance Date: September 8, 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 auto seat reclining assembly and molding auto seat using polyurethane foam manufacturing plant.

| | |
|---|---|
| Source Address: | Southeast of the intersection of CR100W and CR550 S (Tulip Tree Drive), Princeton, IN 47670 |
| Mailing Address: | 1360 Dolwick Drive, Erlanger, KY 41018 |
| General Source Phone Number: | (859) 817-4048 |
| SIC Code: | 3792 |
| County Location: | Gibson County (Patoka Township) |
| Source Location Status: | Attainment for all criteria pollutants except Montgomery Township |
| Source Status: | Registration |

### A.2 Source Definition

This source consists of the following plants:

(a) Toyota Boshoku America (TBA) is located at Southeast of the intersection of CR100W and CR550S (Tulip Tree Drive), Princeton, IN, 47670, Plant ID 051-00050; and

(b) Total Interior Systems America LLC, (TISA) is located at 1698 South 100 West, Princeton, IN 47640, Plant ID 051-00045.

IDEM has reviewed the relationship between the proposed Toyota Boshoku America plant (TBA) and the existing Total Interior Systems plant (TISA) to determine if they meet the definition of a single source. The term “source” is defined at 326 IAC 1-2-73. In order for these two plants to be considered one source, they must meet all three of the following:

(1) the plants must be owned or operated by the same person or by persons under common control;
(2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
(3) The sources must be located on the same property or on contiguous or adjacent properties.

The two sources will be under common ownership. TBA and TISA have the same parent company. The two plants met the requirements of the first part of the definition of a source.

TBA and TISA do not have the same two digit SIC Code. The two digit SIC Code for TISA is 30 for Major Group 30: Rubber and Miscellaneous Plastics Products. The two digit SIC Code for TBA is 37 for Major Group 37: Transportation Equipment. TBA will be supplying output to TISA. In the first two years of operation, TBA will be running at partial capacity. During that time, all of TBA’s output will go to TISA. As TBA ramps up its capacity in the third and forth years of operation, more of its output will go to other plants. By TBA’s fifth year of operation, less than 50% of its output will be going to TISA. TBA will not need any additional air permit approval in order to achieve full production by the fifth year of operation. All of the other plants that will receive output for TBA will share the same parent company as TBA. Since TBA will be a new plant that will be gradually ramping up production and since less than 50% of TBA’s full production will be dedicated to TISA, TBA will not be a support facility to TISA. Therefore, the second part of the definition is not met.

TBA will be located on the same property as TISA, so the third part of the definition is met.

TBA and TISA do not meet all three parts of the source definition and therefore will be permitted as separate sources. IDEM, OAQ will reexamine the relationship between the sources if TBA sends 50% or more of its output to TISA in the fifth year of TBA's operation or at any later time.

## A.3 Emission Units and Pollution Control Equipment Summary

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

(a) One (1) enclosed mold flexible polyurethane foam production line for auto seat manufacturing, identified as EU-02A, approved for construction in 2008, using Polyol and Isocyanate and applying water based mold release to mold, with a maximum capacity of 45 vehicle units per hour, venting into the building. Under 40 CFR 63, Subpart OOOOOO, this unit is considered an affected facility. [40CFR 63, Subpart OOOOOO] [326 IAC 20-66-1]

(b) One (1) Round Recliner Rust Inhibitor application process, identified as EU-03A, approved for construction in 2008, cleaning and applying rust inhibitor-oil to auto seat round recliner assembly, with a maximum capacity of 541.67 pieces Round Recliners per hour, and venting inside.

(c) One (1) frame welding and assembly area, identified as EU-01, approved for construction in 2008, with a capacity of 45 vehicle units per hour, and 58.5 pounds of welding wire per hour, and venting into the building.

(d) Two (2) natural gas-fired boilers; identified as boiler (1) EU-03B-1, and (1) stand-by boiler EU-03B-2, approved for construction in 2008, each with a rated capacity of 1.86 MMBtu/hour, exhausting to stacks S-3 and S-4 respectively.

(e) One (1) natural gas-fired space heater, approved for construction in 2008, with a rated capacity of 4 MMBtu/hour, venting outside the building.

## 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 Registration No. 051-25558-00050 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) One (1) enclosed mold flexible polyurethane foam production line for auto seat manufacturing, identified as EU-02A, approved for construction in 2008, using Polyol and Isocyanate and applying water based mold release to mold, with a maximum capacity of 45 vehicle units per hour, venting into the building. Under 40 CFR 63, Subpart OOOOOO, this unit is considered an affected facility. [40CFR 63, Subpart OOOOOO] [326 IAC 20-66-1]

(b) One (1) Round Recliner Rust Inhibitor application process, identified as EU-03A, approved for construction in 2008, cleaning and applying rust inhibitor-oil to auto seat round recliner assembly, with a maximum capacity of 541.67 pieces Round Recliners per hour, and venting inside.

(c) One (1) frame welding and assembly area, identified as EU-01, approved for construction in 2008, with a capacity of 45 vehicle units per hour, and 58.5 pounds of welding wire per hour, and venting into the building.

(d) Two (2) natural gas-fired boilers; identified as boiler (1) EU-03B-1, and (1) stand-by boiler EU-03B-2, approved for construction in 2008, each with a rated capacity of 1.86 MMBtu/hour, exhausting to stacks S-3 and S-4 respectively.

(e) One (1) natural gas-fired space heater, approved for construction in 2008, with a rated capacity of 4 MMBtu/hour, venting outside the building.

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

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

D.1.1 Particulate Emission Limitations [326 IAC 6-2-4]

Pursuant to 326 IAC 6-2-4(a) (Particulate emission limitations for sources of indirect heating: emission limitations for facilities specified in 326 IAC 6-2-1(d)), the particulate emissions from the natural gas-fired boiler, identified as EU-03B-1 and EU-03B-2, each shall in no case exceed 0.6 pound of particulate matter per million British thermal units heat input.

**SECTION E.1 OPERATION CONDITIONS**

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

(a) One (1) enclosed mold flexible polyurethane foam production line for auto seat manufacturing, identified as EU-02A, approved for construction in 2008, using Polyol and Isocyanate and applying water based mold release to mold, with a maximum capacity of 45 vehicle units per hour, venting into the building. Under 40 CFR 63, Subpart OOOOOO, this unit is considered an affected facility. [40CFR 63, Subpart OOOOOO] [326 IAC 20-66-1]

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

**National Emission Standards for Hazardous Air Pollutants (NESHAP) Requirements**

E.1.1 General Provisions Relating to National Emission Standards for Hazardous Air Pollutants under [40 CFR Part 63, Subpart A] [326 IAC 20-66-1]

Pursuant to 40 CFR 63 the Registrant shall comply with the provisions of 40 CFR 63 Subpart A - General Provisions, which are incorporated by reference as 326 IAC 20-66-1 for enclosed mold flexible polyurethane foam production line, identified as EU-02A, as specified in Appendix A of 40 CFR Part 63, Subpart OOOOOO apply to the facilities described in this section except when otherwise specified in 40 CFR 63 Subpart OOOOOO.

