



Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

July 20, 2004

100 North Senate Avenue
P.O. Box 6015
Indianapolis, Indiana 46206-6015
(317) 232-8603
(800) 451-6027
www.in.gov/idem

TO: Interested Parties / Applicant

RE: Forest River, Inc. / 039-19134-00576

FROM: Paul Dubenetzky
Chief, Permits Branch
Office of Air Quality

Notice of Decision: Approval - Registration

Please be advised that on behalf of the Commissioner of the Department of Environmental Management, I have issued a decision regarding the enclosed matter. Pursuant to IC 4-21.5-3-4(d) this order is effective when it is served. When served by U.S. mail, the order is effective three (3) calendar days from the mailing of this notice pursuant to IC 4-21.5-3-2(e).

If you wish to challenge this decision, IC 4-21.5-3-7 requires that you file a petition for administrative review. This petition may include a request for stay of effectiveness and must be submitted to the Office of Environmental Adjudication, 100 North Senate Avenue, Government Center North, Room 1049, Indianapolis, IN 46204, **within eighteen (18) calendar days of the mailing of this notice**. The filing of a petition for administrative review is complete on the earliest of the following dates that apply to the filing:

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

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

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

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

Enclosures
FN-REGIS.dot 9/16/03



INDIANA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT

We make Indiana a cleaner, healthier place to live.

Joseph E. Kernan
Governor

Lori F. Kaplan
Commissioner

100 North Senate Avenue
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July 20, 2004

Mr. Williams G. Conway, Jr.
Forest River, Inc.
P.O. Box 3030
Elkhart, Indiana 46515

Re: Registered Construction and Operation Status,
039-19134-00576

Dear Mr. Conway, Jr.:

The application from Forest River, Inc. received on May 06, 2004, has been reviewed. Based on the data submitted and the provisions in 326 IAC 2-5.5, it has been determined that the following aluminum boat manufacturing plant located at 51773 C. R. 39, Middlebury, Indiana 46540 is classified as registered:

- (a) One (1) Pontoon Boat Assembly Line, constructed in 2003, coating wooden sheet goods, aluminum and plastic/fiberglass parts utilizing HVLP airless spray, wipe cleaning, roll coating and extruding, and coating a maximum of 15 boats per day;
- (b) One (1) Fishing Boat Assembly Line, constructed in 2003, coating wooden sheet goods, aluminum and plastic/fiberglass parts utilizing HVLP airless spray, wipe cleaning, roll coating and extruding and coating a maximum of 12 boats per day;
- (c) One (1) woodworking area, with a maximum capacity of 75 lbs/hr of plywood, controlled by a dust collector and a cyclone;
- (d) One (1) welding area, using four (4) metal inert gas (MIG) stations, each rated at 1.7 pounds per hour; and
- (e) Three (3) natural gas space heaters, each rated at 1.8 million (MM) Btu per hour.

Facilities to be constructed are listed as follows:

- (f) One (1) Fishing Boat Paint Booth operation, with maximum capacity of 12 boats per day, using dry filter for particulate overspray control and exhausting into a stack.
- (g) Additional facilities to welding area existing facilities, comprises of twelve (12) metal inert gas (MIG) stations, each rated at 1.0 pound per hour and fourteen (14) TIG stations, each rated at 1.0 pound per hour; and
- (h) One (1) natural gas combustion air make-up unit rated at 4.5 MM Btu/hr.

The following conditions shall be applicable:

- (a) Pursuant to 326 IAC 6-3 (Particulate Emission Limitations for Manufacturing Processes) Particulate from the Fishing Boat Painting Booth shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (b) Pursuant to 326 IAC 8-2-9, the owner or operator of the surface coating operation, that are not exterior coating of marine vessels, comprising of 15% of the aluminum surface coating operation at the Fishing Boat Painting Booth shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.
- (c) Pursuant to 326 IAC 8-2-9 (f), solvent sprayed from application equipment during cleanup or color changes shall be directed into containers. Such containers shall be closed as soon as such solvent spraying is complete, and the waste solvent shall be disposed of in such a manner that evaporation is minimized.
- (d) 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:
- (1) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
 - (2) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of 15 minutes (60 readings) in a 6-hour period as measured according to 40 CFR 60, Appendix A, Method 9 or fifteen (15) one (1) minute nonoverlapping integrated averages for a continuous opacity monitor in a six (6) hour period.
- (e) Any change or modification which may increase the potential to emit a combination of HAPs, VOC, NO_x, SO₂, PM or PM₁₀ to twenty five (25) tons per year, or a single HAP to ten (10) tons per year, from this source shall require approval from IDEM, OAQ prior to making the change.
- (f) Any change or modification which may increase actual emissions to greater than fifteen (15) pounds of VOC per day from either (1) the painting of metal on the Fishing Boat Line, (2) the painting of metal on the Pontoon Line, or (3) the painting of wood on the Pontoon Line shall require approval from IDEM, OAQ prior to making the change.

This registration is a construction and operating registration issued to this source. The source may operate according to 326 IAC 2-5.5.

An authorized individual shall provide an annual notice to the Office of Air Quality that the source is in operation and in compliance with this registration pursuant to (326 IAC 2-5.1-2(f)(3) or 326 IAC 2-5.5-4(a)(3)). The annual notice shall be submitted to:

**Compliance Data Section
Office of Air Quality
100 North Senate Avenue
P.O. Box 6015
Indianapolis, IN 46206-6015**

no later than March 1 of each year, with the annual notice being submitted in the format attached.

An application or notification shall be submitted in accordance with 326 IAC 2 to the Office of Air Quality (OAQ) if the source proposes to construct new emission units, modify existing emission units, or otherwise modify the source.

Sincerely,

Original signed by
Paul Dubenetzky, Chief
Permits Branch
Office of Air Quality

FO/EVP

cc: File – Elkhart County
Elkhart County Health Department
Air Compliance – Doyle Houser
Northern Regional Office
Permit Tracking
Compliance Data Section

Registration Annual Notification

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

Company Name:	Forest River, Inc. – Odyssey Marine Division
Address:	51773 C. R. 39
City:	Middlebury, Indiana 46540
Authorized individual:	William Conway, Jr.
Phone #:	(574) 533-5934
Registration #:	039-19134-00576

I hereby certify that Forest River, Inc. – Odyssey Marine Division is still in operation and is in compliance with the requirements of Registration **039-19134-00576**.

Name (typed):
Title:
Signature:
Date:

Indiana Department of Environmental Management Office of Air Quality

Technical Support Document (TSD) for a Registration

Source Background and Description

Source Name: Forest River, Inc. - Odyssey Boat Division
Source Location: 51773 C.R. 39, Middlebury, Indiana 46540
County: Elkhart
SIC Code: 3732
Registration No.: 039-19134-00576
Permit Reviewer: Femi Ogunsola/EVP

History

Forest River, Inc., the Odyssey Boat Division was issued an Exemption 039-18026-00576 December 12, 2003 for assembly operations of pontoon and fishing boats. An application requesting to change the source to registration status was received on May 6, 2004. Forest River, Inc. Odyssey Boat Division is requesting to construct a painting operation for the Fishing Boat Line, which will operate at the rate of coating 12 boats per day. In addition to the new paint line, Forest River also requests to increase their current Fishing Boat Assembly Line production level to 12 boats per day with the identical coatings and usages listed in the Exemption. The source is currently permitted for assembling 15 pontoon boats and 5 fishing boats per day.

The Office of Air Quality (OAQ) has reviewed the application from Forest River, Inc., which includes the following emission units:

- (a) One (1) Pontoon Boat Assembly Line, constructed in 2003, coating wooden sheet goods, aluminum and plastic/fiberglass parts utilizing HVLP airless spray, wipe cleaning, roll coating and extruding and coating a maximum of 15 boats per day;
- (b) One (1) Fishing Boat Assembly Line, constructed in 2003, coating wooden sheet goods, aluminum and plastic/fiberglass parts utilizing HVLP airless spray, wipe cleaning, roll coating and extruding, and coating a maximum of 12 boats per day;
- (c) One (1) woodworking area, with a maximum capacity of 75 lbs/hr of plywood, controlled by a dust collector and a cyclone;
- (d) One (1) welding area, using four (4) metal inert gas (MIG) stations, each rated at 1.7 pounds per hour; and

- (e) Three (3) natural gas space heaters, each rated at 1.8 million (MM) Btu per hour.

