INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

TO: Interested Parties / Applicant

DATE: April 20, 2011

RE: Thor Motor Coach, Inc. / 039-30089-00220

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

Notice of Decision: Approval - Effective Immediately

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

If you wish to challenge this decision, IC 4-21.5-3 and IC 13-15-6-1 require that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Suite N 501E, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FNPER.dot12/03/07

IDEM

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

April 20, 2011

Mr. Colin Knapp
Thor Motor Coach, Inc.
P.O. Box 1486
Elkhart, IN 46515

Re: F039-30089-00220
First Significant Revision to
F039-24449-00220

Dear Mr. Knapp:

Company Name was issued a Federally Enforceable State Operating Permit (FESOP) Renewal No. F039-24449-00220 on June 19, 2008 for a stationary motor home/RV manufacturer located at 701 County Road 15, Elkhart, Indiana. On January 6, 2011, the Office of Air Quality (OAQ) received an application from the source requesting add an additional RV line. The attached Technical Support Document (TSD) provides additional explanation of the changes to the source/permit. Pursuant to the provisions of 326 IAC 2-8-11.1, these changes to the permit are required to be reviewed in accordance with the Significant Permit Revision (SPR) procedures of 326 IAC 2-8-11.1(f). Pursuant to the provisions of 326 IAC 2-8-11.1, a significant permit revision to this permit is hereby approved as described in the attached Technical Support Document (TSD).

Pursuant to 326 IAC 2-8-11.1, this permit shall be revised by incorporating the significant permit revision into the permit. All other conditions of the permit shall remain unchanged and in effect. Attached please find the entire revised permit.

This decision is subject to the Indiana Administrative Orders and Procedures Act - IC 4-21.5-3-5. If you have any questions on this matter, please contact Bruce Farrar, of my staff, at 317-234-5401 or 1-800-451-6027, and ask for extension 4-5401.

Sincerely,

Iryn Calilung, Section Chief
Permits Branch
Office of Air Quality

Attachments: Technical Support Document and revised permit

IC/BF

cc: File - Elkhart County
Elkhart County Health Department
U.S. EPA, Region V
Compliance and Enforcement Branch
Billing, Licensing and Training Section

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

Federally Enforceable State Operating Permit Renewal
OFFICE OF AIR QUALITY

Thor Motor Coach, Inc.
701 County Road 15, Elkhart, Indiana 46516 and
604 Middleton Run Road, Elkhart, Indiana 46516

(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. 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.

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.

Operation Permit No.: F039-24449-00220	
Original Signed by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: June 19, 2008 Expiration Date: June 19, 2018

First Administrative Amendment No.: F039 28024 00220, issued December 5, 2008

First Significant Permit Revision No.: F039-30089-00220	
Issued by: Iryn Calilung, Section Chief Permits Branch Office of Air Quality	Issuance Date: April 20, 2011 Expiration Date: June 19, 2018

TABLE OF CONTENTS

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

D.2.7 Record Keeping Requirements

SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). The information describing the source contained in conditions A.1 through A.4 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 motor home/recreational vehicle manufacturer.

Source Address:	701 County Road 15, Elkhart, Indiana 46516 and 604 Middleton Run Road, Elkhart, Indiana 46516
General Source Phone Number:	(574) 266-1111
SIC Code:	3716
County Location:	Elkhart
Source Location Status:	Attainment for all criteria pollutants
Source Status:	Federally Enforceable State Operating Permit Program Minor Source, under PSD Rules Minor Source, Section 112 of the Clean Air Act Not 1 of 28 Source Categories

A.2 Source Definition [326 IAC 2-8-1][326 IAC 2-7-1(22)]

This stationary motor home/recreational vehicle manufacturing company consists of two (2) sites:

(a) Four Winds International, Inc. is located at 701 County Road 15, Elkhart, Indiana 46516, Plant ID: 039-00220; and

(b) Damon Corporation is located at 604 Middleton Run Road, Elkhart, Indiana 46516, Plant ID: 039-00683.

Four Winds International, Inc. and Damon Corporation will be merged as a single entity and renamed Thor Motor Coach, Inc.

Since the two (2) plant sites are located on contiguous or adjacent properties, belong to the same industrial grouping, and are under the common control of the same entity, they are considered one (1) source.

A.3 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:

Three (3) motor home production lines as follows:

Building 654

(a) One (1) Class A - Line 1, producing a maximum of 1.5 units per hour, installed in June 1999, consisting of the following:

(1) Subassembly area coating operations, identified as A1SA and located in Building 654, consisting of:

(A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray and airless spray application of miscellaneous coatings and adhesives

applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(2) Final finish area coating operations, identified as A1FF and located in Building 654, consisting of:

(A) hand, aerosol, high volume low pressure (HVLP) spray, and airless spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(3) Metal frame undercoating bay, identified as A2U, in building 654, utilizing high pressure flow coat application with no particulate matter emissions.

(4) Subassembly area production operations, including foam insulation cutting and woodworking operations for Class A Line 1, identified as ASA-1 and located in Building 654, using 300 pounds of foam insulation and 1,460 pounds of wood per hour, with particulate matter emissions controlled by two (2) cyclones and bag filter, identified as C3, exhausting within the building.

Building 650

(b) One (1) Class C Line, producing a maximum of 3.125 units per hour, installed in January 1992, consisting of the following:

(1) Subassembly area coating operations, identified as CSA-1 and located in Building 650, consisting of:

(A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray, and cup gun spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(2) Final finish area coating operations, identified as CFF and located in Building 650, consisting of:

(A) hand, aerosol, cup gun spray, and pressure pot spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners

(3) Subassembly area woodworking operations, identified as CSA-2 and located in Building 650, using 1,067 pounds of wood per hour, with particulate matter emissions controlled by one (1) cyclone dust collector exhausting to the

atmosphere.

(4) Two (2) sidewall and roof hand routing operations, located in Building 655, vented to inside the building.

Building 209

(c) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 1.0 unit per hour, installed in 2002, consisting of the following:

(1) Subassembly area coating operations, identified as A2SA and located in Building 209, consisting of:

(A) hand, roll, bead and aerosol application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(2) Final finish area coating operations, identified as A2FF and located in building 209, consisting of:

(A) hand and aerosol application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(d) One (1) chassis preparation operation, identified as CP1, constructed in 2008, with a maximum capacity of five (5) gallons/day, where surface coating is applied by hand and aerosol cans to metal vehicle chassis, plastic pipes & boxes, using no control equipment, and exhausting indoors;

(e) One (1) subfloor installation operation, identified as SF1, constructed in 2008, with a maximum capacity of five (5) gallons/day, where surface coating is applied by hand and aerosol cans to metal flooring, using no control equipment, and exhausting indoors;

(f) One (1) assembly line operation, identified as ALO1, constructed in 2008, where surface coating is applied by hand and aerosol cans to plastic and wood parts of recreational vehicles as they are assembled, using no control equipment, and exhausting indoors;

(g) One (1) undercoat bay, identified as UC1, constructed in 2008, where low pressure, non-atomizing flow is used to coat the metal underside of a recreational vehicle chassis, using dry filters to control particulate emissions, and exhausting to stack UC-S1. UC-S1 has a control efficiency of 95% and a maximum design grain loading of less than or equal to 0.002 grain per actual cubic foot of outlet air, when operated at a maximum gas flow rate of five thousand (5,000) actual cubic feet per minute;

(h) One (1) touch-up paint operation, identified as TP1, with a maximum capacity of five (5) gallons/day, applied by HVLP and hand, using no control equipment, and exhausting indoors. This operation consists of the following equipment:

Four (4) high volume low pressure (HVLP) spray guns identified as SG1-SG4, for application of basecoat and clearcoat surface coatings to plastic, each with a maximum capacity to spray 1.25 gallons/hour.

(i) One (1) final finish operation, identified as FF1, constructed in 2008, with a maximum capacity of five (5) gallons/day, utilizing hand or aerosol cans to apply non-halogenated organic solvent cleaners and degreasers to plastic, wood, vinyl, and/or glass surfaces, using no control equipment, and exhausting indoors.

A.4 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:

Building 654

(a) Activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:

Steel and aluminum tube cutting at Class A - Line 1, respectively sawing up to 63 and 130 linear feet per hour at an average thickness less than one (1) inch, with deposition of metal shavings in the building.

Building 650

(b) Application of miscellaneous solvents and cleaners for maintenance at the Class C, Class A - Line 1, and Class A - Line 2 product line buildings, with VOC emissions below the insignificant thresholds of three (3) pounds per hour or 15 pounds per day.

(c) One (1) miscellaneous woodworking operations in Building 650, identified as WHA-WW, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxx). The miscellaneous woodworking equipment maximum capacity is 400 pounds of wood per hour, utilizing a baghouse for particulate control, identified as WHA-DC1 exhausting within the building.

(d) One (1) miscellaneous woodworking operation associated with the Class C Line located in Building 650, identified as BLWW, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxx). The miscellaneous woodworking equipment maximum capacity is 400 pounds of wood per hour utilizing four baghouses for particulate control, identified as DCA, DCB, DCC and DCD, all exhausting within the building.

(e) Activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:

(1) Wire harness production operation, identified as WHA, including 26 wire harness soldiering units, each rated at 45 units per hour, and located in building 650, installed May 2006, exhausting within the building;

(2) Miscellaneous uncontrolled woodworking operations, including the following: one (1) pin router, one (1) table saw, one (1) chop saw, two (2) belt sanders, and one (1) CNC Router, each rated at 100 ft per minute, exhausting within the building;

(3) Miscellaneous uncontrolled operations associated with the Class C Line identified as MUPE, including the following: one (1) abrasive chop saw, one (1)

band saw, and one (1) drill press, with a combined process input rate of 100 pounds material per hour, exhausting within the building;

(4) Steel and aluminum tube plasma/torch cutting and welding at Class C Line, consisting of two (2) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building;

(5) Steel and aluminum tube plasma/torch cutting and welding at building 650 for Class A - Line 1 and Line 2 (Diesel Pusher), consisting of four (4) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building; and

(f) One (1) hand routing operation at Class A - Line 1 using up to 500 pounds of prefabricated fiberglass reinforced plastic (FRP) parts per hour exhausting within the building.

(g) A gasoline fuel transfer and dispensing operation having a storage capacity less than or equal to 3,000 gallons. The daily throughput of gasoline shall not exceed the current deminimis limit of 1,300 gallons dispensed per day.

Building 209

(h) One (1) woodworking operation, identified as WW, with a total maximum capacity to cut one thousand three hundred (1300) pounds of wood per hour, using fabric filters to control particulates, and exhausting indoors. This operation consists of the following equipment:

(1) Five (5) miter saws, identified as MS4-MS8, constructed in 2008, each with a maximum capacity to cut fifty (50) pounds of wood per hour, each using an attached dust collector, identified as DC3 - DC7, each rated at 1,300 acfm, respectively, and exhausting indoors.

(2) One (1) table saw, identified as TS3, constructed in 2008, with a maximum capacity to cut fifty (50) pounds of wood per hour, using attached dust collector, identified as DC8, rated at 1,300 acfm, and exhausting indoors.

(3) Two (2) woodworking stations, identified as Stations 1 & 2, constructed in 2008, each using separate station-wide dust collection systems and exhausting indoors.

Consisting of the following equipment:

(A) Station 1 consists of the following equipment, each with a maximum capacity to cut five hundred (500) pounds of wood per hour. This equipment shares a dry fabric filter dust control system, identified as DC1, constructed in 2004, and rated at 5,900 acfm.

