



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: June 19, 2008

RE: Four Winds International, Inc. / 039-24449-00220

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



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**Federally Enforceable State Operating Permit
Renewal
OFFICE OF AIR QUALITY**

**Four Winds International, Inc.
701 County Road 15
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	
Issued by:	Issuance Date: June 19, 2008
<i>Original document signed by</i>	Expiration Date: June 19, 2018
Iryn Calilung, Section Chief Permits Branch Office of Air Quality	

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SECTION A SOURCE SUMMARY

This permit is based on information requested by the Indiana Department of Environmental Management (IDEM), Office of Air Quality (OAQ). 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
Mailing Address:	PO Box 1486, Elkhart, Indiana 46515-1486
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) Plant site 1 is located at 701 County Road 15, Elkhart, Indiana; and
- (b) Plant site 2 is located at 4221 Pine Creek Road, Elkhart, Indiana.

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:

- (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, 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, 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) Subassembly area production operations, including foam insulation cutting and woodworking operations for Class A Line 1, identified as ASA-1, 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.
- (b) 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 750, 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 No. 750, 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.
 - (3) Metal frame undercoating bay, identified as A2U, in building 750, utilizing high pressure flow coat application with no particulate matter emissions.
- (c) 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, 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, 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, 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, one (1) located in the Class C Lamination Area and one (1) located in the Class A Lamination Area, vented to inside the building.

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:

- (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.
- (b) One (1) miscellaneous woodworking operations in Building 750, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxx). The miscellaneous woodworking equipment maximum capacity is 960 pounds of wood per hour utilizing two baghouses for particulate control, identified as DC1 and DC2, all exhausting within the building.
- (c) One (1) miscellaneous woodworking operations in Building 4221, 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) 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 4221, 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) 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;
 - (4) Steel and aluminum tube plasma/torch cutting and welding at building 655 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

- (5) 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.
- (e) 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.
- (f) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;
- (g) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;
- (h) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs;
- (i) Paved and unpaved roads and parking lots with public access;
- (j) 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.
- (k) Application of oils, greases, lubricants or other non-volatile materials applied as temporary protective coatings;
- (l) 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°C (100°F) or;
 - (2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
- (m) 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.
- (n) 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 cyclers, 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 up 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) Buildings 750 includes six (6) 0.58 MMBtu per hour plant thermo-cycler heaters, two (2) 0.125 MMBtu per hour infrared heaters, one (1) 0.1 MMBtu per hour undercoat space heater, one (1) 0.1 MMBtu per hour compressor room heater, one (1) 0.08 MMBtu per hour breakroom heater, one (1) 0.08 MMBtu per hour office heater, and one (1) 0.06 MMBtu per hour office heater; and
- (7) 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.

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. The submittal by the Permittee does require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1). 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) Where specifically designated by this permit or required by an applicable requirement, any application form, report, or compliance certification submitted shall contain certification by an "authorized individual" of truth, accuracy, and completeness. This certification shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete.
- (b) One (1) certification shall be included, using the attached Certification Form, with each submittal requiring certification. 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 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) 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.
- (b) 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 do not require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (c) 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.

- (h) The Permittee shall include all emergencies in the Quarterly Deviation and Compliance Monitoring Report.

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 Deviations from Permit Requirements and Conditions [326 IAC 2-8-4(3)(C)(ii)]

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

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

using the attached Quarterly Deviation and Compliance Monitoring Report, or its equivalent. A deviation required to be reported pursuant to an applicable requirement that exists independent of this permit, shall be reported according to the schedule stated in the applicable requirement and does not need to be included in this report.

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

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

B.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 the certification 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 the certification 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
Permits Branch, 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 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
Permits Branch, Office of Air Quality
100 North Senate Avenue
MC 61-53 IGCN 1003
Indianapolis, Indiana 46204-2251

Any such application shall be certified 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
Permits Branch, 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
Permits Branch, 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 the certification 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 within thirty (30) calendar days of receipt of a billing. Pursuant to 326 IAC 2-7-19(b), if the Permittee does not receive a bill from IDEM, OAQ the applicable fee is due April 1 of each year.
- (b) Failure to pay may result in administrative enforcement action or revocation of this permit.
- (c) The Permittee may call the following telephone numbers: 1-800-451-6027 or 317-233-4230 (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 5-1-3 (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 or incinerate any waste or refuse except as provided in 326 IAC 4-2 and 326 IAC 9-1-2.

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

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

Indiana Department of Environmental Management
Compliance Data Section, Office of Air Quality
100 North Senate Avenue
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 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 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 shall be implemented within ninety (90) days of permit issuance. If required by Section D, the Permittee shall be responsible for installing any necessary equipment and initiating any required monitoring related to that equipment. If due to circumstances beyond its control, that equipment cannot be installed and operated within ninety (90) days, the Permittee may extend the compliance schedule related to the equipment for an additional ninety (90) days provided the Permittee notifies:

Indiana Department of Environmental Management
Compliance Branch, Office of Air Quality
100 North Senate Avenue
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 the certification 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 Monitoring Methods [326 IAC 3] [40 CFR 60] [40 CFR 63]

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

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]

- (a) Upon detecting an excursion or exceedance, the Permittee shall 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 emissions.
- (b) The response shall include minimizing the period of any startup, shutdown or malfunction and taking any necessary corrective actions to restore normal operation and prevent the likely recurrence of the cause of an excursion or exceedance (other than those caused by excused startup or shutdown conditions). Corrective actions may include, but are not limited to, the following:
 - (1) initial inspection and evaluation;
 - (2) recording that operations returned 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 within the indicator range, designated condition, or below the applicable emission limitation or standard, as applicable.
- (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 maintain the following records:
 - (1) monitoring data;
 - (2) monitor performance data, if applicable; and
 - (3) corrective actions 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 take appropriate response actions. The Permittee shall submit a description of these response actions to IDEM, OAQ, within thirty (30) days of receipt of the test results. The Permittee shall take appropriate action to minimize excess emissions from the affected facility while the response actions are being implemented.

- (b) A retest to demonstrate compliance shall be performed within one hundred twenty (120) days of receipt of the original test results. Should the Permittee demonstrate to IDEM, OAQ that retesting in one hundred twenty (120) days is not practicable, IDEM, OAQ may extend the retesting deadline.
- (c) IDEM, OAQ reserves the authority to take any actions allowed under law in response to noncompliant stack tests.

The response action documents submitted pursuant to this condition do require the certification by 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 shall be implemented within ninety (90) days of permit issuance.

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. This report shall be submitted within thirty (30) days of the end of the reporting period. The Quarterly Deviation and Compliance Monitoring Report shall include the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).
- (b) The report required in (a) of this condition and reports required by conditions in Section D of this permit shall be submitted to:

Indiana Department of Environmental Management
Compliance Data Section, 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) Unless otherwise specified in this permit, all reports required in Section D of this permit shall be submitted within thirty (30) days of the end of the reporting period. All reports do require the certification by an "authorized individual" as defined by 326 IAC 2-1.1-1(1).

- (e) 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.

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)]:

- (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, 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, 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.
- (b) 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 750, 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 No. 750, 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.
 - (3) Metal frame undercoating bay, identified as A2U, in building 750, utilizing high pressure flow coat application with no particulate matter emissions.
- (c) 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, 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, 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

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 seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U), 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 input of the single greatest HAP to the seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U), 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 HAP input to the seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U), 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) [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 seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U) 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.1.4 Preventive Maintenance Plan

A Preventive Maintenance Plan, in accordance with Section B - Preventive Maintenance Plan, of

this permit, is required for seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U).

Compliance Determination Requirements

D.1.5 Volatile Organic Compounds (VOC) and Hazardous Air Pollutants [326 IAC 8-1-4][326 IAC 8-1-2(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

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

D.1.6 Record Keeping Requirements

(a) To document compliance 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 Condition 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) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

D.1.7 Reporting Requirements

A quarterly summary of the information to document compliance with Condition D.1.1 shall be submitted to the address listed in Section C - General Reporting Requirements, of this permit, using the reporting forms located at the end of this permit, or their equivalent, within thirty (30) days after the end of the quarter being reported. The report submitted by the Permittee does require the certification by the "responsible official" as defined by 326 IAC 2-7-1(34).

SECTION D.2 EMISSIONS UNIT OPERATION CONDITIONS

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

- (a) One (1) Class A - Line 1, producing a maximum of 1.5 units per hour, installed in June 1999, consisting of the following:
 - (3) Subassembly area production operations, including foam insulation cutting and woodworking operations for Class A Line 1, identified as ASA-1, 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.
- (c) 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, 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, one (1) located in the Class C Lamination Area and one (1) located in the Class A Lamination Area, vented to inside the building.

Insignificant Activities

- (b) One (1) miscellaneous woodworking operations in Building 750, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxx). The miscellaneous woodworking equipment maximum capacity is 960 pounds of wood per hour utilizing two baghouses for particulate control, identified as DC1 and DC2, all exhausting within the building.
- (c) One (1) miscellaneous woodworking operations in Building 4221, 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) Activities and categories with PM/PM10 emissions below the insignificant thresholds of five (5) pounds per hour or twenty-five (25) pounds per day:
 - (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) 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;
 - (4) Steel and aluminum tube plasma/torch cutting and welding at building 655 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;

(e) 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.

(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 750 and 4221) controlled by baghouses (DC1, DC2, and 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 Federally Enforceable State Operating Permit (FESOP) Limits [326 IAC 2-8][326 IAC 2-2]

Pursuant to 326 IAC 2-8-4 (Federally Enforceable State Operating Permit (FESOP)), the Permittee shall comply with the following PM10 emission limits listed in the table below:

Unit Description	Control Description	PM10 Emission Limit (lbs/hr)
Class A - Line 1 Subassembly Cutting and Woodworking (ASA)	Cyclones and bag filter (C3)	3.01
Class C - Subassembly Woodworking (CSA-2)	Cyclone (C Plant Cyclone)	2.15
Woodworking (Building 750, ASA-2)	Baghouses (DC1 and DC2)	2.01
Woodworking (Building 4221)	Baghouse (WHA-DC1)	1.12
Class A – Line 1 Uncontrolled Woodworking	Uncontrolled	4.89
Hand Routing – Class A Lamination Area	Uncontrolled	1.16
Hand Routing – Class C Lamination Area	Uncontrolled	4.30

Compliance with these limits will limit PM10 emissions to less than 100 tons per year, and renders 326 IAC 2-7 (Part 70) and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) not applicable.

D.2.3 Prevention of Significant Deterioration (PSD) [326 IAC 2-2]

In order to render the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)), not applicable the Permittee shall comply with the following:

Unit Description	Control Description	PM Emission Limit (lbs/hr)
Class A - Line 1 Subassembly Cutting and Woodworking (ASA)	Cyclones and bag filter (C3)	3.01
Class C - Subassembly Woodworking (CSA-2)	Cyclone (C Plant Cyclone)	2.15
Woodworking (Building 750, ASA-2)	Baghouses (DC1 and DC2)	2.01
Woodworking (Building 4221)	Baghouse (WHA-DC1)	1.12
Class A – Line 1 Uncontrolled Woodworking	Uncontrolled	4.89
Hand Routing – Class A Lamination Area	Uncontrolled	1.16
Hand Routing – Class C Lamination Area	Uncontrolled	4.30

Combined with emissions from the other insignificant activities, the PM emissions from woodworking, cutting, and hand routing are limited to less than 250 tons per year. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) do not apply.

D.2.4 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	Control Description	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
Class A - Line 1 Subassembly Cutting and Woodworking (ASA)	Cyclones and bag filter (C3)	0.88	3.01
Class C - Subassembly Woodworking (CSA-2)	Cyclone (C Plant Cyclone)	0.53	2.15
Woodworking (Building 750, ASA-2)	Baghouses (DC1 and DC2)	0.48	2.01
Woodworking (Building 4221)	Baghouse (WHA-DC1)	0.20	1.12
Class A – Line 1 Uncontrolled Woodworking	Uncontrolled	1.82	4.89
Hand Routing – Class A Lamination Area	Uncontrolled	0.21	1.16
Hand Routing – Class C Lamination Area	Uncontrolled	1.50	4.30

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.2.5 Particulate Control

- (a) In order to comply with Conditions D.2.1, D.2.2, D.2.3, and D.2.4, 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.2.6 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 steps in accordance with Section C - Response to Excursions or Exceedances. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances shall be considered a deviation from this permit.

D.2.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses (DC1, DC2, WHA-DC1) and the cyclone (C3) used in conjunction with the subassembly operation (ASA), and the woodworking (Buildings 750 and 4221) at least once per week when the subassembly operations 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 steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the manufacturer's specified range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, 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 at least once every six (6) months.

D.2.8 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 (Buildings 750 and 4221). 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.2.9 Record Keeping Requirements

- (a) To document compliance with Condition D.2.6, 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 compliance with Condition D.2.7, the Permittee shall maintain weekly records of the pressure drop.
- (c) The Permittee shall maintain records of any corrective actions taken to document compliance with 326 IAC 2-7-21(1)(G)(xxx)(GG)(dd).
- (d) All records shall be maintained in accordance with Section C - General Record Keeping Requirements, of this permit.

**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
Mailing Address: PO Box 1486, Elkhart, Indiana 46515-1486
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
Mailing Address: PO Box 1486, Elkhart, Indiana 46515-1486
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: _____

A certification is not required for this report.

**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
 Mailing Address: PO Box 1486, Elkhart, Indiana 46515-1486
 FESOP Permit No.: F039-24449-00220
 Facility: Total VOC input
 Parameter: The seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U) 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: _____

Attach a signed certification to complete this report.

**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
Mailing Address: PO Box 1486, Elkhart, Indiana 46515-1486
FESOP Permit No.: F039-24449-00220
Facility: Input of the single greatest HAP
Parameter: The seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U) 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: _____

Attach a signed certification to complete this report.

**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
Mailing Address: PO Box 1486, Elkhart, Indiana 46515-1486
FESOP Permit No.: F039-24449-00220
Facility: The total HAP input
Parameter: The seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U) 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: _____

Attach a signed certification to complete this report.

**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
 Mailing Address: PO Box 1486, Elkhart, Indiana 46515-1486
 FESOP Permit No.: F039-24449-00220

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

<p>This report shall be submitted quarterly based on a calendar year. Any deviation from the requirements, the date(s) of each deviation, the probable cause of the deviation, and the response steps taken must be reported. 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 ΔNo deviations occurred this reporting period@.</p>	
<input type="checkbox"/> NO DEVIATIONS OCCURRED THIS REPORTING PERIOD.	
<input type="checkbox"/> 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: _____

Attach a signed certification to complete this report.

Indiana Department of Environmental Management Office of Air Quality

Addendum to the Technical Support Document for a Federally Enforceable State Operating Permit Renewal

Source Background and Description

Source Name:	Four Winds International, Inc.
Source Location:	701 County Road 15, Elkhart, Indiana 46516
County:	Elkhart
SIC Code:	3716
Permit Renewal No.:	039-24449-00220
Permit Reviewer:	ERG/BL

On May 13, 2008, the Office of Air Quality (OAQ) had a notice published in The Elkhart Truth, in Elkhart, Indiana, stating that Four Winds International, Inc., had applied for a Federally Enforceable State Operating Permit Renewal. The notice also stated that OAQ proposed to issue a permit for this operation and provided information on how the public could review the proposed permit and other documentation. Finally, the notice informed interested parties that there was a period of thirty (30) days to provide comments on whether or not this permit should be issued as proposed.

On June 3, 2008, comments on the draft permit were submitted by Kevin Parks on behalf of Four Winds International, Inc. (Four Winds). The summary of the comments is as follows. New language is shown in **bold** and deleted language is shown in ~~strikeout~~.

Four Winds International, Inc. Comment

Comment 1:

The parametric monitoring requirements in permit Condition D.2.7 for control device "C Plant Cyclone" used in conjunction with the subassembly operation CSA-2 should be removed from the permit. The cyclone is a simple collector, which does not contain a bag filtration system. Four Winds' equipment vendor (Honeyville Sheet Metal of Topeka, Indiana), who installed the unit, advised Four Winds that the installation of parametric monitoring device serves no purpose on this unit. Therefore, Four Winds requests that this control device be excluded from the requirement to install and monitor a parametric device. This unit has been operating since the Four Winds first received a construction permit, in 1995, without any complaint or incident from the public or the Office of Enforcement.