Facilities to be constructed are listed as follows:

- (f) One (1) Fishing Boat Paint Booth operation, with maximum capacity of coating 12 boats per day, using dry filter for particulate overspray control and exhausting into a stack.
- (g) Additional facilities to welding area existing facilities, comprises of twelve (12) metal inert gas (MIG) stations, each rated at 1.0 pound per hour and fourteen (14) TIG stations, each rated at 1.0 pound per hour; and
- (h) One (1) natural gas combustion air make-up unit rated at 4.5 MM Btu/hr.

Existing Approvals

The above listed existing emission units were originally permitted in Registration 039-10855-00491, issued on June 8, 1999 at a different location in Elkhart, Indiana 46516. These emission units were relocated at 51773 C.R. 39, Middlebury, Indiana 46540, and were issued Exemption 039-16618-00576 on March 11, 2003 as a new source.

Enforcement Issue

There are no enforcement actions pending.

Recommendation

The staff recommends to the Commissioner that the aluminum boat manufacturing plant 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 October 25, 2003. Additional information was received on November 13, 2003.

Emission Calculations

See Appendix A of this document for detailed emission calculations (pages 1 through 6 of Appendix A).

Potential To Emit of Source Before Controls

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

Pollutant	Potential To Emit (tons/year)
PM	2.80
PM-10	2.99
SO ₂	0.03
VOC	20.47
CO	3.64
NO _x	4.34

HAP's	Unrestricted Potential Emissions (tons/yr)
Chromium	0.0014
Manganese	0.497
Nickel	0.149
Benzene	9.106E-05
MEK	0.00467
Toluene	0.015
Xylene	7.8584
Glycol Ethers	0.00056
Dichlorobenzene	5.203E-05
Hexane	3.6365
Formaldehyde	3.252E-03
Lead	2.168E-05
Cadmium	4.770E-05
TOTAL	12.23

- (a) The potential to emit of all the regulated pollutants at the source is within the registration applicability thresholds stated in 326 IAC 2-5.5-1(b). Therefore, pursuant to 326 IAC 2-5.5-1(b), this source will be issued a registration.

County Attainment Status

The source is located in Elkhart County.

Pollutant	Status
PM-10	attainment
SO ₂	attainment
NO ₂	Attainment
Ozone	attainment
CO	attainment

- (a) Volatile organic compounds (VOC) are precursors for the formation of ozone. Therefore, VOC emissions are considered when evaluating the rule applicability relating to the ozone standards. Elkhart County has been designated as attainment or unclassifiable for ozone. Therefore, VOC emissions were reviewed pursuant to the requirements for Prevention of Significant Deterioration (PSD), 326 IAC 2-2.

Part 70 Permit Determination

326 IAC 2-7 (Part 70 Permit Program)

This new source is not subject to the Part 70 Permit requirements because the potential to emit (PTE) of:

- (a) each criteria pollutant is less than 100 tons per year,
- (b) a single hazardous air pollutant (HAP) is less than 10 tons per year, and
- (c) any combination of HAPs is less than 25 tons/year.

This is the first air approval issued to this source.

Federal Rule Applicability

- (a) There are no New Source Performance Standards (NSPS)(326 IAC 12 and 40 CFR Part 60) applicable to this source.
- (b) The National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Wood Furniture Manufacturing Operations (40 CFR 63, Subpart JJ) are not applicable because this is not a major source as defined in 40 CFR 63, Subpart A and the source does not engage in the manufacturing of wood furniture or wood furniture components.
- (c) The National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Boat Manufacturing Operations (40 CFR 63, Subpart VVVV) applies to boat manufacturing facilities that builds fiberglass boats or aluminum recreational boats and are a major source of HAP. This source assembles boats from premanufactured hulls and decks but is not a major source of HAP, therefore, Subpart VVVV does not apply.

State Rule Applicability - Entire Source

326 IAC 2-6 (Emission Reporting)

This source is not a Title V source. Therefore, 326 IAC 2-6 does not apply.