(i) One (1) vertical saw, VS1;
(ii) One (1) radial arm saw, RA1;
(iii) One (1) table saw, TS1;
(iv) One (1) pin router, PR1;
(v) One (1) belt sander, BTS1;
(vi) One (1) miter saw, MS1.

(B) Station 2 consists of the following equipment, each with a maximum capacity to cut five hundred (500) pounds of wood per hour. This equipment shares a dry fabric filter dust control system, identified as DC2, constructed in 2004, and rated at 5,900 acfm.

(i) One (1) vertical saw, VS2,
(ii) One (1) radial arm saw, RA2,
(iii) One (1) table saw, TS2,
(iv) One (1) pin router, PR2,
(v) One (1) belt sander, BTS2,
(vi) Two (2) miter saws , MS2 & MS3.

(i) One (1) welding and thermal cutting operation, identified as WC1, using no control equipment, and exhausting indoors. This operation consists of the following equipment:

(1) One (1) metal inert gas (MIG) welding station, constructed in 2008, using E70S-3 wire, with a maximum consumption of 0.85 pounds of wire per hour;

(2) One (1) plasma cutting station, constructed in 2008, where the maximum metal thickness cut is 0.37 inches and the maximum metal cutting rate is 12 inches/minute;

(3) One (1) oxyacetylene cutting station, constructed in 2008, where the maximum metal thickness cut is 0.75 inches and the maximum metal cutting rate is 12 inches/minute.

(j) One (1) miscellaneous cutting operation, identified as MPE1, using no control equipment, and exhausting indoors. This operation consists of the following equipment:

(1) One (1) abrasive chop saw, identified as MPE1, constructed in 2008, with a maximum capacity to cut 50 pounds of steel pipe per hour.

(2) Two (2) aluminum chop/miter saws, identified as MPE2 & MPE3, constructed in 2008, with a maximum capacity to cut 25 pounds of aluminum trim per hour.

(3) Three (3) band saws, identified as MPE4 - MPE6, constructed in 2008, with a maximum capacity to cut 10 pounds of wood per hour.

(4) Two (2) miter saws, identified as MPE7& MPE8, constructed in 2008, with a maximum capacity to cut 15 pounds of plastic pipe per hour.

(k) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;

(l) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs;

(m) Paved and unpaved roads and parking lots with public access;

(n) The following VOC and HAP storage containers:

(1) Storage tanks with capacity less than 1,000 gallons and annual throughput less than 12,000 gallons;

(2) Vessels storing lubricating oils, hydraulic oils, machining oils and machining fluids.

(o) Application of oils, greases, lubricants or other non-volatile materials applied as temporary protective coatings;

(p) Cleaners and solvents characterized as:

(1) Having a vapor pressure equal to or less than 2 kPa; 15mm Hg; or 0.3 psi measured at 38^{o}C (100^{o}F) or;

(2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20^{o}C (68^{o}F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.

(q) Emergency generators as follows:

(1) Reciprocating engines not exceeding 16,000 horsepower, consisting of:

(A) one (1) 144 hp natural gas fired reciprocating engine; and

(B) one (1) 80 hp natural gas fired reciprocating engine.

(r) Natural gas fired combustion units with heat input capacities equal to or less than ten million (10,000,000) BTU per hour, itemized as follows:

(1) Building 650 includes twenty-five (25) 0.10 MMBtu per hour infrared tube heaters, four (4) 0.4 MMBtu per hour thermo cyclers, five (5) 0.3 MMBtu per hour furnaces, one (1) 0.4 MMBtu per hour air make up furnace, one (1) 2.64 MMBtu per hour air make up furnace, one (1) 0.15 MMBtu per hour barrel furnace, one (1) 0.1 MMBtu per hour furnace, three (3) 0.25 MMBtu per hour furnaces, one (1) 0.33 MMBtu per hour furnace, and two (2) 0.35 MMBtu per hour unit furnaces;

(2) Building 651 includes one (1) 0.13 MMBtu per hour down draft furnace, three (3) 0.1 MMBtu per hour furnaces, and one (1) 0.24 MMBtu per hour furnace;

(3) Building 653 includes one (1) 0.12 MMBtu per hour, down draft furnace, one (1) 0.4 MMBtu per hour thermo cycler, two (2) 0.12 MMBtu per hour infrared tube heaters, and one (1) 1.0 MMBtu per hour air make up furnace;

(4) Building 654 includes two (2) 0.55 MMBtu per hour, air make up furnaces, eleven (11) 0.12 MMBtu per hour infrared tube heaters, four (4) 0.4 MMBtu per hour thermo cyclers, one (1) 0.49 MMBtu per hour air make furnace, one (1) 0.03 MMBtu per hour furnace, two (2) 0.06 MMBtu per hour furnaces, and one (1) 0.1 MMBtu per hour furnace;

(5) Buildings 655 and 656 include one (1) 7.7 MMBtu per hour air make up unit, four (4) 0.08 MMBtu per hour roof top heaters, two (2) 0.125 MMBtu per hour radiant heaters, one (1) 0.06 MMBtu per hour unit heater, one (1) 2.64 MMBtu per hour air make up unit, one (1) 0.58 MMBtu per hour furnace, and one (1) 0.04 MMBtu per hour radiant heater;

(6) Building 4221 includes one (1) 0.09 MMBtu per hour office heater identified as WHA-01, one (1) 0.072 MMBtu radiant heater identified as WHA-R1, five (5) 0.1 MMBtu radiant heaters identified as WHA-R2, WHA-R3, WHA-R4, and WHA-R5, WHA-R6, two (2) 0.075 MMBtu radiant heaters identified as WHA-R7 and WHA-

R9, one (1) 0.08 MMBtu radiant heater identified as WHA-R8 and one (1) 0.75 MMBtu forced air furnace identified as WHA-02.

(7) Building 209 includes natural gas-fired combustion sources with the combined heat input of 4.80 million British thermal units per hour (MMBtu/hr).

A.5 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) to renew a Federally Enforceable State Operating Permit (FESOP).

SECTION B GENERAL CONDITIONS

B.1 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.2 Permit Term [326 IAC 2-8-4(2)][326 IAC 2-1.1-9.5][IC 13-15-3-6(a)]

(a) This permit, F039-24449-00220, is issued for a fixed term of ten (10) 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 of this permit.

(b) If IDEM, OAQ, upon receiving a timely and complete renewal 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.

B.3 Term of Conditions [326 IAC 2-1.1-9.5]

Notwithstanding the permit term of a permit to construct, a permit to operate, or a permit modification, any condition established in a permit issued pursuant to a permitting program approved in the state implementation plan shall remain in effect until:

(a) the condition is modified in a subsequent permit action pursuant to Title I of the Clean Air Act; or

(b) the emission unit to which the condition pertains permanently ceases operation.

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

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, the United States Environmental Protection Agency (U.S. EPA) and by citizens in accordance with the Clean Air Act.

B.5 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.6 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.7 Duty to Provide Information [326 IAC 2-8-4(5)(E)]

(a) The Permittee shall furnish to IDEM, OAQ, within a reasonable time, any information that IDEM, OAQ 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. Upon request, the Permittee shall also furnish to IDEM, OAQ 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.8 Certification [326 IAC 2-8-3(d)][326 IAC 2-8-4(3)(C)(i)][326 IAC 2-8-5(1)]

(a) A certification required by this permit meets the requirements of 326 IAC 2-8-5(a)(1) if:

(i) it contains a certification by an "authorized individual", as defined by 326 IAC 2-1.1-1(1), and

(ii) the certification is based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.

(b) The Permittee may use the attached Certification Form, or its equivalent with each submittal requiring certification. One (1) certification may cover multiple forms in one (1) submittal.

(c) An "authorized individual" is defined at 326 IAC 2-1.1-1(1).

B.9 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. All certifications shall cover the time period from January 1 to December 31 of the previous year, and shall be submitted no later than April 15 of each year to:

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

(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 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, as IDEM, OAQ may require to determine the compliance status of the source.

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

B.10 Compliance Order Issuance [326 IAC 2-8-5(b)]

IDEM, OAQ 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.11 Preventive Maintenance Plan [326 IAC 1-6-3][326 IAC 2-8-4(9)][326 IAC 2-8-5(a)(1)]

(a) A Preventive Maintenance Plan meets the requirements of 326 IAC 1-6-3 if it includes, at a minimum:

(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.

The Permittee shall implement the PMPs.

(b) If required by specific condition(s) in Section D of this permit, the Permittee shall maintain and implement Preventive Maintenance Plans (PMPs) 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.

The Permittee shall implement the PMPs.

(c) A copy of the PMPs shall be submitted to IDEM, OAQ upon request and within a reasonable time, and shall be subject to review and approval by IDEM, OAQ. IDEM, OAQ 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 PMPs and their submittal do not require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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.12 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 describe 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 Northern Regional Office 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 Number: 1-800-451-6027 (ask for Office of Air Quality, Compliance Section), or
Telephone Number: 317-233-0178 (ask for Compliance Section)
Facsimile Number: 317-233-6865
Northern Regional Office phone: (574) 245-4870; fax: (574) 245-4877**.**

(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
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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 an "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) The Permittee seeking to establish the occurrence of an emergency shall make records available upon request to ensure that failure to implement a PMP did not cause or contribute to an exceedance of any limitations on emissions. However, IDEM, OAQ 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 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.

Any operations shall continue no longer than the minimum time required to prevent the situations identified in (g)(2)(B) of this condition.

B.13 Prior Permits Superseded [326 IAC 2-1.1-9.5]

(a) All terms and conditions of permits established prior to F039-24449-00220 and issued pursuant to permitting programs approved into the state implementation plan have been either:

(1) incorporated as originally stated,

(2) revised, or

(3) deleted.

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

B.14 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.15 Reserved

B.16 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 Federally Enforceable State Operating Permit 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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 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 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 at least thirty (30) days in advance of the date this permit is to be reopened, except that IDEM, OAQ may provide a shorter time period in the case of an emergency. [326 IAC 2-8-8(c)]

B.17 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 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

Request for renewal shall be submitted to:

Indiana Department of Environmental Management
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

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

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

(c) 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 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 , pursuant to 326 IAC 2-8-3(g), in writing by IDEM, OAQ any additional information identified as being needed to process the application.

B.18 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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.19 Operational Flexibility [326 IAC 2-8-15][326 IAC 2-8-11.1]

(a) The Permittee may make any change or changes at the source that are described in 326 IAC 2-8-15(b) through (d) without a 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 limitations provided in 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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, on a rolling five (5) year basis, which document all such changes and emission trades that are subject to 326 IAC 2-8-15(b) through (d). The Permittee shall make such records available, upon reasonable request, for public review.

Such records shall consist of all information required to be submitted to IDEM, OAQ 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 emissions increases and decreases at 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.

(d) Backup fuel switches specifically addressed in, and limited under, Section D of this permit shall not be considered alternative operating scenarios. Therefore, the notification requirements of part (a) of this condition do not apply.

B.20 Source Modification 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.21 Inspection and Entry [326 IAC 2-8-5(a)(2)][IC 13-14-2-2][IC 13-17-3-2][IC 13-30-3-1]

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, 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.22 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
Permit Administration and Support Section, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

The application which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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.23 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 no later than 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 317-233-4230 (ask for OAQ, Billing, Licensing, and Training Section), to determine the appropriate permit fee.

B.24 Advanced Source Modification Approval [326 IAC 2-8-4(11)] [326 IAC 2-1.1-9]

(a) The requirements to obtain a permit modification under 326 IAC 2-8-11.1 are satisfied by this permit for the proposed emission units, control equipment or insignificant activities in Sections A.2 and A.3.

(b) Pursuant to 326 IAC 2-1.1-9 any permit authorizing construction may be revoked if construction of the emission unit has not commenced within eighteen (18) months from the date of issuance of the permit, or if during the construction, work is suspended for a continuous period of one (1) year or more.