Response to Comment 1:

IDEM has revised the parametric monitoring requirements to remove the C Plant Cyclone. The Federally Enforceable State Operating Permit Renewal includes visible emission notations for the CSA-2 subassembly area to demonstrate compliance with 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-2 (PSD), and 326 IAC 2-8 (FESOP). No other monitoring requirements are necessary at this time. The following changes have been made to the permit as a result of this comment:

D.2.7 Parametric Monitoring

The Permittee shall record the pressure drop across the baghouses (DC1, DC2, WHA-DC1) and the cyclones (C3, ~~C Plant Cyclone~~) used in conjunction with the subassembly operations (ASA, ~~GSA-2~~), and the woodworking (Buildings 750 and 4221) at least once per week when the subassembly operations 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 steps in accordance with Section C – Response to Excursions and Exceedances. A pressure reading that is outside the manufacturer's specified range is not a deviation from this permit. Failure to take response steps in accordance with Section C - Response to Excursions or Exceedances, 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 at least once every six (6) months.

Indiana Department of Environmental Management
Office of Air Quality

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

Source Background and Description

Source Name:	Four Winds International, Inc.
Source Location:	701 County Road 15, Elkhart, Indiana 46516
County:	Elkhart
SIC Code:	3716
Permit Renewal No.:	039-24449-00220
Permit Reviewer:	ERG/BL

The Office of Air Quality (OAQ) has reviewed the operating permit renewal application from Four Winds International, Inc. relating to the operation of a stationary motor home/recreational vehicle manufacturer.

History

On March 14, 2007, Four Winds International, Inc. submitted an application to the OAQ requesting to renew its operating permit. Four Winds International, Inc. was issued a Part 70 Operating Permit Renewal on January 7, 2003.

Source Definition

This Source Definition is incorporated into this permit as follows:

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

- (a) Plant site 1 is located at 701 CR 15, Elkhart, Indiana; and
- (b) Plant site 2 is located at 4221 Pine Creek Road, Elkhart, Indiana.

Since the two (2) plant sites are located on contiguous properties, have the same SIC codes and are owned by one (1) company, they are considered one (1) source.

Permitted Emission Units and Pollution Control Equipment

The source consists of the following permitted emission units and pollution control devices:

Three (3) motor home production lines as follows:

- (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, 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, 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) Subassembly area production operations, including foam insulation cutting and woodworking operations for Class A Line 1, identified as ASA-1, 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.
- (b) 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 750, 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 No. 750, 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.
 - (3) Metal frame undercoating bay, identified as A2U, in building 750, utilizing high pressure flow coat application with no particulate matter emissions.
- (c) 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, 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, 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, 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, one (1) located in the Class C Lamination Area and one (1) located in the Class A Lamination Area, vented to inside the building.

Insignificant Activities

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

- (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.
- (b) One (1) miscellaneous woodworking operations in Building 750, meeting the definition of "insignificant woodworking operation" specified in 326 IAC 2-7-1(21)(G)(xxx). The miscellaneous woodworking equipment maximum capacity is 960 pounds of wood per hour utilizing two baghouses for particulate control, identified as DC1 and DC2, all exhausting within the building.
- (c) One (1) miscellaneous woodworking operations in Building 4221, 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) 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 4221, 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) 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;
- (4) Steel and aluminum tube plasma/torch cutting and welding at building 655 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
 - (5) 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.
- (e) 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.
 - (f) A gasoline fuel transfer and dispensing operation handling less than or equal to 1,300 gallons per day, such as filling of tanks, locomotives, automobiles, having a storage capacity less than or equal to 10,500 gallons;
 - (g) Any operation using aqueous solutions containing less than 1% by weight of VOCs excluding HAPs;
 - (h) Water based adhesives that are less than or equal to 5% by volume of VOCs excluding HAPs;
 - (i) Paved and unpaved roads and parking lots with public access;
 - (j) 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.
 - (k) Application of oils, greases, lubricants or other non-volatile materials applied as temporary protective coatings;
 - (l) 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°C (100°F) or;
 - (2) Having a vapor pressure equal to or less than 0.7 kPa; 5mm Hg; or 0.1 psi measured at 20°C (68°F); the use of which for all cleaners and solvents combined does not exceed 145 gallons per 12 months.
 - (m) 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.

- (n) 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 cyclers, 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) Buildings 750 includes six (6) 0.58 MMBtu per hour plant thermo-cycler heaters, two (2) 0.125 MMBtu per hour infrared heaters, one (1) 0.1 MMBtu per hour undercoat space heater, one (1) 0.1 MMBtu per hour compressor room heater, one (1) 0.08 MMBtu per hour breakroom heater, one (1) 0.08 MMBtu per hour office heater, and one (1) 0.06 MMBtu per hour office heater; and
 - (7) 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.

New Emission Units and Pollution Control Equipment

There were no new emission units constructed during this review.

Existing Approvals

The source was issued a FESOP Renewal No. F039-14036-00220 on January 7, 2003. The source has since received the following approvals:

- (a) First Significant Permit Revision No. 039-16264-00220, issued on March 11, 2003;
- (b) First Administrative Amendment No. 039-18835-00220, issued on July 2, 2004;

- (c) Second Significant Permit Revision No. 039-19330-00220, issued on October 8, 2004;
- (d) Third Significant Permit Revision No. 039-20016-00220, issued on January 13, 2005;
- (e) Second Administrative Amendment No. 039-20810-00220, issued on March 28, 2005;
- (f) Fourth Significant Permit Revision No. 039-21195-00220, issued on July 25, 2005; and
- (g) Fifth Significant Permit Revision No. 039-23517-00220, issued January 10, 2007.

All terms and conditions of previous permits issued pursuant to permitting programs approved into the state implementation plan have been either incorporated as originally stated, revised, or deleted by this permit. All previous permits are superseded by this permit.

Enforcement Issue

There are no enforcement actions pending.

Emission Calculations

See Appendix A of this document for detailed emission calculations.

County Attainment Status

The source is located in Elkhart County

Pollutant	Designation
SO ₂	Better than national standards.
CO	Unclassifiable or attainment effective November 15, 1990.
O ₃	Attainment effective July 19, 2007, for the 8-hour ozone standard. ¹
PM ₁₀	Unclassifiable effective November 15, 1990.
PM _{2.5}	Unclassifiable or attainment effective April 5, 2005.
NO ₂	Cannot be classified or better than national standards.
Pb	Not designated.

¹Attainment effective October 18, 2000, for the 1-hour ozone standard for the South Bend-Elkhart area, including Elkhart County, and is a maintenance area for the 1-hour National Ambient Air Quality Standards (NAAQS) for purposes of 40 CFR 51, Subpart X*. The 1-hour standard was revoked effective June 15, 2005.

- (a) Ozone Standards
 - (1) On November 9, 2007, the Indiana Air Pollution Control Board finalized a temporary emergency rule to re-designate Elkhart as attainment for the 8-hour ozone standard.
 - (2) Volatile organic compounds (VOC) and Nitrogen Oxides (NOx) are regulated under the Clean Air Act (CAA) for the purposes of attaining and maintaining the National Ambient Air Quality Standards (NAAQS) for ozone. Therefore, VOC and NOx emissions are considered when evaluating the rule applicability relating to ozone. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC and NOx emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

- (b) **PM2.5**
Elkhart County has been classified as attainment for PM2.5. U.S. EPA has not yet established the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2 for PM2.5 emissions. Therefore, until the U.S. EPA adopts specific provisions for PSD review for PM2.5 emissions, it has directed states to regulate PM10 emissions as a surrogate for PM2.5 emissions.
- (c) **Other Criteria Pollutants**
Elkhart County has been classified as attainment or unclassifiable in Indiana for all other criteria pollutants. Therefore, these emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.
- (d) **Fugitive Emissions**
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are not counted toward the determination of applicability.

Unrestricted Potential Emissions

This table reflects the unrestricted potential emissions of the source.

Pollutant	tons/year
PM	287
PM ₁₀	288
SO ₂	0.09
VOC	334
CO	11.3
NO _x	15.7

HAPs	tons/year
Toluene	18.4
Total	38.1

- (a) The potential to emit (as defined in 326 IAC 2-7-1(29)) of PM10 and VOC are greater than 100 tons per year. The source is subject to the provisions of 326 IAC 2-7. However, the source has agreed to continue to limit their PM10 and VOC emissions to less than Title V levels; therefore the source will be issued a FESOP Renewal.
- (b) The potential to emit (as defined in 326 IAC 2-7-1(29)) of any single HAP (toluene) is greater than ten (10) tons per year and the potential to emit (as defined in 326 IAC 2-7-1(29)) of a combination of HAPs is greater than twenty-five (25) tons per year. However, the source has agreed to continue to limit their single HAP emissions and total HAP emissions below Title V limits. Therefore, the source will be issued a FESOP Renewal.

Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-7, fugitive emissions are not counted toward the determination of Part 70 applicability.

- (a) This existing stationary source is not major for PSD because the emissions of each criteria pollutant are less than two hundred fifty (<250) tons per year, and it is not one of the twenty-eight (28) listed source categories.
- (b) **Fugitive Emissions**
Since this type of operation is not one of the twenty-eight (28) listed source categories under 326 IAC 2-2, fugitive emissions are not counted toward the determination of PSD applicability.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS) (326 IAC 12 and 40 CFR Part 60) included in this permit renewal.
- (b) The requirements of the New Source Performance Standard (NSPS), 40 CFR 60.110a, Subpart Kb, Standards of Performance for Petroleum Liquid Storage Vessels (326 IAC 12) are not included in the permit for the gasoline fuel transfer and dispensing operation. This NSPS applies to storage vessel with a capacity greater than 151,416 liters (40,000 gallons). Each storage vessel within the dispensing operation has a storage capacity less than the minimum applicable threshold.
- (c) The requirements of the New Source Performance Standard (NSPS), 40 CFR 60.40c, Subpart Dc, Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units (326 IAC 12) are not included in the permit for the natural gas-fired heaters. This NSPS applies to each steam generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 100 million Btu per hour (MMBtu/hr) or less, but greater than or equal to 10 MMBtu/hr. Each of the space heaters is not considered a steam generating unit and has a maximum design heat input capacity of less than 10 MMBtu/hr.
- (d) The requirements of the New Source Performance Standard (NSPS) for Automobile and Light Duty Truck Surface Coating Operations, 40 CFR 60, Subpart MM (326 IAC 12) are not included in this permit. 40 CFR 60, Subpart MM applies to prime, guide, and topcoat painting operations located at an automobile or light duty truck assembly plant. This source does not operate an automobile or light duty trucks assembly plant. Pursuant to 40 CFR 60.391, motor home/recreational vehicles exceed the 3,850 pound gross weight applicable threshold of a light-duty truck.
- (e) The requirements of the New Source Performance Standard (NSPS) for Stationary Compression Ignition Internal Combustion Engines, 40 CFR 60, Subpart IIII (326 IAC 12) are not included in this permit. Four Winds has two (2) internal combustion backup generators. Both units combust natural gas and were installed and constructed prior to the July 11, 2005 effective date of the rule.
- (f) The requirements of the New Source Performance Standard (NSPS) for Stationary Spark Ignition Internal Combustion Engines, 40 CFR 60, Subpart JJJJ (326 IAC 12) are not included in this permit. Four Winds has two (2) internal combustion backup generators. Both units combust natural gas and were installed and constructed prior to the July 11, 2005 effective date of the rule. Both units combust natural gas and were installed and constructed prior to the June 12, 2006 effective date of the rule.
- (g) There are no National Emission Standards for Hazardous Air Pollutants (NESHAP) (326 IAC 14, 326 IAC 20 and 40 CFR Part 63) included in this permit renewal.

- (h) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Miscellaneous Metal Parts and Products Surface Coating, 40 CFR 63, Subpart Mmmm (326 IAC 20-80) are not included in the permit for the surface coating operations because this source is not a major source of HAPs. This source is not a major source of HAPs because the source has accepted federally enforceable limits such that HAP emissions from the entire source are limited to less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for total combined HAPs.
- (i) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Plastic Parts and Products, 40 CFR 63, Subpart Pppp (326 IAC 20-81) are not included in the permit for the surface coating operations because this source is not a major source of HAPs. This source is not a major source of HAPs because the source has accepted federally enforceable limits such that HAP emissions from the entire source are limited to less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for total combined HAPs.
- (j) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines 40 CFR 63, Subpart Zzzz (326 IAC 20-82) are not included in the permit. This source is not a major source of HAPs because the source has accepted federally enforceable limits such that HAP emissions from the entire source are limited to less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for total combined HAPs.
- (k) The requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) for Surface Coating of Automobiles and Light Duty Trucks, 40 CFR 63, Subpart Iiii (326 IAC 20-85) are not included in the permit for the surface coating operations. Pursuant to 40 CFR 63.3176, motor home/recreational vehicles exceed the 8,500 pound gross weight applicable threshold of a light-duty truck. This source is also not a major source of HAPs because the source has accepted federally enforceable limits such that HAP emissions from the entire source are limited to less than ten (10) tons per year for a single HAP and less than twenty-five (25) tons per year for total combined HAPs.

State Rule Applicability - Entire Source

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

This stationary source is not one of the 28 listed source categories and there are no applicable New Source Performance Standards that were in effect on August 7, 1980. Therefore, fugitive emissions are not counted towards applicability of PSD.

The source has the unrestricted potential to emit VOC, PM, and PM10 emissions greater than 250 tons per year. The source has accepted limitations to ensure VOC emissions are less than 250 tons per year. For the specific PM10 and VOC limits, please see the FESOP limitations discussed below.

The PM emissions from the following units shall each not exceed the emission limits listed in the table below:

Unit Description	Control Description	PM Emission Limit (lbs/hr)
Class A - Line 1 Subassembly Cutting and Woodworking (ASA)	Cyclones and bag filter (C3)	3.01
Class C - Subassembly Woodworking (CSA-2)	Cyclone (C Plant Cyclone)	2.15
Woodworking (Building 750, ASA-2)	Baghouses (DC1 and DC2)	2.01
Woodworking (Building 4221)	Baghouse (WHA-DC1)	1.12
Class A – Line 1 Uncontrolled Woodworking	Uncontrolled	4.89
Hand Routing – Class A Lamination Area	Uncontrolled	1.16
Hand Routing – Class C Lamination Area	Uncontrolled	4.30

Note: The total PM emissions limit for the units listed above equals 13.4 pounds per hour; 58.9 tons per year.

Combined with emissions from the other insignificant activities, the emissions from woodworking, cutting, and hand routing are limited to less than 250 tons per year for PM. Therefore, the requirements of 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)) are not applicable and this source is a minor source under 326 IAC 2-2.

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

The source has the unrestricted potential to emit a single HAP greater than ten (10) tons per year and the potential to emit total HAPs greater than twenty-five (25) tons per year. However, the source has accepted limits on HAP usage that will make the source a minor source under Section 112 of the Clean Air Act. For the specific limit, please see the FESOP limitations discussed below. Therefore, 326 IAC 2-4.1 does not apply.

326 IAC 2-6 (Emission Reporting)

Pursuant to 326 IAC 2-6-1, this source is not subject to this rule because it is not required to have an operating permit under 326 IAC 2-7 (Part 70), it is not located in Lake, Porter, or LaPorte County, and it does not emit lead into the ambient air at levels equal to or greater than 5 tons per year. Therefore, the regular reporting requirements of 326 IAC 2-6 do not apply. However, the source is subject to 326 IAC 2-6-5 (Additional Information Requests).

326 IAC 2-8 (Federally Enforceable State Operating Permit Program (FESOP))

The source has the unrestricted potential to emit (PTE) of VOC and PM10 greater than 100 tons per year, the unrestricted PTE of a single HAP greater than ten (10) tons per year, and the PTE of a combination of HAPs greater than twenty-five (25) tons per year.

The source has accepted the following limitations to ensure VOC, PM10, single HAP, and total HAPs are less than 100, 100, 10, and 25 tons per year, respectively:

- (a) The total VOC input to the seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U), 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 input of the single greatest HAP to the seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U), 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 HAP input to the seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U), 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.
- (d) The PM10 emissions from the following units shall each not exceed the emission limits listed in the table below:

Unit Description	Control Description	PM10 Emission Limit (lbs/hr)
Class A - Line 1 Subassembly Cutting and Woodworking (ASA)	Cyclones and bag filter (C3)	3.01
Class C - Subassembly Woodworking (CSA-2)	Cyclone (C Plant Cyclone)	2.15
Woodworking (Building 750, ASA-2)	Baghouses (DC1 and DC2)	2.01
Woodworking (Building 4221)	Baghouse (WHA-DC1)	1.12
Class A – Line 1 Uncontrolled Woodworking	Uncontrolled	4.89
Hand Routing – Class A Lamination Area	Uncontrolled	1.16
Hand Routing – Class C Lamination Area	Uncontrolled	4.30

Note: The total PM10 emissions limit for the units listed above equals 13.4 pounds per hour; 58.9 tons per year.