326 IAC 5-1 (Opacity Limitations)

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

- (a) Opacity shall not exceed an average of forty percent (40%) in any one (1) six (6) minute averaging period as determined in 326 IAC 5-1-4.
- (b) Opacity shall not exceed sixty percent (60%) for more than a cumulative total of fifteen (15) minutes (sixty (60) readings 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 - Individual Facilities

326 IAC 2-4.1-1 (Major Sources of Hazardous Air Pollutants (HAP))

The source is not subject to 326 IAC 2-4.1-1, as it does not emit single HAP at a rate of 10 tons per year nor emit a combination of HAPs at a rate of 25 tons per year.

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

- (a) The woodworking operation handles less than 100 pounds of material per hour. Pursuant to 326 IAC 6-3-2(e)(2), allowable particulate emissions from this process shall not exceed 0.551 pounds per hour. The use of a dust collector and a cyclone with this process ensures compliance with this limit.
- (b) Pursuant to 326 IAC 6-3-1(b)(9), the welding operation is exempt from 326 IAC 6-3-2 (Particulate Emission Limitations for Manufacturing Processes) because less than 625 pounds of wire is consumed per day.

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

- (a) Particulate from the Fishing Boat Painting Booth shall be controlled by a dry particulate filter and the Permittee shall operate the control device in accordance with manufacturer's specifications.

If overspray is visibly detected at the exhaust or accumulates on the ground, the Permittee shall inspect the control device and do either of the following no later than four (4) hours after such observation:

Repair control device so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

Operate equipment so that no overspray is visibly detectable at the exhaust or accumulates on the ground.

If overspray is visibly detected, the Permittee shall maintain a record of the action taken as a result of the inspection, any repairs of the control device, or change in operations, so that overspray is not visibly detected at the exhaust or accumulates on the ground. These records must be maintained for five (5) years.

- (b) Pursuant to 326 IAC 6-3-1(b) (6) and 326 IAC 6-3-1(b)(8), the surface coating operations done at the Fishing Boat Line and Pontoon Line when using roll coating and brush (wipe, trowel) methods are exempted from 326 IAC 6-3-2.

- (c) Pursuant to 326 IAC 6-3-1(b)(12), the surface coating operations done at the Fishing Line and Pontoon Line when using aerosol coating products to repair minor surface damage and imperfections are exempted from 326 IAC 6-3-2.

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

- (a) The Fishing Boat Line when painting plastic or fiberglass is not subject to 326 IAC 8-1-6, as it does not have a potential VOC emission of 25 tons per year.
- (b) The Pontoon Line when painting plastic or fiberglass is not subject to 326 IAC 8-1-6, as it does not have a potential VOC emission of 25 tons per year.

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

- (a) The Fishing Boat Line when painting metal or aluminum is not subject to 326 IAC 8-2-9, as it does not have actual VOC emissions before control of 15 pounds per day (see Page 2 of 6 TSD Appendix A). Therefore, the Fishing Boat Line is not subject to the requirements of 326 IAC 8-2-9.
- (b) The Pontoon Line when painting metal or aluminum is not subject to 326 IAC 8-2-9, as it does not have actual VOC emissions before control of 15 pounds per day (see Page 2 of 6 TSD Appendix A).
- (c) Pursuant to 326 IAC 8-2-9(b)(5), the boat exterior surface coating operation comprising of 85% of aluminum surface coating operations at the Fishing Boat Painting Booth painting is exempted from the requirements of 326 IAC 8-2-9.
- (d) The surface coating operation, that are not exterior coating of marine vessels, comprising of 15% of the aluminum surface coating operation at the Fishing Boat Painting Booth is subject to the requirements of this rule.

Pursuant to 326 IAC 8-2-9, the owner or operator shall not allow the discharge into the atmosphere VOC in excess of three and five-tenths (3.5) pounds of VOC per gallon of coating, excluding water, as delivered to the applicator.

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

The surface coating of the storage box lid's side in the Pontoon Boat Line is not subject to 326 IAC 8-2-12 (Wood Furniture and Cabinet Coating), as it does not have an actual VOC emissions before control of 15 pounds per day (see Page 2 of 6 TSD Appendix A).

