

TO: Interested Parties / Applicant

RE: Royal Spa Manufacturing/ 097-12525-00391

FROM: John B. Chavez
Administrator

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within fifteen (15) calendar days of the receipt 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 Indianapolis Office of Environmental Services, Air Permits at (317) 327-2234.

Enclosures

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

AND

**CITY OF INDIANAPOLIS
OFFICE OF ENVIRONMENTAL SERVICES**

**FEDERALLY ENFORCEABLE STATE OPERATING
PERMIT (FESOP)**

**Royal Spa Manufacturing
2041 W. Epler
Indianapolis, Indiana 46217**

(herein known as the Permittee) is hereby authorized to operate subject to the conditions contained herein, the source described in Section A (Source Summary) of this permit.

The Permittee must comply with all conditions of this permit. Noncompliance with any provisions of this permit is grounds for enforcement action; permit termination, revocation and reissuance, or modification; or denial of a permit renewal application. Noncompliance with any provision of this permit, except any provision specifically designated as not federally enforceable, constitutes a violation of the Clean Air Act. It shall not be a defense for the Permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. An emergency does constitute an affirmative defense in an enforcement action provided the Permittee complies with the applicable requirements set forth in Section B, Emergency Provisions.

This permit is issued in accordance with 326 IAC 2 and 40 CFR Part 70 Appendix A and contains the conditions and provisions specified in 326 IAC 2-8 as required by 42 U.S.C. 7401, et. seq. (Clean Air Act as amended by the 1990 Clean Air Act Amendments), 40 CFR Part 70.6, IC 13-15 and IC 13-17.

Operation Permit No.: F097-12525-00391	
Issued by:	Issuance Date: July 26, 2004
Original Signed by	Expiration Date: July 25, 2009
John B. Chavez Administrator	

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) and the City of Indianapolis, Office of Environmental Services (OES). The information describing the source contained in conditions A.1 through A.3 is descriptive information and does not constitute enforceable conditions. However, the Permittee 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 Permittee to obtain additional permits or seek modification of this permit pursuant to 326 IAC 2, or change other applicable requirements presented in the permit application.

A.1 General Information [326 IAC 2-8-3(b)]

The Permittee owns and operates a stationary spa manufacturing source.

Authorized individual:	President
Source Address:	2041 W. Epler, Indianapolis, Indiana 46217
Mailing Address:	2041 W. Epler, Indianapolis, Indiana 46217
General Source Phone:	(317) 781-0828
SIC Code:	3998
Source Location Status:	Marion
Source Status:	Non-Attainment for Ozone under the 8-hr standard and Attainment for all other criteria pollutants Federally Enforceable State Operating Permit (FESOP) Minor Source under PSD Rules Minor Source Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

Woodworking Operation

- (a) One (1) woodworking operation, identified as EU2, constructed in 1992, with a maximum capacity of 495 board feet per hour, with particulate emissions controlled by a cyclone, identified as CE1, and exhausting to stack S2.

Resin and Gelcoat Flowcoating, Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth

- (b) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 120 pounds of vinyl ester resin per hour; and one (1) hand-applied gelcoat operation, constructed in 1992, with a maximum capacity of 1.07 pounds of gelcoat per hour, collectively identified as EU3, utilizing dry filters to control particulate emissions, and exhausting to stack S3.
- (c) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 219 pounds of suppressed resin/catalyst/filler/gel coat/pigments per hour, identified as EU4, using dry filters to control particulate emissions, and exhausting to stack S4.
- (d) One (1) booth, constructed in 2000, enclosing one (1) flow coater with a maximum capacity of 219 pounds of suppressed resin/catalyst/filler/gelcoat/pigments per hour, identified as EU6, using dry filters to control particulate emissions, and exhausting to stack S6.
- (e) One (1) assembly operation, identified as EU7, constructed in 1989, comprised of one (1) PVC glueing operation applied by hand with a maximum glue usage of 4.3 pounds per

hour and one (1) silicone caulking operation applied by hand with a maximum caulk usage of 3.5 pounds per hour.

- (f) One (1) wood stain spray booth, identified as EU10, constructed in 1991, with a maximum capacity of 495 board feet per hour and 9 pounds of stain per hour, using dry filters to control particulate emissions, exhausting to stack S10.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO₂, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:
 - (1) One (1) polyurethane foam spray booth, identified as EU1, constructed in 1989, with a maximum capacity of 55 pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S1 [326 IAC 2-8] [326 IAC 6-3-2];
 - (2) One (1) polyurethane foam spray booth, constructed in 1994, identified as EU5, with a maximum capacity of 55 pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S5 [326 IAC 2-8] [326 IAC 6-3-2]; and
 - (3) One (1) thermoforming operation, identified as EU9, constructed in 1991, with a maximum capacity of 3,100 spas per year [326 IAC 2-8].
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) One (1) natural gas-fired air make-up unit, identified as EU11, with a maximum capacity of two (2) million British thermal units per hour.
- (c) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:
 - (1) One (1) propane-fired combustion engine, identified as EU12, with a maximum capacity of 0.05 million British thermal units per hour.
 - (2) One (1) completed spa trimming operation, identified as EU13, constructed in 2002, with a maximum capacity of 1.5 spas per hour; using a fabric bag filter to control particulate emissions. [326 IAC 6-3-2]

A.4 FESOP Applicability [326 IAC 2-8-2]

This stationary source, otherwise required to have a Part 70 permit as described in 326 IAC 2-7-2(a), has applied to the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ) for a Federally Enforceable State Operating Permit (FESOP).

A.5 Prior Permits Superseded [326 IAC 2-1.1-9.5]

- (a) All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either
 - (1) incorporated as originally stated,

(2) revised, or

(3) deleted

by this permit.

(b) All previous registrations and permits are superseded by this permit.

SECTION B GENERAL CONDITIONS

B.1 Permit No Defense [IC 13]

Indiana statutes from IC 13 and rules from 326 IAC, quoted in conditions in this permit, are those applicable at the time the permit was issued. The issuance or possession of this permit shall not alone constitute a defense against an alleged violation of any law, regulation or standard, except for the requirement to obtain a FESOP under 326 IAC 2-8.

B.2 Definitions [326 IAC 2-8-1]

Terms in this permit 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 2-7) shall prevail.

B.3 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5]

This permit is issued for a fixed term of five (5) years from the issuance date of this permit, as determined in accordance with IC 4-21.5-3-5(f) and IC 13-15-5-3. Subsequent revisions, modifications, or amendments of this permit do not affect the expiration date.

B.4 Enforceability [326 IAC 2-8-6]

- (a) Unless otherwise stated, all terms and conditions in this permit, including any provisions designed to limit the source's potential to emit, are enforceable by IDEM, OES, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.
- (b) The Indianapolis Air Pollution Control Board (IAPCB) has adopted by reference state rules listed in Attachment A of this permit. The version adopted by reference includes all amendments, additions, and repeals filed with the Secretary of State through August 10, 1997 and published in the Indiana Register September 1, 1997, unless otherwise indicated in the adoption reference. For purposes of this permit, all state rules adopted by reference by the IAPCB are enforceable by OES using local enforcement procedures. Unless otherwise stated, all terms and conditions in this permit that are local requirements, including any provisions designed to limit the source's potential to emit, are enforceable by OES.

B.5 Termination of Right to Operate [326 IAC 2-8-9] [326 IAC 2-8-3(h)]

The Permittee's right to operate this source terminates with the expiration of this permit unless a timely and complete renewal application is submitted at least nine (9) months prior to the date of expiration of the source's existing permit, consistent with 326 IAC 2-8-3(h) and 326 IAC 2-8-9.

B.6 Severability [326 IAC 2-8-4(4)]

The provisions of this permit are severable; a determination that any portion of this permit is invalid shall not affect the validity of the remainder of the permit.

B.7 Property Rights or Exclusive Privilege [326 IAC 2-8-4(5)(D)]

This permit does not convey any property rights of any sort, or any exclusive privilege.

B.8 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

- (a) The Permittee shall furnish to IDEM, OAQ, and OES within a reasonable time, any information that IDEM, OAQ, and OES may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The submittal by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1). Upon request, the Permittee shall also furnish to IDEM, OAQ, and OES copies of records required to be kept by this permit.
- (b) For information furnished by the Permittee to IDEM, OAQ, the Permittee may include a claim of confidentiality in accordance with 326 IAC 17.1 When furnishing copies of

requested records directly to U. S. EPA, the Permittee may assert a claim of confidentiality in accordance with 40 CFR 2, Subpart B.

B.9 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ and OES may issue a compliance order to this Permittee upon discovery that this permit is in nonconformance with an applicable requirement. The order may require immediate compliance or contain a schedule for expeditious compliance with the applicable requirement.

B.10 Certification [326 IAC 2-8-3(d)] [326 IAC 2-8-4(3)(C)(i)] [326 IAC 2-8-5(1)]

- (a) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an authorized individual of truth, accuracy, and completeness. This certification, shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification.
- (c) An authorized individual is defined at 326 IAC 2-1.1-1(1).

B.11 Annual Compliance Certification [326 IAC 2-8-5(a)(1)]

- (a) The Permittee shall annually submit a compliance certification report which addresses the status of the source's compliance with the terms and conditions contained in this permit, including emission limitations, standards, or work practices. The initial certification shall cover the time period from the date of final permit issuance through December 31 of the same year. All subsequent certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted in letter form no later than April 15 of each year to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) The annual compliance certification report required by this permit 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, and OES on or before the date it is due.
- (c) The annual compliance certification report shall include the following:
 - (1) The appropriate identification of each term or condition of this permit that is the basis of the certification;
 - (2) The compliance status;
 - (3) Whether compliance was continuous or intermittent;

- (4) The methods used for determining the compliance status of the source, currently and over the reporting period consistent with 326 IAC 2-8-4(3); and
- (5) Such other facts as specified in Sections D of this permit, IDEM, OAQ, and OES may require to determine the compliance status of the source.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

B.12 Preventive Maintenance Plan [326 IAC 1-6-3] [326 IAC 2-8-4(9)] [326 IAC 2-8-5(a)(1)]

- (a) If required by specific condition(s) in Section D of this permit, the Permittee shall prepare and maintain Preventive Maintenance Plans (PMPs) within ninety (90) days after issuance of this permit, including the following information on each facility:
 - (1) Identification of the individual(s) responsible for inspecting, maintaining, and repairing emission control devices;
 - (2) A description of the items or conditions that will be inspected and the inspection schedule for said items or conditions; and
 - (3) Identification and quantification of the replacement parts that will be maintained in inventory for quick replacement.

If due to circumstances beyond the Permittee's control, the PMPs cannot be prepared and maintained within the above time frame, the Permittee may extend the date an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

City of Indianapolis
Office of Environmental Services
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The PMP extension notification does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall implement the PMPs, including any required record keeping, as necessary to ensure that failure to implement a PMP does not cause or contribute to an exceedance of any limitation on emissions or potential to emit.
- (c) A copy of the PMPs shall be submitted to IDEM, OAQ, and OES upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ, and OES. IDEM, OAQ, and OES may require the Permittee to revise its PMPs whenever lack of proper maintenance causes or is the primary contributor to an exceedance of any limitation on emissions or potential to emit. The PMP does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (d) To the extent the Permittee is required by 40 CFR Part 60/63 to have an Operation, Maintenance, and Monitoring (OMM) Plan for a unit, such Plan is deemed to satisfy the PMP requirements of 326 IAC 1-6-3 for that unit.

B.13 Emergency Provisions [326 IAC 2-8-12]

-
- (a) An emergency, as defined in 326 IAC 2-7-1(12), is not an affirmative defense for an action brought for noncompliance with a federal or state health-based emission limitation, except as provided in 326 IAC 2-8-12.
- (b) An emergency, as defined in 326 IAC 2-7-1(12), constitutes an affirmative defense to an action brought for noncompliance with a health-based or technology-based emission limitation if the affirmative defense of an emergency is demonstrated through properly signed, contemporaneous operating logs or other relevant evidence that describes the following:
- (1) An emergency occurred and the Permittee can, to the extent possible, identify the causes of the emergency;
 - (2) The permitted facility was at the time being properly operated;
 - (3) During the period of an emergency, the Permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards or other requirements in this permit;
 - (4) For each emergency lasting one (1) hour or more, the Permittee notified IDEM, OAQ and OES, within four (4) daytime business hours after the beginning of the emergency, or after the emergency was discovered or reasonably should have been discovered;

Telephone No.: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section) or,
Telephone No.: 317-233-5674 (ask for Compliance Section)
Facsimile No.: 317-233-5967

Indianapolis Office of Environmental Services
Telephone No.: 317-327-2234 (ask for Data Compliance)
Facsimile No.: 317-327-2274

Southwest Regional Office
Telephone No.: 1-888-672-8323
Telephone No.: 812-436-2570
Facsimile No.: 812-436-2572

- (5) For each emergency lasting one (1) hour or more, the Permittee submitted the attached Emergency Occurrence Report Form or its equivalent, either by mail or facsimile to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

and

Southwest Regional Office
208 N.W. Fourth St, Suite 201

Evansville, Indiana 47708

within two (2) working days of the time when emission limitations were exceeded due to the emergency.

The notice fulfills the requirement of 326 IAC 2-8-4(3)(C)(ii) and must contain the following:

- (A) A description of the emergency;
- (B) Any steps taken to mitigate the emissions; and
- (C) Corrective actions taken.

The notification which shall be submitted by the Permittee does not require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (6) The Permittee immediately took all reasonable steps to correct the emergency.
- (c) In any enforcement proceeding, the Permittee seeking to establish the occurrence of an emergency has the burden of proof.
- (d) This emergency provision supersedes 326 IAC 1-6 (Malfunctions). This permit condition is in addition to any emergency or upset provision contained in any applicable requirement.
- (e) IDEM, OAQ and OES, may require that the Preventive Maintenance Plans required under 326 IAC 2-8-3(c)(6) be revised in response to an emergency.
- (f) Failure to notify IDEM, OAQ and OES, by telephone or facsimile of an emergency lasting more than one (1) hour in accordance with (b)(4) and (5) of this condition shall constitute a violation of 326 IAC 2-8 and any other applicable rules.
- (g) Operations may continue during an emergency only if the following conditions are met:
 - (1) If the emergency situation causes a deviation from a technology-based limit, the Permittee may continue to operate the affected emitting facilities during the emergency provided the Permittee immediately takes all reasonable steps to correct the emergency and minimize emissions.
 - (2) If an emergency situation causes a deviation from a health-based limit, the Permittee may not continue to operate the affected emissions facilities unless:
 - (A) The Permittee immediately takes all reasonable steps to correct the emergency situation and to minimize emissions; and
 - (B) Continued operation of the facilities is necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw material of substantial economic value.
- (h) Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.
- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

-
- (a) Deviations from any permit requirements (for emergencies see Section B - Emergency Provision), the probable cause of such deviations, and any response steps or preventive measures taken shall be reported to:

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

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does need to be included in this report.

The Quarterly Deviation and Compliance Monitoring Report does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

B.15 Permit Modification, Reopening, Revocation and Reissuance, or Termination
[326 IAC 2-8-4(5)(C)] [326 IAC 2-8-7(a)] [326 IAC 2-8-8]

-
- (a) This permit may be modified, reopened, revoked and reissued, or terminated for cause. The filing of a request by the Permittee for a FESOP modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any condition of this permit. [326 IAC 2-8-4(5)(C)] The notification by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) This permit shall be reopened and revised under any of the circumstances listed in IC 13-15-7-2 or if IDEM, OAQ or OES determines any of the following:
- (1) That this permit contains a material mistake.
 - (2) That inaccurate statements were made in establishing the emissions standards or other terms or conditions.
 - (3) That this permit must be revised or revoked to assure compliance with an applicable requirement. [326 IAC 2-8-8(a)]
- (c) Proceedings by IDEM, OAQ or OES, to reopen and revise this permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of this permit for which cause to reopen exists. Such reopening and revision shall be made as expeditiously as practicable. [326 IAC 2-8-8(b)]
- (d) The reopening and revision of this permit, under 326 IAC 2-8-8(a), shall not be initiated before notice of such intent is provided to the Permittee by IDEM, OAQ or OES, at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ or OES, may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.16 Permit Renewal [326 IAC 2-8-3(h)]

- (a) The application for renewal shall be submitted using the application form or forms prescribed by IDEM, OAQ and OES and shall include the information specified in 326 IAC 2-8-3. Such information shall be included in the application for each emission unit at this source, except those emission units included on the trivial or insignificant activities list contained in 326 IAC 2-7-1(21) and 326 IAC 2-7-1(40). The renewal application does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, IN 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (b) Timely Submittal of Permit Renewal [326 IAC 2-8-3]

(1) A timely renewal application is one that is:

(A) Submitted at least nine (9) months prior to the date of the expiration of this permit; and

(B) 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, and OES on or before the date it is due.

(2) If IDEM, OAQ and OES upon receiving a timely and complete permit application, fails to issue or deny the permit renewal prior to the expiration date of this permit, this existing permit shall not expire and all terms and conditions shall continue in effect until the renewal permit has been issued or denied.