E.1.2 Flexible Polyurethane Foam Production and Fabrication NESHAP [326 IAC 20-66-1] [40 CFR 63.11414(b)(2)(d) [40 CFR 63.343(a)(1)&(2)]

The permittee which engages in Flexible Polyurethane Foam Production and Fabrication operation, shall comply with the provisions of 40 CFR Part 63, Subpart OOOOOO (included as Attachment A of this permit), with a compliance date of start up.

The existing Flexible Polyurethane Foam mold production line is subject to the following portions of 40 CFR 63, Subpart OOOOOO.

Applicable portions of the NESHAP are the following:

(a) 40 CFR 63.11414(a)(b)
(b) 40 CFR 63.11415(d)
(c) 40 CFR 63.11416(c), (e), (f)
(d) 40 CFR 63.11417(a)(c)
(e) 40 CFR 63.11418
(f) 40 CFR 63.11419
(g) 40 CFR 63.11420

**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:** | Toyota Boshoku America |
| **Address:** | Southeast of the intersection of CR100W and CR550 S (Tulip Tree Drive) |
| **City:** | Princeton, Indiana 47670 |
| **Phone Number:** | (859) 817-4048 |
| **Registration No.:** | R051-25558-00050 |

I hereby certify that Toyota Boshoku America is :
- ☐ still in operation.
- ☐ no longer in operation.

I hereby certify that Toyota Boshoku America is :
- ☐ in compliance with the requirements of Registration No.:051-25558-00050.
- ☐ not in compliance with the requirements of Registration No. 051-25558-00050.

| |
|---|
| **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:** |
| |
| |
| |
| |

# Attachment A

## Subpart OOOOOO—National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources

**Source:** 72 FR 38910, July 16, 2007, unless otherwise noted.

### § 63.11414 Applicability and designation of sources

(a) You are subject to this subpart if you own or operate an area source of hazardous air pollutant (HAP) emissions that meets the criteria in paragraph (a)(1) or (2) of this section.

(1) You own or operate a plant that produces flexible polyurethane foam or rebond foam as defined in §63.1292 of subpart III.

(2) You own or operate a flexible polyurethane foam fabrication facility, as defined in §63.11419.

(b) The provisions of this subpart apply to each new and existing affected source that meets the criteria listed in paragraphs (b)(1) through (4) of this section.

(1) A slabstock flexible polyurethane foam production affected source is the collection of all equipment and activities necessary to produce slabstock flexible polyurethane foam.

(2) A molded flexible polyurethane foam production affected source is the collection of all equipment and activities necessary to produce molded foam.

(3) A rebond foam production affected source is the collection of all equipment and activities necessary to produce rebond foam.

(4) A flexible polyurethane foam fabrication affected source is the collection of all equipment and activities at a flexible polyurethane foam fabrication facility where adhesives are used to bond foam to foam or other substrates. Equipment and activities at flexible polyurethane foam fabrication facilities which do not use adhesives to bond foam to foam or other substrates are not flexible polyurethane foam fabrication affected sources.

(c) An affected source is existing if you commenced construction or reconstruction of the affected source on or before April 4, 2007.

(d) An affected source is new if you commenced construction or reconstruction of the affected source after April 4, 2007.

(e) This subpart does not apply to research and development facilities, as defined in section 112(c)(7) of the Clean Air Act (CAA).

(f) You are exempt from the obligation to obtain a permit under 40 CFR part 70 or 40 CFR part 71, provided you are not otherwise required by law to obtain a permit under 40 CFR 70.3(a) or 40 CFR 71.3(a). Notwithstanding the previous sentence, you must continue to comply with the provisions of this subpart.

### § 63.11415 What are my compliance dates?

(a) If you own or operate an existing slabstock flexible polyurethane foam production affected source, you must achieve compliance with the applicable provisions in this subpart by July 16, 2008.

(b) If you own or operate an existing molded flexible polyurethane foam affected source, an existing rebond foam production affected sources, or an existing flexible polyurethane foam fabrication affected source, you must achieve compliance with the applicable provisions in this subpart by July 16, 2007.

(c) If you startup a new affected source on or before July 16, 2007, you must achieve compliance with the applicable provisions in this subpart not later than July 16, 2007.

(d) If you startup a new affected source after July 16, 2007, you must achieve compliance with the provisions in this subpart upon startup of your affected source.

**Standards and Compliance Requirements**

**§ 63.11416 What are the standards for new and existing sources?**

(a) If you own or operate a slabstock flexible polyurethane foam production affected source, you must meet the requirements in paragraph (b) of this section. If you own or operate a molded foam affected source, you must meet the requirements in paragraph (c) of this section. If you own or operate a rebond foam affected source, you must meet the requirements in paragraph (d) of this section. If you own or operate a flexible polyurethane foam fabrication affected source, you must meet the requirements in paragraph (e) of this section.

(b) If you own or operate a new or existing slabstock polyurethane foam production affected source, you must comply with the requirements in either paragraph (b)(1) or (2) of this section.

(1) Comply with §63.1293(a) or (b) of subpart III, except that you must use Equation 1 of this section to determine the HAP auxiliary blowing agent (ABA) formulation limit for each foam grade instead of Equation 3 of §63.1297 of subpart III. You must use zero as the formulation limitation for any grade of foam where the result of the formulation equation (using Equation 1 of this section) is negative ( *i.e.* , less than zero):

$$ABA_{limit} = -0.2\,(IFD) - 19.1\left(\frac{1}{IFD}\right) - 15.3\,(DEN) - 6.8\left(\frac{1}{DEN}\right) + 36.5 \quad \text{(Equation 1)}$$

Where:

ABAlimit= HAP ABA formulation limitation, parts methylene chloride ABA allowed per hundred parts polyol (pph).

IFD = Indentation force deflection, pounds.

DEN = Density, pounds per cubic foot.

(2) Use no material containing methylene chloride for any purpose in any slabstock flexible foam production process.

(c) If you own or operate a new or existing molded foam affected source, you must comply with the requirements in paragraphs (c)(1) and (2) of this section.