Compliance with these limits will limit source-wide VOC, PM10, individual HAP, and total HAP emissions to less than 100, 100, 10 and 25 tons per year, respectively, and render 326 IAC 2-7 (Part 70) not applicable. The VOC and PM10 limits also render the provisions of 326 IAC 2-2 (PSD) not applicable as discussed above.

326 IAC 5-1 (Opacity Limitations)

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

State Rule Applicability – Coating Operations

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

The surface coating operations (Class C Line, Class A - Line 1, and Class A - Line 2) use a variety of hand, aerosol, high volume low pressure (HVLP) spray, and airless spray applications. Pursuant to 326 IAC 6-3-1(b), roll, flow, and brush coating are exempt manufacturing processes. In addition, less than five (5) gallons of coating per day are applied using spray application methods. Therefore, pursuant to 326 IAC 6-3-1(b)(15), the spray application of coatings is exempt from 326 IAC 6-3.

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

Pursuant to the BACT determination in SPR No. 039-19330-00220, the six (6) coating areas (Class C Line - Subassembly (CSA-1), Class C Line - Final finish (CFF), Class A - Line 1 - Subassembly (A1SA), Class A - Line 1 - Final finish (A1FF), Class A - Line 2 - Subassembly (A2SA) and Class A - Line 2 - Final finish (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.

326 IAC 8-2-2 (Automobile and Light Duty Truck Coating Operations)

This source paints motor home/recreational vehicles. Motor home/recreational vehicles exceed the 8,500 pound gross weight applicable threshold of a light-duty truck. Therefore, the requirements of 326 IAC 8-2-2 are not applicable.

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

326 IAC 8-2-9 (Miscellaneous Metal Coating Operations) applies to facilities constructed after July 1, 1990 located in any county, and with actual VOC emissions of greater than fifteen (15) pounds per day before add-on controls. The miscellaneous metal coating activities at each of the seven (7) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U) have potential VOC emissions of below 15 pounds per day when painting metal. Therefore, the requirements of 326 IAC 8-2-9 are not applicable.

326 IAC 8-2-11 (Fabric and Vinyl Coating)

At the subassembly areas for the three (3) motor home production lines (CSA-1, A1SA, and A2SA), the source prepares window coverings which consist of coating a wooden frame with tack adhesive and placing fabric onto the frame. Pursuant to 326 IAC 8-2-11(a), such a process does not meet the definition of fabric coating since the process is not imparting properties to the fabric not already there. Therefore, the requirements of 326 IAC 8-2-11 are not applicable.

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

Pursuant to 326 IAC 8-2-1 (Applicability) and 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), facilities constructed after July 1, 1990 located in any county, and with actual VOC

emissions of greater than fifteen (15) pounds per day before add-on controls, shall apply all coating materials, with the exception of no more than ten (10) gallons of coating per day used for touch-up and repair operations, using one or more of the stated application systems.

This source uses pre-fabricated, pre-finished, wood cabinets in the construction of motor homes. To attach the cabinets to the motor homes, the source uses adhesives, as well as touch-up coatings for product finishing. The potential amount of VOC emitted from subassembly areas CSA-1, A1SA, and A2SA each exceed 15 pounds per day, largely from adhesives usage when coating wood. The potential amount of VOC emitted from final finish areas CFF, A1FF, and A2FF each exceed 15 pounds per day. Therefore, the requirements of 326 IAC 8-2-12 apply to these facilities.

Pursuant to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), the six (6) coating areas (CSA-1, CFF, A1SA, A1FF, A2SA and A2FF) 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.

326 IAC 8-10 (Automobile Refinishing)

The surface coating operations are not subject to 326 IAC 8-10 because they are located in Elkhart County. 326 IAC 8-10 only applies to auto refinishing facilities located in Clark, Lake, Floyd, or Porter counties.

Summary of Volatile Organic Compound Rules

Motor home/recreational vehicles include metal, wood, and plastic components. To clarify rule applicability, the following table shows the state rules that apply to the surface coating facilities:

Coating Areas	Rule Applicability	
	326 IAC 8-1-6	326 IAC 8-2-12
CSA-1	Y	Y
CFF	Y	Y
A1SA	Y	Y
A1FF	Y	Y
A2SA	Y	Y
A2FF	Y	Y
A2U	not applicable	not applicable

State Rule Applicability – Woodworking, Cutting, Hand Routing, and Insignificant Activities

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

Pursuant to 326 IAC 6-3-2(e) (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	Control Description	Process Weight (tons/hr)	PM Emission Limit (lbs/hr)
Class A - Line 1 Subassembly Cutting and Woodworking (ASA)	Cyclones and bag filter (C3)	0.88	3.01
Class C - Subassembly Woodworking (CSA-2)	Cyclone (C Plant Cyclone)	0.53	2.15
Woodworking (Building 750, ASA-2)	Baghouses (DC1 and DC2)	0.48	2.01
Woodworking (Building 4221)	Baghouse (WHA-DC1)	0.20	1.12
Class A – Line 1 Uncontrolled Woodworking	Uncontrolled	1.82	4.89
Hand Routing – Class A Lamination Area	Uncontrolled	0.21	1.16
Hand Routing – Class C Lamination Area	Uncontrolled	1.50	4.30

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

The control equipment shall be in operation at all times the CSA-2, ASA, Line 1 hand routing, building 750 woodworking, and building 422 woodworking facilities are in operation, in order to comply with this limit. Emission calculations indicate that uncontrolled miscellaneous woodworking operations are able to comply with this limit without using a control device.

326 IAC 2-7-1(21)(G)(xxx) (Insignificant Activities)

Pursuant to 326 IAC 2-7-1(21)(G)(xxx), the miscellaneous woodworking operations (in Buildings 750 and 4221) controlled by baghouses (identified as DC1, DC2, and WHA-DC1) shall be considered insignificant woodworking operations provided that: the baghouse does not exhaust to the atmosphere greater than forty thousand (40,000) cubic feet per minute, the baghouse does not emit particulate matter with a diameter less than ten (10) microns in excess of one-hundredth (0.01) grain per dry standard cubic feet of outlet air, the opacity from the baghouse does not exceed ten percent (10%), and the baghouse is in operation at all times that the woodworking equipment is in use.

State Rule Applicability – Welding, Cutting, Storage Tanks, and Process Heaters

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

- (a) Pursuant to 326 IAC 6-3-1(b), the Class C Line and building 655 for Class A - Line 1 and Line 2 (Diesel Pusher) welding operations are exempt from 326 IAC 6-3-2 because less than six hundred twenty-five (625) pounds of rod or wire is consumed per day.
- (b) Pursuant to 326 IAC 6-3-1(b), the wire harness soldiering units are exempt from 326 IAC 6-3-2 because less than three thousand four hundred (3,400) inches per hour of stock one

(1) inch thickness or less is cut by these facilities and less than six hundred twenty-five (625) pounds of rod or wire is consumed per day.

- (c) Natural gas-fired heaters and furnaces are not specifically identified in 326 IAC 6-3-2(b) through (d). Pursuant to 326 IAC 1-2-59, "Process weight; weight rate," states that liquid and gaseous fuels will not be considered as part of the process rate. Therefore, the heaters and furnaces are not subject to 326 IAC 6-3-2(e).

326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating)

The natural gas-fired heaters and furnaces do not produce usable heat that is transferred through a heat conducting materials barrier or by a heat storage medium to a material to be heated. As a result the space heaters are not an indirect heating unit. Therefore, 326 IAC 6-2 (Particulate Emission Limitations for Sources of Indirect Heating) does not apply.

326 IAC 7-1.1 (Sulfur Dioxide Emission Limitations)

This rule applies to sources emitting more than 25 tons per year or 10 pounds per hour of sulfur dioxide. The potential to emit sulfur dioxide emissions from the natural gas-fired heaters and furnaces are less than 25 tons per year and less than 10 pounds per hour. Therefore, the requirements of 326 IAC 7 do not apply.

326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), 326 IAC 8-4-6 (Gasoline Dispensing Facilities), and 326 IAC 8-4-9 (Leaks from Transports and Vapor Collection Systems)

Pursuant to 326 IAC 8-4-1 and 326 IAC 8-4-3 (Petroleum Liquid Storage Facilities), all petroleum liquid storage vessels with capacities greater than one hundred fifty thousand (150,000) liters (39,000 gallons) containing VOC whose true vapor pressure is greater than 10.5 kPa (1.52 psi) shall comply with the requirements for external fixed and floating roof tanks and the specified record keeping and reporting requirements. The gasoline fuel transfer and dispensing operation has storage capacity less than 10,500 gallons and is therefore the requirements of 326 IAC 8-4-3 are not applicable.

Pursuant to 326 IAC 8-4-1, the requirements of 326 IAC 8-4-6 (Gasoline Dispensing Facilities), apply to any gasoline storage tank and dispensing facility, unless a dispensing facilities monthly throughput is less than ten thousand (10,000) gallons per month or it was in existence prior to July 1, 1989. The gasoline fuel transfer and dispensing operation was installed before August 1985 and based on available throughput records supplied by the source, the actual throughput at the source is well below the 10,000 gallons per month applicability threshold. Therefore, these requirements do not apply to the source.

326 IAC 8-7 (Specific VOC Reduction Requirements for Lake, Porter, Clark and Floyd Counties)

The requirements of this rule apply to stationary sources located in Lake, Porter, Clark and Floyd Counties that emit or have the potential to emit VOCs at levels equal to or greater than 25 tons per year in Lake and Porter Counties; 100 tons per year in Clark and Floyd Counties; and to any coating facility that emits or has the potential to emit 10 tons per year or greater in Lake, Porter, Clark or Floyd County. This source is located in Elkhart County. Therefore, the requirements of 326 IAC 8-7 are not applicable.

Compliance Determination and Monitoring Requirements

Permits issued under 326 IAC 2-8 are required to ensure that sources can demonstrate compliance with all applicable state and federal rules on a continuous basis. All state and federal rules contain compliance provisions, however, these provisions do not always fulfill the requirement for a continuous demonstration. When this occurs, IDEM, OAQ, in conjunction with the source, must develop specific conditions to satisfy 326 IAC 2-8-4. As a result, Compliance Determination Requirements are included in the permit. The Compliance Determination Requirements in Section D of the permit are those conditions that are found directly within state and federal rules and the violation of which serves as grounds for enforcement action.

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

The compliance monitoring requirements applicable to this source are as follows:

Control	Parameter	Frequency	Range	Excursions and Exceedances
Subassembly area (CSA-2) cyclone	Visible Emissions	Daily	Normal-Abnormal	Response Steps
Baghouses (DC1, DC2, WHA-DC1) and cyclones (C3, C Plant Cyclone)	Pressure Drop	Weekly	Manufacturer Specified	Response Steps

These monitoring conditions are necessary because the cyclone, cyclone and bag filter, and baghouses for the subassembly and woodworking operations must operate properly to ensure compliance with 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes), 326 IAC 2-8 (Federally Enforceable State Operating Permit (FESOP)), and 326 IAC 2-2 (Prevention of Significant Deterioration (PSD)).

Recommendation

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

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

An application for the purposes of this review was received on March 14, 2007.

Conclusion

The operation of this motor home/recreational vehicle manufacturer shall be subject to the conditions of the attached FESOP Renewal No. 039-24449-00220.

Appendix A: Emission Calculations

Company Name: Four Winds International, Inc.
 Address City IN Zip: 701 CR 15, Elkhart, IN 46516
 FESOP Renewal No.: 039-24449-00220
 Reviewer: ERG/BL
 Date: February 29, 2008

Process/emission unit	Potential To Emit (tons/year)							
	PM	PM10	SO ₂	VOC	CO	NOx	Toluene	Total HAPs
Class A - Line 1 Surface Coating Operations (A1SA, A1FF)								
Sub-Assembly Area	0.06	0.06	-	30.9	-	-	0.19	2.46
Final Finish Area	0.66	0.66	-	55.4	-	-	4.49	7.19
Building and Equipment Maintenance	-	-	-	0.16	-	-	4.20E-04	0.01
Class A - Line 2 Surface Coating Operations (A2SA, A2FF, A2U)								
Sub-Assembly, Final Finish, Building and Equipment Areas	0.10	0.10	-	64.2	-	-	3.59	7.42
Class C - Surface Coating Operations (CSA-1, CFF)								
Sub-Assembly Area	0.11	0.11	-	64.4	-	-	0.39	5.12
Final Finish Area	1.38	1.38	-	116	-	-	9.35	15.0
Undercoating Area, Building, and Equipment Maintenance	0.05	0.05	-	2.49	-	-	0.43	0.46
Class A - Subassembly								
Class A, Line 1 - cyclone C3	4.62	4.62	-	-	-	-	-	-
Class A - Line 1, uncontrolled	0.95	0.95	-	-	-	-	-	-
Class A - Lines 1 and 2 Roof/Sidewall Uncontrolled FRP Cutting and Final Finish Trim Cutting	21.4	21.4	-	-	-	-	-	-
Class C Line - Subassembly (CSA)	75.1	75.1	-	-	-	-	-	-
Class C Line - Roof/Sidewall Uncontrolled FRP Cutting	18.9	18.9	-	-	-	-	-	-
Woodworking (Building 750, Class A - Line 2, ASA2)	124	124	-	-	-	-	-	-
Wire Harness								
Material Usage	8.21E-05	8.21E-05	-	0.01	-	-	-	8.21E-05
Woodworking (Building 4221 - Wire Harness)	44.3	44.3	-	-	-	-	-	-
Welding and Thermal Cutting	3.84	3.84	-	-	-	-	-	0.21
Natural Gas Combustion	0.28	1.12	0.09	0.84	11.3	15.7	5.01E-04	0.28
Class A, Line 1 End Panel Hand Routing	5.68	5.68	-	-	-	-	-	-
Total	302	303	0.09	334	11.3	15.7	18.4	38.1

Process/emission unit	Potential to Emit After Issuance (tons/year)							
	PM	PM10	SO ₂	VOC	CO	NOx	Toluene	Total HAPs
Class A - Line 1; Class A - Line 2; and Class C coating operations (CSA-1, CFF, A1SA, A1FF, A2SA, A2FF, and A2U)								
Class A - Line 1 - Subassembly, Controlled	2.40	2.40	-	< 99.1	-	-	< 9.80	<24.5
Class C - Subassembly	13.2	13.2	-	-	-	-		
Class C - Subassembly	9.4	9.4	-	-	-	-		
Woodworking (Building 750, Class A - Line 2, ASA2)	8.8	8.8	-	-	-	-		
Wire Harness								
Material Usage	8.21E-05	8.21E-05	-	-	-	-	-	-
Woodworking (Building 4221 - Wire Harness)	4.89	4.89	-	-	-	-	-	-
Uncontrolled Woodworking and Roof/Sidewall Hand Routing, Class A and C Lines								
Uncontrolled Woodworking and Roof/Sidewall Hand Routing, Class A and C Lines	45.4	45.4	-	-	-	-	-	-
Welding and Thermal Cutting	3.84	3.84	-	-	-	-	-	0.21
Natural Gas Combustion	0.28	1.12	0.09	0.84	11.3	15.7	5.01E-04	0.28
Class A, Line 1 End Panel Hand Routing	5.68	5.68	-	-	-	-	-	-
Total	93.9	94.7	0.09	99.94	11.3	15.7	< 10.0	< 25.0