- (c) Right to Operate After Application for Renewal [326 IAC 2-8-9]

If the Permittee submits a timely and complete application for renewal of this permit, the source's failure to have a permit is not a violation of 326 IAC 2-8 until IDEM, OAQ and OES takes final action on the renewal application, except that this protection shall cease to apply if, subsequent to the completeness determination, the Permittee fails to submit by the deadline specified in writing by IDEM, OAQ and OES, any additional information identified as needed to process the application.

B.17 Permit Amendment or Revision [326 IAC 2-8-10] [326 IAC 2-8-11.1]

- (a) Permit amendments and revisions are governed by the requirements of 326 IAC 2-8-10 or 326 IAC 2-8-11.1 whenever the Permittee seeks to amend or modify this permit.

- (b) Any application requesting an amendment or modification of this permit shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality

100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

Any such application shall be certified by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement the administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]
- (d) No permit amendment or modification is required for the addition, operation or removal of a nonroad engine, as defined in 40 CFR 89.2.

B.18 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

- (a) The Permittee may make any change or changes at this source that are described in 326 IAC 2-8-15(b) through (d), without prior permit revision, if each of the following conditions is met:

- (1) The changes are not modifications under any provision of Title I of the Clean Air Act;
- (2) Any approval required by 326 IAC 2-8-11.1 has been obtained;
- (3) The changes do not result in emissions which exceed the emissions allowable under this permit (whether expressed herein as a rate of emissions or in terms of total emissions);
- (4) The Permittee notifies the:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

and

United States Environmental Protection Agency, Region V
Air and Radiation Division, Regulation Development Branch - Indiana (AR-18J)
77 West Jackson Boulevard
Chicago, Illinois 60604-3590

in advance of the change by written notification at least ten (10) days in advance of the proposed change. The Permittee shall attach every such notice to the Permittee's copy of this permit; and

- (5) The Permittee maintains records on-site which document, on a rolling five (5) year basis, all such changes and emissions trading that are subject to 326 IAC 2-8-15(b) through (d) and makes such records available, upon reasonable request, to public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ and OES, in the notices specified in 326 IAC 2-8-15(b)(2), (c)(1), and (d).

- (b) **Emission Trades** [326 IAC 2-8-15(c)]
The Permittee may trade increases and decreases in emissions in the source, where the applicable SIP provides for such emission trades without requiring a permit revision, subject to the constraints of Section (a) of this condition and those in 326 IAC 2-8-15(c).
- (c) **Alternative Operating Scenarios** [326 IAC 2-8-15(d)]
The Permittee may make changes at the source within the range of alternative operating scenarios that are described in the terms and conditions of this permit in accordance with 326 IAC 2-8-4(7). No prior notification of IDEM, OAQ or U.S. EPA is required.

B.19 Permit Revision Requirement [326 IAC 2-8-11.1]

A modification, construction, or reconstruction is governed by the requirements of 326 IAC 2 and 326 IAC 2-8-11.1.

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2] [IC 13-30-3-1] [IC13-17-3-2]

Upon presentation of proper identification cards, credentials, and other documents as may be required by law, and subject to the Permittee's right under all applicable laws and regulations to assert that the information collected by the agency is confidential and entitled to be treated as such, the Permittee shall allow IDEM, OAQ, and OES U.S. EPA, or an authorized representative to perform the following:

- (a) Enter upon the Permittee's premises where a FESOP source is located, or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
- (b) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- (c) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit;
- (d) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, sample or monitor, at reasonable times, substances or parameters for the purpose of assuring compliance with this permit or applicable requirements; and
- (e) As authorized by the Clean Air Act, IC 13-14-2-2, IC 13-17-3-2, and IC 13-30-3-1, utilize any photographic, recording, testing, monitoring, or other equipment for the purpose of assuring compliance with this permit or applicable requirements.

B.21 Transfer of Ownership or Operational Control [326 IAC 2-8-10]

- (a) The Permittee must comply with the requirements of 326 IAC 2-8-10 whenever the Permittee seeks to change the ownership or operational control of the source and no other change in the permit is necessary.
- (b) Any application requesting a change in the ownership or operational control of the source shall contain a written agreement containing a specific date for transfer of permit

responsibility, coverage and liability between the current and new Permittee. The application shall be submitted to:

Indiana Department of Environmental Management
Permits Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The application which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) The Permittee may implement administrative amendment changes addressed in the request for an administrative amendment immediately upon submittal of the request. [326 IAC 2-8-10(b)(3)]

B.22 Annual Fee Payment [326 IAC 2-7-19] [326 IAC 2-8-4(6)] [326 IAC 2-8-16][326 IAC 2-1.1-7]

- (a) The Permittee shall pay annual fees to IDEM, OAQ, within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action, or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4320 (ask for OAQ, I/M & Billing Section), to determine the appropriate permit fee.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

Emissions Limitations and Standards [326 IAC 2-8-4(1)]

C.1 Overall Source Limit [326 IAC 2-8]

The purpose of this permit is to limit this source's potential to emit to less than major source levels for the purpose of Section 502(a) of the Clean Air Act.

- (a) Pursuant to 326 IAC 2-8:
 - (1) The potential to emit any regulated pollutant, except particulate matter (PM), from the entire source shall be limited to less than one-hundred (100) tons per twelve (12) consecutive month period. This limitation shall also satisfy the requirements of 326 IAC 2-3 (Emission Offset);
 - (2) The potential to emit any individual hazardous air pollutant (HAP) from the entire source shall be limited to less than ten (10) tons per twelve (12) consecutive month period; and
 - (3) The potential to emit any combination of HAPs from the entire source shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period.
- (b) Pursuant to 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), potential to emit particulate matter (PM) from the entire source shall be limited to less than two hundred fifty (250) tons per twelve (12) consecutive month period.
- (c) This condition shall include all emission points at this source including those that are insignificant as defined in 326 IAC 2-7-1(21). The source shall be allowed to add insignificant activities not already listed in this permit, provided the source's potential to emit does not exceed the above specified limits.
- (d) Section D of this permit contains independently enforceable provisions to satisfy this requirement.

C.2 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 permit:

- (a) Opacity shall not exceed an average of thirty percent (30%) 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.3 Open Burning [326 IAC 4-1] [IC 13-17-9]

The Permittee shall not open burn any material except as provided in 326 IAC 4-1-3, 326 IAC 4-1-4 or 326 IAC 4-1-6. The previous sentence notwithstanding, the Permittee may open burn in accordance with an open burning approval issued by the Commissioner under 326 IAC 4-1-4.1.

C.4 Incineration [326 IAC 4-2] [326 IAC 9-1-2(3)]

The Permittee shall not operate an incinerator or incinerate any waste or refuse except as provided in 326 IAC 4-2 and in 326 IAC 9-1-2.

C.5 Fugitive Dust Emissions [326 IAC 6-4]

The Permittee 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).

C.6 Operation of Equipment [326 IAC 2-8-5(a)(4)]

Except as otherwise provided by statute, rule or in this permit, all air pollution control equipment listed in this permit and used to comply with an applicable requirement shall be operated at all times that the emission units vented to the control equipment are in operation.

C.7 Stack Height [326 IAC 1-7]

The Permittee shall comply with the applicable provisions of 326 IAC 1-7 (Stack Height Provisions), for all exhaust stacks through which a potential (before controls) of twenty-five (25) tons per year or more of particulate matter or sulfur dioxide is emitted.

C.8 Asbestos Abatement Projects [326 IAC 14-10] [326 IAC 18] [40 CFR 61, Subpart M]

(a) Notification requirements apply to each owner or operator. If the combined amount of regulated asbestos containing material (RACM) to be stripped, removed or disturbed is at least 260 linear feet on pipes or 160 square feet on other facility components, or at least thirty-five (35) cubic feet on all facility components, then the notification requirements of 326 IAC 14-10-3 are mandatory. All demolition projects require notification whether or not asbestos is present.

(b) The Permittee shall ensure that a written notification is sent on a form provided by the Commissioner at least ten (10) working days before asbestos stripping or removal work or before demolition begins, per 326 IAC 14-10-3, and shall update such notice as necessary, including, but not limited to the following:

(1) When the amount of affected asbestos containing material increases or decreases by at least twenty percent (20%); or

(2) If there is a change in the following:

(A) Asbestos removal or demolition start date;

(B) Removal or demolition contractor; or

(C) Waste disposal site.

(c) The Permittee shall ensure that the notice is postmarked or delivered according to the guidelines set forth in 326 IAC 14-10-3(2).

(d) The notice to be submitted shall include the information enumerated in 326 IAC 14-10-3(3).

All required notifications shall be submitted to:

Indiana Department of Environmental Management
Asbestos Section, Office of Air Quality

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

The notice shall include a signed certification from the owner or operator that the information provided in this notification is correct and that only Indiana licensed workers and project supervisors will be used to implement the asbestos removal project. The notifications do not require a certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) **Procedures for Asbestos Emission Control**
The Permittee shall comply with the applicable emission control procedures in 326 IAC 14-10-4 and 40 CFR 61.145(c). Per 326 IAC 14-10-1 emission control requirements are applicable for any removal or disturbance of RACM greater than three (3) linear feet on pipes or three (3) square feet on any other facility components or a total of at least 0.75 cubic feet on all facility components.
- (f) **Demolition and renovation**
The Permittee shall thoroughly inspect the affected facility or part of the facility where the demolition or renovation will occur for the presence of asbestos pursuant to 40 CFR 61.145(a).
- (g) **Indiana Accredited Asbestos Inspector**
The Permittee shall comply with 326 IAC 14-10-1(a) that requires the owner or operator, prior to a renovation/demolition, to use an Indiana Accredited Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos. The requirement to use an Indiana Accredited Asbestos inspector be accredited is not federally enforceable.

Testing Requirements [326 IAC 2-8-4(3)]

C.9 Performance Testing [326 IAC 3-6]

- (a) All testing shall be performed according to the provisions of 326 IAC 3-6 (Source Sampling Procedures), except as provided elsewhere in this permit, utilizing any applicable procedures and analysis methods specified in 40 CFR 51, 40 CFR 60, 40 CFR 61, 40 CFR 63, 40 CFR 75, or other procedures approved by IDEM, OAQ.

A test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (b) The Permittee shall notify IDEM, OAQ of the actual test date at least fourteen (14) days prior to the actual test date. The notification submitted by the Permittee does not require certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ and OES not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, and OES, if the Permittee submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

Compliance Requirements [326 IAC 2-1.1-11]

C.10 Compliance Requirements [326 IAC 2-1.1-11]

The commissioner may require stack testing, monitoring, or reporting at any time to assure compliance with all applicable requirements by issuing an order under 326 IAC 2-1.1-11. Any monitoring or testing shall be performed in accordance with 326 IAC 3 or other methods approved by the commissioner or the U. S. EPA.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.11 Compliance Monitoring [326 IAC 2-8-4(3)] [326 IAC 2-8-5(a)(1)]

Unless otherwise specified in this permit, all monitoring and record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

in writing, prior to the end of the initial ninety (90) day compliance schedule with full justification of the reasons for inability to meet this date.

The notification which shall be submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Unless otherwise specified in the approval for the new emissions unit, compliance monitoring for new emission units or emission units added through a permit revision shall be implemented when operation begins.

C.12 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

Any monitoring or testing performed required by Section D of this permit shall be performed according to the provisions of 326 IAC 3, 40 CFR 60, Appendix A, 40 CFR 60 Appendix B, 40 CFR 63 or other approved methods as specified in this permit.

Corrective Actions and Response Steps [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

C.13 Emergency Reduction Plans [326 IAC 1-5-2] [326 IAC 1-5-3]

Pursuant to 326 IAC 1-5-2 (Emergency Reduction Plans; Submission):

- (a) The Permittee shall prepare written emergency reduction plans (ERPs) consistent with safe operating procedures.
- (b) These ERPs shall be submitted for approval to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P.O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

within ninety (90) days from the date of issuance of this permit.

The ERP does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (c) If the ERP is disapproved by IDEM, OAQ and OES, the Permittee shall have an additional thirty (30) days to resolve the differences and submit an approvable ERP.
- (d) These ERPs shall state those actions that will be taken, when each episode level is declared, to reduce or eliminate emissions of the appropriate air pollutants.
- (e) Said ERPs shall also identify the sources of air pollutants, the approximate amount of reduction of the pollutants, and a brief description of the manner in which the reduction will be achieved.
- (f) Upon direct notification by IDEM, OAQ and OES, that a specific air pollution episode level is in effect, the Permittee shall immediately put into effect the actions stipulated in the approved ERP for the appropriate episode level. [326 IAC 1-5-3]

C.14 Risk Management Plan [326 IAC 2-8-4] [40 CFR 68]

If a regulated substance, as defined in 40 CFR 68, is present at a source in more than a threshold quantity, the Permittee must comply with the applicable requirements of 40 CFR 68.

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

- (a) The Permittee is required to prepare a Compliance Response Plan (CRP) for each compliance monitoring condition of this permit. If a Permittee is required to have an Operation, Maintenance and Monitoring (OMM) Plan under 40 CFR 60/63, such plans shall be deemed to satisfy the requirements for a CRP for those compliance monitoring conditions. A CRP shall be submitted to IDEM, OAQ and OES upon request. The CRP shall be prepared within ninety (90) days after issuance of this permit by the Permittee, supplemented from time to time by the Permittee, maintained on site, and is comprised of:

- (1) Reasonable response steps that may be implemented in the event that a response step is needed pursuant to the requirements of Section D of this permit; and an expected time frame for taking reasonable response steps.
- (2) If, at any time, the Permittee takes reasonable response steps that are not set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan and the Permittee documents such response in accordance with subsection (e) below, the Permittee shall amend its Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan to include such response steps taken.

The OMM Plan shall be submitted within the time frames specified by the applicable 40 CFR60/63 requirement.

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:
 - (1) Reasonable response steps shall be taken as set forth in the Permittee's current Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan ; or
 - (2) If none of the reasonable response steps listed in the Compliance Response Plan or Operation, Maintenance and Monitoring (OMM) Plan is applicable or responsive to the excursion, the Permittee shall devise and implement additional response steps as expeditiously as practical. Taking such additional response steps shall not be considered a deviation from this permit so long as the Permittee documents such response steps in accordance with this condition.
 - (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be ten (10) days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down. The notification shall also include the status of the applicable compliance monitoring parameter with respect to normal, and the results of the response actions taken up to the time of notification.
 - (4) Failure to take reasonable response steps shall be considered a deviation from the permit.
- (c) The Permittee is not required to take any further response steps for any of the following reasons:
 - (1) A false reading occurs due to the malfunction of the monitoring equipment and prompt action was taken to correct the monitoring equipment.
 - (2) The Permittee has determined that the compliance monitoring parameters established in the permit conditions are technically inappropriate, has previously submitted a request for an administrative amendment to the permit, and such request has not been denied.
 - (3) An automatic measurement was taken when the process was not operating.
 - (4) The process has already returned or is returning to operating within "normal" parameters and no response steps are required.
- (d) When implementing reasonable steps in response to a compliance monitoring condition, if the Permittee determines that an exceedance of an emission limitation has occurred,

the Permittee shall report such deviations pursuant to Section B-Deviations from Permit Requirements and Conditions.

- (e) The Permittee shall record all instances when, in accordance with Section D, response steps are taken. In the event of an emergency, the provisions of 326 IAC 2-8-12 (Emergency Provisions) requiring prompt corrective action to mitigate emissions shall prevail.
- (f) Except as otherwise provided by a rule or provided specifically in Section D, all monitoring as required in Section D shall be performed when the emission unit is operating, except for time necessary to perform quality assurance and maintenance activities.

**C.16 Actions Related to Noncompliance Demonstrated by a Stack Test [326 IAC 2-8-4]
[326 IAC 2-8-5]**

- (a) When the results of a stack test performed in conformance with Section C - Performance Testing, of this permit exceed the level specified in any condition of this permit, the Permittee shall take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.
- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one-hundred and twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)]

C.17 General Record Keeping Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-5]

- (a) Records of all required monitoring data, reports and support information required by this permit shall be retained for a period of at least five (5) years from the date of monitoring sample, measurement, report, or application. These records shall be physically present or electronically accessible at the source location for a minimum of three (3) years. The records may be stored elsewhere for the remaining two (2) years as long as they are available upon request. If the Commissioner or OES makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner or OES within a reasonable time.
- (b) Unless otherwise specified in this permit, all record keeping requirements not already legally required shall be implemented within ninety (90) days of permit issuance.

C.18 General Reporting Requirements [326 IAC 2-8-4(3)(C)] [326 IAC 2-1.1-11]

- (a) The Permittee shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue, P. O. Box 6015
Indianapolis, Indiana 46206-6015

and

Indianapolis Office of Environmental Services
Air Quality Management Section, Permits
2700 South Belmont Avenue
Indianapolis, Indiana 46221

- (c) Unless otherwise specified in this permit, any notice, report, or other submission required by this permit 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, and OES on or before the date it is due.
- (d) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (e) The first report covered the period commencing on the date of issuance of the original FESOP and ended on the last day of the reporting period. All subsequent reporting periods shall be based on calendar years.