(1) You must not use a material containing methylene chloride as an equipment cleaner to flush the mixhead or use a material containing methylene chloride elsewhere as an equipment cleaner in a molded flexible polyurethane foam process.

(2) You must not use a mold release agent containing methylene chloride in a molded flexible polyurethane foam process.

(d) If you own or operate a new or existing rebond foam affected source, you must comply with the requirements in paragraphs (d)(1) and (2) of this section.

(1) You must not use a material containing methylene chloride as an equipment cleaner in a rebond foam process.

(2) You must not use a mold release agent containing methylene chloride in a rebond foam process.

(e) If you own or operate a new or existing flexible polyurethane foam fabrication affected source, you must not use any adhesive

containing methylene chloride in a flexible polyurethane foam fabrication process.

(f) You may demonstrate compliance with the requirements in paragraphs (b)(2) and (c) through (e) of this section using adhesive usage records, Material Safety Data Sheets, and engineering calculations.

[72 FR 38910, July 16, 2007, as amended at 73 FR 15928, Mar. 23, 2008]

### § 63.11417 What are the compliance requirements for new and existing sources?

(a) If you own or operate a slabstock flexible polyurethane foam production affected source, you must comply with the requirements in paragraph (b) of this section. If you own or operate a molded foam affected source, rebond foam affected source, or a loop slitter at a flexible polyurethane foam fabrication affected source you must comply with the requirements in paragraphs (c) and (d) of this section.

(b) Each owner or operator of a new or existing slabstock flexible polyurethane foam production affected source who chooses to comply with §63.11416(b)(1) must comply with paragraph (b)(1) of this section. Each owner or operator of a new or existing slabstock flexible polyurethane foam production affected source who chooses to comply with §63.11416(b)(2) must comply with paragraphs (b)(2) and (3) of this section.

(1) You must comply with paragraphs (b)(1)(i) through (v) of this section.

(i) The monitoring requirements in §63.1303 of subpart III.

(ii) The testing requirements in §63.1304 or §63.1305 of subpart III.

(iii) The reporting requirements in §63.1306 of subpart III, with the exception of the reporting requirements in §63.1306(d)(1), (2), (4), and (5) of subpart III.

(iv) The recordkeeping requirements in §63.1307 of subpart III, with the exception of the recordkeeping requirements in §63.1307(a)(1), (b)(1)(i), and (b)(2).

(v) The compliance demonstration requirements in §63.1308(a), (c), and (d) of subpart III.

(2) You must submit a notification of compliance status report no later than 180 days after your compliance date. The report must contain this certification of compliance, signed by a responsible official, for the standards in §63.11416(b)(2): “This facility uses no material containing methylene chloride for any purpose on any slabstock flexible foam process.”

(3) You must maintain records of the information used to demonstrate compliance, as required in §63.11416(f). You must maintain the records for 5 years, with the last 2 years of data retained on site. The remaining 3 years of data may be maintained off site.

(c) You must have a compliance certification on file by the compliance date. This certification must contain the statements in paragraph (c)(1), (2), or (3) of this section, as applicable, and must be signed by a responsible official.

(1) For a molded foam affected source:

(i) “This facility does not use any equipment cleaner to flush the mixhead which contains methylene chloride, or any other equipment cleaner containing methylene chloride in a molded flexible polyurethane foam process in accordance with §63.11416(c)(1).”

(ii) “This facility does not use any mold release agent containing methylene chloride in a molded flexible polyurethane foam process in accordance with §63.11416(c)(2).”

(2) For a rebond foam affected source:

(i) “This facility does not use any equipment cleaner which contains methylene chloride in a rebond flexible polyurethane foam process in accordance with §63.11416(d)(1).”

(ii) “This facility does not use any mold release agent containing methylene chloride in a rebond flexible polyurethane foam process in accordance with §63.11416(d)(2).”

(3) For a flexible polyurethane foam fabrication affected source containing a loop slitter: “This facility does not use any adhesive containing methylene chloride on a loop slitter process in accordance with §63.11416(e).”

(d) For molded foam affected sources, rebond foam affected sources, and flexible polyurethane foam fabrication affected sources containing a loop slitter, you must maintain records of the information used to demonstrate compliance, as required in §63.11416(f). You must maintain the records for 5 years, with the last 2 years of data retained on site. The remaining 3 years of data may be maintained off site.

[72 FR 38910, July 16, 2007, as amended at 73 FR 15929, Mar. 26, 2008]

## Other Requirements and Information

### § 63.11418 What General Provisions apply to this subpart?

The provisions in 40 CFR part 63, subpart A, applicable to sources subject to §63.11416(b)(1) are specified in Table 1 of this subpart.

### § 63.11419 What definitions apply to this subpart?

The terms used in this subpart are defined in the CAA; §63.1292 of subpart III; §63.8830 of subpart MMMMM; §63.2 of subpart A; and in this section as follows:

*Flexible polyurethane foam fabrication facility* means a facility where pieces of flexible polyurethane foam are cut, bonded, and/or laminated together or to other substrates.

### § 63.11420 Who implements and enforces this subpart?

(a) This subpart can be implemented and enforced by the U.S. EPA or a delegated authority such as a State, local, or tribal agency. If the U.S. EPA Administrator has delegated authority to a State, local, or tribal agency pursuant to 40 CFR part 63, subpart E, then that Agency has the authority to implement and enforce this subpart. You should contact your U.S. EPA Regional Office to find out if this subpart is delegated to a State, local, or tribal agency within your State.

(b) In delegating implementation and enforcement authority of this subpart to a State, local, or tribal agency under 40 CFR part 63, subpart E, the approval authorities contained in paragraphs (b)(1) through (4) of this section are retained by the Administrator of the U.S. EPA and are not transferred to the State, local, or tribal agency.

(1) Approval of an alternative non-opacity emissions standard under §63.6(g).

(2) Approval of a major change to test methods under §63.7(e)(2)(ii) and (f). A “major change to test method” is defined in §63.90.

(3) Approval of a major change to monitoring under §63.8(f). A “major change to monitoring” is defined in §63.90.

(4) Approval of a major change to recordkeeping/reporting under §63.10(f). A “major change to recordkeeping/reporting” is defined in §63.90.