**Appendix A: Emission Calculations
VOC and Particulate
Class A - Line 1**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Uncontrolled Potential to Emit --- Class A - Line 1																	
Material (as applied)	Type of Material Coated	Density (lb/gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency	PM Control Efficiency
<i>Facility: Sub-Assembly Area</i>																	
<i>Miscellaneous Coatings Applied</i>																	
WD-40	metal	6.80	70.0%	0%	70.0%	0%	30.0%	0.010	1.500	4.76	4.76	0.07	1.71	0.31	0.03	75%	0%
SPRAYING T.P.E. DRY LUBE	metal	5.53	99.0%	0%	99.0%	0%	1.00%	0.001	1.500	5.47	5.47	0.01	0.20	0.04	0.00	75%	0%
SPRAY-ON WET LUBE	metal	6.80	80.5%	0%	80.5%	0%	16.0%	0.005	1.500	5.47	5.47	0.04	0.99	0.18	0.01	75%	0%
SPRAY-ON CUTTING OIL	metal	7.13	16.0%	0%	16.0%	0%	84.0%	0.001	1.500	1.14	1.14	0.00	0.04	0.01	0.01	75%	0%
										<i>(metal coating subtotal):</i>							
										0.12		2.94		0.54		0.05	
<i>Miscellaneous Adhesives Applied ****</i>																	
UNIFLEX 260	wood and plastic	10.50	0%	0%	0%	0%	100%	0.335	1.500	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%
PER-FECT LOK HOT METAL ADHESIVE 34-3182	wood and plastic	8.08	0%	0%	0%	0%	100%	0.013	1.500	0.00	0.00	0.00	0.00	0.00	0.00	100%	0%
SUPERTAK HIGH PERFORMANCE ADHESIVE	wood and plastic	6.40	49.4%	10.0%	39.4%	7.68%	50.6%	0.308	1.500	2.73	2.52	1.16	27.9	5.10	0.00	100%	0%
SUPERTAK TRIM ADHESIVE	wood and plastic	6.16	79.8%	10.0%	69.8%	7.40%	20.2%	0.002	1.500	4.64	4.30	0.01	0.31	0.06	0.00	100%	0%
STA-PUT II AEROSOL ADHESIVE	wood and plastic	5.93	79.9%	0%	79.9%	0%	20.1%	0.019	1.500	4.74	4.74	0.14	3.24	0.59	0.00	100%	0%
RUSSELL 676	wood and plastic	5.72	90.0%	31.7%	58.3%	21.8%	10.0%	0.137	1.500	4.26	3.33	0.69	16.4	3.00	0.00	100%	0%
STA-PUT IV H CYLINDER	wood and plastic	7.81	81.4%	0%	81.4%	0%	18.6%	0.293	1.500	6.36	6.36	2.80	67.1	12.24	0.00	100%	0%
STA-PUT IV H AEROSOL	wood and plastic	7.96	81.0%	0%	81.0%	0%	19.0%	0.054	1.500	6.45	6.45	0.52	12.5	2.29	0.00	100%	0%
ISOPROPYL ALCOHOL FOR CLEANUP	wood and plastic	6.50	99.0%	0%	99.0%	0%	0%	0.035	1.500	6.44	6.44	0.34	8.1	1.48	0.00	100%	0%
										5.65		136		24.8		0.00	
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																	
C-99 & C-100 CYCLO FAST STARTING FLUID		5.94	93.0%	0%	93.0%	0%	7.00%	539.3E-6	1.500	5.52	5.52	0.00	0.11	0.02	0.00	75%	0%
C-1 & C-5 CYCLO CARB CLEAN B-4688		6.88	100%	0%	100%	0%	0%	0.005	1.500	6.88	6.88	0.05	1.24	0.23	0.00	75%	0%
BRAKE PARTS & CLEANER CYCLO C-111		6.33	100%	20.0%	80.0%	15.2%	0%	0.015	1.500	5.97	5.06	0.11	2.73	0.50	0.00	75%	0%
CAME 22/90 CLEANER & DEGREASER		5.86	99.9%	0%	99.9%	0%	0.10%	0.040	1.500	5.85	5.85	0.35	8.43	1.54	0.00	75%	0%
										0.52		12.5		2.28		0.00	
<i>Miscellaneous Facility-Wide Solvent Usage</i>																	
METHY ETHYL KETONE		6.71	100%	0%	100%	0%	0%	0.005	1.500	6.71	6.71	0.05	1.21	0.22	0.00	100%	0%
ACETONE *		6.61	100%	100%	0%	100%	0%	0.093	1.500	-	0.00	0.00	0.00	0.00	0.00	100%	0%
DYNASOLVE CU-5		8.83	97.0%	0%	97.0%	0%	3.00%	0.002	1.500	8.57	8.57	0.03	0.62	0.11	0.00	100%	0%
SOLVENT BLEND ETHANOL A-1		6.76	94.7%	0%	94.7%	0%	5.31%	0.071	1.500	6.40	6.40	0.68	16.4	2.99	0.00	100%	0%
										0.76		18.2		3.32		0.00	
Total Uncontrolled PTE from Class A - Line 1 Vehicle Sub-Assembly (tons/yr):												7.05	169	30.9	0.06		

See page 3 for calculation methodology.

**Appendix A: Emission Calculations
VOC and Particulate
Class A - Line 1 (Continued)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Uncontrolled Potential to Emit --- Class A - Line 1																	
Material (as applied)	Substrate Type Coated	Density (lb/gal)	Weight % Volatile (H2O& Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency	PM Control Efficiency
<i>Facility: General Class A - Line 1 Building and Equipment Maintenance</i>																	
SPRAY ON OD100 WHITE LITL	metal, wood or fiberglass	6.66	63.0%	0.00%	63.0%	60.0%	0%	0.008	gal/hour	10.49	4.20	0.03	0.76	0.14	0.02	75%	0%
OSHA SAFETY YELLOW	metal, wood or fiberglass	6.39	57.9%	0.00%	57.9%	0%	15.0%	0.002	gal/hour	3.70	3.70	0.01	0.13	0.02	0.00	75%	0%
<i>Facility: Final Finish Area</i>																	
<i>Miscellaneous Coatings Applied</i>																	
SUPER DUTY RUBBING COMPOUND	fiberglass	10.7	50.0%	0%	50.0%	50.0%	0%	0.004	1,500	10.66	5.33	0.03	0.77	0.14	0.00	100%	0%
FLAT WHITE SPRAY PAINT 280	fiberglass	5.58	65.0%	0%	65.0%	35.0%	0%	0.002	1,500	5.58	3.63	0.01	0.26	0.05	0.01	75%	0%
GM FLEET WHITE	fiberglass	9.07	46.2%	0%	46.2%	53.8%	0%	32.8E-6	1,500	9.07	4.19	0.00	0.00	0.00	0.00	75%	0%
COLONIAL WHITE SPRAY (SPRAY N GO ENAMEL)	fiberglass or wood	6.66	63.0%	25.0%	38.0%	37.0%	0%	422.7E-6	1,500	4.02	2.53	0.00	0.04	0.01	0.00	75%	0%
TOUCH N TONE SPRAY PAINT	metal or wood	5.58	65.0%	0%	65.0%	35.0%	0%	0.048	1,500	5.58	3.63	0.26	6.27	1.14	0.15	75%	0%
SPRAY WAY FURNITURE POLISH 811	wood	7.16	50.0%	0%	50.0%	50.0%	0%	0.016	1,500	7.16	3.58	0.09	2.06	0.38	0.09	75%	0%
BBQ BLACK	metal	6.66	80.0%	0%	80.0%	0%	50%	0.008	1,500	5.33	5.33	0.06	1.53	0.28	0.02	75%	0%
												0.46	10.9	2.00	0.27		
												0.04	1.07	0.20	0.01		
												0.35	8.37	1.53	0.25		
												0.33	7.80	1.42	0.17		
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																	
CYCLO C-31 GLASS CLEANER		8.33	100%	0%	100%	0%	0%	0.018	1,500	8.33	8.33	0.22	5.40	0.99	0.00	75%	0%
CRAZY CLEAN 021		8.39	50.0%	0%	50.0%	50.0%	0%	0.044	1,500	8.39	4.20	0.28	6.64	1.21	0.30	75%	0%
SD-20 ALL PURPOSE CLEANER		8.33	23.0%	0%	23.0%	77.0%	0%	0.008	1,500	8.33	1.92	0.02	0.55	0.10	0.08	75%	0%
C-192 MAX CLEAN ALL PURPOSE CLEANER		8.33	98.0%	88.0%	10.0%	2.00%	0%	0.011	1,500	0.85	0.83	0.01	0.33	0.06	0.00	75%	0%
												0.54	12.9	2.36	0.39		
<i>Miscellaneous Facility-Wide Solvent Usage</i>																	
SOLVENT BLEND - MINERAL SPIRITS		6.58	100%	0%	100%	0%	0%	0.144	1,500	6.58	6.58	1.42	34.1	6.23	0.00	100%	0%
SOLVENT BLEND - S1241		6.41	100%	0%	100%	0%	0%	0.102	1,500	6.41	6.41	0.98	23.5	4.30	0.00	100%	0%
SOLVENT BLEND - S0114		7.08	100%	0%	100%	0%	0%	0.041	1,500	7.08	7.08	0.44	10.5	1.91	0.00	100%	0%
SOLVENT BLEND - PS8022 REDUCER		7.04	100%	0%	100%	0%	0%	0.055	1,500	7.04	7.04	0.58	13.9	2.54	0.00	100%	0%
SOLVENT BLEND - S1381		6.59	100%	0%	100%	0%	60.0%	0.504	1,500	6.59	6.59	4.98	120	21.82	0.00	100%	0%
SOLVENT BLEND - ETHANOL A-1 (190)		6.76	94.7%	0%	94.7%	5.31%	0%	0.340	1,500	6.76	6.40	3.26	78	14.3	0.00	100%	0%
												11.7	280	51.1	0.00		
Total Uncontrolled PTE from Class A - Line 1 Final Finish Area (tons/yr):												12.7	304	55.4	0.66		
Total Uncontrolled PTE from Class A - Line 1 Sub-Assembly & Final Finish Areas and Maintenance (tons/yr):												19.8	474	87	0.74		
Total Controlled PTE from Class A Line 1 Sub-Assembly Area (tons/yr):										19.1%	0	7.05	169	<	25**	0.06	
Total Controlled PTE from Class A Line 1 Final Finish Area (tons/yr):										54.9%	0	12.7	304	<	25**	0.66	
Total Controlled PTE from Class A Line 1 Sub-Assembly & Final Finish Areas, Plus Maintenance (tons/yr):										19.7	473	<	50.2	0.72			

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 of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 24 hrs/day
PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 8,760 hrs/yr * 1 ton/2,000 lbs
PTE of PM/PM10 (tons/yr) = Maximum (units/hr) * Gallons of Material (gals/unit) * Density (lbs/gal) * (1-Transfer efficiency) * 8,760 hrs/yr * 1 ton/2,000 lbs
Total = Sum of Worst Coatings per booth + Sum of all solvents used

** The VOC input usage at the Class A Line 1 Subassembly Area; the Class A Line 1 Final Finish Area; the Class C Subassembly Area; & the Class C Final Finish Area, shall be limited in each area to less than 25 tons per twelve (12) consecutive month period
Compliance with this limitation in each area will make the requirements of 326 IAC 8-1-6 (BACT) not applicable to that area.

*** The total combined VOC input usage at the Class A Line 1 Subassembly Area; the Class A Line 1 Final Finish Area; the Class A Line 2 Subassembly Area; the Class A Line 2 Final Finish Area; the Class C Subassembly Area; & the Class C Final Finish Area,
99.1 tons per twelve (12) consecutive month period. This VOC input usage limit is required to limit the source-wide potential to emit VOC to less than 100 tons per 12 consecutive month period. Compliance with this limitation shall make the
requirements of 326 IAC 2-7 (Part 70) not applicable.

**** IDEM, OAQ, Compliance Branch, has determined that the spray application of adhesives is not considered as surface coating, pursuant to 326 IAC 6-3-1.5(5). There is no potential to emit particulate from this process due to deposition of material at

Appendix A: Emission Calculations
VOC and Particulate
Class A - Line 2

Company Name: Four Winds International, Inc.
 Address City IN Zip: 701 CR 15, Elkhart, IN 46516
 FESOP Renewal No.: 039-24449-00220
 Reviewer: ERG/BL
 Date: February 29, 2008

Material	Substrate	Density (lbs/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gals/unit)	Maximum (units/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency*	PM Control Efficiency
BBQ Black (DAP, Inc.)	Metal	6.66	80%	0%	80.0%	0.0%	50.0%	0.01	1.00	5.33	5.33	0.05	1.28	0.23	0.01	75%	0%
WD-40	Metal	6.80	70.0%	0%	70.0%	0%	30.0%	0.01	1.00	4.76	4.76	0.05	1.26	0.23	0.02	75%	0%
TFE Dry Lube	Metal	5.53	99.0%	0%	99.0%	0%	1.00%	1.00E-03	1.00	5.47	5.47	0.01	0.13	0.02	0.00	75%	0%
Spray On Wet Lube	Metal	6.80	80.5%	0%	80.5%	0%	16.0%	0.01	1.00	5.47	5.47	0.03	0.79	0.14	0.01	75%	0%
Spray on Cutting Oil	Metal	7.13	16.0%	0%	16.0%	0%	84.0%	1.00E-03	1.00	1.14	1.14	0.00	0.03	0.00	0.01	75%	0%
Uniplex 260	Metal	10.5	0%	0%	0%	0%	100%	0.38	1.00	0	0	0	0	0	0	100%	0%
Cyclo C99/C100 Starting Fluid	Metal	5.94	93.0%	0%	93.0%	0%	7.00%	4.60E-04	1.00	5.52	5.52	0.00	0.06	0.01	0.00	75%	0%
Cyclo C1/C5 Carb Cleaner	Metal	6.88	100%	0%	100%	0%	0%	6.00E-03	1.00	6.88	6.88	0.04	0.99	0.18	0.00	75%	0%
Cyclo C111 Brake and Parts Cleaner	Metal	6.33	100%	20.0%	80.0%	15.2%	0%	0.02	1.00	5.97	5.06	0.09	2.19	0.40	0.00	75%	0%
Camie 22/90 Cleaner	Metal	5.86	99.9%	0%	99.9%	0.0%	0.10%	0.05	1.00	5.85	5.85	0.27	6.46	1.18	0.00	75%	0%
Spray On OD100 White Lithium Grease	Metal	6.66	63.0%	0%	63.0%	0%	0%	0.01	1.00	4.20	4.20	0.02	0.54	0.10	0.01	75%	0%
OSHA Safety Yellow	Metal	6.39	57.9%	0%	57.9%	0%	15.0%	2.67E-03	1.00	3.70	3.70	0.01	0.24	0.04	0.01	75%	0%
Undercoating **	Metal	8.30	56.3%	56.3%	0%	56.0%	44.0%	3.58	1.00	0	0	0	0	0	0	100%	0%
Cyclo C31 Glass Cleaner	Glass	8.33	100%	0%	100%	0.0%	0%	0.02	1.00	8.33	8.33	0.17	4.20	0.77	0.00	75%	0%
C192 Max Clean (Cyclo)	Plastic	8.33	98%	88%	10.0%	2.0%	0%	0.01	1.00	0.85	0.83	0.01	0.26	0.05	0.00	75%	0%
Crazy Clean 031 (Sprayway)	Plastic	8.39	100%	50%	50.0%	50.0%	0%	0.05	1.00	8.39	4.19	0.21	5.03	0.92	0.00	75%	0%
Flat White Spray Paint 280	Plastic	5.58	94%	29%	65.0%	24.3%	3.50%	3.00E-03	1.00	4.79	3.63	0.01	0.26	0.05	0.00	75%	0%
GM Fleet White	Plastic	9.07	97%	49%	47.5%	53.8%	2.50%	3.00E-05	1.00	9.33	4.31	0.00	0.00	0.00	0.00	75%	0%
SD-20 All Purpose Cleaner	Plastic	8.33	100%	77%	22.9%	77.0%	0%	0.01	1.00	8.30	1.91	0.02	0.46	0.08	0.00	75%	0%
Solvent Blend - Ethanol A-1	Plastic	6.76	100%	6.6%	93.4%	5.3%	0%	0.39	1.00	6.67	6.32	2.46	59.0	10.76	0	100%	0%
Solvent Blend - Mineral Spirits	Plastic	6.58	100%	0%	100%	0%	0%	0.17	1.00	6.58	6.58	1.09	26.1	4.76	0	100%	0%
Solvent Blend - PS-8022 Reducer	Plastic	7.04	100%	0%	100%	0%	0%	0.06	1.00	7.04	7.04	0.44	10.6	1.94	0	100%	0%
Solvent Blend - S0114	Plastic	7.08	100%	0%	100%	0%	0%	0.05	1.00	7.08	7.08	0.33	7.99	1.46	0	100%	0%
Solvent Blend - S1241	Plastic	6.41	100%	0%	100%	0%	0%	0.12	1.00	6.41	6.41	0.75	18.0	3.28	0	100%	0%
Solvent Blend - S1381	Plastic	6.59	100%	0%	100%	0%	0%	0.58	1.00	6.59	6.59	3.80	91.1	16.63	0	100%	0%
Spray N Go Enamel Paint	Plastic	6.66	63%	25%	38.0%	37.0%	12.3%	4.00E-04	1.00	4.02	2.53	0.00	0.02	0.00	0.00	75%	0%
Super Duty Rubbing Compound	Plastic	10.66	100%	39%	60.9%	50.0%	1.50%	5.00E-03	1.00	12.98	6.49	0.03	0.78	0.14	0	100%	0%
Touch N Tone Spray Paint	Plastic	5.58	94%	29%	65.0%	24.3%	3.50%	0.06	1.00	4.79	3.63	0.20	4.79	0.87	0.02	75%	0%
Supertak High Performance Adhesive	Plastic	6.40	49.4%	10.0%	39.4%	7.68%	50.6%	0.35	1.00	2.73	2.52	0.89	21.3	3.89	0	100%	0%
Russell 676 Adhesive	Plastic	5.72	90.0%	31.7%	58.3%	21.8%	10.0%	0.16	1.00	4.26	3.33	0.52	12.6	2.29	0	100%	0%
Isopropyl Alcohol - Cleanup	Plastic	6.50	100%	1.00%	99.0%	0.78%	0%	0.04	1.00	6.49	6.44	0.26	6.18	1.13	0	100%	0%
Methyl Ethyl Ketone	Plastic	6.71	100%	0%	100%	0%	0%	5.00E-03	1.00	6.71	6.71	0.03	0.81	0.15	0	100%	0%
Acetone	Plastic	6.61	100%	100%	0%	100%	0%	0.11	1.00	N/A	0.00	0.00	0.00	0.00	0	100%	0%
Dynasolve CU5	Plastic	8.83	100%	3.00%	97.0%	3.18%	0%	3.00E-03	1.00	8.85	8.57	0.03	0.62	0.11	0	100%	0%
Solvent Blend - Ethanol A-1	Plastic	6.76	100%	6.55%	93.4%	5.31%	0%	0.08	1.00	6.67	6.32	0.51	12.3	2.24	0	100%	0%
Furniture Polish 811 (Claire)	Wood	7.16	100%	50.0%	50.0%	42.9%	0.10%	0.02	1.00	6.27	3.58	0.06	1.55	0.28	0.00	75%	0%
Perfect II Lok Hot Melt Adhesive 34-3182	Wood	8.08	0%	0%	0.0%	0%	100%	0.01	1.00	0	0	0	0	0	0	100%	0%
Supertak Trim Adhesive	Wood	6.16	79.8%	10.0%	69.8%	7.40%	20.2%	3.00E-03	1.00	4.64	4.30	0.01	0.31	0.06	0	100%	0%
Sta-Put II Aerosol Adhesive	Wood	5.93	79.9%	0%	79.9%	0%	20.1%	0.02	1.00	4.74	4.74	0.10	2.50	0.46	0	100%	0%
Sta-Put IV H Cylinder Adhesive	Wood	7.81	81.4%	0%	81.4%	0%	18.6%	0.34	1.00	6.36	6.36	2.13	51.1	9.33	0	100%	0%
Sta-Put IV H Aerosol Adhesive	Wood	7.96	81.0%	0%	81.0%	0%	19.0%	0.06	1.00	6.45	6.45	0.40	9.59	1.75	0	100%	0%