Stratospheric Ozone Protection

C.19 Compliance with 40 CFR 82 and 326 IAC 22-1

Pursuant to 40 CFR 82 (Protection of Stratospheric Ozone), Subpart F, except as provided for motor vehicle air conditioners in Subpart B, the Permittee shall comply with the standards for recycling and emissions reduction:

- (a) Persons opening appliances for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156
- (b) Equipment used during the maintenance, service, repair or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to 40 CFR 82.158.
- (c) Persons performing maintenance, service, repair or disposal of appliances must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

SECTION D.1 FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Woodworking Operation

- (a) One (1) woodworking operation, identified as EU2, constructed in 1992, with a maximum capacity of 495 board feet per hour, with particulate emissions controlled by a cyclone, identified as CE1, and exhausting to stack S2.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.1.1 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Operations), the particulate emissions from the woodworking operation (EU2) shall be limited 3.6 pounds per hour based on a process weight of 1,650 pounds per hour.

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

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

D.1.2 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for this facility and its control device.

Compliance Determination Requirements

D.1.3 Particulate Control

In order to comply with Condition D.1.1, the cyclone (CE1) for particulate control shall be in operation and control emissions from the woodworking operation (EU2) at all times that the woodworking operation (EU2) is in operation.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.1.4 Visible Emissions Notations

- (a) Daily visible emission notations of the S2 exhaust shall be performed during normal daylight operations when exhausting to the atmosphere. A trained employee shall record whether emissions are normal or abnormal.
- (b) For processes operated continuously, "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time.
- (c) In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions.
- (d) A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process.
- (e) The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take

response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

D.1.5 Cyclone Inspections

An inspection shall be performed during the last month of each calendar quarter of all cyclones controlling the woodworking operation (EU2). Inspections required by this condition shall not be performed in consecutive months.

D.1.6 Cyclone Failure Detection

In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

Record Keeping and Reporting Requirement [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.1.7 Record Keeping Requirements

- (a) To document compliance with Condition D.1.4, the Permittee shall maintain records of daily visible emission notations of S2 stack exhaust.
- (b) To document compliance with Condition D.1.5, the Permittee shall maintain records of the results of the inspections required under Condition D.1.5.
- (c) To document compliance with Condition D.1.2, the Permittee shall maintain records of any additional inspections prescribed by the Preventive Maintenance Plan.
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Resin and Gelcoat Flowcoating, Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth

- (b) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 120 pounds of vinyl ester resin per hour; and one (1) hand-applied gelcoat operation, constructed in 1992, with a maximum capacity of 1.07 pounds of gelcoat per hour, collectively identified as EU3, utilizing dry filters to control particulate emissions, and exhausting to stack S3.
- (c) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 219 pounds of suppressed resin/catalyst/filler/gel coat/pigments per hour, identified as EU4, using dry filters to control particulate emissions, and exhausting to stack S4.
- (d) One (1) booth, constructed in 2000, enclosing one (1) flow coater with a maximum capacity of 219 pounds of suppressed resin/catalyst/filler/gelcoat/pigments per hour, identified as EU6, using dry filters to control particulate emissions, and exhausting to stack S6.
- (e) One (1) assembly operation, identified as EU7, constructed in 1989, comprised of one (1) PVC glueing operation applied by hand with a maximum glue usage of 4.3 pounds per hour and one (1) silicone caulking operation applied by hand with a maximum caulk usage of 3.5 pounds per hour.
- (f) One (1) wood stain spray booth, identified as EU10, constructed in 1991, with a maximum capacity of 495 board feet per hour and 9 pounds of stain per hour, using dry filters to control particulate emissions, exhausting to stack S10.

Insignificant Activities

- (a) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO₂, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:
 - (1) One (1) polyurethane foam spray booth, identified as EU1, constructed in 1989, with a maximum capacity of 55 pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S1 [326 IAC 2-8] [326 IAC 6-3-2];
 - (2) One (1) polyurethane foam spray booth, constructed in 1994, identified as EU5, with a maximum capacity of 55 pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S5 [326 IAC 2-8] [326 IAC 6-3-2]; and
 - (3) One (1) thermoforming operation, identified as EU9, constructed in 1991, with a maximum capacity of 3,100 spas per year [326 IAC 2-8].
- (c) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:
 - (2) One (1) completed spa trimming operation, identified as EU13, constructed in 2002, with a maximum capacity of 1.5 spa per hour, using a fabric bag filter to control particulate emissions.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

D.2.1 FESOP Limitation [326 IAC 2-8] [326 IAC 2-4.1]

The Permittee shall be subject to the following limitations:

- (a) The total emissions of volatile organic compounds (VOC) from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is structured such that, when including emissions of VOC from the insignificant combustion sources, the source total emissions of VOC remain less than one hundred (100) tons per twelve (12) consecutive month period. This limit is based on the following:
 - (1) The emissions of volatile organic compounds from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999."
 - (2) The emissions of volatile organic compounds from the foam spraying operations (EU1 and EU5), the glueing and caulking operations (EU7), the thermoforming operations (EU9), and the stain spraying operations (EU10), shall be determined by VOC input. VOC input to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the VOC emissions shall not exceed ninety-nine (99) tons per year.
- (b) The total emissions of a single HAP from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and nine-tenths (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is structured such that, when including emissions of a single HAP from the insignificant combustion sources, the source total emissions of a single HAP remain less than ten (10) tons per twelve (12) consecutive month period. This limit is based on the following:
 - (1) The emissions of a single HAP from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999."
 - (2) The emissions of a single HAP from the foam spraying operations (EU1 and EU5), the glueing and caulking operations (EU7), the thermoforming operations (EU9), and the stain spraying operations (EU10), shall be determined by the input of a single HAP. The input of a single HAP to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the emissions of a single HAP shall not exceed nine and nine-tenths (9.9) tons per year.
- (c) The total emissions of any combination of HAPs from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed twenty-four and nine-tenths (24.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is structured such that, when including emissions of any combination of HAPs from EU8 and the insignificant combustion sources, the source total emissions of any combination of HAPs remain less than twenty-five (25) tons per twelve (12) consecutive month period. This limit is based on the following:
 - (1) The emissions of any combination of HAPs from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999."
 - (2) The emissions of any combination of HAPs from the foam spraying operations

(EU1 and EU5), the glueing and caulking operations (EU7), the thermoforming operations (EU9), and the stain spraying operations (EU10), shall be determined by the input of a single HAP. The input of any combination of HAPs to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the emissions of any combination of HAPs shall not exceed twenty-four and nine-tenths (24.9) tons per year.

Compliance with these limitations will render the requirements of 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

D.2.2 Particulate Matter (PM) [40 CFR 52 Subpart P]

Pursuant to 40 CFR 52 Subpart P, the PM from the polyurethane foam spraying operations (EU1 and EU5), wood stain spray booth operation (EU10), and spa trimming operation (EU13), shall not exceed the pound per hour emission rate established as E in the following formula:

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:

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

D.2.3 Particulate [326 IAC 6-3-2(d)]

Pursuant to 326 IAC 6-3-2(d), particulate from the polyurethane foam spraying operations (EU1 and EU5), wood stain spray booth operation (EU10), and spa-trimming operation (EU13), shall be controlled by dry filters and the Permittee shall operate the control device in accordance with manufacturer's specifications.

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The total VOC emissions from the polyurethane foam spray operations (EU1 and EU5) and the flowcoating and gelcoat operations (EU3, EU4, and EU6), shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is based on the following:

- (1) The emissions of volatile organic compounds from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999."
- (2) The emissions of volatile organic compounds from the polyurethane foam spraying operations (EU1 and EU5) shall be determined by VOC input. VOC input to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the VOC emissions shall not exceed twenty-five (25) tons per year.

D.2.5 Preventive Maintenance Plan [326 IAC 2-8-4(9)]

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of this permit, is required for these facilities and any control devices.

Compliance Determination Requirements

D.2.6 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) [326 IAC 8-1-2][326 IAC 8-1-4]

Compliance with the VOC and HAP content and usage limitations contained in Conditions D.2.1 and D.2.4 shall be determined pursuant to 326 IAC 8-1-4(a)(3) and 326 IAC 8-1-2(a) by preparing or obtaining from the manufacturer the copies of the "as supplied" and "as applied" VOC and HAP data sheets. IDEM, OAQ, and OES reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

Compliance Monitoring Requirements [326 IAC 2-8-4] [326 IAC 2-8-5(a)(1)]

D.2.7 Monitoring

- (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from stacks S1, S5, and S10 while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
- (c) Additional inspections and preventive measures shall be performed as prescribed in the Preventive Maintenance Plan.

Record Keeping and Reporting Requirements [326 IAC 2-8-4(3)] [326 IAC 2-8-16]

D.2.8 Record Keeping Requirements

- (a) To document compliance with Condition D.2.1 and D.2.4, the Permittee shall maintain records in accordance with (1) through (5) below. Records maintained for (1) through (5) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and/or the VOC and HAP emission limits established in Conditions D.2.1 and D.2.4. Records necessary to demonstrate compliance shall be available within 30 days of the end of each compliance period.
 - (1) The VOC and HAP content of each coating material and solvent used.
 - (2) The amount of coating material and solvent less water used on daily basis.
 - (A) Records shall include purchase orders, invoices, and material safety data sheets (MSDS) necessary to verify the type and amount used.
 - (B) Solvent usage records shall differentiate between those added to coatings and those used as cleanup solvents.
 - (3) The cleanup solvent usage for each month;
 - (4) The total VOC usage for each month; and
 - (5) The weight of VOCs emitted for each compliance period.
- (b) To document compliance with Condition D.2.5 and D.2.7, the Permittee shall maintain a log of weekly overspray observations, daily and monthly inspections, and those additional inspections prescribed by the Preventive Maintenance Plan.
- (c) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.2.9 Reporting Requirements

A quarterly summary of the information to document compliance with Conditions D.2.1 and D.2.4 shall be submitted to the addresses listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.3

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:**Insignificant Activities**

- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) One (1) natural gas-fired air make-up unit, identified as EU11, with a maximum capacity of two (2) million British thermal units per hour.
- (c) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:
 - (1) One (1) propane-fired combustion engine, identified as EU12, with a maximum capacity of 0.05 million British thermal units per hour.

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

Emission Limitations and Standards [326 IAC 2-8-4(1)]

No specific regulations apply to the insignificant activities listed in this section.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
and
Indianapolis Office of Environmental Services
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
CERTIFICATION**

Source Name: Royal Spa Manufacturing
Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP No.: F097-12525-00391

This certification shall be included when submitting monitoring, testing reports/results or other documents as required by this permit.

Please check what document is being certified:

- Annual Compliance Certification Letter
- Test Result (specify) _____
- Report (specify) _____
- Notification (specify) _____
- Affidavit (specify) _____
- Other (specify) _____

I certify that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

Signature:

Printed Name:

Title/Position:

Date:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE BRANCH
P.O. Box 6015
100 North Senate Avenue
Indianapolis, Indiana 46206-6015
Phone: 317-233-5674
Fax: 317-233-5967**

and

**Indianapolis Office of Environmental Services
AIR QUALITY MANAGEMENT SECTION
2700 South Belmont Ave.
Indianapolis Indiana 46221
Phone: 317-327-2234
Fax: 317-327-2274**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT**

Source Name: Royal Spa Manufacturing
Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP No.: F097-12525-00391

This form consists of 2 pages

Page 1 of 2

9 This is an emergency as defined in 326 IAC 2-7-1(12)
The Permittee must notify the Office of Air Quality (OAQ), within four (4) business hours (1-800-451-6027 or 317-233-5674, ask for Compliance Section); and
The Permittee must submit notice in writing or by facsimile within two (2) working days (Facsimile Number: 317-233-5967), and follow the other requirements of 326 IAC 2-7-16

If any of the following are not applicable, mark N/A

Facility/Equipment/Operation:
Control Equipment:
Permit Condition or Operation Limitation in Permit:
Description of the Emergency:
Describe the cause of the Emergency:

If any of the following are not applicable, mark N/A

Page 2 of 2

Date/Time Emergency started:
Date/Time Emergency was corrected:
Was the facility being properly operated at the time of the emergency? Y N Describe:
Type of Pollutants Emitted: TSP, PM-10, SO ₂ , VOC, NO _x , CO, Pb, other:
Estimated amount of pollutant(s) emitted during emergency:
Describe the steps taken to mitigate the problem:
Describe the corrective actions/response steps taken:
Describe the measures taken to minimize emissions:
If applicable, describe the reasons why continued operation of the facilities are necessary to prevent imminent injury to persons, severe damage to equipment, substantial loss of capital investment, or loss of product or raw materials of substantial economic value:

Form Completed by: _____
Title / Position: _____
Date: _____
Phone: _____

A certification is not required for this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
Indianapolis Office of Environmental Services
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: Royal Spa Manufacturing
Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP No.: F097-12525-00391
Facility: EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10
Parameter: Single HAP input, other than styrene
Limit: The emissions of a single HAP from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and nine-tenths (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
Deviation has been reported on: _____

Submitted by: _____
Title / Position: _____
Signature: _____
Date: _____
Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 and
 Indianapolis Office of Environmental Services
 AIR QUALITY MANAGEMENT SECTION
 DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: Royal Spa Manufacturing
 Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
 Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
 FESOP No.: F097-12525-00391
 Facility: EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10
 Parameter: Combination HAP input
 Limit: The emissions of any combination of HAPs from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed twenty-four and nine-tenths (24.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 and
 Indianapolis Office of Environmental Services
 AIR QUALITY MANAGEMENT SECTION
 DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: Royal Spa Manufacturing
 Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
 Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
 FESOP No.: F097-12525-00391
 Facility: EU1, EU3, EU4, EU5, EU6, and EU8
 Parameter: VOC Input
 Limit: The total emissions of VOC from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10 shall not exceed twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 and
 Indianapolis Office of Environmental Services
 AIR QUALITY MANAGEMENT SECTION
 DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: Royal Spa Manufacturing
 Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
 Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
 FESOP No.: F097-12525-00391
 Facility: EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10
 Parameter: VOC Input
 Limit: The input of VOC to EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

- 9 No deviation occurred in this quarter.
- 9 Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 and
 Indianapolis Office of Environmental Services
 AIR QUALITY MANAGEMENT SECTION
 DATA COMPLIANCE**

**FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
 QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT**

Source Name: Royal Spa Manufacturing
 Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
 Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
 FESOP No.: F097-12525-00391

Months: _____ **to** _____ **Year:** _____

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. Deviations that are required to be reported by an applicable requirement shall be reported according to the schedule stated in the applicable requirement and do not need to be included in this report. Additional pages may be attached if necessary. If no deviations occurred, please specify in the box marked "No deviations occurred this reporting period".</p>	
<p><input checked="" type="radio"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.</p>	
<p><input checked="" type="radio"/> THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD</p>	
<p>Permit Requirement (specify permit condition #)</p>	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	
<p>Permit Requirement (specify permit condition #)</p>	
Date of Deviation:	Duration of Deviation:
Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Permit Requirement (specify permit condition #)	
Date of Deviation:	Duration of Deviation:
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Response Steps Taken:	
Permit Requirement (specify permit condition #)	
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Probable Cause of Deviation:	
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Number of Deviations:	
Probable Cause of Deviation:	
Response Steps Taken:	

Form Completed By: _____

Title/Position: _____

Date: _____

Phone: _____

Attach a signed certification to complete this report.

Attachment A

The following state rules have been adopted by reference by the Indianapolis Air Pollutant Control Board and are enforceable by Indianapolis Office of Environmental Services (OES) using local enforcement procedures.