[72 FR 38910, July 16, 2007, as amended at 73 FR 15929, Mar. 26, 2008]

**Table 1 to Subpart OOOOOO of Part 63—Applicability of General Provisions to Subpart OOOOOO**

As required in §63.11418, sources subject to §63.11416(b)(1) must comply with the requirements of the NESHAP General Provisions (40 CFR part 63, subpart A) as shown in the following table.

| Subpart A reference | Applies to Subpart OOOOOO? | Comment |
|---|---|---|
| §63.1 | Yes | |
| §63.2 | Yes | Definitions are modified and supplemented by §63.11419. |
| §63.3 | Yes | |
| §63.4 | Yes | |
| §63.5 | Yes | |
| §63.6(a)–(d) | Yes | |
| §63.6(e)(1)–(2) | Yes | |
| §63.6(e)(3) | No | Owners and operators of subpart OOOOOO affected sources are not required to develop and implement a startup, shutdown, and malfunction plan. |
| §63.6 (f)–(g) | Yes | |
| §63.6(h) | No | Subpart OOOOOO does not require opacity and visible emissions standards. |
| §63.6 (i)–(j) | Yes | |
| §63.7 | No | Performance tests not required by subpart OOOOOO. |
| §63.8 | No | Continuous monitoring, as defined in subpart A, is not required by subpart OOOOOO. |
| §63.9(a)–(d) | Yes | |
| §63.9(e)–(g) | No | |
| §63.9(h) | No | Subpart OOOOOO specifies Notification of Compliance Status requirements. |
| §63.9 (i)–(j) | Yes | |
| §63.10(a)–(b) | Yes | Except that the records specified in §63.10(b)(2) are not required. |
| §63.10(c) | No | |
| §63.10(d)(1) | Yes | |
| §63.10(d)(2)–(3) | No | |

| | | |
|---|---|---|
| §63.10(d)(4) | Yes | |
| §63.10(d)(5) | No | |
| §63.10(e) | No | |
| §63.10(f) | Yes | |
| §63.11 | No | |
| §63.12 | Yes | |
| §63.13 | Yes | |
| §63.14 | Yes | |
| §63.15 | Yes | |
| §63.16 | Yes | |

[72 FR 38910, July 16, 2007, as amended at 73 FR 15929, Mar. 26, 2008]

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# Indiana Department of Environmental Management
# Office of Air Quality

## Technical Support Document (TSD) for a Registration

### Source Background and Description

| | |
|---|---|
| **Source Name:** | **Toyota Boshoku America** |
| **Source Location:** | **South East of intersection of CR100 and CR550 S (Tulip Tree Drive) Princeton, IN 47670** |
| **County:** | **Gibson (Patoka Township)** |
| **SIC Code:** | **3792** |
| **Registration No.:** | **051- 25558- 00050** |
| **Reviewer:** | **Swarna Prabha** |

### Source Definition

This source consists of the following plants:

(a) Toyota Boshoku America (TBA) is located at Southeast of the intersection of CR100W and CR550S (Tulip Tree Drive), Princeton, IN, 47670, Plant ID 051-00050; and

(b) Total Interior Systems America LLC, (TISA) is located at 1698 South 100 West, Princeton, IN 47640, Plant ID 051-00045.

IDEM has reviewed the relationship between the proposed Toyota Boshoku America plant (TBA) and the existing Total Interior Systems plant (TISA) to determine if they meet the definition of a single source. The term "source" is defined at 326 IAC 1-2-73. In order for these two plants to be considered one source, they must meet all three of the following:

(1) the plants must be owned or operated by the same person or by persons under common control;
(2) the plants must have the same two-digit Standard Industrial Classification (SIC) Code or one must serve as a support facility for the other; and,
(3) the sources must be located on the same property or on contiguous or adjacent properties.

The two sources will be under common ownership. TBA and TISA have the same parent company. The two plants met the requirements of the first part of the definition of a source.

TBA and TISA do not have the same two digit SIC Code. The two digit SIC Code for TISA is 30 for Major Group 30: Rubber and Miscellaneous Plastics Products. The two digit SIC Code for TBA is 37 for Major Group 37: Transportation Equipment. TBA will be supplying output to TISA. In the first two years of operation, TBA will be running at partial capacity. During that time, all of TBA's output will go to TISA. As TBA ramps up its capacity in the third and forth years of operation, more of its output will go to other plants. By TBA's fifth year of operation, less than 50% of its output will be going to TISA. TBA will not need any additional air permit approval in order to achieve full production by the fifth year of operation. All of the other plants that will receive output for TBA will share the same parent company as TBA. Since TBA will be a new plant that will be gradually ramping up production and since less than 50% of TBA's full production will be dedicated to TISA, TBA will not be a support facility to TISA. Therefore, the second part of the definition is not met.

TBA will be located on the same property as TISA, so the third part of the definition is met.

TBA and TISA do not meet all three parts of the source definition and therefore will be permitted as separate sources. IDEM, OAQ will reexamine the relationship between the sources if TBA sends 50% or more of its output to TISA in the fifth year of TBA's operation or at any later time.

## Existing Approvals

There have been no previous approvals issued to this source.

## County Attainment Status

The source is located in Gibson County.

| Pollutant | Designation |
|---|---|
| $SO_2$ | Cannot be classified. |
| CO | Unclassifiable or attainment effective November 15, 1990. |
| $O_3$ | Unclassifiable or attainment effective June 15, 2004, 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.<br>Basic nonattainment designation effective federally April 5, 2005, for the Montgomery Twp for PM2.5. The remainder of Gibson County is unclassifiable or attainment effective April 5, 2005, for PM2.5. | |

(a) Ozone Standards

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. Gibson 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) Gibson County has been classified as attainment for PM2.5 except Motgomery Township. 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. This source is located in Patoka Township.

(c) Other Criteria Pollutants

Gibson 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 2-5.1-2 (Registrations) applicability.

## Background and Description of Emission Units and Pollution Control Equipment

The Office of Air Quality (OAQ) has reviewed an application, submitted by Toyota Boshoku America on November 19, 2007, relating to the construction and operation of a new stationary auto seat reclining assembly and manufacturing molding auto seats using polyurethane foam.

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

(a) One (1) enclosed mold flexible polyurethane foam production line for auto seat manufacturing, identified as EU-02A, approved for construction in 2008, using Polyol and Isocyanate and applying water based mold release to mold, with a maximum capacity of 45 vehicle units per hour, venting into the building. Under 40 CFR 63, Subpart OOOOOO, this unit is considered an affected facility. [40CFR 63, Subpart OOOOOO] [326 IAC 20-66-1]

(b) One (1) Round Recliner Rust Inhibitor application process, identified as EU-03A, approved for construction in 2008, cleaning and applying rust inhibitor-oil to auto seat round recliner assembly, with a maximum capacity of 541.67 pieces Round Recliners per hour, and venting inside.