Conclusion

The operation of this aluminum boat assembly plant shall be subject to the conditions of the attached **Registration No. 039-19134 -00576**.

Appendix A: Emission Calculations

Company Name: Forest River, Inc. - Odyssey Marine Division
Address City IN Zip: 51773 C. R. 39, Middlebury, Indiana 46540
Registration Number: 039-19134-00576
Reviewer: Femi Ogunsola/EVP
Date: 05/28/2004

Uncontrolled Potential Emissions (tons/year)					
Emissions Generating Activity					
Pollutant	Surface Coating	Welding	Natural Gas Combustion	Woodworking	TOTAL
PM	1.86	0.79	0.08	3.29	6.02
PM10	1.86	0.79	0.33	0.33	3.31
SO2	0.00	0.00	0.03	0.00	0.03
NOx	0.00	0.00	4.34	0.00	4.34
VOC	20.23	0.00	0.24	0.00	20.47
CO	0.00	0.00	3.64	0.00	3.64
total HAPs	11.50	0.65	0.082	0.00	12.23
worst case single HAP	7.84	0.50	0.078	0.00	7.84
Total emissions based on rated capacity at 8,760 hours/year					
Controlled Potential Emissions (tons/year)					
Emissions Generating Activity					
Pollutant	Surface Coating	Welding	Natural Gas Combustion	Woodworking	TOTAL
PM	1.86	0.79	0.08	0.07	2.80
PM10	1.86	0.79	0.33	0.01	2.99
SO2	0.00	0.00	0.03	0.00	0.03
NOx	0.00	0.00	4.34	0.00	4.34
VOC	20.23	0.00	0.24	0.00	20.47
CO	0.00	0.00	3.64	0.00	3.64
total HAPs	11.50	0.65	0.082	0.00	12.23
worst case single HAP	7.84	0.50	0.078	0.00	7.84
Total emissions based on rated capacity at 8,760 hours/year, after control					

**Appendix A: Emissions Calculations
VOC and Particulate
From Surface Coating Operations**

Company Name: Forest River, Inc. - Odyssey Boat Division
Address City IN Zip: 51773 C.R. 39, Middlebury, IN 46540
Registration No.: 039-19134-00576
Reviewer: Femi Ogunsola/EVP
Date: 5/28/2004