- (1) 326 IAC 1-1 through 1-1-3 and 1-1-5;
- (2) 326 IAC 2-1 through 1-2-91 (In addition, the IAPCB has adopted several local definitions);
- (3) 326 IAC 1-3-1 through 1-3-4;
- (4) 326 IAC 1-4-1 (The IAPCB added to the adoption by reference a citation to 61 CFR 58482 (November 15, 1996));
- (5) 326 IAC 1-5-1 through 1-5-5;
- (6) 326 IAC 1-6-1 through 1-6-6;
- (7) 326 IAC 1-7-1 through 1-7-5;
- (8) 326 IAC 2-3-1 through 2-3-5;
- (9) 326 IAC 2-4-1 through 2-4-6;
- (10) 326 IAC 2-6-1 through 2-6-4;
- (11) 326 IAC 2-7-1 through 2-7-18, 2-7-20 through 2-7-25;
- (12) 326 IAC 2-8-1 through 2-8-15, 2-8-17 through 2-8-10;
- (13) 326 IAC 2-9-1 through 2-9-14;
- (14) 326 IAC 2-10-1 through 2-20-5 (The IAPCB adoption adds the language "state or local" immediately after the word "federal" in 326 IAC 2-10-1);
- (15) 326 IAC 2-11-1, 2-11-3 and 2-11-4 (The IAPCB adoption adds the language "federal, state or local" immediately after the word "by" in 326 IAC 2-11-1);
- (16) 326 IAC 3-1.1-1 through 3-1.1-5;
- (17) 326 IAC 3-2.1-1 through 3-2.1-5;
- (18) 326 IAC 3-3-1 through 3-3-5;
- (19) 326 IAC 4-2-1 through 4-2-2;
- (20) 326 IAC 5-1-1(a), (b), and (c)(5), 5-1-2(1), (2)(A), (2)(C), (4), 5-1-3 through 5-1-5, 5-1-7;
- (21) 326 IAC 7-1.1-1 and 7-1.1-2;
- (22) 326 IAC 7-2-1;
- (23) 326 IAC 7-3-1 and 7-3-2;
- (24) 326 IAC 7-4-2(28) through (31) (Instead of adopting by reference 7-4-2(1) through (27), the IAPCB regulation substitutes the same requirements listed in a format in which the companies are alphabetized and emission points known to no longer exist have been deleted);
- (25) 326 IAC 8-1-0.5 except (b), 8-1-1 through 8-1-2, 8-1-3 except (c), (g) and (i), 8-1-5 through 8-1-12;
- (26) 326 IAC 8-2-1 through 8-2-12 (The IAPCB adoption by reference of 8-2-5 adds additional language specific to Zimmer Paper Products, Incorporated as subpart (c));
- (27) 326 IAC 8-3-1 through 8-3-7;
- (28) 326 IAC 8-4-1 through 8-4-5, 8-4-6(a)(6), (a)(8) and (a)(14) and 8-4-6(b)(1), (b)(3) and 8-4-6(c) (In place of 8-4-6(b)(2), which was not adopted, the IAPCB adopted language requiring a pressure relief valve set to release at no less than four and eight-tenths (4.8) Kilo Pascals (seven-tenths (0.7) pounds per square inch)), 8-4-7 except (e), 8-4-4 and 8-4-9;
- (29) 326 IAC 8-5-4 through 8-5-4, 8-5-5 except (a)(3) and (d)(3);
- (30) 326 IAC 8-6-1 and 8-6-2;
- (31) 326 IAC 9-1-1 through 9-1-2;
- (32) 326 IAC 11-1-1 through 11-1-2;
- (33) 326 IAC 11-2-1 through 11-2-3;
- (34) 326 IAC 11-3-1 through 11-3-6;
- (35) 326 IAC 14-1-1 through 14-1-4;
- (36) 326 IAC 14-2-1 except 40 CFR 61.145;
- (37) 326 IAC 14-3-1;
- (38) 326 IAC 14-4-1;
- (39) 326 IAC 14-5-1;
- (40) 326 IAC 14-6-1;
- (41) 326 IAC 14-7-1;

- (42) 326 IAC 14-8-1 through 14-8-5;
- (43) 326 IAC 15-1-1, 15-1-2(a)(1), (a)(2) and (a)(8), 15-1-3 and 15-1-4;
- (44) 326 IAC 20-1-1 through 20-1-4 (In 20-1-3(b)(2), the adoption states that "permitting authority" means the commissioner of IDEM or the administrator of OES, whichever is applicable);
- (45) 326 IAC 20-2-1;
- (46) 326 IAC 20-3-1;
- (47) 326 IAC 20-4-1;
- (48) 326 IAC 20-5-1;
- (49) 326 IAC 20-6-1;
- (50) 326 IAC 20-7-1;
- (51) 326 IAC 20-8-1;
- (52) 326 IAC 20-9-1;
- (53) 326 IAC 20-14-1;
- (54) 326 IAC 20-15-1;
- (55) 326 IAC 20-16-1;
- (56) 326 IAC 20-17-1;
- (57) 326 IAC 20-18-1;
- (58) 326 IAC 20-19-1;
- (59) 326 IAC 20-20-1;
- (60) 326 IAC 20-21-1;
- (61) 326 IAC 21-1-1 (The adoption states that "or the administrator of OES" is added in (b));
and
- (62) 326 IAC 22-1-1 (The adoption states that "or the administrator of OES" is added in (b)).

**Indiana Department of Environmental Management
Office of Air Quality
and
Indianapolis Office Of Environmental Services**

**Technical Support Document (TSD) for a Federally Enforceable State
Operating Permit (FESOP)**

Source Background and Description

Source Name:	Royal Spa Manufacturing
Source Location:	2041 W. Epler, Indianapolis, Indiana 46217
County:	Marion
SIC Code:	3998
Operation Permit No.:	F097-12525-00391
Permit Reviewer:	ERG/TDP

The Office of Air Quality (OAQ) and Indianapolis Office of Environmental Services (OES) have reviewed a FESOP application from Royal Spa Manufacturing relating to the operation of a spa manufacturing source.

Permitted Emission Units and Pollution Control Equipment

There are no permitted facilities operating at this source during this review process.

Unpermitted Emission Units and Pollution Control Equipment

The source consists of the following unpermitted facilities/units:

Woodworking Operations

- (a) One (1) woodworking operation, identified as EU2, constructed in 1992, with a maximum capacity of 412 board feet per hour, with particulate emissions controlled by a cyclone, identified as CE1, and exhausting to stack S2.

Polyurethane Foam Spraying, Flowcoating and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth

- (b) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 120 pounds of vinyl ester resin per hour; and one (1) hand-applied gelcoat operation, constructed in 1992, with a maximum capacity of 107 pounds of gelcoat per hour, collectively identified as EU3, utilizing dry filters to control particulate emissions, and exhausting to stack S3.
- (c) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 219 pounds of suppressed resin per hour, identified as EU4, using dry filters to control particulate emissions, and exhausting to stack S4.

- (d) One (1) booth, constructed in 2000, enclosing one (1) flow coater with a maximum capacity of 219 pounds of suppressed resin/catalyst/filler/gelcoat/pigments per hour, identified as EU6, using dry filters to control particulate emissions, and exhausting to stack S6.
- (e) One (1) assembly operation, identified as EU7, constructed in 1989, comprised of one (1) PVC glueing operation applied by hand with a maximum glue usage of 2.98 pounds per hour and one (1) silicone caulking operation applied by hand with a maximum caulk usage of 2.2 pounds per hour.
- (f) One (1) wood stain spray booth, identified as EU10, constructed in 1991, with a maximum capacity of 412 board feet per hour and 8 pounds of stain per hour, using dry filters to control particulate emissions, exhausting to stack S10.

New Emission Units and Pollution Control Equipment Receiving New Source Review Approval

There are no new emission units and pollution control equipment receiving new source review approval at this source during this review process.

Insignificant Activities

The source also consists of the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO₂, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:
 - (1) One (1) polyurethane foam spray booth, identified as EU1, constructed in 1989, with a maximum capacity of 50.9 pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S1 [326 IAC 2-8] [326 IAC 6-3-2];
 - (2) One (1) polyurethane foam spray booth, constructed in 1994, identified as EU5, with a maximum capacity of 50.9 pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S5 [326 IAC 2-8] [326 IAC 6-3-2]; and
 - (3) One (1) thermoforming operation, identified as EU9, constructed in 1991, with a maximum capacity of 2,845 spas per year [326 IAC 2-8].
- (b) Natural gas-fired combustion sources with heat input equal to or less than ten million (10,000,000) British thermal units per hour:
 - (1) One (1) natural gas-fired air make-up unit, identified as EU11, with a maximum capacity of two (2) million British thermal units per hour.
- (c) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:
 - (1) One (1) propane-fired combustion engine, identified as EU12, with a maximum capacity of 0.05 million British thermal units per hour.

- (2) One (1) completed spa trimming operation, identified as EU13, constructed in 2002, with a maximum capacity of 1.5 spas per hour; using a fabric bag filter to control particulate emissions.

Existing Approvals

This source has not been operating under any existing approvals.

Enforcement Issue

- (a) IDEM and OES are aware that equipment has been constructed and operated prior to receipt of the proper permit [EU2, EU3, EU4, EU6, EU7, and EU8]. The subject equipment is listed in this Technical Support Document under the condition entitled *Unpermitted Emission Units and Pollution Control Equipment*.
- (b) IDEM and OES are aware that the source was not issued a FESOP by December 14, 1996 nor did they submit a Part 70 application by that date.
- (c) IDEM and OES reviewing this matter and will take appropriate action. This proposed permit is intended to satisfy the requirements of the operation permit rules.

Recommendation

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

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

An administratively complete FESOP application for the purposes of this review was received on July 28, 2000.

There was no notice of completeness letter mailed to the source.

Emission Calculations

See Appendix A (pages 1 through 11) of this document for detailed emissions calculations.

Potential To Emit

Pursuant to 326 IAC 2-1.1-1(16), Potential to Emit is defined as “the maximum capacity of a stationary source to emit any air pollutant under its physical and operational design. Any physical or operational limitation on the capacity of a source to emit an air pollutant, including air pollution control equipment and restrictions on hours of operation or type or amount of material combusted, stored, or processed shall be treated as part of its design if the limitation is enforceable by the U.S. EPA.”

This table reflects the PTE before controls. Control equipment is not considered federally enforceable until it has been required in a federally enforceable permit.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	73.00
PM-10	73.10
SO ₂	Negligible
VOC	90.46
CO	0.71

Pollutant	Unrestricted Potential Emissions (tons/yr)
NO _x	0.95

Note: For the purpose of determining Title V applicability for particulates, PM-10, not PM, is the regulated pollutant in consideration.

HAP's	Unrestricted Potential Emissions (tons/yr)
Dimethyl Phthalate	0.01
Styrene	55.84
MEK	7.50
Glycol Ether	1.58
Methyl Methacrylate	0.18
Ethylene Glycol	Negligible
MDI	0.03
Vinyl Acetate	Negligible
Benzene	Negligible
Dichlorobenzene	Negligible
Formaldehyde	Negligible
Hexane	Negligible
Toluene	Negligible
Lead	Negligible
Cadmium	Negligible
Chromium	Negligible
Manganese	Negligible
Nickel	Negligible
TOTAL	65.14

Note: Negligible indicates that the potential to emit is less than 0.01 tons per year.

- (a) The potential to emit (as defined in 326 IAC 2-1.1-1(16)) of any single HAP is equal to or greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-1.1-1(16)) of a combination HAPs is greater than or equal to twenty-five (25) tons per year. Therefore, the source is subject to the provisions of 326 IAC 2-7 (Part 70 Permit Program).
- (b) Pursuant to 326 IAC 2-8, this source, otherwise required to obtain a Part 70 permit, has agreed to accept a permit with federally enforceable limits that restrict PTE to below Part 70 emission levels. Therefore, this source will be issued a Federally Enforceable State Operating Permit (FESOP).
- (c) Fugitive Emissions
 Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2 and since there are no applicable New Source Performance Standards that were in effect on August 7, 1980, the fugitive emissions are not counted toward determination of PSD applicability.

Potential to Emit After Issuance

The source has opted to obtain a FESOP rather than a Part 70 Operating Permit. The table below summarizes the potential to emit, reflecting all limits, of the emission units. Any control equipment is considered enforceable only after issuance of this Federally Enforceable State Operating Permit and only to the extent that the effect of the control equipment is made practically enforceable in the permit.

	Potential to Emit After Issuance (tons/year)
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Process/Emission unit	PM	PM-10	SO ₂	VOC	CO	NO _x	HAPs		
EU2	45.99*	45.99*	0	0	0	0	0		
EU1	0.22	0.22	0	Less than 99 (326 IAC 2-8)**	0	0	Less than 9.9 for a single HAP (other than styrene); Less than 9.9 for styrene; Less than 24.9 for any combination of HAPs (326 IAC 2-8)		
EU3	5.10	5.10	0		0	0			
EU4	9.50	9.50	0		0	0			
EU5	0.22	0.22	0		0	0			
EU6	9.50	9.50	0		0	0			
EU7	0	0	0		0	0			
EU9	0	0	0		0	0			
EU10	2.37	2.37	0		0	0			
Natural Gas Combustion	Neg.	0.1	Neg.		Neg.	0.7		0.9	Neg.
Propane Combustion	Neg.	Neg.	Neg.		Neg.	Neg.		0.05	Neg.
Total PTE After Issuance	72.90	73.00	Neg.	Less than 100	0.7	0.95	Less than 10 for a single HAP; Less than 25 for any combination of HAPs		

*Note that EU2 is subject to pound per hour particulate limitation pursuant to 326 IAC 6-3-2 (Particulate Emission Limitation for Manufacturing Operations).

**EU3, EU4, and EU6 are each limited to less than 25 tons of VOC input per 12 consecutive month period with compliance determined at the end of each month. These limits render the requirements of 326 IAC 8-1-6 not applicable.

Neg. = Negligible - Note that negligible indicates emissions of less than 0.01 tons per year.

County Attainment Status

The source is located in Marion County.

Pollutant	Status
PM-10	Attainment
SO ₂	Maintenance Attainment
NO ₂	Attainment
1- Hour Ozone	Maintenance
8-Hour Ozone	Basic Non- Attainment
CO	Attainment
Lead	Unclassifiable

- (a) Volatile organic compounds (VOC) and Nitrogen Oxides (NO_x) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for Ozone. Therefore, VOC and NO_x emissions are considered when evaluating the rule applicability relating to the Ozone standards. Marion County has been designated as non-attainment for the 8-hr ozone standard. Therefore, VOC and NO_x emissions were reviewed pursuant to the requirements for non-attainment new source review.
- (b) Marion County has been classified as attainment or unclassifiable for all other criteria pollutants and lead. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (c) Fugitive Emissions
 Since this type of operation is not one of the 28 listed source categories under 326 IAC 2-2, and since there are no applicable New Source Performance Standards that were in

effect on August 7, 1980, the fugitive particulate matter (PM) and volatile organic compound (VOC) emissions are not counted toward determination of PSD applicability.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) There are no National Emission Standards for Hazardous Air Pollutants (NESHAPs)(326 IAC 14 and 40 CFR Part 63) applicable to this source. This source is not subject to the requirements of 40 CFR 63, Subpart WWWW (National Emission Standards for Hazardous Air Pollutants: Reinforced Plastics Composites Production) because this source is limiting emissions of a single HAP to less than ten (10) tons per twelve (12) consecutive month period and emissions of any combination of HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period prior to April 21, 2006. This date is the deadline for existing sources to have a federally enforceable limit in order to ensure Subpart WWWW does not apply. This source is an existing source because it was built before August 2, 2001.
- (c) This source is not subject to the provisions of 40 CFR 64, Compliance Assurance Monitoring (CAM). In order for this rule to apply, a specific emissions unit must meet three criteria for a given pollutant: 1) the unit is subject to an emission limitation or standard for the applicable regulated air pollutant, 2) the unit uses a control device to achieve compliance with any such emission limitation or standard, and, 3) the unit has potential pre-control device emissions of the applicable regulated air pollutant that are equal or greater than 100 percent of the amount required for a source to be classified as a major source. Additionally, the source must have a Title V permit. This source has chosen to receive FESOP and is therefore not subject to CAM.
- (d) The requirements of Section 112(j) of the Clean Air Act (40 CFR Part 63.50 through 63.56) are not applicable to this source because the source is limiting emissions of a single HAP to less than ten (10) tons per twelve (12) consecutive month period and emissions of any combination of HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period.

State Rule Applicability - Entire Source

326 IAC 2-2 (Prevention of Significant Deterioration)

This source was constructed after the promulgation of 326 IAC 2-2 (Prevention of Significant Deterioration) and was a minor source at construction. This source is not subject to the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration) because this source is not one (1) of the twenty-eight (28) listed source categories and this source does not have the potential to emit two hundred fifty (250) tons per twelve (12) consecutive month period of any regulated pollutant.

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

- (a) EU1, EU2, EU5, EU7, EU9, EU10, and EU13 are not subject to the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) because they were constructed prior to July 27, 1997 and they do not have the potential to emit greater than ten (10) tons per twelve (12) consecutive month period of a single HAP or twenty-five (25) tons per twelve (12) consecutive month period of any combination of HAPs.
- (b) EU3 and EU4 are not subject to the requirements of 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) even though they have the potential to emit greater than ten (10) tons per twelve (12) consecutive month period of a single HAP because they were constructed prior to July 27, 1997.

- (c) EU6 is not subject to the requirements of 326 IAC 2-4.1 (Major Source of Hazardous Air Pollutants) even though it was constructed after July 27, 1997 and had the potential to emit greater than ten (10) tons per twelve (12) consecutive month period of a single HAP because actual emissions never reached ten (10) tons per twelve (12) consecutive month period of a single HAP. Additionally, actual emissions of a combination of HAPs never reached twenty-five (25) tons per twelve (12) consecutive month period.

During this permitting process, the source has chosen to limit the source-wide emissions of a single HAP to less than ten (10) tons per twelve (12) consecutive month period and the source-wide emissions of any combination of HAPs to less than twenty-five (25) tons per twelve (12) consecutive month period in order to obtain a FESOP. Compliance with the FESOP limit will ensure that the requirements of 326 IAC 2-4.1 do not apply in the future.