(c) One (1) frame welding and assembly area, identified as EU-01, approved for construction in 2008, with a capacity of 45 vehicle units per hour, and 58.5 pounds of welding wire per hour, and venting into the building.

(d) Two (2) natural gas-fired boilers; identified as boiler (1) EU-03B-1, and (1) stand-by boiler EU-03B-2, approved for construction in 2008, each with a rated capacity of 1.86 MMBtu/hour, exhausting to stacks S-3 and S-4 respectively.

(e) One (1) natural gas-fired space heater, approved for construction in 2008, with a rated capacity of 4 MMBtu/hour, venting outside the building.

## Enforcement Issues

There are no pending enforcement actions related to this source.

## Emission Calculations

See Appendix A of this TSD for detailed emissions calculations (Appendix A, pages 1 through 4).

**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* | PM2.5* | $SO_2$ | NOx | VOC | CO | Total HAPs | Worst Single HAP |
| Mold Polyurethane Foam production line (EU-02A) | 0 | 0 | 0 | 0 | 0 | 13.04 | 0 | negl. | negl. |
| Round Recliner -Rust inhibitor booth (EU-03A) | 0 | 0 | 0 | 0 | 0 | 0.95 | 0 | 0.28 | 0.094 (Toluene) |
| Frame Welding/assembly (EU-01) | 1.33 | 1.33 | 1.33 | | | | | .03 | negl. |
| (1) Natural Gas-fired boiler EU-03B-1 | 0.02 | 0.06 | 0.06 | .01 | 0.81 | 0.04 | 0.68 | .02 | .015 (Hexane) |
| (1) Natural Gas-fired stand-by boiler EU-03B-2 | negl. | negl. | negl. | negl. | 0.05 | negl. | 0.04 | negl. | negl. |
| Natural Gas- space heater | 0.03 | 0.13 | 0.13 | 0.01 | 1.75 | 0.10 | 1.47 | 0.03 | 0.015 (Hexane) |
| **Total PTE of Entire Source** | **1.38** | **1.53** | **1.53** | **0.02** | **2.61** | **14.13** | **2.19** | **.36** | **0.094 (Toluene) (Xylene) (Ethyle Benzene)** |
| Exemptions Levels | 5 | 5 | 5 | 5 | 10 | 5 or 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". 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 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). A Registration will be issued.

(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**

New Source Performance Standards (NSPS)

(a) This source is not subject to the requirements of the New Source Performance Standards (NSPS), 40 CFR 60, Subpart FFF, Flexible Vinyl and Urethane Coating and Printing Operations (40 CFR Parts 60.580 - 60.585) (326 IAC 12-1-1), is not involved in the rotogravure printing line used to print or coat flexible vinyl or urethane products. This source is an auto seat manufacturing plant using polyurethane foam.

(b) The two (2) natural gas-fired process boilers, identified as (1) EU-03B-1, and (1) stand-by boiler EU-03B-2, each rated at 1.86 million British thermal units per hour, are not subject to the New Source Performance Standards, 326 IAC 12, 40 CFR 60.40, 40 CFR 60.40a, 40 CFR 60.40b and 40 CFR 60.40c, Subparts Da, Db, and Dc, respectively, because each boiler has a capacity of less than 10 million British thermal units per hour.

(c) There are no other New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in the permit for this source.

National Emission Standards for Hazardous Air Pollutants (NESHAP)

(d) This source is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Production and Fabrication Area Sources (40 CFR 63, Subpart OOOOOO, (40 CFR Part 63.11414 -63.11420), because the source is an area source of HAPs as defined in 40 CFR 63. The facility is a "new affected source" and will comply upon start up. The facility shall not use catalyst, adhesive or cleaning materials, containing Methylene Chloride in the molded foam production and fabrication process.
The permittee which engages in Flexible Polyurethane Foam Production and Fabrication operation, shall comply with the provisions of 40 CFR Part 63, Subpart OOOOOO (included as Attachment A of this permit), with a compliance date of start up.

The existing Flexible Polyurethane Foam mold production line is subject to the following portions of 40 CFR 63, Subpart OOOOOO. Non applicable portions of the NESHAP will not be included in the permit.

Applicable portions of the NESHAP are the following:

(a) 40 CFR 63.11414(a), (b)
(b) 40 CFR 63.11415(d)
(c) 40 CFR 63.11416(c), (e), (f)
(d) 40 CFR 63.11417(a), (c)
(e) 40 CFR 63.11418
(f) 40 CFR 63.11419
(g) 40 CFR 63.11420

The requirements of 40 CFR 63 Subpart A – General Provisions, which are incorporated as 326 IAC 20-66-1, apply to the facilities described in this section except when otherwise specified in 40 CFR 63, Subpart OOOOOO.

(e) The requirements of the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPS), 40 CFR 63, Subpart HHHHHH, surface coating or paint stripping and miscellaneous surface coating operations at area source (40CFR Part 63.11169) are not included in this permit, since this source is not involved in the use of chemical strippers that contain methyl chloride (MeCl) in paint removal process, and the surface coating used at this source do not contain chromium (Cr), lead (Pb), manganese (Mn), nickel (Ni), or cadmium (Cd).

(f) This source is not subject to the requirements of the National Emission Standards for Hazardous Air Pollutants for Flexible Polyurethane Foam Fabrication Operations (40 CFR Part 63.8780 - 63.8830,

Subpart MMMMM), which is incorporated by reference as 326 IAC 20-22-1, because this source does not perform fabrication of flexible polyurethane foam as defined by 40 CFR 63.8782. This source is an auto seat manufacturing plant using polyurethane foam.

(g) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Flexible Polyurethane Foam Production, 40 CFR (63.1290 through 63.11419), Subpart III (326 IAC 20-22-1) are not included in the permit, since this source is not a major source of HAPs.

(h) This source is not subject to the requirements of the 40 CFR Subpart T (63.460 Through 63.470), NESHAP for for Halogenated Solvent Cleaning, because the rust inhibiting production line at this source do not use a degreasing solvent that contains any of the halogenated compounds listed in 40 CFR 63.460(a).

(i) There are no other 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)

(j) 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 facility:

326 IAC 2-5.5 (Registrations)

Registration applicability is discussed under the Permit Level Determination – Registration section above.

326 IAC 2-2 (Prevention of Significant Deterioration (PSD))

This source was constructed after the applicability date of August 7, 1977, however, it is not one of the 28 listed source categories defined in 326 IAC 2-2-1(y)(1), and the uncontrolled potential to emit of all attainment regulated pollutants is less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (PSD) are not applicable.