Uncontrolled Potential Emissions

14.7 352 64.2 0.10

Potential to Emit	Metal Coating	7.13	171.2	31.24	0.00
Potential to Emit	Wood Coating	5.25	126.0	23.0	0.03
Potential to Emit	Glass Coating	0.01	0.13	0.02	0.00
Potential to Emit	Plastic Coating	2.8	68	12.5	0.07

*The Transfer Efficiencies used in this analysis are based on Appendix A, Technical Support Document for FESOP Renewal 14036

** Undercoating is a Daubert Chemical. It is described as water emulsified asphalt corrosion barrier suitable for ferrous and nonferrous metals and contains "zero" VOCs.

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 of VOC (lbs/hr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)
 PTE of VOC (lbs/day) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 24 hr/day
 PTE of VOC (tons/yr) = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * 8,760 hrs/yr * 1 ton/2,000 lbs
 PTE of PM/PM10 (tons/yr) = Maximum (units/hr) * Gal of Material (gals/unit) * Density (lbs/gal) * (1-Weight % Volatiles) * (1-Transfer efficiency) * 8,760 hrs/yr * 1 ton/2,000 lbs
 Total = Sum of Worst Coatings per booth + Sum of all solvents used

**Appendix A: Emission Calculations
VOC and Particulate
Class C - Line**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Uncontrolled Potential to Emit -- Class C Line																	
Material (as applied)	Type of Material Coated	Density (lb/gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Vol (solids)	Gal of Mat (gal/unit)	Maximum (unit/hr)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	PTE of VOC (lbs/hr)	PTE of VOC (lbs/day)	PTE of VOC (tons/yr)	PTE of PM/PM10 (tons/yr)	Transfer Efficiency	PM Control Efficiency
<i>Facility: Sub-Assembly Area</i>																	
<i>Miscellaneous Coatings Applied</i>																	
WD-40	metal	6.80	70.0%	0%	70.0%	0%	30.0%	0.010	3.125	4.76	4.76	0.15	3.57	0.65	0.07	75%	0%
SPRAYING T.P.E. DRY LUBE	metal	5.53	99.0%	0%	99.0%	0%	1.00%	0.001	3.125	5.47	5.47	0.02	0.41	0.07	0.00	75%	0%
SPRAY-ON WET LUBE	metal	6.80	80.5%	0%	80.5%	0%	16.0%	0.005	3.125	5.47	5.47	0.09	2.05	0.37	0.02	75%	0%
SPRAY-ON CUTTING OIL	metal	7.13	16.0%	0%	16.0%	0%	84.0%	0.001	3.125	1.14	1.14	0.00	0.09	0.02	0.02	75%	0%
<i>(metal coating subtotal):</i>												0.25	6.12	1.12	0.11		
<i>Miscellaneous Adhesives Applied ****</i>																	
UNIPLEX 260	wood and plastic	10.50	0%	0%	0%	0%	100%	0.335	3.125	0.00	0.00	0.00	0.00	0.00	0	100%	0%
PER-FECT LOK HOT METAL ADHESIVE 34-3182	wood and plastic	8.08	0%	0%	0%	0%	100%	0.013	3.125	0.00	0.00	0.00	0.00	0.00	0	100%	0%
SUPERTAK HIGH PERFORMANCE ADHESIVE	wood and plastic	6.40	49.4%	10.0%	39.4%	7.7%	50.6%	0.308	3.125	2.73	2.52	2.43	58.22	10.63	0	100%	0%
SUPERTAK TRIM ADHESIVE	wood and plastic	6.16	79.8%	10.0%	69.8%	7.4%	20.2%	0.002	3.125	4.64	4.30	0.03	0.64	0.12	0	100%	0%
STA-PUT II AEROSOL ADHESIVE	wood and plastic	5.93	79.9%	0%	79.9%	0%	20.1%	0.019	3.125	4.74	4.74	0.28	6.75	1.23	0	100%	0%
RUSSELL 676	wood and plastic	5.72	90.0%	31.7%	58.3%	21.8%	10.0%	0.137	3.125	4.26	3.33	1.43	34.26	6.25	0	100%	0%
STA-PUT IV H CYLINDER	wood and plastic	7.81	81.4%	0%	81.4%	0%	18.6%	0.293	3.125	6.36	6.36	5.82	139.77	26.51	0	100%	0%
STA-PUT IV H AEROSOL	wood and plastic	7.96	81.0%	0%	81.0%	0%	19.0%	0.054	3.125	6.45	6.45	1.09	26.10	4.76	0	100%	0%
ISOPROPYL ALCOHOL FOR CLEANUP	wood and plastic	6.50	99.0%	0%	99.0%	0%	0%	0.035	3.125	6.44	6.44	0.70	16.89	3.08	0	100%	0%
<i>(adhesive subtotal):</i>												11.78	283	51.6	0		
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																	
C-99 & C-100 CYCLO FAST STARTING FLUID		5.94	93.0%	0%	93.0%	0%	7.00%	323.6E-6	3.125	5.52	5.52	0.01	0.13	0.02	0.00	75%	0%
C-1 & C-5 CYCLO CARB CLEAN B-4668		6.88	100%	0%	100%	0%	0%	0.005	3.125	6.88	6.88	0.11	2.58	0.47	0.00	75%	0%
BRAKE PARTS & CLEANER CYCLO C-111		6.33	100%	20.00%	80.0%	15.2%	0%	0.015	3.125	5.97	5.06	0.24	5.70	1.04	0.00	75%	0%
CAMIE 22/90 CLEANER & DEGREASER		5.86	99.9%	0%	99.9%	0%	0.10%	0.040	3.125	5.85	5.85	0.73	17.56	3.21	0.00	75%	0%
<i>(cleaning materials subtotal):</i>												1.08	26.0	4.74	0.00		
<i>Miscellaneous Facility-Wide Solvent Usage</i>																	
METHY ETHYL KETONE		6.71	100%	0%	100%	0%	0%	0.005	3.125	6.71	6.71	0.10	2.5	0.46	0	100%	0%
ACETONE *		6.61	100%	100%	0%	100%	0%	0.093	3.125	-	0.00	0.0	0.00	0	0	100%	0%
DYNASOLVE CU-5		8.83	97.0%	0%	97.0%	0%	3.00%	0.002	3.125	8.57	8.57	0.05	1.3	0.23	0	100%	0%
SOLVENT BLEND ETHANOL A-1		6.76	94.7%	0%	94.7%	0%	5.31%	0.071	3.125	6.40	6.40	1.42	34.1	6.22	0	100%	0%
<i>(solvent subtotal):</i>												1.58	37.9	6.91	0		
Total Uncontrolled PTE from Class C Line Vehicle Sub-Assembly (tons/yr):												14.7	353	64.4	0.11		

See page 6 for calculation methodology.

**Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
Class A - Line 1**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Uncontrolled Potential to Emit --- Class A - Line 1																		
Material (as applied)	Density (lbs/gal)	Gal of Mat (gal/unit)	Maximum (unit/hr)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Methanol	Weight % Hexane	Potential to Emit HAP (tons/yr)							
											Xylene	Toluene	MIBK	Ethyl Benzene	Glycol Ethers	Methanol	Hexane	Total All HAPs
<i>Facility: Sub-Assembly Area</i>																		
<i>Miscellaneous Coatings Applied</i>																		
WD-40	6.80	0.010	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SPRAYING T.P.E. DRY LUBE	5.53	0.001	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SPRAY-ON WET LUBE	6.80	0.005	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SPRAY-ON CUTTING OIL	7.13	0.001	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
<i>Miscellaneous Adhesives Applied</i>																		
UNIPLEX 260	10.5	0.335	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
PER-FECT LOK HOT METAL ADHESIVE 34-3182	8.08	0.013	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SUPERTAK HIGH PERFORMANCE ADHESIVE	6.40	0.308	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SUPERTAK TRIM ADHESIVE	6.16	0.002	1.500	0%	0%	0%	0%	0%	0%	70.0%	0	0	0	0	0	0	0.06	0.06
STA-PUT II AEROSOL ADHESIVE	5.93	0.019	1.500	0%	0%	0%	0%	0%	0%	10.0%	0	0	0	0	0	0	0.07	0.07
RUSSELL 676	5.72	0.137	1.500	0%	0%	0%	0%	0%	0%	35.0%	0	0	0	0	0	0	1.80	1.80
STA-PUT IV H CYLINDER	7.81	0.293	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
STA-PUT IV H AEROSOL	7.96	0.054	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
ISOPROPYL ALCOHOL FOR CLEANUP	6.50	0.035	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																		
C-99 & C-100 CYCLO FAST STARTING FLUID	5.94	539.3E-6	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
C-1 & C-5 CYCLO CARB CLEAN B-4668	6.88	0.005	1.500	0%	0%	0%	10%	0%	0%	0%	0	0	0	0.02	0	0	0	0.02
BRAKE PARTS & CLEANER CYCLO C-111	6.33	0.015	1.500	0%	30.0%	0%	0%	0%	0%	0%	0	0.19	0	0	0	0	0	0.19
CAMIE 22/90 CLEANER & DEGREASER	5.86	0.040	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
0 0.19 0 0.02 0 0 0 0.21																		
<i>Miscellaneous Facility-Wide Solvent Usage</i>																		
METHY ETHYL KETONE	6.71	0.005	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0.00
ACETONE *	6.61	0.093	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
DYNASOLVE CU-5	8.83	0.002	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SOLVENT BLEND ETHANOL A-1	6.76	0.071	1.500	0%	0%	10.0%	0%	0%	0%	0%	0	0	0.32	0	0	0	0	0.32
0 0 0.32 0 0 0 0 0.32																		
Total Uncontrolled PTE from Class A - Line 1 Vehicle Sub-Assembly Area (tons/yr):											0	0.19	0.32	0.02	0	0	1.93	2.46

See page 8 for calculation methodology.

**Appendix A: Emission Calculations
 Hazardous Air Pollutants (HAPs)
 Class A - Line 1 (Continued)**

Company Name: Four Winds International, Inc.
 Address City IN Zip: 701 CR 15, Elkhart, IN 46516
 FESOP Renewal No.: 039-24449-00220
 Reviewer: ERG/BL
 Date: February 29, 2008

Uncontrolled Potential to Emit --- Class A - Line 1																		
Material (as applied)	Density (lbs/gal)	Gal of Mat (gal/unit)	Maximum (unit/hr)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Methanol	Weight % Hexane	Potential to Emit HAP (tons/yr)							
											Xylene	Toluene	MIBK	Ethyl Benzene	Glycol Ethers	Methanol	Hexane	Total All HAPs
<i>Facility: General Class A - Line 1 Building and Equipment Maintenance</i>																		
SPRAY ON OD100 WHITE LITL	6.66	0.005	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
OSHA SAFETY YELLOW	6.39	0.001	1.500	25.0%	1.00%	0%	4.00%	0%	0%	0%	0.01	420E-6	0	1.7E-3	0	0	0	0.01
											0.01	419.8E-6	0	1.7E-3	0	0	0	0.01
<i>Facility: Final Finish Area</i>																		
<i>Miscellaneous Coatings Applied</i>																		
SUPER DUTY RUBBING COMPOUND	10.66	0.004	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
FLAT WHITE SPRAY PAINT 280	5.58	0.002	1.500	0%	15.0%	0%	0%	0%	0%	0%	0	0.01	0	0	0	0	0	0.01
GM FLEET WHITE	9.07	32.8E-6	1.500	13.0%	0%	0%	2.62%	0%	0%	0%	254.1E-6	0	0	51.2E-6	0	0	0	0
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL	6.66	422.7E-6	1.500	5.00%	32.0%	0%	0%	0%	0%	0%	924.8E-6	0.01	0	0	0	0	0	0.01
TOUCH 'N TONE SPRAY PAINT	5.58	0.048	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SPRAY WAY FURNITURE POLISH 811	7.16	0.016	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
BBQ BLACK	6.66	0.008	1.500	10.0%	20.0%	0%	0%	0%	0%	0%	0.04	0.07	0	0	0	0	0	0.11
											0.04	0.09	0	0	0	0	0	0.12
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																		
CYCLO C-31 GLASS CLEANER	8.33	0.018	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
CRAZY CLEAN 031	8.39	0.044	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SD-20 ALL PURPOSE CLEANER	8.33	0.008	1.500	0%	0%	0%	0%	8.00%	0%	0%	0	0	0	0	0.04	0	0	0.04
C-192 MAX CLEAN ALL PURPOSE CLEANER	8.33	0.011	1.500	0%	0%	0%	0%	6.00%	0%	0%	0	0	0	0	0.04	0	0	0.04
											0	0	0	0	0.07	0	0	0.07
<i>Miscellaneous Facility-Wide Solvent Usage</i>																		
SOLVENT BLEND - MINERAL SPIRITS	6.58	0.144	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SOLVENT BLEND - S1241	6.41	0.102	1.500	0%	30.0%	0%	0%	0%	0%	0%	0	1.29	0	0	0	0	0	1.29
SOLVENT BLEND - S0114	7.08	0.041	1.500	10.0%	70.0%	10.0%	0%	0%	10.0%	0%	0.19	1.33	0.19	0	0	0.19	0	1.91
SOLVENT BLEND - PS8022 REDUCER	7.04	0.055	1.500	0%	70.0%	0%	0%	20.0%	0%	0%	0	1.78	0	0	0.51	0	0	2.29
SOLVENT BLEND - S1381	6.59	0.504	1.500	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SOLVENT BLEND - ETHANOL A-1 (190)	6.76	0.340	1.500	0%	0%	10.0%	0%	0%	0%	0%	0	0	1.51	0	0	0	0	1.51
											0.19	4.40	1.70	0	0.51	0.19	0	7.00
Total Uncontrolled PTE from Class A - Line 1 Final Finish Area (tons/yr):											0.23	4.49	1.70	0	0.58	0.19	0	7.19
Total Uncontrolled PTE from Class A - Line 1 Sub-Assembly & Final Finish Areas & Maintenance (tons/yr):											0.24	4.68	2.02	0.02	0.58	0.19	1.93	9.66