326 IAC 2-6 (Emission Reporting)

This source is subject to 326 IAC 2-6 (Emission Reporting) because it has the potential to emit more than ten (10) tons per twelve (12) consecutive month period of VOC and the source is located in Marion County. Pursuant to this rule, the owner/operator of the source must submit an emission statement for the source. The statement must be received in accordance with the compliance schedule specified in 326 IAC 2-6 and contain the minimum requirement as specified in 326 IAC 2-6-4. The submittal should cover the period defined in 326 IAC 2-6-2(8).

326 IAC 2-8 (FESOP)

The Permittee shall be subject to the following limitations:

- (a) The input of VOC to EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to emissions of ninety-nine (99) tons of VOC per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined. This limit is structured such that, when including emissions of VOC from the insignificant combustion sources, the source total emissions of VOC remain less than one hundred (100) tons per twelve (12) consecutive month period.
- (b) The input of a single HAP, other than styrene, to EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and nine-tenths (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to emissions of nine and nine-tenths (9.9) tons of a single HAP, other than styrene, per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined. This limit is structured such that, when including emissions of a single HAP, other than styrene, the insignificant combustion sources, the source total emissions of a single HAP, other than styrene, remain less than ten (10) tons per twelve (12) consecutive month period.
- (c) The input of styrene to EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and nine-tenths (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to emissions of nine and nine-tenths (9.9) tons of styrene per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined. This limit is structured such that the source total styrene emissions remain less than ten (10) tons per twelve (12) consecutive month period.
- (d) The input of any combination of HAPs to EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed twenty-four and nine-tenths (24.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to emissions of twenty-four and nine-tenths (24.9) tons of any combination of HAPs per twelve (12) consecutive month period from EU1, EU3, EU4,

EU5, EU6, EU7, EU9, and EU10, combined. This limit is structured such that, when including emissions of any combination of HAPs from the insignificant combustion sources, the source total emissions of any combination of HAPs remain less than twenty-five (25) tons per twelve (12) consecutive month period.

326 IAC 5-1 (Visible 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 thirty percent (30%) 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.

326 IAC 6-1-2 (Nonattainment Area Limitations; Particulate Emission Limitations)

This source is not subject to the requirements of 326 IAC 6-1-2 (Nonattainment Area Limitations; Particulate Emission Limitations) even though it is located in Marion County which is listed in 326 IAC 6-1-7 and Royal Spa Manufacturing is not specifically listed in 326 IAC 6-1-12 because this source does not have the potential to emit one hundred (100) tons per twelve (12) consecutive month period of PM and actual PM emissions are less than ten (10) tons per twelve (12) consecutive month period.

326 IAC 6-1-12 (Nonattainment Area Limitations; Marion County)

This source is not subject to the requirements of 326 IAC 6-1-12 (Marion County) because Royal Spa Manufacturing is not specifically listed in this rule.

326 IAC 8-6 (Organic Solvent Emission Limitations)

This source is not subject to the requirements of 326 IAC 8-6 (Organic Solvent Emission Limitations) because it is located in Marion County and it was constructed after January 1, 1980.

State Rule Applicability - Woodworking Operation (EU2)

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

The woodworking operation (EU2) is subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because the facility has the potential to emit particulate and the source is not subject to the requirements of 326 IAC 6-1-2 (Nonattainment Area Limitations; Particulate Emission Limitations). Pursuant to 326 IAC 6-3-2, the particulate emissions from the woodworking operation (EU2) shall be limited to 3.2 pounds per hour based on a process weight of 1,375 pounds per hour.

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

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

State Rule Applicability - Polyurethane Foam Spraying, Flowcoating and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth

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

- (a) The flowcoating operations (EU3, EU4, and EU6) are not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because the facilities use only flowcoating processes.

- (b) The gelcoat operation of EU3 is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Operations) because this operation does not have the potential to emit particulate as the gelcoat is applied by hand.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The polyurethane foam spray operations (EU1 and EU5), the flowcoating and gelcoat operations (EU3, EU4, and EU6) are subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) because they were constructed after January 1, 1980, are considered a single facility, and have a potential to emit volatile organic compounds that is greater than twenty-five (25) tons per twelve (12) consecutive month period. Although these units were not previously permitted, the source has stated that actual emissions from the five (5) booths are less than twelve (12) tons per year.

In order to ensure that 326 IAC 8-1-6 is not violated in the future, from this permit the source accepts the following limit:

The VOC input to the polyurethane foam spray operations (EU1 and EU5), spray layup of vinyl ester resin and suppressed resin operations (EU3, EU4, and EU6), and the pan spray and gelcoat operation (EU8) shall be limited to less than twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. Compliance with this limit will render the requirements of 326 IAC 8-1-6 not applicable.

326 IAC 8-2-7 (Large Appliance Coating Operations)

The polyurethane foam spray operations (EU1 and EU5), the flowcoating and gelcoat operations (EU3, EU4, and EU6); are not subject to the requirements of 326 IAC 8-2-7 (Large Appliance Coating Operations) because a spa is not considered a large appliance.

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations)

The polyurethane foam spray operations (EU1 and EU5), the flowcoating and gelcoat operations (EU3, EU4, and EU6) are not subject to the requirements of 326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) because these operations are not coating metal.

326 8-2-10 (Flat Wood Panels; Manufacturing Operations)

The polyurethane foam spray operations (EU1 and EU5), the flowcoating and gelcoat operations (EU3, EU4, and EU6) are not subject to the requirements of 326 8-2-10 (Flat Wood Panels; Manufacturing Operations) because these operations are not coating wood panels.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

The polyurethane foam spray operations (EU1 and EU5), the flowcoating and gelcoat operations (EU3, EU4, and EU6) are not subject to the requirements of 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating) because these operations are not coating wood furniture or cabinets.

State Rule Applicability - PVC Glueing/Silicone Caulking Operation (EU7)

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

The PVC glueing/silicone caulking operation (EU7) is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because it does not have the potential to emit particulate.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The glueing/caulking operation (EU7) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though it was constructed after January 1, 1980 because it does not have the potential to emit twenty-five (25) tons per twelve (12) consecutive month period of VOC.

State Rule Applicability - Thermoforming Operation (EU9)

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

The thermoforming operation (EU9) is not subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because it does not have the potential to emit particulate.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The thermoforming operation (EU9) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though it was constructed after January 1, 1980 because it does not have the potential to emit twenty-five (25) tons per twelve (12) consecutive month period of VOC.

State Rule Applicability - Wood Stain Spray Booth (EU10)

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

The wood stain spray booth operation (EU10) is subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because the facility has the potential to emit particulate and the source is not subject to the requirements of 326 IAC 6-1-2 (Nonattainment Area Limitations; Particulate Emission Limitations).

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued, the revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the requirements from the previous version of 326 IAC 6-3 (Process Operations), which has been approved into the SIP, will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

Pursuant to 40 CFR 52, Subpart P, the particulate matter (PM) from the wood stain spray booth operation (EU10) shall be limited according to the equation below.

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

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

Pursuant to 326 IAC 6-3-2, particulate from the wood stain spray booth operation (EU10) shall be controlled by dry filters, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

The wood stain spray booth operation (EU10) uses dry filters to control particulate emissions and is therefore in compliance with the requirements of 326 IAC 6-3-2.

326 IAC 8-1-6 (New Facilities; General Reduction Requirements)

The wood stain spray booth operation (EU10) is not subject to the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) even though it was constructed after January 1, 1980 because it does not have the potential to emit twenty-five (25) tons per twelve (12) consecutive month period of VOC.

326 8-2-10 (Flat Wood Panels; Manufacturing Operations)

The wood stain spray booth operation (EU10) is not subject to the requirements of 326 8-2-10 (Flat Wood Panels; Manufacturing Operations) because this operation is not manufacturing wood panels. It is manufacturing wood frames for spas.

326 IAC 8-2-12 (Wood Furniture and Cabinet Coating)

The wood stain spray booth operation (EU10) is not subject to the requirements of 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating) because wood frames for spas do not meet the definition of wood furniture.

State Rule Applicability - Insignificant Spa Trimming Operation EU13

The insignificant spa trimming operation (EU13) is subject to the requirements of 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because the facility has the potential to emit particulate and the source is not subject to the requirements of 326 IAC 6-1-2 (Nonattainment Area Limitations; Particulate Emission Limitations).

On June 12, 2002, revisions to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) became effective; this rule was previously referred to as 326 IAC 6-3 (Process Operations). As of the date this permit is being issued, the revisions have not been approved by EPA into the Indiana State Implementation Plan (SIP); therefore, the requirements from the previous version of 326 IAC 6-3 (Process Operations), which has been approved into the SIP, will remain applicable requirements until the revisions to 326 IAC 6-3 are approved into the SIP and the condition is modified in a subsequent permit action.

Pursuant to 40 CFR 52, Subpart P, the particulate matter (PM) from the insignificant spa trimming operation (EU13) shall be limited according to the equation below.

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

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

Pursuant to 326 IAC 6-3-2, particulate from the insignificant spa trimming operation (EU13) shall be controlled by dry filters, and the Permittee shall operate the control device in accordance with manufacturer's specifications.

The insignificant spa trimming operation (EU13) uses a fabric bag filter to control particulate emissions and is therefore in compliance with the requirements of 326 IAC 6-3-2.

Testing Requirements

Testing is not required for any facility at this source. Compliance with the VOC and HAP input limits pursuant to 326 IAC 2-8 (FESOP) and to render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable will be determined through record keeping and reporting requirements. No other limitations apply other than particulate emission limitations pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes). There is no evidence that the source is out of compliance with these limitations.

Compliance Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with applicable state and federal rules on a more or less continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a more or less continuous demonstration. When this occurs IDEM, OAQ, and OES in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, compliance requirements are divided into two sections: Compliance Determination Requirements and Compliance Monitoring Requirements.

Compliance Determination Requirements in Section D of the permit are those conditions that are found more or less directly within state and federal rules and the violation of which serves as grounds for enforcement action. If these conditions are not sufficient to demonstrate continuous

compliance, they will be supplemented with Compliance Monitoring Requirements, also Section D of the permit. Unlike Compliance Determination Requirements, failure to meet Compliance Monitoring conditions would serve as a trigger for corrective actions and not grounds for enforcement action. However, a violation in relation to a compliance monitoring condition will arise through a source's failure to take the appropriate corrective actions within a specific time period.

1. The woodworking operation (EU2) has applicable compliance monitoring conditions as specified below:
 - (a) Daily visible emissions notations of S2 stack exhaust shall be performed during normal daylight operations. A trained employee will record whether emissions are normal or abnormal. For processes operated continuously "normal" means those conditions prevailing, or expected to prevail, eighty percent (80%) of the time the process is in operation, not counting startup or shut down time. In the case of batch or discontinuous operations, readings shall be taken during that part of the operation that would normally be expected to cause the greatest emissions. A trained employee is an employee who has worked at the plant at least one (1) month and has been trained in the appearance and characteristics of normal visible emissions for that specific process. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when an abnormal emission is observed. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.
 - (b) An inspection shall be performed during the last month of each calendar quarter of all cyclones controlling the woodworking operation (EU2).
 - (c) In the event that cyclone failure has been observed:

Failed units and the associated process will be shut down immediately until the failed units have been repaired or replaced. Operations may continue only if the event qualifies as an emergency and the Permittee satisfies the requirements of the emergency provisions of this permit (Section B - Emergency Provisions). Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the cyclone for the woodworking operation (EU2) must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing operations) and 326 IAC 2-8 (FESOP).

2. The flowcoating and gelcoat operations (EU3, EU4, and EU6) and wood stain spray booth operation (EU10) have applicable compliance monitoring conditions as specified below:
 - (a) Daily inspections shall be performed to verify the placement, integrity and particle loading of the filters. To monitor the performance of the dry filters, weekly observations shall be made of the overspray from stacks S1, S5, and S10 while one or more of the booths are in operation. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan -Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

- (b) Monthly inspections shall be performed of the coating emissions from the stack and the presence of overspray on the rooftops and the nearby ground. The Compliance Response Plan for this unit shall contain troubleshooting contingency and response steps for when a noticeable change in overspray emission, or evidence of overspray emission is observed. The Compliance Response Plan shall be followed whenever a condition exists which should result in a response step. Failure to take response steps in accordance with Section C - Compliance Response Plan - Preparation, Implementation, Records, and Reports, shall be considered a deviation from this permit.

These monitoring conditions are necessary because the dry filters for the spray layup of vinyl ester resin and suppressed resin operations (EU3, EU4, and EU6) and wood stain spray booth operation (EU10) must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing operations) and 326 IAC 2-8 (FESOP).

Conclusion

The operation of this spa manufacturing source shall be subject to the conditions of the attached proposed FESOP No.: F097-12525-00391.

**Indiana Department of Environmental Management
Office of Air Quality
and
Indianapolis Office Of Environmental Services**

Addendum to the
Technical Support Document (TSD) for a Federally Enforceable State
Operating Permit (FESOP)

Source Background and Description

Source Name:	Royal Spa Manufacturing
Source Location:	2041 W. Epler, Indianapolis, Indiana 46217
County:	Marion
SIC Code:	3998
Operation Permit No.:	F097-12525-00391
Permit Reviewer:	ERG/TDP

On November 20, 2003, the Office of Air Quality (OAQ) and Office of Environmental Services (OES), had a notice published in the Indianapolis Star, Indianapolis, Indiana, stating that Royal Spa Manufacturing had applied for a Federally Enforceable State Operating Permit (FESOP) to operate a stationary spa manufacturing operation with control. The notice also stated that OAQ and OES proposed to issue a permit for this source and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On December 16, 2003, Royal Spa Manufacturing submitted comments on the proposed FESOP. The summary of the comments is as follows. Text with a line through it has been deleted and bold text has been added. The Table of Contents has been updated as necessary.

Comment 1:

This comment applies to Section D.2.1 (page 30 of 45), Section D.2.4 (page 31 of 45), FESOP Quarterly Reports Descriptions (pages 37 through 41), TSD Potential to Emit After Issuance (page 5 of 13, footnote**), TSD State Rule Applicability - Entire Source 326 IAC 2-8 (FESOP)(a),(b),(c), and (d) (page 7 of 13), TSD State Rule Applicability - Polyurethane Foam Spraying, Flowcoating and Hand-applied Gelcoat; PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth 326 IAC 8-1-6 (page 9 of 13).

The Permittee stated that the intent of the input limitations on HAP and VOC stated in these sections is to limit emissions, which assumes a one-for-one equivalency between input and emissions. However, emissions of styrene (EU3, EU4, and EU6) from resin and gelcoat application, emissions of VOC and HAPS from foam application (EU1 and EU5), and emissions of VOC and HAPs from thermoforming operations (EU9) can not be accurately determined from this direct correlation with the input. This was reflected in the revised emissions calculations submitted with comments to the pre-issuance draft permit on September 5, 2003. As these calculations have been reviewed and incorporated into this draft permit, it is assumed the methodology was acceptable and could be utilized as a tool to calculate emissions in order to meet FESOP limitations imposed by the permit.

The Permittee has requested that the referenced sections be revised to reflect limitations on emissions of VOC and HAP as opposed to VOC and HAP input. Specifically, limitations of emissions of a single HAP to less than nine and nine-tenths (9.9) tons per twelve (12) consecutive months; emissions of a combination of HAPs to less than twenty-four and nine-tenths (24.9) tons per twelve (12) consecutive months; emissions of VOC to less than ninety-nine (99) tons per twelve (12) consecutive months; and emissions of VOC to less than twenty-four and nine-tenths (24.9) tons per twelve (12) consecutive months to render the requirements of 326 IAC 8-1-6 not applicable. The limitation of VOC and HAP emissions versus VOC and HAP input would also eliminate the need to call out styrene separately from other HAPs in these sections.