B.25 Credible Evidence [326 IAC 2-8-4(3)][326 IAC 2-8-5][62 FR 8314] [326 IAC 1-1-6]

For the purpose of submitting compliance certifications or establishing whether or not the Permittee has violated or is in violation of any condition of this permit, nothing in this permit shall preclude the use, including the exclusive use, of any credible evidence or information relevant to whether the Permittee would have been in compliance with the condition of this permit if the appropriate performance or compliance test or procedure had been performed.

SECTION C SOURCE OPERATION CONDITIONS

Entire Source

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

C.1 Particulate Emission Limitations For Processes with Process Weight Rates Less Than One Hundred (100) Pounds per Hour [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2(e)(2), particulate emissions from any process not exempt under 326 IAC 6-3-1(b) or (c) which has a maximum process weight rate less than 100 pounds per hour and the methods in 326 IAC 6-3-2(b) through (d) do not apply shall not exceed 0.551 pounds per hour.

C.2 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.

(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) The 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. This limitation shall make the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD) not applicable.

(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 that 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.3 Opacity [326 IAC 5-1]

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

(a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.

(b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings as measured according to 40 CFR 60, Appendix A,

Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor) in a six (6) hour period.

C.4 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.5 Incineration [326 IAC 4-2] [326 IAC 9-1-2]

The Permittee shall not operate an incinerator except as provided in 326 IAC 4-2 or in this permit. The Permittee shall not operate a refuse incinerator or refuse burning equipment except as provided in 326 IAC 9-1-2 or in this permit.

C.6 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.7 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
Compliance and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-52 IGCN 1003
Indianapolis, Indiana 46204-2251

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 that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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 Licensed 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 Licensed Asbestos Inspector to thoroughly inspect the affected portion of the facility for the presence of asbestos.

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

C.8 Performance Testing [326 IAC 3-6]

(a) For performance testing required by this permit, a test protocol, except as provided elsewhere in this permit, shall be submitted to:

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

no later than thirty-five (35) days prior to the intended test date. The protocol submitted by the Permittee does not require certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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 that meets the requirements of 326 IAC 2-8-5(a)(1) by an "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 not later than forty-five (45) days after the completion of the testing. An extension may be granted by IDEM, OAQ 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.9 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.10 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 allowed up to 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 no later than 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 and Enforcement Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

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

The notification which shall be submitted by the Permittee does require a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.11 Reserved

C.12 Instrument Specifications [326 IAC 2-1.1-11] [326 IAC 2-8-4(3)][326 IAC 2-8-5(1)]

(a) When required by any condition of this permit, an analog instrument used to measure a parameter related to the operation of an air pollution control device shall have a scale such that the expected maximum reading for the normal range shall be no less than twenty percent (20%) of full scale.

(b) The Permittee may request that the IDEM, OAQ approve the use of an instrument that does not meet the above specifications provided the Permittee can demonstrate that an alternative instrument specification will adequately ensure compliance with permit conditions requiring the measurement of the parameters.

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

C.13 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.14 Response to Excursions or Exceedances [326 IAC 2-8-4] [326 IAC 2-8-5]

Upon detecting an excursion where a response step is required by the D Section or an exceedance of a limitation in this permit:

(a) The Permittee shall take reasonable response steps to restore operation of the emissions unit (including any control device and associated capture system) to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing excess emissions.

(b) The response shall include minimizing the period of any startup, shutdown or malfunction. The response may include, but is not limited to, the following:

(1) initial inspection and evaluation;

(2) recording that operations returned or are returning to normal without operator action (such as through response by a computerized distribution control system); or

(3) any necessary follow-up actions to return operation to normal or usual manner of operation

(c) A determination of whether the Permittee has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, the following:

(1) monitoring results;

(2) review of operation and maintenance procedures and records; and/or

(3) inspection of the control device, associated capture system, and the process.

(d) Failure to take reasonable response steps shall be considered a deviation from the permit.

(e) The Permittee shall record the reasonable responses steps taken.

C.15 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 submit a description of its response actions to IDEM, OAQ, no later than seventy-five (75) days after the date of the test.

(b) A retest to demonstrate compliance shall be performed no later than one hundred eighty (180) ~~s~~ days after the date of the test. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred eighty (180) 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 a certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

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

C.16 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 makes a request for records to the Permittee, the Permittee shall furnish the records to the Commissioner within a reasonable time.

(b) Unless otherwise specified in this permit, all record keeping requirements not already legally required the Permittee shall be allowed up to ninety (90) days from the date of permit issuance or the date of initial start-up, whichever is later, to begin such record keeping.

C.17 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, except that 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 not need to be included in this report. This report shall be submitted not later than thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification that meets the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). A deviation is an exceedance of a permit limitation or a failure to comply with a requirement of the permit.

(b) The address for report submittal is:

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

(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 on or before the date it is due.

(d) Reserved.

(e) The first report shall cover the period commencing on the date of issuance of this permit or the date of initial start-up, whichever is later, and ending on the last day of the reporting period. Reporting periods are based on calendar years, unless otherwise specified in this permit. For the purpose of this permit, “calendar year” means the twelve (12) month period from January 1 to December 31 inclusive.

(f) If the Permittee is required to comply with the recordkeeping provisions of (d) in Section C - General Record Keeping Requirements for any “project” (as defined in 326 IAC 2-2-1

(qq) and/or 326 IAC 2-3-1 (ll)) at an existing emissions unit, and the project meets the following criteria, then the Permittee shall submit a report to IDEM, OAQ:

(1) The annual emissions, in tons per year, from the project identified in (c)(1) in Section C- General Record Keeping Requirements exceed the baseline actual emissions, as documented and maintained under Section C- General Record Keeping Requirements (c)(1)(C)(i), by a significant amount, as defined in 326 IAC 2-2-1 (xx) and/or 326 IAC 2-3-1 (qq), for that regulated NSR pollutant, and

(2) The emissions differ from the preconstruction projection as documented and maintained under Section C - General Record Keeping Requirements (c)(1)(C)(ii).

(g) The report for project at an existing emissions unit shall be submitted within sixty (60) days after the end of the year and contain the following:

(1) The name, address, and telephone number of the major stationary source.

(2) The annual emissions calculated in accordance with (d)(1) and (2) in Section C - General Record Keeping Requirements.

(3) The emissions calculated under the actual-to-projected actual test stated in 326 IAC 2-2-2(d)(3) and/or 326 IAC 2-3-2(c)(3).

(4) Any other information that the Permittee deems fit wishes to include in this report such as an explanation as to why the emissions differ from the preconstruction projection.

Reports required in this part shall be submitted to:

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

(h) The Permittee shall make the information required to be documented and maintained in accordance with (c) in Section C- General Record Keeping Requirements available for review upon a request for inspection by IDEM, OAQ. The general public may request this information from the IDEM, OAQ under 326 IAC 17.1.

Stratospheric Ozone Protection

C.18 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 EMISSIONS UNIT OPERATION CONDITIONS

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

Building 654

(a) One (1) Class A - Line 1, producing a maximum of 1.5 units per hour, installed in June 1999, consisting of the following:

(1) Subassembly area coating operations, identified as A1SA and located in Building 654, consisting of:

(A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray and airless spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(2) Final finish area coating operations, identified as A1FF and located in Building 654, consisting of:

(A) hand, aerosol, high volume low pressure (HVLP) spray, and airless spray application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(3) Metal frame undercoating bay, identified as A2U, in building 654, utilizing high pressure flow coat application with no particulate matter emissions.

Building 650

(b) One (1) Class C Line, producing a maximum of 3.125 units per hour, installed in January 1992, consisting of the following:

(1) Subassembly area coating operations, identified as CSA-1 and located in Building 650, consisting of:

(A) hand, roll, bead, aerosol, high volume low pressure (HVLP) spray, and cup gun spray application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(2) Final finish area coating operations, identified as CFF and located in Building 650, consisting of:

(A) hand, aerosol, cup gun spray, and pressure pot spray application of

miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners

Building 209

(c) One (1) Class A - Line 2 (Diesel Pusher Production Line), producing a maximum of 1.0 unit per hour, installed in 2002, consisting of the following:

(1) Subassembly area coating operations, identified as A2SA and located in Building 209, consisting of:

(A) hand, roll, bead and aerosol application of miscellaneous coatings and adhesives applied to metal, wood construction materials, pre-finished wood cabinets and counter tops, plastic, and fiberglass product parts during motor home assembly, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(2) Final finish area coating operations, identified as A2FF and located in building 209, consisting of:

(A) hand and aerosol application of miscellaneous coatings applied to metal, wood construction materials, pre-fabricated cabinets and counter tops, and fiberglass parts during motor home finishing and touch-up, with emissions exhausting into the building; and

(B) hand and aerosol application of miscellaneous solvents and cleaners.

(d) One (1) chassis preparation operation, identified as CP1, constructed in 2008, with a maximum capacity of five (5) gallons/day, where surface coating is applied by hand and aerosol cans to metal vehicle chassis, plastic pipes & boxes, using no control equipment, and exhausting indoors;

(e) One (1) subfloor installation operation, identified as SF1, constructed in 2008, with a maximum capacity of five (5) gallons/day, where surface coating is applied by hand and aerosol cans to metal flooring, using no control equipment, and exhausting indoors;

(f) One (1) assembly line operation, identified as ALO1, constructed in 2008, where surface coating is applied by hand and aerosol cans to plastic and wood parts of recreational vehicles as they are assembled, using no control equipment, and exhausting indoors;

(g) One (1) undercoat bay, identified as UC1, constructed in 2008, where low pressure, non-atomizing flow is used to coat the metal underside of a recreational vehicle chassis, using dry filters to control particulate emissions, and exhausting to stack UC-S1. UC-S1 has a control efficiency of 95% and a maximum design grain loading of less than or equal to 0.002 grain per actual cubic foot of outlet air, when operated at a maximum gas flow rate of five thousand (5,000) actual cubic feet per minute;

(h) One (1) touch-up paint operation, identified as TP1, with a maximum capacity of five (5) gallons/day, applied by HVLP and hand, using no control equipment, and exhausting indoors. This operation consists of the following equipment:

Four (4) high volume low pressure (HVLP) spray guns, identified as SG1-SG4, for application of basecoat and clearcoat surface coatings to plastic, each with a maximum capacity to spray 1.25 gallons/hour.

(i) One (1) final finish operation, identified as FF1, constructed in 2008, with a maximum capacity of five (5) gallons/day, utilizing hand or aerosol cans to apply non-halogenated organic solvent cleaners and degreasers to plastic, wood, vinyl, and/or glass surfaces, using no control equipment, and exhausting indoors.

Insignificant Activities:

(a) Application of miscellaneous solvents and cleaners for maintenance at the Class C, Class A - Line 1, and Class A - Line 2 product line buildings, with VOC emissions below the insignificant thresholds of three (3) pounds per hour or 15 pounds per day.

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

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

D.1.1 Federally Enforceable State Operating Permit (FESOP) Limits [326 IAC 2-8][326 IAC 2-4.1][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (Federally Enforceable State Operating Permit (FESOP)), the Permittee shall comply with the following:

(a) The total VOC input to the thirteen (13) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U, CP1, SF1, ALO1, UC1, TP1, and FF1), including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints, VOC solvents, and undercoating, shall be limited to less than 99.1 tons per twelve (12) consecutive month period.

(b) The total VOC input to the thirteen (13) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U, CP1, SF1, ALO1, UC1, TP1, and FF1), including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints, HAP solvents, and undercoating, shall be limited to less than 9.80 tons per twelve (12) consecutive month period.