Methodology:

Uncontrolled PTE of HAP (tons/yr) = Density (lbs/gal) * Gal of Material (gals/unit) * Maximum (units/hr) * Weight % HAP * 8,760 hrs/yr * 1 ton/2,000 lbs

Appendix A: Emission Calculations
VOC and Particulate
Class A - Line 2

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Material	Substrate	Density (lbs/gal)	Gallons of Material (gals/unit)	Maximum (units/hour)	Weight % Benzene	Weight % Ethyl Benzene	Weight % Formaldehyde	Weight % Glycol Ethers	Weight % Methanol	Weight % MIBK	Weight % Naphthalene	Weight % Styrene	Weight % Toluene	Weight % Xylene	Potential to Emit (tons/yr)										
															Benzene (ton/yr)	Ethyl Benzene (ton/yr)	Formaldehyde (ton/yr)	Glycol Ether (ton/yr)	Methanol (ton/yr)	MIBK (ton/yr)	Napthalene (ton/yr)	Styrene (ton/yr)	Toluene (ton/yr)	Xylene (ton/yr)	Total HAP (ton/yr)
BBO Black (DAP, Inc.)	Metal	6.66	0.01	1.00	0%	0%	0%	0%	0%	0%	0%	0%	20.0%	10.0%	0	0	0	0	0	0	0.06	0.03	0.09		
WD-40	Metal	6.80	0.01	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
TFE Dry Lube	Metal	5.53	1.00E-03	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Spray On Wet Lube	Metal	6.80	0.01	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Spray On Cutting Oil	Metal	7.13	1.00E-03	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Uniplex 260	Metal	10.50	0.38	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Cyclo C99/C100 Starting Fluid	Metal	5.94	4.60E-04	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Cyclo C125 Carb Cleaner	Metal	6.88	6.00E-03	1.00	0%	10.0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0.02	0	0	0	0	0	0	0.02		
Cyclo C111 Brake and Parts Cleaner	Metal	6.33	0.02	1.00	0%	0%	0%	0%	0%	0%	0%	0%	30.0%	0%	0	0	0	0	0	0	0	0.15	0.15		
Camie 2290 Cleaner	Metal	5.86	0.05	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Spray On OD100 White Lithium Grease	Metal	6.66	0.01	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
OSHA Safety Yellow	Metal	6.39	2.67E-03	1.00	0%	4.00%	0%	0%	0%	0%	0%	0%	1.00%	25.0%	0	2.99E-03	0	0	0	0	0	7.46E-04	0.02	0.02	
Cyclo C31 Glass Cleaner	Glass	8.33	0.02	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
C192 Max Clean (Cyclo)	Plastic	8.33	0.01	1.00	0%	0%	0%	6.00%	0%	0%	0%	0%	0%	0%	0	0	0	0.03	0	0	0	0	0.03		
Crazy Clean 031 (Sprayway)	Plastic	8.39	0.05	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Flat White Spray Paint 280	Plastic	5.58	3.00E-03	1.00	0%	0%	0%	0%	0%	0%	0%	0%	15.0%	0%	0	0	0	0	0	0	0.01	0	0.01		
GM Fleet White	Plastic	9.07	3.00E-05	1.00	0%	2.62%	0%	0%	0%	0%	0%	0%	0%	13.0%	0	3.12E-05	0	0	0	0	0	1.55E-04	0		
SD-20 All Purpose Cleaner	Plastic	8.33	0.01	1.00	0%	0%	8.00%	0%	0%	0%	0%	0%	0%	0%	0	0	0	2.92E-02	0	0	0	0	0		
Solvent Blend - Ethanol A-1	Plastic	6.76	0.39	1.00	0%	0%	0%	0%	0%	10.0%	0%	0%	0%	0%	0	0	0	0	1.15	0	0	0	1.15		
Solvent Blend - Mineral Spirits	Plastic	6.58	0.17	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Solvent Blend - PS-8022 Reducer	Plastic	7.04	0.06	1.00	0%	0%	0%	20.0%	0%	0.0%	0%	0%	70.0%	0%	0	0	0	0.39	0	0	0	1.36	0.175		
Solvent Blend - S0114	Plastic	7.08	0.05	1.00	0%	0%	0%	0%	10.0%	10.0%	0%	0%	70.0%	10.0%	0	0	0	0	0.15	0.15	0	1.02	0.15	1.46	
Solvent Blend - S1241	Plastic	6.41	0.12	1.00	0%	0%	0%	0%	0%	0%	0%	0%	30.0%	0%	0	0	0	0	0	0	0.99	0	0.99		
Solvent Blend - S1381	Plastic	6.59	0.58	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Spray N Go Enamel Paint	Plastic	6.66	4.00E-04	1.00	0%	0%	0%	0%	0%	0%	0%	0%	32.0%	5.00%	0	0	0	0	0	0	0	3.73E-03	5.83E-04	4.32E-03	
Super Duty Rubbing Compound	Plastic	10.66	5.00E-03	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Touch N Tone Spray Paint	Plastic	5.58	0.06	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Supertak High Performance Adhesive	Plastic	6.40	0.35	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Russell 676 Adhesive	Plastic	5.72	0.16	1.00	0%	0%	0%	35.0%	0%	0%	0%	0%	0%	0%	0	0	0	1.38	0	0	0	0	1.38		
Isopropyl Alcohol - Cleanup	Plastic	6.50	0.04	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Methyl Ethyl Ketone	Plastic	6.71	5.00E-03	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Acetone	Plastic	6.61	0.11	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Dynasolve CU5	Plastic	8.83	3.00E-03	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Solvent Blend - Ethanol A-1	Plastic	6.76	0.08	1.00	0%	0%	0%	0%	0%	10.0%	0%	0%	0%	0%	0	0	0	0	0.24	0	0	0	0.24		
Furniture Polish 811 (Claire)	Wood	7.16	0.02	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Perfect It Lok Hot Melt Adhesive 34-3182	Wood	8.08	0.01	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Supertak Trim Adhesive	Wood	6.16	3.00E-03	1.00	0%	0%	0%	70.0%	0%	0%	0%	0%	0%	0%	0	0	0	0.06	0	0	0	0	0.06		
Sta-Put II Aerosol Adhesive	Wood	5.93	0.02	1.00	0%	0%	0%	10.0%	0%	0%	0%	0%	0%	0%	0	0	0	0.06	0	0	0	0	0.06		
Sta-Put IV H Cylinder Adhesive	Wood	7.81	0.34	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Sta-Put IV H Aerosol Adhesive	Wood	7.96	0.06	1.00	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0		
Uncontrolled PTE															-	0.02	-	1.94	0.15	1.54	-	-	3.59	0.19	7.42

Methodology:
Uncontrolled PTE of HAP (tons/yr) = Density (lbs/gal) * Gal of Material (gals/unit) * Maximum (units/hr) * Weight % HAP * 8,760 hrs/yr * 1 ton/2,000 lbs

**Appendix A: Emission Calculations
 Hazardous Air Pollutants (HAPs)
 Class C - Line**

Company Name: Four Winds International, Inc.
 Address City IN Zip: 701 CR 15, Elkhart, IN 46516
 FESOP Renewal No.: 039-24449-00220
 Reviewer: ERG/BL
 Date: February 29, 2008

Uncontrolled Potential to Emit --- Class C Line																		
Material (as applied)	Density (lbs/gal)	Gal of Mat (gal/unit)	Maximum (unit/hr)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Methanol	Weight % Hexane	Potential to Emit HAP (tons/yr)							
											Xylene	Toluene	MIBK	Ethyl Benzene	Glycol Ethers	Methanol	Hexane	Total All HAPs
<i>Facility: Sub-Assembly Area</i>																		
<i>Miscellaneous Coatings Applied</i>																		
WD-40	6.80	0.010	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SPRAYING T.P.E. DRY LUBE	5.53	0.001	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SPRAY-ON WET LUBE	6.80	0.005	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SPRAY-ON CUTTING OIL	7.13	0.001	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
<i>Miscellaneous Adhesives Applied</i>																		
UNIPLEX 260	10.50	0.335	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
PER-FECT LOK HOT METAL ADHESIVE 34-3182	8.08	0.013	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SUPERTAK HIGH PERFORMANCE ADHESIVE	6.40	0.308	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SUPERTAK TRIM ADHESIVE	6.16	0.002	3.125	0%	0%	0%	0%	0%	70.0%	0%	0	0	0	0	0	0	0.12	0.12
STA-PUT II AEROSOL ADHESIVE	5.93	0.019	3.125	0%	0%	0%	0%	0%	0%	10.0%	0	0	0	0	0	0	0.15	0.15
RUSSELL 676	5.72	0.137	3.125	0%	0%	0%	0%	0%	0%	35.0%	0	0	0	0	0	0	3.75	3.75
STA-PUT IV H CYLINDER	7.81	0.293	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
STA-PUT IV H AEROSOL	7.96	0.054	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
ISOPROPYL ALCOHOL FOR CLEANUP	6.50	0.035	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																		
C-99 & C-100 CYCLO FAST STARTING FLUID	5.94	323.6E-6	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
C-1 & C-5 CYCLO CARB CLEAN B-4668	6.88	0.005	3.125	0%	0%	0%	10.0%	0%	0%	0%	0	0	0	0.05	0	0	0	0.05
BRAKE PARTS & CLEANER CYCLO C-111	6.33	0.015	3.125	0%	30.0%	0%	0%	0%	0%	0%	0	0.39	0	0	0	0	0	0.39
CAMIE 22/90 CLEANER & DEGREASER	5.86	0.040	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
<i>Miscellaneous Facility-Wide Solvent Usage</i>																		
METHY ETHYL KETONE	6.71	0.005	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0.00
ACETONE *	6.61	0.093	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
DYNASOLVE CU-5	8.83	0.002	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0
SOLVENT BLEND ETHANOL A-1	6.76	0.071	3.125	0%	0%	10%	0%	0%	0%	0%	0	0	0.66	0	0	0	0	0.66
Total Uncontrolled PTE from Class C Vehicle Sub-Assembly Area (tons/yr):											0	0.39	0.66	0.05	0	0	4.03	5.12

See page 11 for calculation methodology.

**Appendix A: Emission Calculations
Hazardous Air Pollutants (HAPs)
Class C - Line (Continued)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Uncontrolled Potential to Emit --- Class C Line																			
Material (as applied)	Density (lbs/gal)	Gal of Mat (gal/unit)	Maximum (unit/hr)	Weight % Xylene	Weight % Toluene	Weight % MIBK	Weight % Ethyl Benzene	Weight % Glycol Ethers	Weight % Methanol	Weight % Hexane	Potential to Emit HAP (tons/yr)								
											Xylene	Toluene	MIBK	Ethyl Benzene	Glycol Ethers	Methanol	Hexane	Total All HAPs	
<i>Facility: Undercoating Area</i>																			
C-35 CYCLO RUBBERIZED UNDERCOATING	9.33	0.017	3.125	0%	20.0%	0%	0%	0%	0%	0%	0	0.43	0	0	0	0	0	0	0.43
<i>Facility: General Class C Building and Equipment Maintenance</i>																			
SPRAY ON OD100 WHITE LITL	6.66	0.005	3.125	0%	0%	0%	0%	0%	0%	0%	0.00	0	0	0	0	0	0	0	0
OSHA SAFETY YELLOW	6.39	0.001	3.125	25.0%	1.00%	0%	4.00%	0%	0%	0%	0.02	0.001	0	3.50E-3	0	0	0	0	0.03
											0.02	0.001	0	3.50E-3	0	0	0	0	0.03
<i>Facility: Final Finish Area</i>																			
<i>Miscellaneous Coatings Applied</i>																			
SUPER DUTY RUBBING COMPOUND	10.66	0.004	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0
FLAT WHITE SPRAY PAINT 280	5.58	0.002	3.125	0%	15%	0%	0%	0%	0%	0%	0	0.02	0	0	0	0	0	0	0.02
GM FLEET WHITE	9.07	19.7E-6	3.125	13.0%	0%	0%	2.62%	0%	0%	0%	317.57E-6	0	0	64.00E-6	0	0	0	0	0
COLONIAL WHITE SPRAY (SPRAY 'N GO ENAMEL)	6.66	253.6E-6	3.125	5.00%	32.0%	0%	0%	0%	0%	0%	1.16E-3	0.01	0	0	0	0	0	0	0.01
TOUCH 'N TONE SPRAY PAINT	5.58	0.048	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0
SPRAY WAY FURNITURE POLISH 811	7.16	0.016	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0
BBQ BLACK	6.66	0.008	3.125	10%	20.0%	0%	0%	0%	0%	0%	0.07	0.15	0	0	0	0	0	0	0.22
											0.07	0.18	0	64.00E-6	0	0	0	0	0.25
<i>Miscellaneous Product Cleaning Materials Containing VOC</i>																			
CYCLO C-31 GLASS CLEANER	8.33	0.018	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0
CRAZY CLEAN 031	8.39	0.044	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0
SD-20 ALL PURPOSE CLEANER	8.33	0.008	3.125	0%	0%	0%	0%	8.00%	0%	0%	0	0	0	0	0.07	0	0	0	0.07
C-192 MAX CLEAN ALL PURPOSE CLEANER	8.33	0.011	3.125	0%	0%	0%	0%	6.00%	0%	0%	0	0	0	0	0.08	0	0	0	0.08
											0	0	0	0	0.15	0	0	0	0.15
<i>Miscellaneous Facility-Wide Solvent Usage</i>																			
SOLVENT BLEND - MINERAL SPIRITS	6.58	0.144	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0
SOLVENT BLEND - S1241	6.41	0.102	3.125	0%	30.0%	0%	0%	0%	0%	0%	0	2.68	0	0	0	0	0	0	2.68
SOLVENT BLEND - S0114	7.08	0.041	3.125	10.0%	70.0%	10.0%	0%	0%	10.0%	0%	0.40	2.78	0.40	0	0	0.40	0	0	3.97
SOLVENT BLEND - PS8022 REDUCER	7.04	0.055	3.125	0%	70.0%	0%	0%	20.0%	0%	0%	0	3.71	0	0	1.06	0	0	0	4.77
SOLVENT BLEND - S1381	6.59	0.504	3.125	0%	0%	0%	0%	0%	0%	0%	0	0	0	0	0	0	0	0	0
SOLVENT BLEND - ETHANOL A-1 (190)	6.76	0.340	3.125	0%	0%	10.0%	0%	0%	0%	0%	0	0	3.15	0	0	0	0	0	3.15
											0.40	9.18	3.54	0	1.06	0.40	0	0	14.6
Total Uncontrolled PTE from Class C Final Finish Area (tons/yr):											0.47	9.35	3.54	0	1.21	0.40	0	15.0	
Total Uncontrolled PTE from Class C Sub-Assembly & Final Finish Areas & Maintenance and Undercoating (tons/yr):											0.49	10.2	4.20	0.05	1.21	0.40	4.03	20.6	

Methodology:

Uncontrolled PTE of HAP (tons/yr) = Density (lbs/gal) * Gal of Material (gals/unit) * Maximum (units/hr) * Weight % HAP * 8,760 hrs/yr * 1 ton/2,000 lbs

**Appendix A: Emission Calculations
Particulate**

Class A - Line 1 Subassembly (page 1 of 2)

Company Name: **Four Winds International, Inc.**
 Address City IN Zip: **701 CR 15, Elkhart, IN 46516**
 FESOP Renewal No.: **039-24449-00220**
 Reviewer: **ERG/BL**
 Date: **February 29, 2008**

Equipment Type	Department	Control Device	Substrate	Cut Area Width Inches	Max Length Cut Inches	Max Board Thickness Inches	Maximum Cuts Per Hour	Dust Per Hour Cubic Feet
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Facility: Class A - Line 1 Subassembly (Facility ID: ASA)

Woodworking & Foam Insulation Cutting for Floor Assembly

Radial Arm Saw	Floor Assembly	Cyclone/Bag C3	Wood/Foam	0.25	12	1.5	25	0.07
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Woodworking & Foam Insulation Cutting for Roof/Sidewall Assembly

Band Saw	Roof/Sidewalls	Cyclone/Bag C3	Wood/Foam	0.0625	12	1.5	25	0.02
Belt Sander	Roof/Sidewalls	Cyclone/Bag C3	Wood/Foam	0.0625	6	0.125	25	0.0007
Chop Saw	Roof/Sidewalls	Cyclone/Bag C3	Wood/Foam	0.25	8	1.5	25	0.04
Chop Saw	Roof/Sidewalls	Cyclone/Bag C3	Wood/Foam	0.25	8	1.5	25	0.04
Radial Arm Saw	Roof/Sidewalls	Cyclone/Bag C3	Wood/Foam	0.25	12	1.5	25	0.07
Table Saw	Roof/Sidewalls	Cyclone/Bag C3	Wood/Foam	0.25	96	0.5	25	0.17