Response to Comment 1:

Emission factors from the following reference: "Unified Emission Factors for Open Molding of Composites", Composites Fabricators Associations, April 20, 1999, with the exception of the emission factors for controlled spray application, have been approved for use by IDEM, OAQ. Therefore, the limitations on emissions of VOC and HAP from gelcoat and resin application (EU3, EU4, and EU6) have been rewritten to reflect VOC and HAP emissions as based on these emission factors. The limitations on emissions of VOC and HAP from EU1, EU5, EU7, EU9, and EU10 shall remain based on VOC input, to be practically enforceable. Section D.2.1 and D.2.4 have been changed as follows:

D.2.1 FESOP Limitation [326 IAC 2-8] [326 IAC 2-4.1]

The Permittee shall be subject to the following limitations:

- (a) The ~~input~~ **total emissions of volatile organic compounds (VOC)** ~~to~~ **from** EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month. ~~This limit is equivalent to emissions of ninety-nine (99) tons of VOC per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined.~~ This limit is structured such that, when including emissions of VOC from the insignificant combustion sources, the source total emissions of VOC remain less than one hundred (100) tons per twelve (12) consecutive month period. **This limit is based on the following:**
- (1) **The emissions of volatile organic compounds from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999."**
 - (2) **The emissions of volatile organic compounds from the foam spraying operations (EU1 and EU5), the glueing and caulking operations (EU7), the thermoforming operations (EU9), and the stain spraying operations (EU10), shall be determined by VOC input. VOC input to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the VOC emissions shall not exceed ninety-nine (99) tons per year.**
- (b) The ~~input~~ **total emissions of a single HAP, other than styrene,** ~~to~~ **from** EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and ~~eight-nine nine-tenths~~ **nine-tenths** (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. ~~This limit is equivalent to emissions of nine and eight-nine (9.9) tons of a single HAP, other than styrene, per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined.~~ This limit is structured such that, when including emissions of a single HAP, ~~other than styrene,~~ from the insignificant combustion sources, the source total emissions of a single HAP, ~~other~~

~~than styrene~~, remain less than ten (10) tons per twelve (12) consecutive month period.
This limit is based on the following:

- (1) **The emissions of a single HAP from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the “Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999.”**
 - (2) **The emissions of a single HAP from the foam spraying operations (EU1 and EU5), the glueing and caulking operations (EU7), the thermoforming operations (EU9), and the stain spraying operations (EU10), shall be determined by the input of a single HAP. The input of a single HAP to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the emissions of a single HAP shall not exceed nine and nine-tenths (9.9) tons per year.**
- ~~(c) The input of styrene to EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and nine-tenths (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to emissions of nine and nine-tenth (9.9) tons of styrene per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined. This limit is structured such that the source total styrene emissions remain less than ten (10) tons per twelve (12) consecutive month period.~~
- (dc) **The input total emissions of any combination of HAPs to from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed twenty-four and nine-tenths (24.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month. This limit is equivalent to emissions of twenty-four and nine-tenths (24.9) tons of any combination of HAPs per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined. This limit is structured such that, when including emissions of any combination of HAPs from EU8 and the insignificant combustion sources, the source total emissions of any combination of HAPs remain less than twenty-five (25) tons per twelve (12) consecutive month period. This limit is based on the following:**
- (1) **The emissions of any combination of HAPs from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the “Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999.”**
 - (2) **The emissions of any combination of HAPs from the foam spraying operations (EU1 and EU5), the glueing and caulking operations (EU7), the thermoforming operations (EU9), and the stain spraying operations (EU10), shall be determined by the input of a single HAP. The input of any combination of HAPs to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the emissions of any combination of HAPs shall not exceed twenty-four and nine-tenths (24.9) tons per year.**

Compliance with these limitations will render the requirements of 326 IAC 2-7 (Part 70 Permit Program) and 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants) not applicable.

D.2.4 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

The total VOC ~~input to~~ **emissions from** the polyurethane foam spray operations (EU1 and EU5) and the flowcoating and gelcoat operations (EU3, EU4, and EU6), shall be limited to less than

twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month. **This limit is based on the following:**

- (1) **The emissions of volatile organic compounds from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the “Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999.”**
- (2) **The emissions of volatile organic compounds from the polyurethane foam spraying operations (EU1 and EU5) shall be determined by VOC input. VOC input to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the VOC emissions shall not exceed twenty-five (25) tons per year.**

Compliance with these limits will render the requirements of 326 IAC 8-1-6 (New Facilities; General Reduction Requirements) not applicable.

No changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 2:

Modification of Source Descriptions: In the September 5, 2003 comments to the pre-issuance draft, it was requested that references to maximum capacities be eliminated from the source description. However, as it is preferable to OES to maintain these capacities in the source descriptions, the Permittee requests that the source descriptions and capacities be changed as noted below to more accurately reflect operating conditions:

- Section A.2(a) (page 5 of 45); Section D.1(a) (page 27 of 45); and TSD Unpermitted Emission Units and Pollution Control Equipment, (a) (page 1 of 13): revise the description to read “..., with a maximum capacity of **495** board feet per hour, ...”
- Section A.2(b) (page 5 of 45); Section D.2(b) (page 97 of 45); and TSD Unpermitted Emission Units and Pollution Control Equipment, (b) (page 1 of 13): revise the description to read “...; and one (1) hand-applied gelcoat operation, constructed in 1992, with a maximum capacity of **1.07** pounds of gelcoat per hour...”
- Section A.2(c) (page 5 of 45); Section D.2(c) (page 29 of 45); and TSD Unpermitted Emission Units and Pollution Control Equipment, (c) (page 1 of 13): revise the description to read “One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 219 pounds of suppressed resin/**catalyst/filler/gelcoat/pigments** per hour, identified as EU4, using dry filters to control particulate emissions, and exhausting to Stack S4.
- Section A.2(e) (page 5 of 45); Section D.2(e) (page 29 of 45); and TSD Unpermitted Emission Units and Pollution Control Equipment, (e) (page 2 of 13): revise the description to read “...with a maximum glue usage of **4.3** pounds per hour” and “silicone caulking operation applied by hand with a maximum chalk usage of **3.5** pounds per hour”.
- Section A.2(f) (page 6 of 45); Section D.2(f) (page 29 of 45); and TSD Unpermitted Emission Units and Pollution Control Equipment, (f) (page 2 of 13): revise the description to read “...with a maximum capacity of **495** board feet per hour, and **9** pounds of stain per hour,”.

- Section A.3(a)(1) and (a)(2) (page 6 of 45); Section D.2 Insignificant Activities(a)(1) and (a)(2) (page 29 of 45); and TSD Insignificant Activities, (a)(1) and (a)(2) (page 2 of 13): revise both descriptions to reflect "...with a maximum capacity of **55** pounds per hour, ..."
- Section A.3(a)(3) (page 6 of 45); Section D.2 Insignificant Activities(a)(3) (page 29 of 45); and TSD Insignificant Activities, (a)(3)(page 2 of 13): revise the description to read "...With a maximum capacity of **3,100** spas per year".

Response to Comment 2:

IDEM, OAQ and OES accept the revisions to the descriptions. Sections A.2 and A.3, D.1 and D.2 have been changed as follows:

A.2 Emission Units and Pollution Control Equipment Summary [326 IAC 2-8-3(c)(3)]

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

Woodworking Operation

- (a) One (1) woodworking operation, identified as EU2, constructed in 1992, with a maximum capacity of ~~412~~ **495** board feet per hour, with particulate emissions controlled by a cyclone, identified as CE1, and exhausting to stack S2.

~~Polyurethane Foam Spraying, Resin and Gelcoat Flowcoating, and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth~~

- (b) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 120 pounds of vinyl ester resin per hour; and one (1) hand-applied gelcoat operation, constructed in 1992, with a maximum capacity of ~~107~~ **1.07** pounds of gelcoat per hour, collectively identified as EU3, utilizing dry filters to control particulate emissions, and exhausting to stack S3.
- (c) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 219 pounds of suppressed resin/~~catalyst/filler/gelcoat/pigments~~ per hour, identified as EU4, using dry filters to control particulate emissions, and exhausting to stack S4.
- (d) One (1) booth, constructed in 2000, enclosing one (1) flow coater with a maximum capacity of 219 pounds of suppressed resin/catalyst/filler/gelcoat/pigments per hour, identified as EU6, using dry filters to control particulate emissions, and exhausting to stack S6.
- (e) One (1) assembly operation, identified as EU7, constructed in 1989, comprised of one (1) PVC glueing operation applied by hand with a maximum glue usage of ~~2.98~~ **4.3** pounds per hour and one (1) silicone caulking operation applied by hand with a maximum caulk usage of ~~2.2~~ **3.5** pounds per hour.
- (f) One (1) wood stain spray booth, identified as EU10, constructed in 1991, with a maximum capacity of ~~412~~ **495** board feet per hour and ~~8~~ **9** pounds of stain per hour, using dry filters to control particulate emissions, exhausting to stack S10.

A.3 Insignificant Activities [326 IAC 2-7-1(21)] [326 IAC 2-8-3(c)(3)(I)]

This stationary source also includes the following insignificant activities, as defined in 326 IAC 2-7-1(21):

- (a) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO₂, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:

- (1) One (1) polyurethane foam spray booth, identified as EU1, constructed in 1989, with a maximum capacity of ~~50.9~~ **55** pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S1 [326 IAC 2-8] [326 IAC 6-3-2];
- (2) One (1) polyurethane foam spray booth, constructed in 1994, identified as EU5, with a maximum capacity of ~~50.9~~ **55** pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S5 [326 IAC 2-8] [326 IAC 6-3-2]; and
- (3) One (1) thermoforming operation, identified as EU9, constructed in 1991, with a maximum capacity of ~~2,845~~ **3,100** spas per year [326 IAC 2-8].

SECTION D.1

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Woodworking Operation

- (a) One (1) woodworking operation, identified as EU2, constructed in 1992, with a maximum capacity of ~~412~~ **495** board feet per hour, with particulate emissions controlled by a cyclone, identified as CE1, and exhausting to stack S2.

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

SECTION D.2

FACILITY OPERATION CONDITIONS

Facility Description [326 IAC 2-8-4(10)]:

Polyurethane Foam Spraying, Resin and Gelcoat Flowcoating, and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth

- (b) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 120 pounds of vinyl ester resin per hour; and one (1) hand-applied gelcoat operation, constructed in 1992, with a maximum capacity of ~~407~~ **1.07** pounds of gelcoat per hour, collectively identified as EU3, utilizing dry filters to control particulate emissions, and exhausting to stack S3.
- (c) One (1) booth, constructed in 1992, enclosing one (1) flow coater, constructed in 2000, with a maximum capacity of 219 pounds of suppressed resin/~~catalyst/filler/gel coat/pigments~~ per hour, identified as EU4, using dry filters to control particulate emissions, and exhausting to stack S4.
- (d) One (1) booth, constructed in 2000, enclosing one (1) flow coater with a maximum capacity of 219 pounds of suppressed resin/catalyst/filler/gelcoat/pigments per hour, identified as EU6, using dry filters to control particulate emissions, and exhausting to stack S6.
- (e) One (1) assembly operation, identified as EU7, constructed in 1989, comprised of one (1) PVC glueing operation applied by hand with a maximum glue usage of ~~2-98~~ **4.3** pounds per hour and one (1) silicone caulking operation applied by hand with a maximum caulk usage of ~~2-2~~ **3.5** pounds per hour.
- (f) One (1) wood stain spray booth, identified as EU10, constructed in 1991, with a maximum capacity of ~~412~~ **495** board feet per hour and ~~8~~ **9** pounds of stain per hour, using dry filters to control particulate emissions, exhausting to stack S10.

Insignificant Activities

- (a) Activities with emissions equal to or less than the following thresholds: 5 tons per year PM or PM10, 10 tons per year SO₂, NO_x, or VOC, 0.2 tons per year Pb, 1.0 tons per year of a single HAP, or 2.5 tons per year of any combination of HAPs:
 - (1) One (1) polyurethane foam spray booth, identified as EU1, constructed in 1989, with a maximum capacity of ~~50-9~~ **55** pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S1 [326 IAC 2-8] [326 IAC 6-3-2];
 - (2) One (1) polyurethane foam spray booth, constructed in 1994, identified as EU5, with a maximum capacity of ~~50-9~~ **55** pounds per hour of foam, with dry filters controlling particulate emissions, and exhausting to stack S5 [326 IAC 2-8] [326 IAC 6-3-2]; and
 - (3) One (1) thermoforming operation, identified as EU9, constructed in 1991, with a maximum capacity of ~~2,845~~ **3,100** spas per year [326 IAC 2-8].
- (c) Emission units with PM and PM10 emissions less than five (5) tons per year, SO₂, NO_x, and VOC emissions less than ten (10) tons per year, CO emissions less than twenty-five (25) tons per year, lead emissions less than two-tenths (0.2) tons per year, single HAP emissions less than one (1) ton per year, and combination of HAPs emissions less than two and a half (2.5) tons per year:
 - (2) One (1) completed spa trimming operation, identified as EU13, constructed in 2002, with a maximum capacity of 1.5 spa per hour, using a fabric bag filter to control particulate emissions.

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

No changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 3:

Section D.1.1 (page 27 of 45): The Permittee requests that the particulate emissions limit be based on a process weight of **1,650** pounds per hour instead of 1,375 pounds per hour.

Response to Comment 3:

The particulate emission limitation has been recalculated to 3.6 pounds per hour, using the process weight of 1,650 pounds per hour. Section D.1.1 has been revised as follows:

D.1.1 Particulate Emission Limitation [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Operations), the particulate emissions from the woodworking operation (EU2) shall be limited ~~3.2~~ **3.6** pounds per hour based on a process weight of ~~1,375~~ **1,650** pounds per hour.

Interpolation of this 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

Comment 4:

Section A.2 (page 5 of 45); D.2 Facility Description (page 29 of 45); and TSD Unpermitted Emission Units and Pollution Control Equipment (Page 1 of 13): The Permittee requested that the reference to polyurethane foam spraying be removed from the description and a reference to resin flowcoating be added.

“Polyurethane Foam Spraying, Flowcoating and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth” revised to:

“**Resin and Gelcoat Flowcoating**, Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth”

Response to Comment 4:

Section A.2 and D.2 Facility Descriptions have been revised to read as follows:

~~Polyurethane Foam Spraying, Resin and Gelcoat Flowcoating, and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth~~

Comment 5:

Section D.2.1(b) (page 30 of 45): The Permittee requests that line 4 be revised to read “...nine and **nine-tenths** (9.9) tons...”

Response to Comment 5:

Condition D.2.1(b) has been revised as a result of this comment. This text also reflect changes made elsewhere in this Addendum to the Technical Support Document.

D.2.1 FESOP Limitation [326 IAC 2-8] [326 IAC 2-4.1]

The Permittee shall be subject to the following limitations:

- (a) The ~~input~~ **total emissions of volatile organic compounds (VOC) to** from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed ninety-nine (99) tons per twelve (12) consecutive month period with compliance determined at the end of each month. ~~This limit is equivalent to emissions of ninety-nine (99) tons of VOC per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined.~~ This limit is structured such that, when including emissions of VOC from the insignificant combustion sources, the source total emissions of VOC remain less than one hundred (100) tons per twelve (12) consecutive month period. **This limit is based on the following:**
- (1) **The emissions of volatile organic compounds from the gelcoat and molding operations EU3, EU4, and EU6 shall be calculated by multiplying the usage of each gelcoat and resin by the emission factor provided by the "Unified Emission Factors for Open Molding of Composites, Composites Fabricators Association, April 1999."**
 - (2) **The emissions of volatile organic compounds from the foam spraying operations (EU1 and EU5), the glueing and caulking operations (EU7), the thermoforming operations (EU9), and the stain spraying operations (EU10), shall be determined by VOC input. VOC input to these operations should be limited such that, when combined with emissions from the gelcoat and resin operations (EU3, EU4, and EU6), the VOC emissions shall not exceed ninety-nine (99) tons per year.**
- (b) The ~~input~~ **total emissions of a single HAP, other than styrene, to** from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and ~~eight-nine~~ **nine-tenths (9.9) tons** per twelve (12) consecutive month period with compliance determined at the end of each month. ~~This limit is equivalent to emissions of nine and eight-nine (9.9) tons of a single HAP, other than styrene, per twelve (12) consecutive month period from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined.~~ This limit is structured such that, when including emissions of a single HAP, ~~other than styrene,~~ from the insignificant combustion sources, the source total emissions of a single HAP, ~~other than styrene,~~ remain less than ten (10) tons per twelve (12) consecutive month period.

Comment 6:

TSD Enforcement Issue (a) (Page 3 of 13): The Permittee requests that the reference to EU8 (as it has been incorporated into EU3) be removed and a reference to EU10 be included. Therefore, the description should read, "IDEM is aware that equipment has been constructed and operated prior to receipt of the proper permit (EU2, EU3, EU4, EU6, EU7, and EU10.)"

Response to Comment 6:

IDEM, OAQ and OES note that emission unit EU8 has been removed and EU10 should be included in the list. However, no changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 7:

TSD Potential to Emit (Page 3 of 13): The Permittee requested that the emission totals be reviewed and that the PM total should match the PM10 total. The Permittee pointed out that including both significant and insignificant sources of PM (EU1, EU5, EU3, EU4, EU6, EU10, and EU13) calculations indicate a total of 73.91 tons/yr. The Permittee's calculations indicate 88.78 total tons VOC and CO totals indicate 0.74 ton/year. It appears that the styrene emissions from the EU6 gelcoat was omitted from the total; including that number, styrene emissions would be 57.37 tons/yr. The Permittee's MEK totals from EU3, EU4, EU6, catalyst calculations; appear to

be 7.39 tons/yr. The Permittee pointed out that it appears that EU9 totals were omitted from the methyl methacrylate totals. The Permittee stated that total MMA should be 0.29 ton/yr with EU9 included. It appears that EU5 was omitted from the MDI totals; including both EU1 and EU5 the total would be 0.06 ton/yr. The Permittee requested that methylene chloride emissions from EU1 and EU5, be included and that total HAPs per the above comments.