(c) The total VOC input to the thirteen (13) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U, CP1, SF1, ALO1, UC1, TP1, and FF1), including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints, HAP solvents, and undercoatings, shall be limited to less than 24.5 tons per twelve (12) consecutive month period.

Compliance with these limits will limit the VOC, individual HAP, and total HAP emissions to less than 100, 10, and 25 tons per year, respectively, and renders 326 IAC 2-7 (Part 70), 326 IAC 2-4.1 (Major Sources of Hazardous Air Pollutants (HAP)), and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.1.2 Volatile Organic Compounds (VOC) [326 IAC 8-1-6]

Pursuant to SPR No. 039-19330-00220, the six (6) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, and A2FF) shall comply with the following work practices to satisfy BACT:

(a) When applying adhesives to plastic substrates, no coating shall be used with a VOC content of greater than 3.33 pounds of VOC per gallon of coating as applied.

(b) When applying paints or primer coatings to plastic substrates, no coating shall be used with a VOC content of greater than 5.19 pounds of VOC per gallon of coating as applied, except for the touch-up paints used for final finish operations which shall not have VOC content of greater than 6.05 pounds per gallon of coating as applied.

(c) All containers of solvents or solutions shall be kept closed when not in actual use except during product transfers to minimize evaporation.

(d) All waste materials including spent wiping rags and spent solvents shall be stored in closed containers at all times except during product transfers to minimize solvent evaporation.

(e) Unless prepackaged by the manufacturer and intended for use as an aerosol or atomized product, all solvents or solutions used shall be hand or manually applied. Hand or manual application shall include the use of cloths or wipes, including the use of handheld and hand actuated application spray bottles. No solvents or solutions shall be spray applied or applied in a manner that causes excessive atomization or promotes excessive evaporation.

(f) Waste solvents or solutions shall not be disposed by allowing products to evaporate.

(g) Solvent containing rags shall not be allowed to air dry to allow for reuse.

D.1.3 Volatile Organic Compounds (VOC) Limitations [326 IAC 8-2-9]

(a) Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicators at each of the one (1) Assembly Line, identified as ALO1 and the one (1) Undercoating, identified as UC1.

(b) Pursuant to 326 IAC 8-2-9(f), work practices shall be used to minimize VOC emissions from mixing operations, storage tanks, and other containers, and handling operations for coatings, thinners, cleaning materials, and waste materials. Work practices shall include, but not limited to, the following:

(1) Store all VOC containing coatings, thinners, coating related waste, and cleaning materials in closed containers.

(2) Ensure that mixing and storage containers used for VOC containing coatings, thinners, coating related waste, and cleaning materials are kept closed at all times except when depositing or removing these materials.

(3) Minimize spills of VOC containing coatings, thinners, coating related waste, and cleaning materials.

(4) Convey VOC containing coatings, thinners, coating related waste, and cleaning materials from one (1) location to another in closed containers or pipes.

(5) Minimize VOC emissions from the cleaning application, storage, mixing, and conveying equipment by ensuring that equipment cleaning is performed without atomizing the cleaning solvent and all spent solvent is captured in closed containers.

D.1.4 Volatile Organic Compounds (VOC) [326 IAC 8-2-12]

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the touch-up surface coating and adhesives applied to wood cabinets in the construction of motor homes in the eleven (11) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U, SF1, TP1, AO1, and FF1) shall utilize one of the following application methods:

Airless Spray Application
Air Assisted Airless Spray Application
Electrostatic Spray Application
Electrostatic Bell or Disc Application
Heated Airless Spray Application
Roller Coating
Brush or Wipe Application
Dip-and-Drain Application

High Volume Low Pressure (HVLP) Spray Application is an accepted alternative method of application for Air Assisted Airless Spray Application. HVLP spray is the technology used to apply coating to substrate by means of coating application equipment which operates between one-tenth (0.1) and ten (10) pounds per square inch gauge (psig) air pressure measured dynamically at the center of the air cap and at the air horns of the spray system.

D.1.5 Preventive Maintenance Plan

A Preventive Maintenance Plan, ~~is~~ required for the thirteen (13) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U, CP1, SF1, ALO1, UC1, TP1, and FF1). Section B - Preventive Maintenance Plan contains the Permittee's obligation with regard to the preventive maintenance plan required by this condition.

Compliance Determination Requirements

D.1.6 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants [326 IAC 8-1-4][326 IAC 8-1-2(a)]

(a) Compliance with the VOC and HAP content and usage limitations contained in Conditions D.1.1 and D.1.2 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 data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(b) Compliance with the VOC content limit in Condition D.1.3 shall be determined by one of the following:

(1) When using compliant coatings:
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 data sheets. IDEM, OAQ, reserves the authority to determine compliance using Method 24 in conjunction with the analytical procedures specified in 326 IAC 8-1-4.

(2) When using non-compliant coatings:
Pursuant to 326 IAC 8-1-2(a)(7), using a volume weighted average of coatings on each of the one (1) Assembly Line, identified as ALO1, and the Undercoating, identified as UC1, on a daily basis. This volume weighted average shall be determined by the following equation:

$$A = [\sum (c_i) \times U) / \sum U]$$

Where: A is the volume weighted average in pounds VOC per gallon less water as applied;

C is the VOC content of the coating in pounds VOC per gallon less water as applied; and

U is the usage rate of the coating in gallons per day.

Note: The daily volume weighted average of the coatings used is determined for each booth or operation.

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

D.1.7 Record Keeping Requirements

(a) To document the compliance status with Conditions D.1.1 and D.1.2, the Permittee shall maintain records in accordance with (1) through (6) below. Records maintained for (1) through (6) shall be taken monthly and shall be complete and sufficient to establish compliance with the VOC and HAP usage limits and the VOC and HAP emission limits established in Conditions D.1.1 and D.1.2. 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 monthly 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 volume weighted VOC and HAP content of the coatings used for each month;

(4) The cleanup solvent usage for each month;

(5) The total VOC and HAP usage for each month; and

(6) The weight of VOCs and HAPs emitted for each compliance period.

(b) To document the compliance status with Conditions D.1.3 and D.1.6(b), the Permittee shall maintain records in accordance with (1) through (4) below. Records maintained for (1) through (4) shall be taken as stated below and shall be complete and sufficient to establish compliance with the VOC content limit established in Condition D.1.3.

(1) The VOC content of each coating material and solvent used less water.

(2) The amount of coating material and solvent 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 solvent.

(3) The volume weighted average VOC content of the coatings used for each day, when using non-compliant coatings ;

(4) The daily cleanup solvent usage;

(c) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

D.1.8 Reporting Requirements

A quarterly summary of the information to document the compliance status with Condition D.1.1 shall be submitted not later than thirty (30) days after the end of the quarter being reported. Section C - General Reporting contains the Permittee’s obligation with regard to the reporting required by this condition. The report submitted by the Permittee does require a certification that meet the requirements of 326 IAC 2-8-5(a)(1) by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

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

Building 654

(a) One (1) Class A - Line 1, producing a maximum of 1.5 units per hour, installed in June 1999, consisting of the following:

(4) Subassembly area production operations, including foam insulation cutting and woodworking operations for Class A Line 1, identified as ASA-1 and located in Building 654, using 300 pounds of foam insulation and 1,460 pounds of wood per hour, with particulate matter emissions controlled by two (2) cyclones and bag filter, identified as C3, exhausting within the building.

Building 650

(b) One (1) Class C Line, producing a maximum of 3.125 units per hour, installed in January 1992, consisting of the following:

(3) Subassembly area woodworking operations, identified as CSA-2 and located in Building 650, using 1,067 pounds of wood per hour, with particulate matter emissions controlled by one (1) cyclone dust collector exhausting to the atmosphere.

(4) Two (2) sidewall and roof hand routing operations, located in Building 655, vented to inside the building.

Insignificant Activities

Building 650

(c) One (1) miscellaneous woodworking operations in Building 650, identified as WHA-WW, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxx). The miscellaneous woodworking equipment maximum capacity is 400 pounds of wood per hour, utilizing a baghouse for particulate control, identified as WHA-DC1 exhausting within the building.

(d) One (1) miscellaneous woodworking operation associated with the Class C Line located in Building 650, identified as BLWW, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxx). The miscellaneous woodworking equipment maximum capacity is 400 pounds of wood per hour utilizing four baghouses for particulate control, identified as DCA, DCB, DCC and DCD, all exhausting within the building.

(e) Activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:

(1) Wire harness production operation, identified as WHA, including 26 wire harness soldiering units, each rated at 45 units per hour, and located in building 650, installed May 2006, exhausting within the building;

(2) Miscellaneous uncontrolled woodworking operations, including the following: one (1) pin router, one (1) table saw, one (1) chop saw, two (2) belt sanders, and one (1) CNC Router, each rated at 100 ft per minute, exhausting within the building;

(3) Miscellaneous uncontrolled operations associated with the Class C Line identified as MUPE, including the following: one (1) abrasive chop saw, one (1) band saw, and one (1) drill press, with a combined process input rate of 100 pounds material per hour, exhausting within the building;

(4) Steel and aluminum tube plasma/torch cutting and welding at Class C Line, consisting of two (2) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building;

(5) Steel and aluminum tube plasma/torch cutting and welding at building 650 for Class A - Line 1 and Line 2 (Diesel Pusher), consisting of four (4) floor assembly welding stations each using a maximum of 10 pounds of welding wire per hour and four (4) sidewall/roof assembly welding stations each using a maximum of 5 pounds of welding wire per hour, all exhausting within the building; and

(f) One (1) hand routing operation at Class A - Line 1 using up to 500 pounds of prefabricated fiberglass reinforced plastic (FRP) parts per hour exhausting within the building.

Building 209

(h) One (1) woodworking operation, identified as WW, with a total maximum capacity to cut one thousand three hundred (1300) pounds of wood per hour, using fabric filters to control particulates, and exhausting indoors. This operation consists of the following equipment:

(1) Five (5) miter saws, identified as MS4-MS8, constructed in 2008, each with a maximum capacity to cut fifty (50) pounds of wood per hour, each using an attached dust collector, identified as DC3 - DC7, each rated at 1,300 acfm, respectively, and exhausting indoors.

(2) One (1) table saw, identified as TS3, constructed in 2008, with a maximum capacity to cut fifty (50) pounds of wood per hour, using attached dust collector, identified as DC8, rated at 1,300 acfm, and exhausting indoors.

(3) Two (2) woodworking stations, identified as Stations 1 & 2, constructed in 2008, each using separate station-wide dust collection systems and exhausting indoors.

Consisting of the following equipment:

(A) Station 1 consists of the following equipment, each with a maximum capacity to cut five hundred (500) pounds of wood per hour. This equipment shares a dry fabric filter dust control system, identified as DC1, constructed in 2004, and rated at 5,900 acfm.

(i) One (1) vertical saw, VS1;
(ii) One (1) radial arm saw, RA1;
(iii) One (1) table saw, TS1;
(iv) One (1) pin router, PR1;
(v) One (1) belt sander, BTS1;
(vi) One (1) miter saw, MS1.

(B) Station 2 consists of the following equipment, each with a maximum capacity to cut five hundred (500) pounds of wood per hour. This equipment shares a dry fabric filter dust control system, identified as DC2, constructed in 2004,

and rated at 5,900 acfm.

(i) One (1) vertical saw, VS2,
(ii) One (1) radial arm saw, RA2,
(iii) One (1) table saw, TS2,
(iv) One (1) pin router, PR2,
(v) One (1) belt sander, BTS2,
(vi) Two (2) miter saws , MS2 & MS3.