326 IAC 2-3 (Emission Offset)

The requirements of 326 IAC 2-3 (Emission Offset) apply to major sources or major modifications constructed in an area designated as non-attainment. The requirements of 326 IAC 2-3 (Emission Offset) will not be applicable to Toyota Boshoku America because it is not located in Montgomery Township in Gibson County.

326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP))

The requirements of 326 IAC 2-4.1 are not applicable to this source, since 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.

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 five (5) tons per year. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

Pursuant to 326 IAC 5-1-2 (Opacity Limitations), except as provided in 326 IAC 5-1-3 (Temporary Alternative Opacity Limitations), opacity shall meet the following, unless otherwise stated in 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) in a six (6) hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.

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.

326 IAC 8-1-6 (VOC rules: General Reduction Requirements for New Facilities)

Pursuant to 326 IAC 8-1-6 are not applicable, since each of the emission units at this source does not have the potential to emit greater than twenty-five (25) tons of VOCs per year.

**State Rule Applicability - Individual Facilities**

Natural Gas Combustion sources ( boilers EU-03B-1, EU-03 B-2)

326 IAC 6-2-4(Emission Limitations for facilities specified in 6-2-1(d).

Pursuant to 326 IAC 6-2-4(a) (Particulate emission limitations for sources of indirect heating) the particulate emission limitations for facilities specified in 326 IAC 6-2-1(d)), constructed after September 21, 1983 for rated capacity less than 10 MMBtu/hr each, the two (2) boilers, identified as boiler (1) EU-03B-1, and stand-by boiler EU-03B-2, each rated at 1.86 MMBtu/hr shall not exceed more than 0.6 pound per million British thermal units.

Based on Appendix A emission calculations for boilers, EU-03B-1 and EU-03B-2, the potential PM emission rate is 0.0018 and 0.0019 pounds per million British thermal units respectively.

Since 0.0018 and 0.0019 lb/MMBtu is less than the limit of 0.6 lb/MMBtu, for the boilers EU-03B-1, and EU-03B-2 respectively, both boilers will be able to comply with 326 IAC 6-2-4(a).

326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)

The natural gas-fired heaters and furnaces are each not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

Natural Gas Combustion sources -Space Heater

326 IAC 6-2 (Particulate Emissions from Indirect Heating Units)

The natural gas-fired heaters are not subject to 326 IAC 6-2 as they are not sources of indirect heating.

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

Pursuant to 326 IAC 6-3-1(b)(14), the natural gas-fired heater is exempt from the requirements of 326 IAC 6-3, because it has a potential particulate emissions less than five hundred fifty-one thousandths (0.551) pound per hour.

326 IAC 7-1 (Sulfur dioxide emission limitations: applicability)

The natural gas-fired heater is not subject to the requirements of 326 IAC 7-1, because the potential and the actual emissions are less than twenty-five (25) tons per year and ten (10) pounds per hour respectively.

Round Recliner Rust Inhibitor booth (EU-03A**)**

326 IAC 8-2-9 (Volatile Organic Compounds, Miscellaneous Metal Coating Operations)

Pursuant to 326 IAC 8-2-1 (Applicability), this rule applies to facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls. Pursuant to 8-2-1(a)(4), the requirements of 326 IAC 8-2-9 are not applicable to the metal surface coating operations in the Round Recliner Inhibitor booth, since actual and potential VOC

emissions are less than fifteen (15) pounds per day before add-on controls (see page 2 of Appendix A).

326 IAC 8-2-11 (Volatile Organic Compounds, Fabric and Vinyl Coating)

The requirements of 326 IAC 8-2-11 are not applicable to this source, since this source does not perform surface coating of fabric or vinyl as defined by 326 IAC 8-2-11(a).

Polyurethane Foam Production (EU-02A)

326 IAC 8-2-9 (Volatile Organic Compounds, Miscellaneous Metal Coating Operations)

Pursuant to 326 IAC 8-2-1 (Applicability), this rule applies to facilities constructed after July 1, 1990 located in any county, coating metal surface, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls. There is no surface coating of metal parts in this process.

Welding frame and assembly

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

Pursuant to 326 IAC 6-3-2, the particulate matter (PM) from the welding operation shall not exceed 0.551 pounds per hour when operating at a process weight rate of less than 100 pounds per hour. The pound per hour limitation 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:

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

Based on calculations, the particulate emissions are three tenths (0.3) lbs/hr which is less than five hundred fifty-one thousandths (0.551) pound per hour, therefore the welding frame and assembly operation is in compliance.

## 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 November 19, 2007 and additional information was received on July 31, 2008 through August 18, 2008.

The construction and operation of this source shall be subject to the conditions of the attached proposed Registration No. 051-25558-00050. The staff recommends to the Commissioner that this 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**
**Emission Summmary**



**Company Name:** **Toyota Boshoku America**
**Address City IN Zip:** **Southeast of the intersection of CR100W and CR550S (Tulip Tree Drive) Princeton, IN 47670**
**Registration No.:** **R051-25558-00050**
**Reviewer:** **Swarna Prabha**

| Category | | Uncontrolled Potential Emissions (tons/year) | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | | Emission Generating Activities | | | | | | |
| | Pollutant | Foam Production and Rust Inhibitor process EU-02A, EU-03A | Welding and Frame assembly EU-01 | Natural Gas-fired space heater | Natural Gas-fired boiler EU-03B-1 | Natural Gas-fired stand-by boiler EU-03B-2 | **TOTAL** |
| Criteria Pollutants | PM | | 1.33 | 0.03 | 0.02 | 0.001 | 1.38 |
| | PM10 | | 1.33 | 0.13 | 0.06 | 0.004 | 1.53 |
| | SO2 | | | 0.01 | 4.89E-03 | 2.79E-04 | 0.02 |
| | NOx | | | 1.75 | 0.81 | 0.05 | 2.61 |
| | VOC | 13.98 | | 0.10 | 0.04 | 2.56E-03 | 14.13 |
| | CO | | | 1.47 | 0.68 | 0.04 | 2.20 |
| Hazardous Air Pollutants | Manganese | | 2.66E-02 | 6.7E-06 | 3.1E-06 | 1.8E-07 | 0.03 |
| | Formaldehyde | | | 1.3E-03 | 6.1E-04 | 3.5E-05 | 2.0E-03 |
| | Nickel | | 2.56E-04 | 3.7E-05 | 1.7E-05 | 9.8E-07 | 3.1E-04 |
| | Hexane | | | 3.15E-02 | 1.47E-02 | 8.4E-04 | 0.047 |
| | Benzene | | | 3.7E-05 | 1.7E-05 | 9.8E-07 | 5.5E-05 |
| | Toluene | 0.094 | | | | | 0.094 |
| | Ethyl Benzene | 0.094 | | | | | 0.094 |
| | Xylene | 0.094 | | | | | 0.094 |
| | chromium | | 2.6E-04 | 2.5E-05 | 1.1E-05 | 6.5E-07 | 2.9E-04 |
| | lead | | | 8.8E-06 | 4.1E-06 | 2.3E-07 | 1.3E-05 |
| | **Totals** | **2.8E-01** | **2.7E-02** | **3.3E-02** | **1.5E-02** | **8.7E-04** | **0.36** |