Response to Comment 7:

Emission totals have been reviewed and the following table shows the correct emissions total.

Pollutant	Unrestricted Potential Emissions (tons/yr)
PM	73.91
PM-10	73.91
SO ₂	Negligible
VOC	88.78
CO	0.74
NO _x	0.95

HAP's	Unrestricted Potential Emissions (tons/yr)
Dimethyl Phthalate	0.01
Styrene	57.37
MEK	7.39
Glycol Ether	1.58
Methyl Methacrylate	0.29
Ethylene Glycol	Negligible
MDI	0.06
Methylene Chloride	0.06
Vinyl Acetate	Negligible
Benzene	Negligible
Dichlorobenzene	Negligible
Formaldehyde	Negligible
Hexane	Negligible
Toluene	Negligible
Lead	Negligible
Cadmium	Negligible
Chromium	Negligible
Manganese	Negligible
Nickel	Negligible
TOTAL	66.76

Note: Negligible indicates that the potential to emit is less than 0.01 tons per year.

These changes do not affect the major source status. No changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 8:

TSD State Rule Applicability - Woodworking Operation (EU2), 326 IAC 6-3-2 (Page 8 of 13): The Permittee requested that the particulate emissions limit based on a process weight of 1,650 pounds per hour be revised.

Response to Comment 8:

No changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision. Condition D.1.1 has been changed as reflected in Comment 3 above.

Comment 9:

TSD State Rule Applicability - Polyurethane Foam Spraying, Flowcoating and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming and Wood Stain Spray Booth (page 8 of 13): The Permittee requested that the reference to PVC Glueing/Silicone Caulking, Thermoforming, and Wood Stain Spray Booth be removed from this title as these operations are addressed later in individual applicability sections for EU7, EU9, and EU10. Revise Title to read: **"Polyurethane Foam Spraying, Resin and Gelcoat Flowcoating, and Hand-Applied Gelcoat."**

Response to Comment 9:

IDEM, OAQ and OES agree this would have been a better title for this section of the TSD. However, no changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 10:

TSD State Rule Applicability - Polyurethane Foam Spraying, Flowcoating and Hand-Applied Gelcoat, PVC Glueing/Silicone Caulking, Thermoforming and Wood Stain Spray Booth, 326 IAC 8-1-6 (page 9 of 13): The Permittee requested that the reference to EU8 from Paragraph 3 be removed, as this source has been incorporated into EU3.

Response to Comment 10:

IDEM, OAQ and OES are aware that emission unit EU8 has been incorporated into EU3. However, no changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Comment 11:

TSD Compliance Requirements, 2.(a) (page 12 of 13): The Permittee requested that Paragraph 1, sentence 2 be revised to read, "to monitor the performance of the dry filters, weekly observations shall be made of the overspray from stacks S3, S4, S6, and S10". These are the stack designations associated with EU3, EU4, EU6, and EU10.

Response to Comment 11:

Weekly overspray operations are not required for processes which use flowcoating, but are required for other surface coating operations. Booths EU3, EU4, and EU6 all utilize flow coaters, whereas booths EU1, EU5, and EU10 do not. Therefore, the TSD is correct to apply weekly overspray operations to stacks S1, S5, and S10. Section D.2.7 of the permit is correct. No changes have been made to the TSD.

Comment 12:

The Permittee requested that FESOP Quarterly Report Descriptions (pages 37 through 41 of 45): As Royal Spa is limiting VOC emissions to 25 tons per 12 consecutive months, the Permittee requested that the report referencing the VOC limit of ninety-nine tons per 12 consecutive month period be removed (page 40). VOC emission limitations established by 326 IAC 8-1-6 apply only to emission units EU1, EU3, EU4, EU5, and EU6. FESOP VOC limitations established by 326 IAC 2-8 apply to emission units EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10. Please revise the description of VOC emissions be revised (page 41) by removing reference to EU8, and including EU7, EU9, and EU10. Therefore, description should read, "...EU1, EU3, EU4, EU5, EU6, **EU7, EU9 and EU10.**"

Response to Comment 12:

VOC emission limitations established by 326 IAC 8-1-6 apply only to emission units from EU1, EU3, EU4, EU5, EU6. FESOP VOC limitations established by 326 IAC 2-8 apply to emission units from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10. The Facility Quarterly Reports have been revised as follows:

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
Indianapolis Office of Environmental Services
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: Royal Spa Manufacturing
Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP No.: F097-12525-00391
Facility: EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10
Parameter: Single HAP input, other than styrene
Limit: The ~~input emissions~~ of a single HAP, ~~other than styrene, to~~ from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed nine and nine-tenths (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
and
Indianapolis Office of Environmental Services
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: Royal Spa Manufacturing
Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP No.: F097-12525-00391
Facility: EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10
Parameter: Combination HAP input
Limit: The ~~input emissions~~ of any combination of HAPs ~~to~~ from EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10, combined, shall not exceed twenty-four and nine-

tenths (24.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 and
 Indianapolis Office of Environmental Services
 AIR QUALITY MANAGEMENT SECTION
 DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: _____ Royal Spa Manufacturing
 Source Address: _____ 2041 W. Epler, Indianapolis, Indiana 46217
 Mailing Address: _____ 2041 W. Epler, Indianapolis, Indiana 46217
 FESOP No.: _____ F097-12525-00391
 Facility: _____ EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10
 Parameter: _____ Styrene Input
 Limit: _____ The input of styrene to EU1, EU3, EU4, EU5, EU6, EU7, EU9, and EU10; combined, shall not exceed nine and nine-tenths (9.9) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

YEAR: _____

Month	Column 1	Column 2	Column 1 + Column 2
	This Month	Previous 11 Months	12 Month Total
Month 1			
Month 2			
Month 3			

_____ No deviation occurred in this quarter.
 _____ Deviation/s occurred in this quarter.
 Deviation has been reported on: _____

Submitted by: _____
 Title / Position: _____
 Signature: _____
 Date: _____
 Phone: _____

Attach a signed certification to complete this report.
**INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
 OFFICE OF AIR QUALITY
 COMPLIANCE DATA SECTION
 and**

**Indianapolis Office of Environmental Services
AIR QUALITY MANAGEMENT SECTION
DATA COMPLIANCE**

FESOP Quarterly Report

Source Name: Royal Spa Manufacturing
Source Address: 2041 W. Epler, Indianapolis, Indiana 46217
Mailing Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP No.: F097-12525-00391
Facility: EU1, EU3, EU4, EU5, EU6, and EU8
Parameter: VOC Input
Limit: The total ~~input~~ **emissions** of VOC ~~to~~ **from** EU1, EU3, EU4, EU5, and EU6, shall not exceed twenty-five (25) tons per twelve (12) consecutive month period with compliance determined at the end of each month.

Comment 13:

Appendix A, Calculations EU1 and EU5 (page 1 of 11): The Permittee requested that emissions of methylene chloride (see calculations from September 5 comments to pre-issuance draft permit) be included in the calculations. Potential emissions equal to 0.06 ton/yr.

Response to Comment 13:

Calculations of methylene chloride from EU1 and EU5 have been included below to document the potential emissions from these sources. However, no changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Material	Maximum Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Methylene Chloride Content (lb/lb foam)	Potential to Emit Methylene Chloride (ton/yr)
EU1 Foam	55	481,800	1.27E-04	0.03
EU5 Foam	55	481,800	1.27E-04	0.03
Total	--	--	--	0.06

Comment 14:

Appendix A, Calculations EU11 (page 8 of 11): The Permittee requests that the PM emission factor be changed to match the PM10 emission factor of 7.6 lb/MMCF (assumes all PM is PM10) as noted in AP-42, Chapter 1.4.

Response to Comment 14:

IDEM, OAQ and OES agree that the PM emission factor should match the PM10 emission factor. This changes the potential to emit PM from EU11 to 0.07 tons/yr. However, no changes have been made to the TSD because the OAQ and OES prefer that the Technical Support Document reflect the permit that was on public notice. Changes to the permit or technical support material that occur after the public notice are documented in this Addendum to the Technical Support Document. This accomplishes the desired result of ensuring that these types of concerns are documented and part of the record regarding this permit decision.

Upon further review, the OAQ has decided to make the following revisions to the permit (bolded language has been added, the language with a line through it has been deleted). The Table of Contents has been modified, if applicable, to reflect these changes.

1. For clarification an additional rule cite has been added to Condition B.20 Inspection and Entry.

B.20 Inspection and Entry [326 IAC 2-8-5(a)(2)] [IC 13-14-2-2] [[IC 13-30-3-1] **IC 13-17-3-2**]

2. For consistency and clarification purposes the name "source" has been changed to "Permittee" in the following three C Conditions:

C.9 Performance Testing [326 IAC 3-6]

...

- (c) Pursuant to 326 IAC 3-6-4(b), all test reports must be received by IDEM, OAQ not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ, if the ~~source~~ **Permittee** submits to IDEM, OAQ, a reasonable written explanation not later than five (5) days prior to the end of the initial forty-five (45) day period.

C.14 Risk Management Plan [326 IAC 2-7-5(12)] [40 CFR 68]

If a regulated substance, as defined in **40 CFR 68**, is present at a source in more than a threshold quantity, the ~~source~~ **Permittee** must comply with the applicable requirements of 40 CFR 68.

C.15 Compliance Response Plan - Preparation, Implementation, Records, and Reports [326 IAC 2-8-4] [326 IAC 2-8-5]

...

- (b) For each compliance monitoring condition of this permit, reasonable response steps shall be taken when indicated by the provisions of that compliance monitoring condition as follows:

...

- (3) If the Permittee determines that additional response steps would necessitate that the emissions unit or control device be shut down, and it will be **ten (10)** days or more until the unit or device will be shut down, then the Permittee shall promptly notify the IDEM, OAQ of the expected date of the shut down; **. The notification shall also include** the status of the applicable compliance monitoring parameter with respect to normal, and the results of the **response** actions taken up to the time of notification.

C.18 General Reporting Requirements [326 IAC 2-7-5(3)(C)] [326 IAC 2-1.1-11]

- (a) The ~~source~~ **Permittee** shall submit the attached Quarterly Deviation and Compliance Monitoring Report or its equivalent. Any deviation from permit requirements, the date(s) of each deviation, the cause of the deviation, and the response steps taken must be reported. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

3. The Emission Statement Condition (C. 17) has been deleted due to revisions in 326 IAC 2-6, Emission Statement Rules. This rule revision came into effect March 27, 2004, that specifically exempts FESOP sources from submitting annual emission statements.

Appendix A: Emissions Calculations
Foam Booth Emissions (EU1 and EU5)
Company Name: Royal Spa Manufacturing
Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP: 097-12525-00391
Plt ID: 097-00391
Reviewer: ERG/TDP
Date: 10/15/2003

EU1 and EU5 Foam Spraying Emissions

Material	Maximum Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Particulate Content (wt. %)	Potential to Emit Particulate (ton/yr)	VOC Content (lb/lb foam)	Potential to Emit VOC (ton/yr)	MDI Content (lb/lb foam)	Potential to Emit MDI (ton/yr)	Actual Usage per Spa (lb/spa)	Actual Restricted Spas* (spas/yr)	Actual Rate (lb/yr)	Actual Particulate Emissions (ton/yr)	Actual VOC Emissions (ton/yr)	Actual MDI Emissions (ton/yr)
EU1 Foam	55	481,800	0.1%	0.24	1.17E-03	0.28	1.27E-04	0.03	35	3,100	108500	0.05	0.06	0.01
EU5 Foam	55	481,800	0.1%	0.24	1.17E-03	0.28	1.27E-04	0.03	35	3,100	108500	0.05	0.06	0.01
Total				0.48		0.56		0.06					0.13	0.01

* Royal Spa Manufacturing has elected to limit styrene emissions to less than 10 tons per year. The number of Actual Restricted Spas represents the maximum number of spas that can be manufactured while keeping styrene emissions less than 10 tons per year.

Methodology

Potential to Emit (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) * Content (wt. % lb/lb of foam) / 2000 (lb/ton)

Actual Rate (lb/yr) = Actual Usage per Spa (lbs/spa) * Actual Number of Spas as Limited by Styrene Emissions (3,100 spas/yr)

Actual Particulate Emissions (tons/yr) = Actual Rate (lb/yr) * Content (wt. %) * 1 ton/2000 lbs

Actual VOC/MDI Emissions (tons/yr) = Actual Rate (lb/yr) * Content (lb/lb foam) * 1 ton/2000 lbs

Appendix A: Emissions Calculations

Woodworking Emissions (EU2)

Company Name: Royal Spa Manufacturing

Address: 2041 W. Epler, Indianapolis, Indiana 46217

FESOP: 097-12525-00391

Pit ID: 097-00391

Reviewer: ERG/TDP

Date: 10/15/2003

EU2 Woodworking Emissions

Emission Unit	Sawdust Generation Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Potential to Emit PM/PM10 (ton/yr)	Control Efficiency (%)	Controlled PTE PM/PM10 (ton/yr)
EU2	10.5	91,980	46.0	95%	2.30

*Assume all PM emissions are equal to PM10.

*Control = Cyclone CE1.

Methodology

Potential to Emit PM/PM10 (ton/yr) = Maximum Rate Assuming 8760 Hours per Year (lb/yr) / 2000 (lb/ton) 8760 (hr/yr) / 2000 (lb/ton)

Controlled PTE PM/PM10 (ton/yr) = Potential to Emit of PM/PM10 (ton/yr) * (1 - Control Efficiency)

Appendix A: Emissions Calculations
Emissions From Flow Coat of Vinyl Ester Resin and Suppressed Resin Emissions (EU3, EU4, EU6)

Company Name: Royal Spa Manufacturing
 Address: 2041 W. Epler, Indianapolis, Indiana 46217
 FESOP: 097-12525-00391
 Pit ID: 097-00391
 Reviewer: ERG/TDP
 Date: 10/15/2003

EU3, EU4, EU6 Flow Coaters: Application of Catalyst VOC and HAP Emissions

Unit	Material	Maximum Rate (lb/hr)	Catalyst in Resin (%)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Worst Case VOC Content (wt. %)	Potential to Emit VOC (ton/yr)	Worst Case Dimethyl Phthalate Content (wt. %)	Loss of Available Dimethyl Phthalate to Air (%)	Potential to Emit Dimethyl Phthalate (ton/yr)	Worst Case Methyl Ethyl Ketone Content (wt.%)	Potential to Emit Methyl Ethyl Ketone (ton/yr)	Actual Usage per Spa (lb/spa)	Actual Restricted Spas (spas/yr)	Actual Rate (lb/yr)	Actual VOC Emissions (ton/yr)	Actual Dimethyl Phthalate Emissions (ton/yr)	Actual Methyl Ethyl Ketone Emissions (ton/yr)
EU3 Flow Coat	Worst Case Catalyst	120	1.25%	13,140	9.3%	0.61	47%	0.04%	1.24E-03	2.00%	1.31E-01	1.40	3100.00	4,340	0.20	4.08E-04	0.04
EU4 Flow Coat	Worst Case Catalyst	219	1.25%	23,981	9.3%	1.12	47%	0.04%	2.25E-03	2.00%	2.40E-01	2.80	3100.00	8,680	0.40	8.16E-04	0.09
EU6 Flow Coat	Worst Case Catalyst	219	1.25%	23,981	9.3%	1.12	47%	0.04%	2.25E-03	2.00%	2.40E-01	1.40	3100.00	4,340	0.20	4.08E-04	0.04
Total						2.84			0.01		0.61				0.81	1.63E-03	0.17

Note:

% Loss DMP Emission Factor Taken from "Emission Factors for Liquid Organic Peroxide Catalysts Used in the Open Molding of Composites", Haberlein, 3/24/99.
 Worst-Case Catalyst includes worst-case percentage content from a variety of catalysts utilized.

Methodology

Potential to Emit (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) * Content (wt. %) / 2000 (lb/ton)

Actual Rate (lbs/yr) = Actual Usage per spa (lb/spa) * Actual restricted spas as limited by styrene emissions (3,100 spas/yr)

Actual Emissions (tons/yr) = Actual Rate (lb/yr) * Content (wt.%) * 1 ton/2000 lbs

EU3, EU4, EU6 Flowcoaters: Application of Resin/Filled Resin PM Emissions

Unit	Material	Maximum Filled Resin Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Worst Case Solids Content (wt. %)	Transfer Efficiency	Uncontrolled Potential to Emit PM/PM10 (ton/yr)	Filter Control Efficiency (%)	Controlled Potential to Emit PM/PM10 (ton/yr)
EU3 Flow Coat	Vinyl Ester Resin	120	1,051,200	97.0%	99.0%	5.10	90%	0.51
EU4 Flow Coat	Filled Suppressed Resin	219	1,918,440	99.0%	99.0%	9.50	90%	0.95
EU6 Flow Coat	Filled Suppressed Resin	219	1,918,440	99.0%	99.0%	9.50	90%	0.95
Total						24.09		2.41

Note: The worst case solids content assumes 100% of the worst case material. In reality, the application includes a mixture of this material and other materials with lower solids contents.
 Assume all PM emissions are equal to PM10.