(i) One (1) welding and thermal cutting operation, identified as WC1, using no control equipment, and exhausting indoors. This operation consists of the following equipment:

(1) One (1) metal inert gas (MIG) welding station, constructed in 2008, using E70S-3 wire, with a maximum consumption of 0.85 pounds of wire per hour;

(2) One (1) plasma cutting station, constructed in 2008, where the maximum metal thickness cut is 0.37 inches and the maximum metal cutting rate is 12 inches/minute;

(3) One (1) oxyacetylene cutting station, constructed in 2008, where the maximum metal thickness cut is 0.75 inches and the maximum metal cutting rate is 12 inches/minute.

(j) One (1) miscellaneous cutting operation, identified as MPE1, using no control equipment, and exhausting indoors. This operation consists of the following equipment:

(1) One (1) abrasive chop saw, identified as MPE1, constructed in 2008, with a maximum capacity to cut 50 pounds of steel pipe per hour.

(2) Two (2) aluminum chop/miter saws, identified as MPE2 & MPE3, constructed in 2008, with a maximum capacity to cut 25 pounds of aluminum trim per hour.

(3) Three (3) band saws, identified as MPE4 - MPE6, constructed in 2008, with a maximum capacity to cut 10 pounds of wood per hour.

(4) Two (2) miter saws, identified as MPE7& MPE8, constructed in 2008, with a maximum capacity to cut 15 pounds of plastic pipe per hour.

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

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

D.2.1 Baghouse Limitations [326 IAC 2-7-1(21)(G)(xxx)]

The woodworking operations (Buildings 650) controlled by cyclone C and baghouse (WHA-DC1) shall be an insignificant activity for Title V permitting purposes provided that the baghouse operations meet the requirements of 326 IAC 2-7-1(21)(G)(xxx), including the following:

(a) Each woodworking baghouse shall not exhaust to the atmosphere greater than forty thousand (40,000) cubic feet of air per minute and shall not emit particulate matter with a diameter less than ten (10) microns in excess of one-hundredth (0.01) grain per dry standard cubic foot of outlet air.
(b) The opacity from each baghouse shall not exceed ten percent (10%).

D.2.2 Particulate [326 IAC 6-3-2]

Pursuant to 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), the allowable particulate matter from the following units shall each not exceed the emission limits

listed in the table below:

Unit Description	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
Class A - Line 1 Subassembly Cutting and Woodworking (ASA) (Building 654)	0.88	3.01
Class C - Subassembly Woodworking (CSA-2) (Building 650)	0.53	2.15
Woodworking (Building 4221)	0.20	1.12
Class A – Line 1 Uncontrolled Woodworking (Building 654)	1.82	4.89
Hand Routing – Class A Lamination Area (Building 655)	0.21	1.16
Hand Routing – Class C Lamination Area (Building 655)	1.50	4.30
Class B Line Woodworking (Building 650)	0.2	2.22
Woodworking MUPE (Building 650)	0.05	0.551
Woodworking operations, Station 1	0.25	1.62
Woodworking operations, Station 2	0.25	1.62
Woodworking operations, MS4	0.025	0.551
Woodworking operations, MS5	0.025	0.551
Woodworking operations, MS6	0.025	0.551
Woodworking operations, MS7	0.025	0.551
Woodworking operations, MS8	0.025	0.551
Woodworking operations, TS3	0.025	0.551

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

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

Compliance Determination Requirements

D.2.3 Particulate Control

(a) In order to comply with Conditions D.2.1 and D.2.2, the cyclone and bag filters for particulate control shall be in operation and control emissions from the subassembly, woodworking, and hand routing facilities at all times that these facilities are in operation.

(b) In the event that bag failure is observed in a multi-compartment baghouse, if operations will continue for ten (10) days or more after the failure is observed before the failed units will be repaired or replaced, the Permittee shall promptly notify the IDEM, OAQ of the expected date the failed units will be repaired or replaced. The notification shall also include the status of the applicable compliance monitoring parameters with respect to normal, and the results of any response actions taken up to the time of notification.

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

D.2.4 Visible Emissions Notations

(a) Daily visible emission notations of the subassembly area (ASA) stack exhaust shall be performed during normal daylight operations and 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) If abnormal emissions are observed, the Permittee shall take reasonable response. Section C - Response to Excursions or Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. Failure to take response shall be considered a deviation from this permit.

D.2.5 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouse WHA-DC1, and the cyclone (C3) used in conjunction with the subassembly operation (ASA), the woodworking (Building 654) and baghouses DC1 and DC2 at least once per week when the subassembly operations and woodworking stations 1 and 2 (building 209) are in operation and exhausting to the atmosphere. When for any one reading, the pressure drop across the baghouse is outside the normal range established by the manufacturer, the Permittee shall take reasonable response. Section C – Response to Excursions and Exceedances contains the Permittee's obligation with regard to the reasonable response steps required by this condition. A pressure reading that is outside the manufacturer's specified range is not a deviation from this permit. Failure to take response steps shall be considered a deviation from this permit.

The instrument used for determining the pressure shall comply with Section C - Instrument Specifications, of this permit, shall be subject to approval by IDEM, OAQ, and shall be calibrated or replaced at least once every six (6) months.

D.2.6 Broken or Failed Bag Detection

(a) For a single compartment baghouses controlling emissions from a process operated continuously, a failed unit and the associated process shall be shut down immediately until the failed unit has 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).

(b) For a single compartment baghouse controlling emissions from a batch process, the feed to the process shall be shut down immediately until the failed unit have been repaired or replaced. The emissions unit shall be shut down no later than the completion of the processing of the material in the subassembly operations (CSA-2 and ASA) and woodworking operations (Building-654) or woodworking stations 1 and 2 (building 209). 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).

Bag failure can be indicated by a significant drop in the baghouse's pressure reading with abnormal visible emissions, by an opacity violation, or by other means such as gas temperature, flow rate, air infiltration, leaks, dust traces or triboflows.

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

D.2.7 Record Keeping Requirements

(a) To document the compliance status with Condition D.2.4, the Permittee shall maintain records of daily visible emission notations of the subassembly area (CSA-2) stack exhaust. The Permittee shall include in its daily record when a visible emission notation is not taken and the reason for the lack of visible emission notation (e.g. the process did not operate that day).

(b) To document the compliance status with Condition D.2.5, the Permittee shall maintain weekly records of the pressure drop.

(c) The Permittee shall maintain records of any corrective actions taken to document the compliance status with 326 IAC 2-7-21(1)(G)(xxx)(GG)(dd).

(d) Section C - General Record Keeping Requirements contains the Permittee's obligations with regard to the records required by this condition.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP) CERTIFICATION

Source Name: Four Winds International, Inc.
Source Address: 701 County Road 15, Elkhart, Indiana 46516 and
604 Middleton Run Road, Elkhart, Indiana 46516
FESOP Permit No.: F039-24449-00220

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
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251
Phone: 317-233-0178
Fax: 317-233-6865

FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
EMERGENCY OCCURRENCE REPORT

Source Name: Four Winds International, Inc.
Source Address: 701 County Road 15, Elkhart, Indiana 46516 and
604 Middleton Run Road, Elkhart, Indiana 46516
FESOP Permit No.: F039-24449-00220

This form consists of 2 pages **Page 1 of 2**

□ 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 317-233-0178, ask for Compliance Section); and
- The Permittee must submit notice in writing or by facsimile within two (**2**) working days (Facsimile Number: 317-233-6865), 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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Four Winds International, Inc.
Source Address: 701 County Road 15, Elkhart, Indiana 46516 and
604 Middleton Run Road, Elkhart, Indiana 46516
FESOP Permit No.: F039-24449-00220
Facility: Total VOC input
Parameter: The thirteen (13) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U**,** CP1, SF1, ALO1, UC1, TP1, and FF1) including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints, VOC solvents, and undercoating.
Limit: The total VOC input shall be limited to less than 99.1 tons per twelve (12) consecutive month period.

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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Four Winds International, Inc.
Source Address: 701 County Road 15, Elkhart, Indiana 46516 and
604 Middleton Run Road, Elkhart, Indiana 46516
FESOP Permit No.: F039-24449-00220
Facility: Input of the single greatest HAP
Parameter: The thirteen (13) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U**,** CP1, SF1, ALO1, UC1, TP1, and FF1) including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints, VOC solvents, and undercoating.
Limit: The input of each HAP shall be limited to less than 9.80 tons per twelve (12) consecutive month period.

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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION

FESOP Quarterly Report

Source Name: Four Winds International, Inc.
Source Address: 701 County Road 15, Elkhart, Indiana 46516 and
604 Middleton Run Road, Elkhart, Indiana 46516
FESOP Permit No.: F039-24449-00220
Facility: The total HAP input
Parameter: The thirteen (13) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, A2U**,** CP1, SF1, ALO1, UC1, TP1, and FF1) including but not limited to the usage of sealants, bonding materials, adhesives, caulks, wood stains, paints, VOC solvents, and undercoating.
Limit: The total HAP input shall be limited to less than 24.5 tons per twelve (12) consecutive month period.

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: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
OFFICE OF AIR QUALITY
COMPLIANCE DATA SECTION
FEDERALLY ENFORCEABLE STATE OPERATING PERMIT (FESOP)
QUARTERLY DEVIATION AND COMPLIANCE MONITORING REPORT

Source Name: Four Winds International, Inc.
Source Address: 701 County Road 15, Elkhart, Indiana 46516 and
604 Middleton Run Road, Elkhart, Indiana 46516
FESOP Permit No.: F039-24449-00220

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

This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements of this permit, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. A deviation required to be reported pursuant to an applicable requirement that exists independent of the permit, shall be reported according to the schedule stated in the applicable requirement and does 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".

□ NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.

□ THE FOLLOWING DEVIATIONS OCCURRED THIS REPORTING PERIOD

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

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

Form Completed by:_____

Title / Position:_____

Date:_____

Phone: _____

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

April 20, 2011

TO: Elkhart Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: **Thor Motor Coach Inc.**
Permit Number: **039-30089-00220**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Appendix A: Emission Calculations

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

	Potential To Emit (tons/year)								
Process/emission unit	PM	PM10	PM2.5	SO_2	VOC	CO	NOx	Total HAPs	Single HAP
Total PTE before revision[α]	97.16	97.90	97.90	0.08	99.85	9.77	13.95	<24.5	<9.8
Removal of Class B Line	-2.47	-2.47	-2.47	-	-	-	-		
Change in PM10/PM2.5 Limits		-15.80	-15.80						
Addition of New Units (from below)	3.76	3.88	3.88	0.01	0.12	1.77	2.10	0.04	
New Total	**98.45**	**83.50**	**83.50**	**0.09**	**99.97**	**11.54**	**16.05**	**<25**	**<9.8**

	Potential to Emit New Units (tons/year)									
Process/emission unit	PM	PM10	PM2.5	SO_2	VOC	CO	NOx	Total HAPs	Single HAP	
Chasis Preparation Operation (CP1)	0.05	0.05	0.05	-	1.14	-	-	1.25	0.6	Xylene
Subfloor Installation (SF1)	0.21	0.21	0.21	-	1.74	-	-	0.23	0.23	Hexane
Assembly Line Operations (ALO1)	-	-	-	-	21.74	-	-	0.90	0.48	Toluene
Undercoat Bay (UC1)	-	-	-	-	3.11	-	-			
Touch-up Painting Station (TP1)	0.24	0.24	0.24	-	1.57	-	-	0.44	0.36	Xylene
Final Finish Operations (FF1)	0.11	0.11	0.11	-	10.64	-	-	4.28	3.49	Toluene
Woodworking Activities (WW1)	0.74	0.74	0.74	-	-	-	-	-	-	
Welding and Thermal Cutting (WC1)	0.41	0.41	0.41	-	-	-	-	0.001	0.001	
Natural Gas Combustion	0.04	0.16	0.16	0.01	0.12	1.77	2.10	0.04	Negl.	
Miscellaneous Particulate Emissions (MPE1)	1.96	1.96	1.96							
Total	3.76	3.88	3.88	0.01	40.07	1.77	2.10	7.14	4.56	

	Potential to Emit New Units (tons/year)									
Process/emission unit	PM	PM10	PM2.5	SO_2	VOC	CO	NOx	Total HAPs	Single HAP	
Chasis Preparation Operation (CP1)	0.05	0.05	0.05	-		-	-			
Subfloor Installation (SF1)	0.21	0.21	0.21	-		-	-			
Assembly Line Operations (ALO1)	-	-	-	-	β	-	-	β	β	
Undercoat Bay (UC1)	-	-	-	-		-	-			
Touch-up Painting Station (TP1)	0.24	0.24	0.24	-		-	-			
Final Finish Operations (FF1)	0.11	0.11	0.11	-		-	-			
Woodworking Activities (WW1)	0.74	0.74	0.74	-	-	-	-	-	-	
Welding and Thermal Cutting (WC1)	0.41	0.41	0.41	-	-	-	-	-	0.21	
Natural Gas Combustion	0.04	0.16	0.16	0.01	0.12	1.77	2.10	0.04	Negl.	
Miscellaneous Particulate Emissions (MPE1)	1.96	1.96	1.96							
Total	3.76	3.88	3.88	0.01	0.12	1.77	2.10	0.04		

α. PTE from Permit #039-28024-00220, dated December 5, 2008.
The total PTE before revisions summarizes the potential to emit of the entire source, prior to the proposed revision, after consideration of all enforceable limits established in the effective permits.