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

| Category | | Uncontrolled Potential Emissions (tons/year) | | | | | |
|---|---|---|---|---|---|---|---|
| | | Emission Generating Activities | | | | | |
| | Pollutant | Polyurethane Foam Production and Rust Inhibitor process EU-02A, EU-03A | Welding and Frame assembly EU-01 | Natural Gas-fired space heater | Natural Gas-fired boiler EU-03B-2 | Natural Gas-fired boiler EU-03B-1 | **TOTAL** |
| Criteria Pollutants | PM | | 1.33 | 0.03 | 0.001 | 0.02 | 1.38 |
| | PM10 | | 1.33 | 0.13 | 3.53E-03 | 0.06 | 1.53 |
| | SO2 | | | 0.01 | 2.79E-04 | 4.89E-03 | 0.02 |
| | NOx | | | 1.75 | 0.05 | 0.81 | 2.61 |
| | VOC | 13.98 | | 0.10 | 2.56E-03 | 0.04 | 0.14 |
| | CO | | | 1.47 | 0.04 | 0.68 | 2.20 |
| Hazardous Air Pollutants | Manganese | | 2.66E-02 | 6.7E-06 | 1.8E-07 | 3.1E-06 | 0.03 |
| | Formaldehyde | | | 1.31E-03 | 3.5E-05 | 6.1E-04 | 1.96E-03 |
| | Nickel | | 2.56E-04 | 3.7E-05 | 9.8E-07 | 1.7E-05 | 3.11E-04 |
| | Hexane | | | 3.15E-02 | 8.4E-04 | 1.47E-02 | 0.05 |
| | Benzene | | | 3.7E-05 | 9.8E-07 | 1.7E-05 | 5.49E-05 |
| | Toluene | 0.094 | | | | | 0.094 |
| | Ethyl Benzene | 0.094 | | | | | 0.094 |
| | Xylene | 0.094 | | | | | 0.094 |
| | chromium | | 2.6E-04 | 2.5E-05 | 6.5E-07 | 1.1E-05 | 2.93E-04 |
| | Lead | | | 8.8E-06 | 2.3E-07 | 4.1E-06 | 1.31E-05 |
| | **Totals** | **2.8E-01** | **2.7E-02** | **3.3E-02** | **8.7E-04** | **1.5E-02** | **0.36** |

**Appendix A: Emissions Calculations**
**Polyurethane Foam Production Line/Round Recliner Rust Inhibitor**

**Company Name:** **Toyota Boshoku America**
**Address City IN Zip:** **Southeast of the intersection of CR100W and CR550S (Tulip Tree Drive) Princeton, IN 47670**
**Registration No.:** **R051-25558-00050**
**Reviewer:** **Swarna Prabha**

| | Expected Maximum | Potential |
|---|---|---|
| Production, vehicle units/year | 174,240 | 394,200.00 |
| Hours of Operation | 3872 | 8760 |
| Vehicle/hour | 45 | 45 |
| Round Recliner, units/year | 2,097,333 | 4,744,999.25 |
| Round Recliner units/hr | 541.67 | 541.67 |

**Polyurethane Foam Production**

| Material | Usage rate grams/unit, vehicle | wt% content VOC | vehicle /hr | VOC lbs/unit | PTE of VOC lb/hr | PTE of VOC lb/day | Actual PTE of VOC lb/day | PTE of VOC tons/yr |
|---|---|---|---|---|---|---|---|---|
| Polyol | 3394 | 0% | 45 | 0 | 0 | 0 | 0 | 0 |
| Isocyanate | 2320 | 0% | 45 | 0 | 0 | 0 | 0 | 0 |
| *Mold Release | 300 | 10% | 45 | 0.066 | 3.0 | 71.4 | 31.6 | 13.04 |

**Round Recliner Rust Inhibitor process**

| Material | Usage Rate grams/unit, RR | wt% content VOC | Round Recliner units/hr | wt% content Xylene/Toluene/ Ethyle Benzene, each | VOC lbs/unit | PTE of VOC lb/hr | PTE of VOC lb/day | PTE of VOC tons/yr | VOC Actual, lbs/day | VOC Actual, tons/yr | HAPs PTE of Xylene, Toluene, Ethyle Benzene, tons/yr, each |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Rust Inhibitor-oil | 1.8 | 10% | 541.66 | 1% | 4.0E-04 | 0.21 | 5.16 | 0.94 | 1.72 | 0.42 | 0.094 |
| Cleaning | 0.01 | 10% | 541.66 | 0% | 2.20E-06 | 0.001 | 0.03 | 0.005 | 0.010 | 0.00 | 0 |
| **Total** | | | | | | 0.22 | 5.19 | 0.95 | 1.73 | 0.42 | |

NOTES:

1. For the enclosed injection-mold polyurethane foam production (auto seat mfg. process), it is assumed that there is negligible emissions of methylene diphenyl diisocyanate (MDI) (a volatile organic compound (VOC) a air pollutant (HAP)), since the vapor pressure of MDI is minimal (i.e., 1.0E-05 mmHg at 25°C), since the polyurethane polymerization reaction occurs quickly, and the polyurethane foam seat cushion is produced in a clos

2. *Mold release is water based with 10% VOC content

3. Rust Preventive Oil- Assumed 100% Aliphatic Hydrocarbon (worst Case) has 1% xylene, 1% Toluene, and 1% Ethyle Benzene

4. 453.53 grams = 1 lb

**Methodology**

Usage Rate (lbs/unit) = [ Usage Rate (grams/unit)] /[ 453.53 grams/lb]
VOC lbs/unit = Usage Rate (lbs/unit) * [Weight % VOCs]
PTE of VOC (lbs/hr) = [VOC (lbs/unit)] * [units/hr]
PTE of VOC (lbs/day) = [PTE of VOC (lbs/hr)] * [24 hours/day]
PTE of VOC (tons/yr) = [PTE of VOC (lbs/day)] * [(365 days/yr)] * [1 ton/2000 lbs]
PTE of HAPs (tons/yr) = [PTE of HAPs (lbs/hr)] * [(8760 hrs/yr)] * [1 ton/2000 lbs]