Methodology

Uncontrolled Potential to Emit PM/PM10 (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) * Solids Content (wt. %) * (1-Transfer Efficiency) / 2000 (lb/ton)

Controlled PTE of PM/PM10 (ton/yr) = Potential Emissions * (1-Control Efficiency)

Appendix A: Emissions Calculations
Emissions From Flow Coat of Vinyl Ester Resin and Suppressed Resin Emissions (EU3, EU4, EU6)

Company Name: **Royal Spa Manufacturing**
 Address: **2041 W. Epler, Indianapolis, Indiana 46217**
 FESOP: **097-12525-00391**
 Pit ID: **097-00391**
 Reviewer: **ERG/TDP**
 Date: **10/15/2003**

EU3, EU4, and EU6 Flow Coaters: Application of Resin/Filled Resin Styrene Emissions

Unit	Material	Maximum Filled Resin Application Rate (lb/hr)	Monomer in Filled Resin (%)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Worst Case Styrene Content (wt. %)	Emission Factor (lb styrene/ton monomer)	Potential to Emit Styrene (tons/yr)	Actual Usage (lb/spa)	Actual Restricted Spas (spas/yr)	Actual Rate (lb/yr)	Actual Emissions (tons/yr)
EU3 Flow Coat	Vinyl Ester Resin	120	100	1,051,200	48.0%	118	31.01	39	3100	120900	3.57
EU4 Flow Coat	Filled Suppressed Resin	219	50	959,220	34.0%	51	12.23	101	3100	313100	3.99
EU6 Flow Coat	Filled Suppressed Resin	219	50	959,220	34.0%	49	11.75	43	3100	133300	1.63
Total							54.99				9.19

Note:
 VOC Emissions = Styrene Emissions

Styrene emission factors are taken from "Unified Emission Factors for Open Molding of Composites", July 23, 2001 (EU3 Mechanical Non-Atomized and EU4 and EU6 Mechanical Non-Atomized with VSR)

Methodology:

Potential to Emit (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) * Content (wt. %) / 2000 (lb/ton)

Actual Rate (lbs/yr) = Actual Usage per spa (lb/spa) * Actual Restricted number of spas as limited by styrene emissions (3,100 spas/yr)

Actual Emissions (tons/yr) = Actual Rate (lb/yr) * Content (wt.%) * 1 ton/2000 lbs

EU3 and EU6: Application of Gelcoats and Pigments

Unit	Material	Maximum Application Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Worst Case Styrene Content (wt. %)	Emission Factor (lb styrene/ton gelcoat)	Potential to Emit Styrene (tons/yr)	Methyl Methacrylate Content (wt. %)	Emission Factor (lb MMA/ton gelcoat)	Potential to Emit MMA (tons/yr)	Vinyl Acetate Content (%)	Potential Vinyl Acetate Emissions (tons/yr)	Ethylene Glycol Content (wt. %)	Potential to Emit Ethylene Glycol (ton/year)	Actual Usage per Spa (lb/spa)	Actual Restricted Spas (spas/yr)	Actual Usage Rate (lb/yr)	Actual Styrene Emissions (ton/yr)	Actual MMA Emissions (ton/yr)	Actual Vinyl Acetate Emissions (ton/yr)	Actual Ethylene Glycol Emissions (ton/yr)
EU3 (hand applied)	Tool Black	0.2	1,752	53.0%	197	0.09	0.00%	0	0.00	0.60%	5.26E-03	1.10E-03	1.E-03	0.2	3100	465	0.02	0.00	1.40E-03	2.56E-04
EU3 (hand applied)	Tool Orange	0.2	1,752	38.0%	112	0.05	0.00%	0	0.00	0.00%	0	0.00	0	0.1	3100	310	0.01	0.00	0.00E+00	0.00E+00
EU3 (Flow Coat)	Tooling Resin	0.7	6,132	46.0%	118	0.18	1.00%	15	0.02	0.00%	0	0.00	0	0.5	3100	1,395	0.04	0.01	0.00E+00	0.00E+00
EU3 (Flow Coat)	White Gelcoat	1.6	14,016	28.0%	151	0.53	3.00%	45	0.16	0.00%	0	0.00	0	1.0	3100	3,100	0.12	0.03	0.00E+00	0.00E+00
Total						0.85			0.18		5.26E-03		1.E-03				0.19	0.04	1.40E-03	2.56E-04

Unit	Material	Maximum Application Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	Worst Case Styrene Content (wt. %)	Emission Factor (lb styrene/ton gelcoat)	Potential to Emit Styrene (tons/yr)	Actual Usage per Spa (lb/spa)	Actual Restricted Spas (spas/yr)	Actual Usage Rate (lb/yr)	Actual Styrene Emissions (ton/yr)
EU6 (Flow Coat)	Black Gelcoat	2.6	22,776	38.0%	241	1.37	1.6	3100	4,960	0.30
EU6 (Flow Coat)	Black Gelcoat Putty	1.0	8,760	18.0%	67	0.15	0.6	3100	1,860	0.03
EU6 (Flow Coat)	Black Pigment	0.5	4,380	0.0%	0	0.00	0.3	3100	930	0.00
Total						1.52				0.33

Note:
 VOC Emissions = Sum of HAP Emissions

Styrene emission factors are taken from "Unified Emission Factors for Open Molding of Composites", July 23, 2001 (Flow Coat EU3 and Flow Coat EU6 = Mechanical Non-Atomized; Hand-Applied EU3 = Manual)

MMA emission factors are taken from "Unified Emission Factors for Open Molding of Composites", July 23, 2001

Methodology:

Other HAP Potential to Emit (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) * Content (wt. %) / 2000 (lb/ton)

Potential to Emit Styrene and MMA (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) / 2000 (lb/ton) * Emission factor (lb/ton) / 2000 (lb/ton)

Actual Rate (lbs/yr) = Actual Usage per spa (lb/spa) * Actual restricted number of spas as limited by styrene emissions (3,100 spas/yr)

Other HAP Actual Emissions (tons/yr) = Actual Rate (lb/yr) * Content (wt.%) * 1 ton/2000 lbs
Styrene and MMA Actual Emissions (tons/yr) = Actual Rate (lb/yr) / 2000 (lb/ton) * Emission facotr (lb/ton) / 2000 (lb/ton)

Appendix A: Emissions Calculations
Glueing/Caulking Operation Emissions (EU7)
Company Name: Royal Spa Manufacturing
Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP: 097-12525-00391
Pit ID: 097-00391
Reviewer: ERG/TDP
Date: 10/15/2003

EU7 Glueing and Caulking Emissions

Material	Maximum Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	VOC Content (wt. %)	Potential to Emit VOC (ton/yr)	MEK Content (wt. %)	Potential to Emit MEK (ton/yr)	Actual Usage Per Spa (lb/spa)	Actual Restricted Spas (spas/yr)	Actual Rate (lb/yr)	Actual VOC Emissions (ton/yr)	Actual MEK Emissions (ton/yr)
PVC Glue 705	4.3	37,668	81.0%	15.26	36%	6.78	2.70	3,100	8,370	3.39	1.51
Silicone Clear	0.7	6,132	3.9%	0.12	0%	0.00	0.40	3,100	1,240	0.02	0.00
Silicone White	2.7	23,652	3.9%	0.46	0%	0.00	1.70	3,100	5,270	0.10	0.00
Total				15.84		6.78				3.52	1.51

Note: The transfer efficiency for this operation is 100% because the glues and caulking are applied by hand. Therefore, the particulate emissions are assumed to be negligible from this operation.

Methodology

Potential to Emit (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) * Content (wt. %) / 2000 (lb/ton)

Actual Rate (lbs/yr) = Actual Usage per Spa (lb/spa) * Actual Restricted Number of Spas as Limited by Styrene Emissions (3,100 spas/yr)

Actual Emissions (tons/yr) = Actual Rate (lbs/yr) * Content (wt. %) * 1 ton/2000 lbs

Appendix A: Emissions Calculations
Thermoforming Operation Emissions (EU9)
Company Name: Royal Spa Manufacturing
Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP: 097-12525-00391
Pit ID: 097-00391
Reviewer: ERG/TDP
Date: 10/15/2003

EU9 Thermoforming Emissions

Actual Restricted Vessels:	2,900 vessels	
Actual Restricted Domes:	200 domes	
Potential Vessels in 8760 Hours:	12702 vessels	
Potential Domes in 8760 hours:	876 domes	
Average Vessel Area:	48 ft ²	6' by 8'
Average Dome Area:	72 ft ²	6' by 12'
Acrylic Thickness (Vessels):	0.125 in	
Acrylic Thickness (Domes):	0.22 in	

Acrylic Composition

Density:	70 lb/ft ³	
Methyl Methacrylate:	98 wt. %	MSDS data
VOC Emission Rate:	0.04 wt. %	Manufacturer's Estimate

Calculations:

Material Processed (tons) = Total Volume thermoformed (dome & vessel) (ft³) * Density (lb/ft³)
= ((dome volume * No. of domes) + (Vessel volume * No. of vessels)) * Density

Actual Processed (tons) =	119,980 lbs =	60.0 tons
Potential Processed (tons)=	525,512 lbs =	262.8 tons

VOC Emissions

VOC Emissions = Material Processed * Emission Rate (%)

Actual VOC (ton/yr) =	0.02 ton/yr
Potential VOC (ton/yr) =	0.11 ton/yr

HAP Emissions

HAP = ((dome volume * No. of domes) + (Vessel volume * No. of vessels)) * Density * Emission Rate (%) * HAP (wt. %)

Actual Methyl Methacrylate (ton/yr):	0.02 ton/yr
Potential Methyl Methacrylate (ton/yr):	0.10 ton/yr

**Appendix A: Emissions Calculations
Spray Booth Emissions (EU10)**

Company Name: Royal Spa Manufacturing
Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP: 097-12525-00391
Plt ID: 097-00391
Reviewer: ERG/TDP
Date: 10/15/2003

EU10 Spraying Emissions

Material	Maximum Rate (lb/hr)	Maximum Rate Assuming 8760 Hours Per Year (lb/yr)	VOC Content (wt. %)	Potential to Emit VOC (ton/yr)	Glycol Ether Content (wt. %)	Potential to Emit Glycol Ether (ton/yr)	Solids Content (wt. %)	Transfer Efficiency (%)	Uncontrolled Potential to Emit PM/PM10 (ton/yr)	Filter Control Efficiency (%)	Controlled PTE PM/PM10 (ton/yr)	Actual Usage per Spa (lb/spa)	Actual Restricted Spas (spas/yr)	Actual Rate (lb/yr)	Actual VOC Emissions (ton/yr)	Actual Glycol Ether Emissions (ton/yr)	
Stain	9	78,840	30%	11.83	4.0%	1.58	67.5%	90%	2.66	90%	0.27	6	3100	18,600	2.79	0.37	
				11.83			1.58			2.66			0.27			2.79	0.37

EU10 Cleaning Emissions

Material	Maximum Rate (lb/hr)	Maximum Rate Assuming 8760 Hours per Year (lb/yr)	VOC Content (wt. %)	Potential to Emit VOC (ton/yr)	Maximum Usage per Spa (lb/spa)	Maximum Restricted Spas (spas/yr)	Actual Rate Year (lb/yr)	Actual VOC Emissions (ton/yr)
Lacquer Thinner	0.50	4380	100%	2.19	0.30	3100	930	0.47
				2.19				0.47

Methodology

Potential to Emit (ton/yr) = Maximum Rate Assuming 8760 Hours Per Year (lb/yr) * Content (wt. %) / 2000 (lb/ton)

Uncontrolled Potential to Emit PM/PM10 (ton/yr) = Maximum Rate Assuming 8760 Hours per Year (lb/yr) * Solids Content (wt. %) * (1-Transfer Efficiency) / 2000 (lb/ton)

Controlled PTE PM/PM10 (ton/yr) = Potential to Emit PM/PM10 (ton/yr) * (1-Control Efficiency%)

Actual Rate (lbs/yr) = Actual Usage per Spa (lb/spa) * Actual Restricted Number of Spas as Limited by Styrene Emissions (3,100 spas/yr)

Actual Emissions (tons/yr) = Actual Rate (lbs/yr) * Content (wt. %) * 1 ton/2000 lbs

**Appendix A: Emissions Calculations
Natural Gas Combustion (EU11)**

Company Name: Royal Spa Manufacturing
Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP: 097-12525-00391
Pit ID: 097-00391
Reviewer: ERG/TDP
Date: 10/15/2003

Heat Input Capacity
MMBtu/hr

Potential Throughput
MMCF/yr

2.0

17.5

Emission Factor in lb/MMCF	Pollutant					
	PM	PM10	SO2	NOx	VOC	CO
Potential to Emit in tons/yr	1.9	7.6	0.6	100.0	5.5	84.0
	0.02	0.07	0.01	0.88	0.05	0.74

**Emission Factors for NOx: Uncontrolled = 100 lb/MMCF.

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

Potential Throughput (MMCF/yr) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu

Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03 (SUPPLEMENT D 3/98)

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

**Appendix A: Emissions Calculations
Natural Gas Combustion (EU11)**

Company Name: Royal Spa Manufacturing
Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP: 097-12525-00391
Pit ID: 097-00391
Reviewer: ERG/KC
Date: 12/5/2002

HAPs - Organics

Emission Factor in lb/MMcf	Benzene 2.1E-03	Dichlorobenzene 1.2E-03	Formaldehyde 7.5E-02	Hexane 1.8E+00	Toluene 3.4E-03
Potential to Emit in tons/yr	1.84E-05	1.05E-05	6.57E-04	1.58E-02	2.98E-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 to Emit in tons/yr	4.38E-06	9.64E-06	1.23E-05	3.33E-06	1.84E-05

Methodology is the same as page 8.

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

Appendix A: Emissions Calculations

Propane Combustion (EU12)

Company Name: Royal Spa Manufacturing
Address: 2041 W. Epler, Indianapolis, Indiana 46217
FESOP: 097-12525-00391
Plt ID: 097-00391
Reviewer: ERG/TDP
Date: 10/15/2003

Heat Input Capacity
MMBtu/hr

Potential Throughput
kgals/year

SO₂ Emission factor = 0.10 x S
 S = Sulfur Content =

0.18 grains/100ft³

0.05

4.79

Emission Factor in lb/kgal	Pollutant					
	PM*	PM10*	SO ₂	NOx	VOC	CO
	0.6	0.6	0.0 (0.10S)	19.0	0.5 **TOC value	3.2
Potential to Emit in tons/yr	1.44E-03	1.44E-03	4.31E-05	4.55E-02	1.20E-03	7.66E-03

**The VOC value given is TOC. The methane emission factor is 0.2 lb/kgal.

Methodology

1 gallon of propane has a heating value of 91,500 Btu (use this to convert emission factors to an energy basis for propane)

(Source - AP-42 (Supplement B 10/96) page 1.5-1)

Emission Factors are from AP42 (Supplement B 10/96), Table 1.5-1 (SCC #1-02-010-02)

Potential Throughput (kgals/year) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1kgal per 1000 gallon x 1 gal per 0.0915 MMBtu

Potential to Emit (tons/yr) = Throughput (kgals/yr) x Emission Factor (lb/kgal) / 2,000 lb/ton

Appendix A: Emissions Calculations

Spa Trimming Operation (EU13)

Company Name: Royal Spa Manufacturing

Address: 2041 W. Epler, Indianapolis, Indiana 46217

FESOP: 097-12525-00391

Pit ID: 097-00391

Reviewer: ERG/TDP

Date: 10/15/2003

EU13 Completed Spa Trimming Operation Emissions

Particulate Collection Container Size	55 gal =	7.35 cf	Basis
2002 Particulate Container Cleanout Schedule	4 per year		Field Measurement 7.48 gal/cf
2002 Vessels Made	2,781		Plant Personnel
Maximum Restricted Vessels Made	3,100		Plant Records
Particulate Within Collection Container	100 % of volume		Limited
Particulate Density	55 lb/cf		Estimate
Filter Efficiency	99 %		Average of Acrylic and Resin Density
			Engineering Estimate

Actual Emissions:

Particulate Generated = Particulate Collected / Control Efficiency

Particulate emissions = Particulate Generated - Particulate Collected

Particulate Collected (lb/yr) = Container size (ft3) * % full * cleanout (times/yr) * density (lb/ft3)

= 1617 lb/yr

Particulate Generated = Particulate Collected (lb/yr) / Filter Efficiency (99%)

= 1633.3 lb/yr

Particulate emissions = Particulate Generated - Particulate Collected

= 16.3 lb/yr

0.01 tons/yr

Potential Emissions:

Potential Controlled Emissions = Actual Controlled Emissions * Maximum Restricted Vessels Made/Vessels Made in 2002

= 18.21 lb/yr

= 0.01 tons/yr