β. Chasis Preparation Operation (CP1), Subfloor Installation (SF1), Undercoat Bay (UC1), Touch-up Painting Station (TP1), and Final Finish Operations (FF1) shall be subject to the same VOC, total HAP, and single HAP (Toluene) limits of 99.1, 24.5 and 9.8 tons respectively.

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Chassis Preparation (CP1)

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	VOC Content (Pounds VOC per gallon of coating less water)	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/24 hr day)	PTE VOC (ton/yr)	PTE PM/PM_{10} (ton/yr)	lb VOC /gal solids	Transfer Efficiency	Application Method	Substrate
Chassis Prep	Sherwin Williams	S04114	Coating	Gloss Black Paint	6.08	91.59%	40.00%	51.59%	36.79%	6.00%	0.0420	1.000	4.96	3.14	0.13	3.16	0.58	0.05	52.28	50%	Aerosol	Metal/Plastic
Chassis Prep	Geocel Corp.	3300 Colors	Sealant	Sealant	11.22	3.90%	0.00%	3.90%	0.00%	94.17%	0.2500	1.000	0.44	0.44	0.11	2.63	0.48	0.00	0.46	100%	Caulk Gun	Metal
Chassis Prep	Dow Chemical	ENER45 SF	Foam	Expanding Foam	10.84	30.00%	30.00%	0.00%	41.06%	45.80%	0.0125	1.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	100%	Caulk Gun	Metal/Wood
Chassis Prep	Dow Chemical	Great Stuff	Cleanup	Foam Cleanup Material	7.26	100.00%	70.00%	30.00%	76.88%	0.00%	0.0093	1.000	9.42	2.18	0.02	0.49	0.09	0.00	#DIV/0!	50%	Aerosol	Cleaner/NA
Potential to Emit											**0.314**	**1.000**			**0.26**	**6.27**	**1.14**	**0.05**				

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
PTE VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
PTE VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
PTE VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PTE PM/PM_{10} (tons/yr) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

HAZARDOUS AIR POLLUTANTS

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Hexane	Weight % MDI	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Hexane Emissions (ton/yr)	MDI Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Chassis Prep	Sherwin Williams	S04114	Coating	Gloss Black Paint	6.08	0.0420	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	21.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.23	0.00	0.23
Chassis Prep	Geocel Corp.	3300 Colors	Sealant	Sealant	11.22	0.2500	1.000	1.50%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	5.00%	0.18	0.00	0.00	0.12	0.00	0.00	0.00	0.61	0.00
Chassis Prep	Dow Chemical	ENER45 SF	Foam	Expanding Foam	10.84	0.0125	1.000	0.00%	0.00%	0.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.09	0.00	0.00	0.00	0.00	0.92
Chassis Prep	Dow Chemical	Great Stuff	Cleanup	Foam Cleanup Material	7.26	0.0093	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.09
Uncontrolled Potential Emissions																**0.18**	**0.00**	**0.00**	**0.21**	**0.00**	**0.00**	**0.23**	**0.61**	**1.25**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Subfloor Installation (SF1)

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Mat. (gal /unit)	Maximum (unit /hour)	VOC Content (Pounds VOC per gallon of coating less water)	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/24 hr day)	PTE VOC (ton/yr)	PTE PM/PM_{10} (ton/yr)	lb VOC/ gal solids	Transfer Efficiency (See Notes Below)	Application Method	Substrate
Sub Floors	Royal Adhesives	DC13039	Adhesive	Spray Adhesive	5.90	77.20%	28.56%	48.64%	25.49%	12.81%	0.0710	1.000	3.85	2.87	0.20	4.89	0.89	0.21	22.40	50%	Aerosol	Wood
Sub Floors	Oatey Co.	None	Adhesive	Low VOC PVC Cement	7.67	90.00%	10.00%	80.00%	11.60%	7.96%	0.0155	1.000	6.94	6.14	0.10	2.28	0.42	0.00	77.09	100%	Brush	Plastic
Sub Floors	Oatey Co.	DAP 4000	Primer	Plastic Pipe Primer/Cleaner	6.59	100.00%	15.00%	85.00%	14.95%	0.00%	0.0175	1.000	6.59	5.60	0.10	2.35	0.43	0.00	-	100%	Brush	Plastic
Potential to Emit											**0.10**	**1.000**			**0.40**	**9.53**	**1.74**	**0.21**				

Transfer Efficiency - Hand or Manual Application = 100%, Aerosol = 50%

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
PTE VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
PTE VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
PTE VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PTE PM/PM_{10} (tons/yr) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

HAZARDOUS AIR POLLUTANTS

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Hexane	Weight % MDI	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Hexane Emissions (ton/yr)	MDI Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Sub Floors	Royal Adhesives	DC13039	Adhesive	Spray Adhesive	5.90	0.0710	1.000	0.00%	0.00%	12.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.23	0.00	0.00	0.00	0.00	0.00	0.23
Sub Floors	Oatey Co.	None	Adhesive	Low VOC PVC Cement	7.67	0.0155	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub Floors	Oatey Co.	DAP 4000	Primer	Plastic Pipe Primer/Cleaner	6.59	0.0175	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uncontrolled Potential Emissions																**0.00**	**0.00**	**0.23**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.23**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Assembly Line Operations (ALO1)

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Material (gal/unit)	Maximum (unit/hour)	VOC Content (Pounds VOC per gallon of coating less water)	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/24 hr day)	PTE VOC (ton/yr)	PTE PM/PM_{10} (ton/yr)	lb VOC/ gal solids	Transfer Efficiency (See Notes Below)	Application Method	Substrate
Assembly	Geocel	818107	Sealant	Sealant - Colors	13.43	2.00%	0.00%	2.00%	0.00%	96.42%	0.0160	1.000	0.27	0.27	0.00	0.10	0.02	0.00	0.28	100%	Caulk Gun	Metal/Plastic
Assembly	Geocel	2300	Sealant	Sealant - Clear	7.72	37.83%	0.00%	37.83%	0.00%	61.06%	0.2300	1.000	2.92	2.92	0.67	16.12	2.94	0.00	4.78	100%	Caulk Gun	Metal/Plastic
Assembly	Geocel	2350	Sealant	Sealant - White	8.42	32.70%	0.00%	32.70%	0.00%	63.28%	0.1430	1.000	2.75	2.75	0.39	9.45	1.72	0.00	4.35	100%	Caulk Gun	Metal/Plastic
Assembly	Schnee Morehead	SM7100	Sealant	Sealant - Wood	13.43	2.98%	0.00%	2.98%	0.00%	94.67%	0.0590	1.000	0.40	0.40	0.02	0.57	0.10	0.00	0.42	100%	Caulk Gun	Wood
Assembly	Sika	221	Sealant	Sika Flex 221	10.51	4.05%	0.00%	4.05%	0.00%	94.32%	0.0460	1.000	0.43	0.43	0.02	0.47	0.09	0.00	0.45	100%	Caulk Gun	Glass/Metal
Assembly	Sika	521	Sealant	Sika Flex 521	11.76	0.09%	0.00%	0.09%	0.00%	99.86%	0.0325	1.000	0.01	0.01	0.00	0.01	0.00	0.00	0.01	100%	Caulk Gun	Glass/Metal
Assembly	Sika	255	Sealant	Sika Flex 255-FC	10.00	5.30%	0.00%	5.30%	0.00%	92.93%	0.0390	1.000	0.53	0.53	0.02	0.50	0.09	0.00	0.57	100%	Caulk Gun	Glass/Metal
Assembly	Sika	252	Sealant	Sika Flex 252	10.01	5.48%	0.00%	5.48%	0.00%	92.69%	0.0340	1.000	0.55	0.55	0.02	0.45	0.08	0.00	0.59	100%	Caulk Gun	Glass/Metal
Assembly	Alpha Systems	1021	Sealant	Low VOC Sealant	11.18	22.00%	0.00%	22.00%	0.00%	62.16%	1.1150	1.000	2.46	2.46	2.74	65.82	12.01	0.00	3.96	100%	Caulk Gun	Wood
Assembly	Cyclo	C-111	Cleaner	Brake and Parts Cleaner	6.46	100.00%	20.00%	80.00%	19.55%	0.00%	0.0330	1.000	6.42	5.17	0.17	4.09	0.75	0.00	-	50%	Aerosol	Cleaner/NA
Assembly	Russell Products	911E	Cleaner	Citrus Cleaner	7.01	100.00%	20.00%	80.00%	16.81%	0.00%	0.1600	1.000	6.74	5.61	0.90	21.53	3.93	0.00	-	100%	Hand Wipe	Cleaner/NA
Potential to Emit											**1.908**	**1.000**			**4.96**	**119.11**	**21.74**	**0.00**				

Transfer Efficiency - Hand or Manual Application/Non-Atomized Application = 100%, Aerosol = 50%

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
PTE VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
PTE VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
PTE VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PTE PM/PM_{10} (tons/yr) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

HAZARDOUS AIR POLLUTANTS

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Hexane	Weight % MDI	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Hexane Emissions (ton/yr)	MDI Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Assembly	Geocel	818107	Sealant	Sealant - Colors	13.43	0.0160	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assembly	Geocel	2300	Sealant	Sealant - Clear	7.72	0.2300	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assembly	Geocel	2350	Sealant	Sealant - White	8.42	0.1430	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assembly	Schnee Morehead	SM7100	Sealant	Sealant - Wood	13.43	0.0590	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	3.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.00	0.10
Assembly	Sika	221	Sealant	Sika Flex 221	10.51	0.0460	1.000	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	2.50%	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.05	0.07
Assembly	Sika	521	Sealant	Sika Flex 521	11.76	0.0325	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assembly	Sika	255	Sealant	Sika Flex 255-FC	10.00	0.0390	1.000	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.02	0.00	0.00	0.00	0.17	0.19
Assembly	Sika	252	Sealant	Sika Flex 252	10.01	0.0340	1.000	0.00%	0.00%	0.00%	1.00%	0.00%	0.00%	0.00%	10.00%	0.00	0.00	0.00	0.01	0.00	0.00	0.00	0.15	0.16
Assembly	Alpha Systems	1021	Sealant	Low VOC Sealant	11.18	1.1150	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Assembly	Cyclo	C-111	Cleaner	Brake and Parts Cleaner	6.46	0.0330	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	40.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.37	0.00	0.37
Assembly	Russell Products	911E	Cleaner	Citrus Cleaner	7.01	0.1600	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uncontrolled Potential Emissions																**0.00**	**0.00**	**0.00**	**0.05**	**0.00**	**0.00**	**0.48**	**0.37**	**0.90**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Undercoat Bay (UC1)