Woodworking for Cabinet/Counter-top Assembly

Band Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.0625	12	1.5	25	0.02
Band Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.0625	12	1.5	25	0.02
Belt Sander	Cabinets/Counter	Cyclone/Bag C3	Wood	0.0625	6	0.125	25	0.0007
Belt Sander	Cabinets/Counter	Cyclone/Bag C3	Wood	0.0625	6	0.125	25	0.0007
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Chop Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04
Radial Arm Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	12	1.5	25	0.07
Table Drill	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	24	0.25	25	0.02
Table Router	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	120	0.25	25	0.11
Table Router	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	120	0.25	25	0.11
Table Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	96	0.5	25	0.17
Table Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	96	0.5	25	0.17
Table Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	96	0.5	25	0.17
Table Saw	Cabinets/Counter	Cyclone/Bag C3	Wood	0.25	96	0.5	25	0.17

Total Dust Generated (cubic feet/hour)								1.83
Dust Specific Gravity								0.26
Percent Dust <100u								3.50%
Control Efficiency								99.0%
Dust Generated (lbs/hr)								1.05

PTE Class A - Line 1&2 Subassembly (ASA):

Uncontrolled PTE of PM/PM10 (lbs/hr)	Uncontrolled PTE of PM/PM10 (tons/yr)	Control Efficiency %	Controlled PTE of PM/PM10 (lbs/hr)	Controlled PTE of PM/PM10 (tons/yr)
1.05	4.62	99.0%	0.01	0.05

326 IAC 6-3-2 Compliance Determination

The allowable PM emission rate pursuant to 326 IAC 6-3-2(e), for weight rates up to 60,000 lb/hr is determined using the following formula:

$$E = 4.1 * P^{0.67} \quad \text{where:} \quad E = \text{allowable PM emission rate (lb/hr)}$$

$$P = \text{process weight rate (tons/hr) =}$$

$$E = 4.1 * ((300+1460)/2000)^{0.67}$$

$$E = 3.76 \text{ lb PM/hr (allowable)}$$

$$\text{Potential controlled PM: } 0.00 \text{ lb PM/hr (will comply)}$$

Process Weight Rate (tons/hr)	326 IAC 6-3-2 PM Emission Limit (lb/hr)	Equivalent 326 IAC 6-3-2 PM Emission Limit (tons/yr)
0.88	3.01	13.2

300 pounds foam insulation per hour
1460 pounds wood per hour

Methodology:

Dust Generated (lbs/hr) = (Total Dust Generated (cubic feet/hr) x Volume (gallons/cubic feet)) x (Dust Specific Gravity x Density of Water (lbs/gallon)*Percent Dust less than 100 micron,

Appendix A: Emission Calculations
Particulate
Class A - Line 1 Subassembly (page 2 of 2)

Company Name: **Four Winds International, Inc.**
 Address City IN Zip: **701 CR 15, Elkhart, IN 46516**
 FESOP Renewal No.: **039-24449-00220**
 Reviewer: **ERG/BL**
 Date: **February 29, 2008**

Equipment Type	Department	Control Device	Substrate	Cut Area Width Inches	Max Length Cut Inches	Max Board Thickness Inches	Maximum Cuts Per Hour	Dust Per Hour Cubic Feet
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Facility: Wood Trimming at Final Finish (as an Insignificant Activity)

<i>Woodworking for Final Finish Trim</i>								
Chop Saw	Final Finish	Cyclone/Bag C3	Wood	0.25	8	1.5	25	0.04

Total Dust Generated (cubic feet/hour)								0.04
Dust Specific Gravity								0.26
Percent Dust <100u								3.50%
Control Efficiency								99.0%
Dust Generated (lbs/hr)								0.03

Uncontrolled PTE of PM/PM10 (lbs/hr)	Uncontrolled PTE of PM/PM10 (tons/yr)	Control Efficiency %	Controlled PTE of PM/PM10 (lbs/hr)	Controlled PTE of PM/PM10 (tons/yr)
0.03	0.11	99.0%	0.00	0.00

PTE Class A - Line 1 Final Finish:

Equipment Type	Department	Control Device	Substrate	Cut Area Width Inches	Max Length Cut Inches	Max Board Thickness Inches	Maximum Cuts Per Hour	Dust Per Hour Cubic Feet
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Facility: Fiberglass Machining at Subassembly Area for Class A Lines 1 and 2 (as an Insignificant Activity)

<i>Fiberglass Routing for Roof/Sidewall Assembly</i>								
Hand Router	Roof/Sidewalls	None	FRP	0.125	267.9	0.3125	1	0.006
Hand Router	Roof/Sidewalls	None	FRP	0.125	267.9	0.3125	1	0.006
Hand Router	Roof/Sidewalls	None	FRP	0.125	267.9	0.3125	1	0.006
Hand Router	Roof/Sidewalls	None	FRP	0.125	267.9	0.3125	1	0.006
Hand Router	Roof/Sidewalls	None	FRP	0.125	267.9	0.3125	1	0.006
Hand Router	Roof/Sidewalls	None	FRP	0.125	267.9	0.3125	1	0.006

Total Dust Generated (cubic feet/hour)								0.036
Dust Specific Gravity								0.26
Percent Dust <100u								3.50%
Control Efficiency								0.0%
Dust Generated (lbs/hr)								0.02

Uncontrolled PTE of PM/PM10 (lbs/hr)	Uncontrolled PTE of PM/PM10 (tons/yr)	Control Efficiency %	Controlled PTE of PM/PM10 (lbs/hr)	Controlled PTE of PM/PM10 (tons/yr)
0.02	0.09	0.0%	0.02	0.09

PTE Class A - Line 1 and 2 Fiberglass Machining:

326 IAC 6-3-2 Compliance Determination

Facility: Wood Trimming at Final Finish (as an Insignificant Activity):

The allowable PM emission rate pursuant to 326 IAC 6-3-2(e), for weight rates up to 60,000 lb/hr is determined using the following formula:

$$E = 4.1 * P^{0.67} \quad \text{where:} \quad E = \text{allowable PM emission rate (lb/hr)}$$

$$P = \text{process weight rate (tons/hr) = 10 pounds wood per hour}$$

Pursuant to 326 IAC 6-3-2(e), for process weight rates up to 100 pounds per hour,

$$E = 0.551 \text{ lb PM/hr (allowable)}$$

$$\text{Potential controlled PM: } 0.0000 \text{ lb PM/hr (will comply)}$$

Facility: Fiberglass Machining at Subassembly Area (as an Insignificant Activity):

The allowable PM emission rate pursuant to 326 IAC 6-3-2(e), for weight rates up to 60,000 lb/hr is determined using the following formula:

$$E = 4.1 * P^{0.67} \quad \text{where:} \quad E = \text{allowable PM emission rate (lb/hr)}$$

$$P = \text{process weight rate (tons/hr) = 3625 pounds laminated sidewalls per hour}$$

$$E = 4.1 * ((500)/2000)^{0.67}$$

$$E = 6.11 \text{ lb PM/hr (allowable)}$$

$$\text{Potential controlled PM: } 0.0009 \text{ lb PM/hr (will comply)}$$

Notes:

- Calculations based on Significant Permit Revision 039-10568-00220, issued on June 8, 1999.
- 100% of PM assumed equal to PM10.

Methodology:

Dust Generated (lbs/hr) = (Total Dust Generated (cubic feet/hr) x Volume (gallons/cubic feet)) x (Dust Specific Gravity x Density of Water (lbs/gallon)*Percent Dust less than 100 micron,

Process Weight Rate (tons/hr)	326 IAC 6-3-2 PM Emission Limit (lbs/hr)	Equivalent 326 IAC 6-3-2 PM Emission Limit (tons/yr)
1.82	4.89	21.44

**Appendix A: Emission Calculations
Particulate**

Uncontrolled Woodworking and Fiberglass Machining (Page 2 of 2)

Company Name: Four Winds International, Inc.
Address: City 1 701 CR 15, Elkhart, IN 46516
FESOP Renew 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Equipment Type	Department	Control Device	Substrate	Cut Area Width Inches	Max Length Cut Inches	Max Board Thickness Inches	Maximum Cuts Per Hour	Dust Per Hour Cubic Feet
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Facility: Fiberglass Machining at Subassembly Area (as an Insignificant Activity)

<i>Fiberglass Routing for Roof/Sidewall Assembly</i>								
Hand Router	Roof/Sidewalls	None	FRP	0.125	232.3	0.3125	1	0.01
Hand Router	Roof/Sidewalls	None	FRP	0.125	232.3	0.3125	1	0.01
Hand Router	Roof/Sidewalls	None	FRP	0.125	232.3	0.3125	1	0.01
Hand Router	Roof/Sidewalls	None	FRP	0.125	232.3	0.3125	1	0.0053
Hand Router	Roof/Sidewalls	None	FRP	0.125	232.3	0.3125	1	0.0053
Hand Router	Roof/Sidewalls	None	FRP	0.125	232.3	0.3125	1	0.0053

Total Dust Generated (cubic feet/hour)								0.03
Dust Specific Gravity								0.26
Percent Dust <100u								3.50%
Control Efficiency								0.00%
Dust Generated (lbs/hr)								0.02

	Uncontrolled PTE of PM/PM10 (lbs/hr)	Uncontrolled PTE of PM/PM10 (tons/yr)	Control Efficiency %	Controlled PTE of PM/PM10 (lbs/hr)	Controlled PTE of PM/PM10 (tons/yr)
PTE Class C Fiberglass Machining:	0.02	0.08	0%	0.02	0.08

326 IAC 6-3-2 Compliance Determination

Facility: Fiberglass Machining at Subassembly Area (as an Insignificant Activity):
The allowable PM emission rate pursuant to 326 IAC 6-3-2(e), for weight rates up to 60,000 lb/hr is determined using the following formula:

Process Weight Rate (tons/hr)	326 IAC 6-3-2 PM Emission Limit (lbs/hr)	Equivalent 326 IAC 6-3-2 PM Emission Limit (tons/yr)
1.50	4.30	18.9

$E = 4.1 * P^{0.67}$ where: E = allowable PM emission rate (lb/hr)
P = process weight rate (tons/hr) =

3000 pounds laminated sidewalls per hour

$E = 4.1 * ((500)/2000)^{0.67}$
E = 5.38 lb PM/hr (allowable)
Potential controlled PM: 0.04 lb PM/hr (will comply)

Notes:

- Calculations based on Significant Permit Revision 039-10568-00220, issued on June 8, 1999.
- 100% of PM assumed equal to PM10.

Methodology:

Dust Generated (lbs/hr) = (Total Dust Generated (cubic feet/hr) x Volume (gallons/cubic feet)) x (Dust Specific Gravity x Density of Water (lbs/gallon) * Percent Dust less than 100 micron,

Appendix A: Emission Calculations

Particulate

Class C Subassembly, Woodworking (Building 750, Class A, Line 2, ASA2), and Hand Routing

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Emission Unit Description	Outlet Grain Loading (gr/acf)	Fan Flow Rate (acfm)	PM Control Efficiency (%)	Potential to Emit PM/PM10				Process Weight Rate (lb/hr)	326 IAC 6-3-2 PM Emission Limit (lb/hr)	Equivalent 326 IAC 6-3-2 PM Emission Limit (tons/yr)
				Before Controls (lb/hr)	Before Controls (tons/yr)	After Controls (lb/hr)	After Controls (tons/yr)			
Class C Subassembly Area woodworking equipment *										
CSA-2	0.018	10,000	91%	17.1	75.1	1.54	6.76	1,067	2.15	9.43
Insignificant Woodworking Operations In Building 750 (ASA2) **										
Dust Collection System DC1	0.00281	5,900	99%	14.2	62.2	0.14	0.62	960	2.01	8.8
Dust Collection System DC2	0.00281	5,900	99%	14.2	62.2	0.14	0.62	-	-	-
Hand routing operation at Class A - Line 1 - (See Page 22)										
Dust Collection System C4	-	-	-	-	-	-	-	500	1.30	5.68
				Total	200		8.00	2,527		23.9

Methodology:

* As taken from the original FESOP F039-5814-00220, issued on December 9, 1996.

** As taken from the original SPR No.: 039-20016-00220, issued on January 13, 2005.

PTE, Uncontrolled (tons/yr) = Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs

PTE, Controlled (tons/yr) = Outlet Loading (grains/acf) * Fan Flow Rate (acfm) * 1 lb/7,000 grains * 60 min/hr * 8760 hr/yr * 1 ton/2,000 lbs * (1 - Control Efficiency)

Total PM is assumed equal to PM-10.

The allowable PM emission rate pursuant to 326 IAC 6-3-2(c), for weight rates up to 60,000 lb/hr is determined using the following formula:

$$E = 4.1 * P^{0.67} \quad \text{where: } E = \text{allowable PM emission rate (lb/hr)}$$

$$P = \text{process weight rate (tons/hr)}$$

**Appendix A: Emissions Calculations
VOC, Particulate, and HAPs (lead)
Wire Harness Assembly Operations (WHA)**

**Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008**

Material	Material Usage Rate (lb/hr)	Emission Factor (lb/ton)	Potential to Emit of PM/PM10 and Lead		
			(lb/hr)	(lb/day)	(tons/yr)
SN-60 Bar Solder	0.012	1.5	9.00E-06	2.16E-04	3.94E-05
"44" Rosin Flux Cored Solder	0.012	1.5	9.00E-06	2.16E-04	3.94E-05
6045 Solder	0.001	1.5	7.50E-07	1.80E-05	3.29E-06
Total					8.21E-05

PTE, PM/PM10/Lead (lb/hr) = Material Usage Rate (lb/hr) / 2,000 (lbs/ton) * Emission Factor (lb/ton)

PTE, PM/PM10/Lead (lb/day) = PTE, PM/PM10/Lead (lb/hr) * 24 hrs/day

PTE, PM/PM10/Lead (tons/yr) = PTE, PM/PM10/Lead (lb/hr) * 8,760 hrs/yr * 1 ton / 2,000 lbs

Material	Material Usage Rate (lb/hr)	Density (lb/gal)	VOC Content		PTE of VOC		
			(%)	(lb/gal)	(lb/hr)	(lb/day)	(tons/yr)
1544 Rosin Soldering Flux	0.0039	7.71	57%	4.40	0.002	0.05	0.01

PTE, VOC (lb/hr) = Material Usage Rate (lb/hr) * VOC Weight Content (%)

PTE, VOC (lb/day) = PTE, VOC (lb/hr) * 24 hr/day

PTE, VOC (tons/yr) = PTE, VOC (lb/hr) * 8,760 hrs/yr * 1 ton/ 2,000 lbs/ton

Notes: Lead emission factor from AP-42, Chapter 12.17 *Miscellaneous Lead Products*. Lead emissions are presumed to be equal to PM and PM10 emissions. Other than lead, the rosin solder flux does not contain HAPs.

For additional details see SPM 039-23517-00220 issued January 10, 2007.