**Appendix A: Emissions Calculations**
**Welding and Auto Frame Assembly**



**Company Name:** **Toyota Boshoku America**
**Address City IN Zip:** **Southeast of the intersection of CR100W and CR550S (Tulip Tree Drive) Princeton, IN 47670**
**Registration No.:** **R051-25558-00050**
**Reviewer:** **Swarna Prabha**

| | |
|---|---|
| Vehicles per hour | 45 |
| Electrode used pounds per unit | 1.3 |

| Process MIG Welding units/hour | Electrode consumption (lbs/unit) | Electrode Consumption (lb/hr) | Electrode Consumption tons/year | EMISSION FACTORS* (lb pollutant/lb electrode) | | | | | EMISSIONS (tons/yr) | | | | | HAPS (lbs/hr) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | PM = PM10 | Mn | Ni | Co | Cr | PM = PM10 | Mn | Ni | Co | Cr | |
| Carbon Steel | | | | | | | | | | | | | | |
| 45 | 1.30 | 58.50 | 256.23 | 0.0052 | 0.02 | 1E-06 | 0.00 | 1E-06 | 1.33 | 2.7E-02 | 2.56E-04 | 0.0E+00 | 2.6E-04 | 1.8E-02 |
| **Based on Actual hours of operation = | | | 113.26 | | | | | | 0.589 | 1.18E-02 | 1.13E-04 | 0.0E+00 | 1.1E-04 | 1.5E+02 |

NOTES:

1. Manganese composition is from MSDS sheet

2. *Emission Factors are default values for carbon steel unless a specific electrode type is noted in the Process column.

Welding emission factor for PM/PM10 is from AP-42, Table 12, 19-1 with A rating.

3. **Actual hours of operation = 3872 hours

4. There are no emission Factors for PM2.5 in AP-42, PM2.5 = PM10

**METHODOLOGY**

Welding emissions, lb/hr: (max. lbs of electrode used/hr)(emission factor, lb. pollutant/lb. of electrode used)

Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day

Emissions, tons/year = emissions, lbs/hr x 8760 hrs/year x 1 ton/ 2000 lbs.

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



**Company Name:** **Toyota Boshoku America**
**Address :** **Southeast of the intersection of CR100W and CR550S (Tulip Tree Drive)**
**City IN Zip:** **Princeton, IN 47670**
**Registration No.:** **R051-25558-00050**
**Reviewer:** **Swarna Prabha**

| | Natural gas Heat Input Capacity MMBtu/hr | Potential Throughput MMCF/yr |
|---|---|---|
| Natural gas Space heater | 4.0 | 35.0 |
| (1) NG Boilers for Round Recliner (EU-03B-01) | 1.86 | 16.3 |
| (1) NG Boiler for Round Recliner (EU-03B-2) - Stand-by (500 hrs) | 1.86 | 0.9 |
| | | |

| | Pollutant | | | | | |
|---|---|---|---|---|---|---|
| Emission Factor in lb/MMCF | PM* 1.9 | PM10* 7.6 | SO2 0.6 | NOx 100.0 **see below | VOC 5.5 | CO 84.0 |
| Space heater - Potential Emissionin tons/yr | 0.03 | 0.13 | 0.01 | 1.75 | 0.10 | 1.47 |
| Boiler (EU-03B-1) - Potential Emissions in tons/yr | 0.015 | 0.062 | 0.005 | 0.815 | 0.045 | 0.684 |
| Stand-by Boiler (EU-03B-2) - Potential Emission in tons/yr | 0.0009 | 0.0035 | 0.0003 | 0.0465 | 0.0026 | 0.0391 |
| **Total Potential Emission- Boilers in tons/yr** | **0.02** | **0.07** | **0.01** | **0.86** | **0.05** | **0.72** |

| **HAPs Emissions** | 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 |
| Space heater - Potential Emissionin tons/yr | 3.7E-05 | 2.10E-05 | 1.3E-03 | 0.032 | 6.0E-05 |
| Boiler (EU-03B-1) - Potential Emissions in tons/yr | 1.7E-05 | 9.8E-06 | 6.1E-04 | 1.5E-02 | 2.8E-05 |
| Stand-by Boiler (EU-03B-2) - Potential Emission in tons/yr | 9.8E-07 | 5.6E-07 | 3.4875E-05 | 8.4E-04 | 1.6E-06 |
| **Total Potential Emission- Boilers in tons/yr** | 1.8E-05 | 1.0E-05 | 6.5E-04 | 1.6E-02 | 2.9E-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-Space heater in tons/yr | 8.8E-06 | 1.9E-05 | 2.5E-05 | 6.7E-06 | 3.7E-05 |
| Boiler (EU-03B-1) - Potential Emissions in tons/yr | 4.1E-06 | 9.0E-06 | 1.1E-05 | 3.1E-06 | 1.7E-05 |
| Stand-by Boiler (EU-03B-2) - Potential Emission in tons/yr | 2.3E-07 | 5.1E-07 | 6.5E-07 | 1.8E-07 | 9.8E-07 |
| **Total Potential Emission- Boilers in tons/yr** | 4.3E-06 | 9.5E-06 | 1.2E-05 | 3.3E-06 | 1.8E-05 |

NOTES:
1. *PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
2. **Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32
3. There are no emission Factors for PM2.5 in AP-42, PM2.5 = PM10
4. The five highest organic and metal HAPs emission factors are provided above. Additional HAPs emission factors are available in AP-42, Chapter 1.4.
5. All emission factors are based on normal firing.
6. Only one boiler will operate at 8760 hrs per year and stand-by boiler shall not operate more than 500 hrs per year.

**Methodology**
Potential Throughput (MMCF) = Combined Total Heat Input Capacity (MMBtu/hr) * 8,760 hrs/yr * 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) * Emission Factor (lb/MMCF) / 2,000 lb/ton
(SUPPLEMENT D 3/98)

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

Abbreviations
PM = Particulate Matter
PM10 = Particulate Matter (<10 um)
SO2 = Sulfur Dioxide
NOx = Nitrous Oxides
VOC - Volatile Organic Compounds
CO = Carbon Monoxide
DCB = Dichlorobenzene
Pb = Lead
Cd = Cadmium
Cr = Chromium
Mn = Manganese
Ni = Nickel