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	VOC Content (Pounds VOC per gallon of coating less water)	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/24 hr day)	PTE VOC (ton/yr)	PTE PM/PM_{10} (ton/yr)	lb VOC/ gal solids	Transfer Efficiency (See Notes Below)	Application Method	Substrate
Undercoat	Z Technologies	0104-AM-13G	Coating	Z Shield Undercoat	12.51	40.42%	34.74%	5.68%	52.11%	44.00%	1.0000	1.000	1.48	0.71	0.71	17.05	3.11	0.00	1.61	100%	Flow	Metal
Undercoat	NA	NA	Cleaner	Water	8.34	100.00%	100.00%	0.00%	100.00%	0.00%	0.1250	1.000	0.00	0.00	0.00	0.00	0.00	0.00	-	100%	Hand Wipe	Cleanup/NA
Potential to Emit											**1.125**	**1.000**			**0.71**	**17.05**	**3.11**	**0.00**				

Transfer Efficiency - Hand or Manual Application = 100%, Flow = 100%

Actual Usage = 8.0 gallons/ 8 hour day
Actual VOC emissions = 5.68 pounds per 8 hour day

Maximum Gallons per 24 hour day = 27.00
Maximum Pounds VOC per 24 hour day = 17.05

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
PTE VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
PTE VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
PTE VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PTE PM/PM_{10} (tons/yr) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

HAZARDOUS AIR POLLUTANTS

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Hexane	Weight % MDI	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Hexane Emissions (ton/yr)	MDI Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Undercoat	Z Technologies	0104-AM-13G	Coating	Z Shield Undercoat	12.51	1.0000	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Undercoat	NA	NA	Cleaner	Water	8.34	0.1250	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uncontrolled Potential Emissions																**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Touch-up Painting Station (TP1)

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	VOC Content (Pounds VOC per gallon of coating less water)	Pounds VOC per gallon of coating	PTE VOC (lb/hr)	PTE VOC (lb/24 hr day)	PTE VOC (ton/yr)	PTE PM/PM_{10} (ton/yr)	lb VOC/ gal solids	Transfer Efficiency (See Notes Below)	Application Method	Substrate
Touchup Paint	Sherwin Williams	MB-LF	Paint	Non-Lead Colors	7.50	77.40%	6.00%	71.40%	6.81%	22.60%	0.0105	1.000	5.75	5.36	0.06	1.35	0.25	0.02	23.69	75%	HVLP	Plastic
Touchup Paint	Sherwin Williams	8010PCCH690	Paint	Base/Clear Hardener	7.84	36.35%	0.00%	36.35%	0.00%	15.00%	0.0286	1.000	2.85	2.85	0.08	1.96	0.36	0.16	19.00	75%	HVLP	Plastic
Touchup Paint	Sherwin Williams	Ultra 7000	Paint	Clearcoat	8.76	45.11%	0.00%	45.11%	0.00%	59.50%	0.0127	1.000	3.95	3.95	0.05	1.20	0.22	0.07	6.64	75%	HVLP	Plastic
Touchup Paint	Martin Senour	166-1600	Cleaner	Mineral Spirits	6.35	100.00%	0.00%	100.00%	0.00%	0.00%	0.0270	1.000	6.35	6.35	0.17	4.11	0.75	0.00	-	100%	Hand Wipe	Cleaner/NA
Potential to Emit											**0.079**	**1.000**			**0.36**	**8.62**	**1.57**	**0.24**				

Transfer Efficiency - Hand or Manual Application = 100%, Aerosol = 50%, HVLP = 75%

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
PTE VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
PTE VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
PTE VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PTE PM/PM_{10} (tons/yr) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

HAZARDOUS AIR POLLUTANTS

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Hexane	Weight % MDI	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Hexane Emissions (ton/yr)	MDI Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Touchup Paint	Sherwin Williams	MB-LF	Paint	Non-Lead Colors	7.50	0.0105	1.000	7.00%	3.00%	0.00%	0.00%	0.00%	0.00%	0.00%	35.00%	0.02	0.01	0.00	0.00	0.00	0.00	0.00	0.12	0.16
Touchup Paint	Sherwin Williams	8010PCCH690	Paint	Base/Clear Hardener	7.84	0.0286	1.000	1.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	24.00%	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.24	0.25
Touchup Paint	Sherwin Williams	Ultra 7000	Paint	Clearcoat	8.76	0.0127	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	9.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.04
Touchup Paint	Martin Senour	166-1600	Cleaner	Mineral Spirits	6.35	0.0270	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uncontrolled Potential Emissions																**0.03**	**0.01**	**0.00**	**0.00**	**0.00**	**0.04**	**0.00**	**0.36**	**0.44**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations
Final Finish Operations (FF1)

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Weight % Volatile (H20 & Organics)	Weight % Water & Exempt	Weight % Organics	Volume % Water & Exempt	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	VOC Content (Pounds VOC per gallon of coating less water)	Pounds VOC per gallon of coating	PTE VOC (lb VOC /hr)	PTE VOC (lb VOC / 24 hr day)	PTE VOC (ton/yr)	PTE PM/PM_{10} (ton/yr)	lb VOC/ gal solids	Transfer Efficiency (See Notes Below)	Application Method	Substrate
Final Finish	Rollie Williams	4-PLT	Cleaner	Pure Grade Lacquer	7.07	100.0%	0.00%	100.00%	0.00%	0.00%	0.1700	1.000	7.07	7.07	1.2019	28.85	5.26	0.00	-	100%	Hand Wipe	Wood
Final Finish	Various	IPA	Cleaner	Isopropyl Alcohol	6.59	100.0%	0.00%	100.00%	0.00%	0.00%	0.1790	1.000	6.59	6.59	1.180	28.31	5.17	0.00	-	100%	Hand Wipe	Plastic, Metal, Wood
Final Finish	Johnson	94430	Cleaner	Pledge	7.63	16.8%	0.00%	16.80%	0.00%	82.91%	0.0078	1.000	1.28	1.28	0.01	0.24	0.04	0.11	1.55	50%	Aerosol	Wood
Final Finish	Cyclo	C-31	Cleaner	Glass Cleaner	8.17	99.9%	87.90%	12.00%	86.11%	2.14%	0.0390	1.000	7.06	0.98	0.04	0.92	0.17	0.00	45.81	50%	Aerosol	Glass
Potential to Emit											**0.396**	**1.000**			**2.43**	**58.31**	**10.64**	**0.11**				

Transfer Efficiency - Hand or Manual Application = 100%, Aerosol = 50%, Airless = 65%

METHODOLOGY

Pounds of VOC per Gallon Coating less Water = (Density (lb/gal) * Weight % Organics) / (1-Volume % water)
Pounds of VOC per Gallon Coating = (Density (lb/gal) * Weight % Organics)
PTE VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
PTE VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)
PTE VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)
PTE PM/PM_{10} (tons/yr) = (units/hour) * (gal/unit) * (lbs/gal) * (1- Weight % Volatiles) * (1-Transfer efficiency) *(8760 hrs/yr) *(1 ton/2000 lbs)
Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

HAZARDOUS AIR POLLUTANTS

Process	Manufacturer	Product Number	Use	Description	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Hexane	Weight % MDI	Weight % Methanol	Weight % MIBK	Weight % Toluene	Weight % Xylene	Ethyl Benzene Emissions (ton/yr)	Glycol Ether Emissions (ton/yr)	Hexane Emissions (ton/yr)	MDI Emissions (ton/yr)	Methanol Emissions (ton/yr)	MIBK Emissions (ton/yr)	Toluene Emissions (ton/yr)	Xylene Emissions (ton/yr)	Total HAP Emissions (ton/yr)
Final Finish	Rollie Williams	4-PLT	Cleaner	Pure Grade Lacquer	7.07	0.1700	1.000	0.00%	0.00%	0.00%	0.00%	9.38%	0.00%	66.28%	5.59%	0.00	0.00	0.00	0.00	0.49	0.00	3.49	0.29	4.28
Final Finish	Various	IPA	Cleaner	Isopropyl Alcohol	6.59	0.1790	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Finish	Johnson	94430	Cleaner	Pledge	7.63	0.0078	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Final Finish	Cyclo	C-31	Cleaner	Glass Cleaner	8.17	0.0390	1.000	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uncontrolled Potential Emissions																**0.00**	**0.00**	**0.00**	**0.00**	**0.49**	**0.00**	**3.49**	**0.29**	**4.28**

METHODOLOGY

HAPS emission rate (tons/yr) = Density (lb/gal) * Gal of Material (gal/unit) * Maximum (unit/hr) * Weight % HAP * 8760 hrs/yr * 1 ton/2000 lbs

Emissions Calculations

Welding and Thermal Cutting (WC1)

Company Name: **Thor Motor Coach, Inc.**
Address City IN Zip: **701 CR 15, Elkhart, IN 46516**
FESOP SPR No.: **039-30089-00220**
Reviewer: **Bruce Farrar**
Date: **January 6,2011**

PROCESS	Number of Stations	Max. electrode or carbon steel consumption per station (lbs/hr)		EMISSION FACTORS* (lb pollutant/lb electrode or carbon steel)				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
WELDING				$PM = PM_{10}$	Mn	Ni	Cr	$PM = PM_{10}$	Mn	Ni	Cr	
Metal Inert Gas (MIG)(E70S-3)	1.00	0.857		0.0051	0.0003			0.004	0.0003	0.00	0.00	0.0003
	Number of Stations	Max. Metal Thickness Cut (in.)	Max. Metal Cutting Rate (in./minute)	EMISSION FACTORS (lb pollutant/1,000 inches cut, 1" thick)**				EMISSIONS (lbs/hr)				HAPS (lbs/hr)
FLAME CUTTING				$PM = PM_{10}$	Mn	Ni	Cr	$PM = PM_{10}$	Mn	Ni	Cr	
Plasma**	1.00	0.375	12.0	0.0039				0.001	0.00	0.00	0.00	0.00
Oxy-Acetylene Torch	1.00	0.750	12.0	0.1622				0.088	0.00	0.00	0.00	0.00
EMISSION TOTALS												
								$PM = PM_{10}$	Mn	Ni	Cr	
Potential Emissions lbs/hr								0.093	0.0003	0.00	0.00	0.0003
Potential Emissions lbs/day								2.23	0.006	0.00	0.00	0.006
Potential Emissions tons/year								0.41	0.001	0.00	0.00	0.001

METHODOLOGY

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

**Emission Factor for plasma cutting from American Welding Society (AWS). Trials reported for wet cutting of 8 mm thick mild steel with 3.5 m/min cutting speed (at 0.2 g/min emitted). Therefore, the emission factor for plasma cutting is for 8 mm thick rather than 1 inch, and the maximum metal thickness is not used in calculating the emissions.

An equivalence of carbon steel to pounds of weld wire consumed was assumed for spot welding. Also, a conservative assumption was made that half of the process weight rate of the welding activities (75 lbs carbon steel) is the worst case going through the spot welder.