**Appendix A: Emissions Calculations
Particulate
Wire Harness Production and Woodworking (Building 4221)**

**Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008**

DUST COLLECTOR WHA-DC1

Process	Process Weight Rate (lb wood/hr)	Grain Loading (grains/acf)	Air to Cloth Ratio (acfm/ft ²)	Filter Area (ft ²)	Control Efficiency	Uncontrolled PTE of PM/PM10 (tons/yr)
CNC Router	200	0.001	9.46	624	99.0%	22.2
Relocated Class C Woodworking Equip	200	0.001	9.46	624	99.0%	22.2
						44.3

DUST COLLECTOR WHA-DC1

Process	Process Weight Rate (lb wood/hr)	Grain Loading (grains/acf)	Air to Cloth Ratio (acfm/ft ²)	Filter Area (ft ²)	Control Efficiency	Controlled PTE of PM/PM10 (tons/yr)	326 IAC 6-3-2 PM Emission Limit (lb/hr)	Equivalent 326 IAC 6-3-2 PM Emission Limit (tons/yr)
CNC Router	200	0.001	9.46	624	99.0%	0.22	-	-
Relocated Class C Woodworking Equip	200	0.001	9.46	624	99.0%	0.22	-	-
	400					0.44	1.12	4.89

The allowable PM emission rate pursuant to 326 IAC 6-3-2(c), Process Operations, for weight rates up to 60,000 lb/hr is determined using the following formula:

$$E = 4.1 * P^{0.67} \quad \text{where:} \quad E = \text{allowable PM emission rate (lb/hr)}$$

$$P = \text{process weight rate (tons/hr)}$$

Methodology:

Uncontrolled PTE of PM/PM10 (tons/yr) = Grain Loading (grains/acf) * Air to 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)
Controlled PTE (tons/yr) = Grain Loading (grains/acf) * Air to 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: Emission Calculations
Particulate and Metal HAPs
Welding and Thermal Cutting**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

WELDING PROCESS	Total Max. Electrode Consumption (lbs/hr)	Total Max. Electrode Consumption (lbs/day)	326 IAC 6-3-2 PM Emission Limit (lb/hr)	EMISSION FACTORS * (lbs pollutant / lbs electrode)					Potential to Emit (lbs/hr)					TOTAL HAPS (lb/hr)
				PM = PM10	Manganese	Nickel	Cobalt	Chromium	PM = PM10	Manganese	Nickel	Cobalt	Chromium	
Metal Inert Gas (E70S) - Class A -Lines 1&2 * Located in New Building 655	60	1440	0.31	5.20E-03	3.18E-04	1.00E-06	1.00E-06	1.00E-06	3.12E-01	1.91E-02	6.00E-05	6.00E-05	6.00E-05	0.02
Metal Inert Gas (E70S) - Wire Harness	45	1080	0.26	5.20E-03	3.18E-04	1.00E-06	1.00E-06	1.00E-06	2.34E-01	1.43E-02	4.50E-05	4.50E-05	4.50E-05	0.01
Metal Inert Gas (E70S) - Class C *	40	960	0.24	5.20E-03	3.18E-04	1.00E-06	1.00E-06	1.00E-06	2.08E-01	1.27E-02	4.00E-05	4.00E-05	4.00E-05	0.01
									7.54E-01	4.61E-02	1.45E-04	1.45E-04	1.45E-04	0.05
FLAME CUTTING	Max. Metal Thickness Cut (in.)	Total Max. Metal Cutting Rate (in./minute)	Total Max. Metal Cutting Rate (in./hr)	EMISSION FACTORS (lbs pollutant/1,000 inches cut, 1" thick)					Potential to Emit (lbs/hr)					TOTAL HAPS
				PM = PM10	Manganese	Nickel	Cobalt	Chromium	PM = PM10	Manganese	Nickel	Cobalt	Chromium	
Oxyacetylene - Class C	0.375	16.7	1000	1.62E-01	5.00E-04	1.00E-04	N/A	3.00E-04	6.08E-02	1.88E-04	3.75E-05	-	1.13E-04	3.38E-04
Oxyacetylene - Class A **	0.375	16.7	1000	1.62E-01	5.00E-04	1.00E-04	N/A	3.00E-04	6.08E-02	1.88E-04	3.75E-05	-	1.13E-04	3.38E-04
									1.22E-01	3.75E-04	7.50E-05	-	2.25E-04	6.75E-04
EMISSION TOTALS - WELDING & CUTTING														
Uncontrolled Potential to Emit (lbs/hr)									0.88	0.05	2.20E-04	1.45E-04	3.70E-04	0.05
Uncontrolled Potential to Emit (tons/year)									3.84	0.20	9.64E-04	6.35E-04	1.62E-03	0.21

METHODOLOGY

* The welding computations are identical to those presented on Page 16 of 16 of the TSD, Appendix A to SPR No. 039-16264-00220.

** Maximum assumed equal to total metal cutting rate for Class C (16.67 in./min), which was taken from original FESOP 039-5814-00220, issued December 9, 1996.

Emission Factors for welding from AP 42 (January 1995), Chapter 12.19, Tables 12.19-1 and 12.19-2, with MIG default electrode type E70S.

Plasma cutting emission factors are from the American Welding Society study published in Sweden (March 1994), and other flame cutting factors are from U.S.EPA's SARA Reporting Guide.

Uncontrolled PTE, Welding (lbs/hr) = Total Max. Electrode Consumption (lbs/hr) x Emission Factor (lbs pollutant/lbs electrode)

Uncontrolled PTE, Cutting (lbs/hr): Max. Metal Thickness Cut (in.) x Total Max. Metal Cutting Rate (in./minute) x (60 min/hr) x Emission Factor (lbs pollutant/1,000 inches cut, 1" thick)

Uncontrolled PTE (tons/yr) = (Uncontrolled PTE, Welding (lbs/hr) + Uncontrolled PTE, Cutting (lbs/hr)) x 8,760 hrs/yr x 1 ton/2,000 lbs

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

Company Name: Four Winds International, Inc.
 Address City IN Zip: 701 CR 15, Elkhart, IN 46516
 FESOP Renewal No.: 039-24449-00220
 Reviewer: ERG/BL
 Date: February 29, 2008

Combustion Unit Type	Heat Capacity (MMBtu/hr)	No. of Units	Pot. Gas Thruput (MMCF/yr)	Emission Factor (lb/MMCF)						Potential to Emit (tons/yr)					
				PM*	PM10*	SO2	NOx**	VOC	CO***	PM	PM10	SO2	NOx	VOC	CO
Building 650															
Infrared Tube Heater	0.10	25	21.5	1.9	7.6	0.6	94.0	5.5	40.0	0.02	0.08	0.01	1.01	0.06	0.43
Thermocycler	0.40	4	13.7	1.9	7.6	0.6	100	5.5	84.0	0.01	0.05	0.00	0.69	0.04	0.58
Gas Fired Unit Furnace	0.30	5	12.9	1.9	7.6	0.6	100	5.5	84.0	0.01	0.05	0.00	0.64	0.04	0.54
Air Make-up Gas Furnace	0.40	1	3.44	1.9	7.6	0.6	100	5.5	84.0	0.00	0.01	0.00	0.17	0.01	0.14
Air Make-up Gas Furnace	2.64	1	22.7	1.9	7.6	0.6	100	5.5	84.0	0.02	0.09	0.01	1.13	0.06	0.95
Barrel Gas Fired Furnace	0.15	1	1.29	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.06	0.00	0.03
Gas Fired Unit Furnace	0.10	1	0.86	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.04	0.00	0.02
Gas Fired Unit Furnace	0.25	3	6.44	1.9	7.6	0.6	94.0	5.5	40.0	0.01	0.02	0.00	0.30	0.02	0.13
Gas Fired Unit Furnace	0.33	1	2.83	1.9	7.6	0.6	100	5.5	84.0	0.00	0.01	0.00	0.14	0.01	0.12
Gas Fired Unit Furnace	0.35	2	6.01	1.9	7.6	0.6	100	5.5	84.0	0.01	0.02	0.00	0.30	0.02	0.25
Building 651															
Down Draft Gas Fired Furnace	0.13	1	1.12	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.05	0.00	0.02
Gas Fired Unit Furnace	0.10	3	2.58	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.01	0.00	0.12	0.01	0.05
Gas Fired Unit Furnace	0.24	1	2.06	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.01	0.00	0.10	0.01	0.04
Building 653															
Down Draft Gas Fired Furnace	0.12	1	1.03	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.05	0.00	0.02
Thermocycler	0.40	1	3.44	1.9	7.6	0.6	100	5.5	84.0	0.00	0.01	0.00	0.17	0.01	0.14
Infrared Tube Heater	0.12	2	2.06	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.01	0.00	0.10	0.01	0.04
Air Make-up Gas Furnace	1.00	1	8.59	1.9	7.6	0.6	100	5.5	84.0	0.01	0.03	0.00	0.43	0.02	0.36
Building 654															
Air Make-up Gas Furnace	0.55	2	9.45	1.9	7.6	0.6	100	5.5	84.0	0.01	0.04	0.00	0.47	0.03	0.40
Infrared Tube Heater	0.12	11	11.3	1.9	7.6	0.6	94.0	5.5	40.0	0.01	0.04	0.00	0.53	0.03	0.23
Thermocycler	0.40	4	13.7	1.9	7.6	0.6	100	5.5	84.0	0.01	0.05	0.00	0.69	0.04	0.58
Air Make-up Gas Furnace	0.49	1	4.21	1.9	7.6	0.6	100	5.5	84.0	0.00	0.02	0.00	0.21	0.01	0.18
Gas Fired Unit Furnace	0.03	1	0.26	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.01	0.00	0.01
Gas Fired Unit Furnace	0.06	2	1.03	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.05	0.00	0.02
Gas Fired Unit Furnace	0.10	1	0.86	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.04	0.00	0.02
Plant Emergency Generators*** (144hp & 80 hp units)	0.57	2	0.56	0.00999	0.00008	0.00059	4.08	0.118	0.557	0.00	0.00	0.00	1.16	0.03	0.16
Buildings 655 & 656 (pursuant to 039-16264-00220)															
LM01 - make up air unit	7.70	1	66.1	1.9	7.6	0.6	100	5.5	84.0	0.06	0.25	0.02	3.31	0.18	2.78
LM02-LM05 roof top heaters	0.08	4	2.75	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.01	0.00	0.13	0.01	0.05
LM06 - radiant heater	0.125	1	1.07	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.05	0.00	0.02
LM07 - unit heater	0.06	1	0.52	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.02	0.00	0.01
FF01 - make-up air unit	2.64	1	22.7	1.9	7.6	0.6	100	5.5	84.0	0.02	0.09	0.01	1.13	0.06	0.95
FF02 - furnace	0.58	1	4.98	1.9	7.6	0.6	100	5.5	84.0	0.00	0.02	0.00	0.25	0.01	0.21
FF03 - radiant heater	0.125	1	1.07	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.05	0.00	0.02
FF04 - radiant heater	0.04	1	0.34	1.9	7.6	0.6	94.0	5.5	40.0	0.00	0.00	0.00	0.02	0.00	0.01
Total			253							0.24	0.96	0.08	13.6	0.73	9.50

Emission Factor (lb/MMcf)	HAPs - Organics					HAPs - Metals					Total all HAPs (tons/yr)
	Benzene 2.1E-3	Dichlorobenzene 1.2E-3	Formaldehyde 75.0E-3	Hexane 1.8E+0	Toluene 3.4E-3	Lead 500.0E-6	Cadmium 1.1E-3	Chromium 1.4E-3	Manganese 380.0E-6	Nickel 2.1E-3	
Potential to Emit (tons/yr):	2.656E-04	1.518E-04	9.485E-03	2.276E-01	4.300E-04	6.323E-05	1.391E-04	1.770E-04	4.806E-05	2.656E-04	2.387E-01

Emission Factor (lb/MMcf)	HAPs										Total all HAPs (tons/yr)
	Formaldehyde 52.8E-3	Acetaldehyde 8.4E-3	Acrolein 5.1E-3	Methanol 2.5E-3	n-Hexane 1.1E-3	Benzene 440.0E-6	Toluene 408.0E-6	Biphenyl 212.0E-6	Xylene 184.0E-6	Naphthalene 74.4E-6	
Potential to Emit (tons/yr):	1.476E-05	2.336E-06	1.436E-06	6.987E-07	3.102E-07	1.230E-07	1.140E-07	5.925E-08	5.142E-08	2.079E-08	1.991E-05

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

Methodology

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.
 **Emission Factors for NOx: Uncontrolled = 94 for heat input capacity < 0.3 MMBtu/hr; = 100 for heat input capacity =>0.3 MMBtu/hr
 ***Emission Factors for CO: Uncontrolled = 40 for heat input capacity < 0.3 MMBtu/hr; = 84 for heat input capacity =>0.3 MMBtu/hr
 *** The heat input rating for the emergency generators is based on a ratio that approximates heat input to power output of 2545.1 btu/hr / hp . Emergency generator potential to emit based on 500 hours per year operation.
 AP-42, Chapter 3.2 - Natural Gas-fired Reciprocating Engines (4-Stroke Lean-Burn)

All emission factors are based on normal firing.
 MMBtu = 1,000,000 Btu
 MMCF = 1,000,000 Cubic Feet of Gas

Emission Factors for all units except generators 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 (SUPPL D 7/98)
 Emission Factors for generators from AP 42, Chapter 3.2, Table 3.2-2 for 4-stroke lean burn engines (SUPPL F 7/00)

Potential Throughput for each building combustion unit (MMCF) = Heat Input Capacity (MMBtu/hr) x 8,760 hrs/yr x 1 MMCF/1,020 MMBtu
 PTE (tons/yr) = Pot. Gas Throughput (MMCF/yr) x Emission Factor (lb/MMCF) x 1ton/2,000 lbs

**Appendix A: Emission Calculations
Natural Gas Combustion
Space Heaters added in 2005 and 2007 (SPM 20016, SPM 23517)**

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

Description	Number of Emission Units	Emission Unit ID	Heat Input Capacity Per Unit (MMBtu/hr)	Total Maximum Potential Throughput (MMCF/yr)
Office Heater	1	OH1-657	0.08	0.69
Office Heater	1	OH2-657	0.06	0.52
Office Heater	1	WHA-O1	0.09	0.77
Breakroom Heater	1	BH1-657	0.08	0.69
Plant Thermo-Cycler	6	TC1-657, TC2-657, TC3-657, TC4-657, TC5-657, TC6-657	0.58	29.9
Radiant Heater	1	WHA-R1	0.072	0.62
Radiant Heater	5	WHA-R2 thru R6	0.10	4.29
Radiant Heater	1	WHA-R7	0.08	0.64
Infrared Heater	2	IR1-657, IR2-657	0.125	2.15
Undercoat Space Heater	1	UH1-657	0.10	0.86
Compressor Room Heater	1	CR1-657	0.10	0.86

Total Heat Input Capacity
(MMBtu/hr)
4.89

Total Max. Potential Throughput
(MMCF/yr)
42.0

Emission Factor (lb/MMCF)	Pollutant					
	PM	PM10	SO ₂	NO _x	VOC	CO
	1.90	7.60	0.60	100	5.50	84.0
Potential To Emit (tons/yr)	0.04	0.16	0.01	2.10	0.12	1.76

**Emission factor for Nox (Uncontrolled) = 100 lb/MMCF
All Emission factors are based on normal firing.

Emission Factor (lb/MMCF)	HAPs - Organics					HAPs - Metals					Total HAPs
	Benzene	Dichloro-benzene	Formaldehyde	Hexane	Toluene	Lead	Barium	Chromium	Manganese	Nickel	
	2.10E-03	1.20E-03	0.08	1.80	3.40E-03	5.00E-04	4.40E-03	1.40E-03	3.80E-04	2.10E-03	-
Potential To Emit (tons/yr)	4.41E-05	2.52E-05	1.57E-03	3.78E-02	7.14E-05	1.05E-05	9.23E-05	2.94E-05	7.97E-06	4.41E-05	3.97E-02

METHODOLOGY:
Max. Potential Throughput (MMCF/yr) = Number of Units x Heat Input Capacity/Unit (MMBtu/hr) x 8,760 (hrs/yr) x 1 MMCF/1,020 MMBtu
Potential to Emit (tons/yr) = Max. Potential Throughput (MMCF/yr) * Emission Factor (lb/MMCF) / 2000 lbs/ton

AP-42, Chapter 1.4, Tables 1.4-1, 1.4-2, and 1.4-3, SCC #1-02-006-02, 1-01-006-02, 1-03-006-02, and 1-03-006-03

Appendix A: Emission Calculations
Particulate
Class A - Line 1 End Panel Hand Routing

Company Name: Four Winds International, Inc.
Address City IN Zip: 701 CR 15, Elkhart, IN 46516
FESOP Renewal No.: 039-24449-00220
Reviewer: ERG/BL
Date: February 29, 2008

HAND ROUTING:

Dust Production (cubic inches/day) = Part Width (inch) x Blade Cut Thickness (inch) x Part Length (inch) x Max Production (parts/day)
0.125" part width x 0.25" cut blade thickness x 144" part long x 2 parts/day = 9.0 cubic inches dust/day
9.00 cubic inches dust/day

Potential to Emit PM/PM10 (lbs/day) = Dust Production (cubic inches/day) x Dust Density (lbs/cubic inches)
9.0 cubic inches dust x density (0.01 lb/cubic inch) = 0.09 lb dust/day
0.09 lb dust/day

Potential to Emit PM/PM10 (tons/yr) = Dust Production (cubic inches/day) x Dust Density (lbs/cubic inches)
0.09 lb dust/day x 365 days/yr x 1 ton/2,000 lbs = 0.02 tons/yr
0.02 tons dust/yr

Note:

The FESOP renewal (14036) issued 01/07/2003, lists hand routing as an insignificant emission unit, A.3(j)(2), controlled by cyclone (C4). Four Winds now buys all but one of the fiberglass parts precut from its suppliers.