Using AWS average values: (0.25 g/min)/(3.6 m/min) x (0.0022 lb/g)/(39.37 in./m) x (1,000 in.) = 0.0039 lb/1,000 in. cut, 8 mm thick
Plasma cutting emissions, lb/hr: (# of stations)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 8 mm thick)
Cutting emissions, lb/hr: (# of stations)(max. metal thickness, in.)(max. cutting rate, in./min.)(60 min./hr.)(emission factor, lb. pollutant/1,000 in. cut, 1
Welding emissions, lb/hr: (# of stations)(max. lbs of electrode used/hr/station)(emission factor, lb. pollutant/lb. of electrode used)
Emissions, lbs/day = emissions, lbs/hr x 24 hrs/day
Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/year x 1 ton/2,000 lbs.

Process Particulate Emissions
Woodworking Activities (WW1)

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6,2011

Potential Emissions (tons/year)

DUST COLLECTOR

Process	No. of Units	Airflow (acfm)	Grain Loading per Actual Cubic Foot of Outlet Air	Air to Cloth Ratio Air Flow (acfm/ft²)	Total Filter Area (ft²)	Control Efficiency	Total (tons/yr)	Can Comply with 326 IAC 6-3-2? (lbs/hr)
DC1	1	5,900	0.001	9.46	624.00	99.00%	0.22	YES
DC2	1	5,900	0.001	9.46	624.00	99.00%	0.22	YES
DC3	1	1,300	0.001	40.63	32.00	99.00%	0.05	YES
DC4	1	1,300	0.001	40.63	32.00	99.00%	0.05	YES
DC5	1	1,300	0.001	40.63	32.00	99.00%	0.05	YES
DC6	1	1,300	0.001	40.63	32.00	99.00%	0.05	YES
DC7	1	1,300	0.001	40.63	32.00	99.00%	0.05	YES
DC8	1	1,300	0.001	40.63	32.00	99.00%	0.05	YES

Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls (tons/year) **0.74**

Total Emissions Based on Rated Capacity at 8,760 Hours/Year and source controls (lb/hr) 0.17

In October 1993, a Final Order Granting Summary Judgment was signed by an Administrative Law Judge (ALJ) resolving an appeal of an IDEM permit related to the method by which IDEM calculated potential emissions from woodworking operations. In his findings, the ALJ determined that particulate controls were necessary for the facility to produce its normal product and is integral to the normal operation of the facility, and therefore, potential emissions were to be calculated after consideration of the controls.

		DC1	DC2	DC3 through DC8 (each)
Allowable Emission (lb/hr) =	**4.10 X [Process Weight Rate] $^{0.67}$ =**	**1.62**	**1.62**	**0.35**
Material Input Rate (lb/hr) =		**500.0**	**500.0**	**50.0**

Methodology:

Potential Emission (uncontrolled):

Potential Emission(tons/yr) = [No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) *
1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)]

Potential Emission (controlled):

Potential Emission (tons/yr) = [No. Units * Loading (grains/acf) * Air/Cloth Ratio (acfm/ft²) * Filter Area (ft²) *
1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs]

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

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6, 2011

Heat Input Capacity MMBtu/hr	Potential Throughput MMCF/yr	Unit Description
0.080	0.70	Office Heater, OH1
0.060	0.53	Office Heater, OH2
0.080	0.70	Breakroom Heater, BH1
3.480	30.48	Air Makeup Units, AM1 through AM6, 0.58 MMBtu/hr, each
0.072	0.63	Radiant Heaters, RH1
0.500	4.38	Radiant Heaters, RH2 through RH6, 0.1 MMBtu/hr, each
0.080	0.70	Radiant Heaters, RH7
0.250	2.19	Infrared Heaters, IR1 and IR2, 0.125 MMBtu/hr, each
0.100	0.88	Forced Air Furnace, SH1
0.100	0.88	Forced Air Furnace, SH2
4.8	42.1	

	Pollutant					
	PM*	PM10*	SO2	NOx	VOC	CO
Emission Factor in lb/MMCF	1.9	7.6	0.6	100 **see below	5.5	84
Potential Emission in tons/yr	0.040	0.160	0.013	2.103	0.116	1.767

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.
MMBtu = 1,000,000 Btu
MMCF = 1,000,000 Cubic Feet of Gas
Emission Factors are from AP 42, Chapter 1.4, Tables 1.4-1, 1.4-2, 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03
Potential Throughput (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,000 MMBtu
Emission (tons/yr) = Throughput (MMCF/yr) x Emission Factor (lb/MMCF)/2,000 lb/ton

See page 10 for HAPs emissions calculations.

Appendix A: Emissions Calculations
Natural Gas Combustion Only
MM BTU/HR <100
HAPs Emissions
Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6, 2011

	HAPs - Organics				
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	4.417E-05	2.524E-05	1.577E-03	3.786E-02	7.151E-05

	HAPs - Metals				
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	1.052E-05	2.314E-05	2.945E-05	7.992E-06	4.417E-05

Methodology is the same as page 9.

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

Page 12 of 12 TSD App A

Process Particulate Emissions
Miscellaneous Particulate Emissions (MPE1)

.

Company Name: Thor Motor Coach, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP SPR No.: 039-30089-00220
Reviewer: Bruce Farrar
Date: January 6, 2011

One (1) Abrasive Chop Saw MPE1 to Cut Metal Exhaust Pipe

2.00	cuts/hr	x	4.000	in diameter pipe	x	3.14	pi	x	0.1875	in thick pipe wall	x	0.125	in thick blade	= 0.59 in^3 loss/hr
0.59	in^3 loss/hr	/	1,728	in^3/ft^3	x	501.12	lb/ft^3	=	0.17	lb loss/hr				

Two (2) Aluminum Chop/Mitre Saws MPE2, MPE3 to Cut Aluminum Trim

10.00	cuts/hr	x	2.00	in long	x	0.125	in thick	x	0.125	in wide	=	0.3125	in^3 loss/hr	
0.31	in^3 loss/hr	/	1,728	in^3/ft^3	x	168.43	lb/ft^3	=	0.03	lb loss/hr				

Three (3) Wood Band Saws MPE4, MPE5, MPE6

15.00	cuts/hr	x	1.50	in long	x	1.50	in thick	x	0.125	in wide	=	4.2188	in^3 loss/hr	
4.22	in^3 loss/hr	/	1,728	in^3/ft^3	x	40.00	lb/ft^3	=	0.10	lb loss/hr				

Two (1) Mitre Saws MPE7, MPE8 to PVC Pipe

20.00	cuts/hr	x	2.000	in diameter pipe	x	3.14	pi	x	0.1875	in thick pipe wall	x	0.125	in thick blade	= 2.95 in^3 loss/hr
2.95	in^3 loss/hr	/	1,728	in^3/ft^3	x	87.71	lb/ft^3	=	0.15	lb loss/hr				

Total Loss Estimate =	0.45	lb loss/hr
Total Loss Estimate =	1.96	tons/year

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

SENT VIA U.S. MAIL: CONFIRMED DELIVERY AND SIGNATURE REQUESTED

TO: Colin Knapp
Thor Motor Coach, Inc.
PO Box 1486
Elkhart IN 46515

DATE: April 20, 2011

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

SUBJECT: Final Decision
Significant Permit Revision
039-30089-00220

Enclosed is the final decision and supporting materials for the air permit application referenced above. Please note that this packet contains the original, signed, permit documents.

The final decision is being sent to you because our records indicate that you are the contact person for this application. However, if you are not the appropriate person within your company to receive this document, please forward it to the correct person.

A copy of the final decision and supporting materials has also been sent via standard mail to:
Bruce Kurtz VP Ops Thor Motor Coach, Inc.
Kevin Parks D & Environmental Services, Inc.
OAQ Permits Branch Interested Parties List

If you have technical questions regarding the enclosed documents, please contact the Office of Air Quality, Permits Branch at (317) 233-0178, or toll-free at 1-800-451-6027 (ext. 3-0178), and ask to speak to the permit reviewer who prepared the permit. If you think you have received this document in error, please contact Joanne Smiddie-Brush of my staff at 1-800-451-6027 (ext 3-0185), or via e-mail at jbrush@idem.IN.gov.

INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT
We Protect Hoosiers and Our Environment.

Mitchell E. Daniels Jr.
Governor

Thomas W. Easterly
Commissioner

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

April 20, 2011

TO: Elkhart Public Library

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

Subject: **Important Information for Display Regarding a Final Determination**

Applicant Name: **Thor Motor Coach Inc.**
Permit Number: **039-30089-00220**

You previously received information to make available to the public during the public comment period of a draft permit. Enclosed is a copy of the final decision and supporting materials for the same project. Please place the enclosed information along with the information you previously received. To ensure that your patrons have ample opportunity to review the enclosed permit, **we ask that you retain this document for at least 60 days.**

The applicant is responsible for placing a copy of the application in your library. If the permit application is not on file, or if you have any questions concerning this public review process, please contact Joanne Smiddie-Brush, OAQ Permits Administration Section at 1-800-451-6027, extension 3-0185.

Enclosures
Final Library.dot 11/30/07

Mail Code 61-53

IDEM Staff	BMILLER 4/20/2011 Thor Motor Coach, Inc 039-30089-00220 (final)		AFFIX STAMP HERE IF USED AS CERTIFICATE OF MAILING
Name and address of Sender		Indiana Department of Environmental Management Office of Air Quality – Permits Branch 100 N. Senate Indianapolis, IN 46204	Type of Mail: **CERTIFICATE OF MAILING ONLY**

Line	Article Number	Name, Address, Street and Post Office Address	Postage	Handing Charges	Act. Value (If Registered)	Insured Value	Due Send if COD	R.R. Fee	S.D. Fee	S.H. Fee	Rest. Del. Fee Remarks
1		Colin Knapp Thor Motor Coach, Inc PO Box 1486 Elkhart IN 46515-1486 (Source CAATS) ***Via Confirm Delivery***									
2		Bruce Kurtz VP - Ops Thor Motor Coach, Inc PO Box 1486 Elkhart IN 46515-1486 *(RO CAATS)*									
3		Elkhart City Council and Mayors Office 229 South Second Street Elkhart IN 46516 *(Local Official)*									
4		Elkhart Public Library 300 S 2nd St Elkhart IN 46516-3184 *(Library)*									
5		Elkhart County Health Department 608 Oakland Avenue Elkhart IN 46516 *(Health Department)*									
6		Laurence A. McHugh Barnes & Thornburg 100 North Michigan South Bend IN 46601-1632 *(Affected Party)*									
7		Mr. Kevin Parks D & B Environmental Services, Inc. 401 Lincoln Way West Osceola IN 46561 *(Consultant)*									
8		Elkhart County Board of Commissioners 117 North Second St. Goshen IN 46526 *(Local Official)*									
9		Mark Zeltwanger 26545 CR 52 Nappanee IN 46550 *(Affected Party)*									
10											
11											
12											
13											
14											
15											

Total number of pieces Listed by Sender	Total number of Pieces Received at Post Office	Postmaster, Per (Name of Receiving employee)	The full declaration of value is required on all domestic and international registered mail. The maximum indemnity payable for the reconstruction of nonnegotiable documents under Express Mail document reconstructing insurance is $50,000 per piece subject to a limit of $50, 000 per occurrence. The maximum indemnity payable on Express mil merchandise insurance is $500. The maximum indemnity payable is $25,000 for registered mail, sent with optional postal insurance. See ***Domestic Mail Manual*** **R900, S913**, and **S921** for limitations of coverage on inured and COD mail. See ***International Mail Manual*** for limitations o coverage on international mail. Special handling charges apply only to Standard Mail (A) and Standard Mail (B) parcels.

FACSIMILIE OF PS Form 3877