Material	Density (Lb/Gal)	Weight % Volatile (H2O & Organics)	Weight % Water	Weight % Organics	Volume % Water	Volume % Non-Volatiles (solids)	Gal of Mat. (gal/unit)	Maximum (unit/hour)	Pounds VOC per gallon of coating less water	Pounds VOC per gallon of coating	Potential VOC pounds per hour	Potential VOC pounds per day	Potential VOC tons per year	Particulate Potential (ton/yr)	lb VOC/gal solids	Transfer Efficiency	Substrate
Fishing Boat Line																	
Denatured Alcohol	6.58	100.00%	0.0%	100.0%	0.0%	0.00%	0.07500	0.500	6.58	6.58	0.25	5.92	1.08	0.0000	14.41	100%	aluminum
NuFlex 302 Silicone Sealant	8.58	3.10%	0.0%	3.1%	0.0%	96.90%	0.00080	0.500	0.27	0.27	0.00	0.003	0.00	0.0000	0.02	100%	Plastic
NuFlex White Acrylic Sealant	13.33	3.75%	0.0%	3.8%	0.0%	96.25%	0.04600	0.500	0.50	0.50	0.01	0.28	0.05	0.0000	0.52	100%	Plastic
WD 40	6.67	63.00%	0.0%	63.0%	0.0%	30.00%	0.04800	0.500	4.20	4.20	0.10	2.42	0.44	0.1557	14.01	40%	aluminum
Bostik Super Tack Adhesive	6.40	71.30%	30.0%	41.3%	30.0%	28.70%	0.51890	0.500	3.78	2.64	0.69	16.46	3.00	0.0000	9.21	100%	aluminum
Cyclo C-111 Brake & Parts Cleaner	6.33	100.00%	26.0%	74.0%	26.0%	0.00%	0.00005	0.500	6.33	4.68	0.00	0.003	0.001	0.0000	#DIV/0!	40%	plastic
Beaver Terp-a-Kleen	7.16	100.00%	0.0%	100.0%	0.0%	0.00%	0.03130	0.500	7.16	7.16	0.11	2.69	0.49	0.0000	#DIV/0!	100%	metal, plastic
Evinrude Tracker MET Black Paint	6.91	86.20%	34.5%	51.7%	41.7%	13.80%	0.00030	0.500	6.13	3.57	0.00	0.01	0.00	0.0000	25.89	100%	plastic
3M Polishing Compound #7	8.33	86.30%	60.0%	26.3%	60.0%	13.70%	0.00230	0.500	5.48	2.19	0.00	0.06	0.01	0.0034	15.99	40%	plastic
Autofroth 91B0032 Flotation Foam	9.16	0.00%	0.0%	0.0%	0.0%	71.20%	0.02340	0.500	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	100%	aluminum
Autofroth 9300A Flotation Foam	10.16	0.00%	0.0%	0.0%	0.0%	100.00%	0.06250	0.500	0.00	0.00	0.00	0.00	0.00	0.0000	0.00	100%	aluminum
Chemtech 7227 Premium Adhesive	6.73	81.40%	40.7%	40.7%	40.7%	18.60%	0.06260	0.500	4.62	2.74	0.09	2.06	0.38	0.1030	14.73	40%	fabric
Total Potential Emission for Fishing Line											1.25	29.90	5.46	0.26			
Pontoon Line																	
Spray N Go Touch Up	6.66	57.60%	25.0%	25.0%	25.0%	13.60%	0.00070	0.625	2.22	1.67	0.00	0.017	0.003	0.0032	2.63	40%	aluminum
Denatured Alcohol	6.58	100.00%	0.0%	100.0%	0.0%	0.00%	0.07500	0.625	6.58	6.58	0.31	7.40	1.35	0.0000	#DIV/0!	100%	aluminum
Vetack 7747-00 Adhesive	9.16	45.00%	43.5%	1.5%	43.5%	55.00%	3.00000	0.625	0.24	0.14	0.26	6.18	1.13	0.0000	0.25	100%	wood
NuFlex 302 Silicone	8.58	3.11%	0.0%	3.1%	0.0%	96.89%	0.00080	0.625	0.27	0.27	0.00	0.00	0.00	0.0000	0.28	100%	plastic
NuFlex 180 White Acrylic Sealant	13.33	3.75%	0.0%	3.8%	0.0%	96.25%	0.04600	0.625	0.50	0.50	0.01	0.345	0.063	0.0000	0.52	100%	plastic
WD40	6.67	63.00%	0.0%	63.0%	0.0%	30.00%	0.04800	0.625	4.20	4.20	0.13	3.03	0.55	0.1946	14.01	40%	metal, plastic
Alumicolor Metal Paint	6.17	91.20%	55.0%	36.2%	55.0%	13.80%	0.00030	0.625	4.96	2.23	0.00	0.01	0.00	0.0003	16.19	40%	aluminum
PL-FIX Pro Wood Filler	9.91	55.00%	35.0%	20.0%	35.0%	45.00%	0.00005	0.625	3.05	1.98	0.00	0.00	0.00	0.0000	4.40	100%	wood
Law 8403 Bonding Cement	8.33	50.00%	50.0%	50.0%	50.0%	50.00%	0.16800	0.625	8.33	4.17	0.44	10.50	1.92	0.0000	5.70	100%	wood
Cyclo C 111- Cleaner	6.33	100.00%	26.0%	74.0%	26.0%	0.00%	0.00005	0.625	6.33	4.68	0.00	0.00	0.0006	0.0000	#DIV/0!	40%	plastic
Acrylyd Satin Black	6.44	79.12%	23.0%	56.1%	23.0%	11.00%	0.00030	0.625	4.69	3.61	0.00	0.02	0.00	0.0000	32.86	100%	plastic
Bondo Fiberglass	9.58	20.00%	0.0%	20.0%	0.0%	81.30%	0.00020	0.625	1.92	1.92	0.00	0.01	0.0010	0.0000	2.36	100%	plastic
Interplastic Marine Resin	10.83	46.50%	0.0%	46.5%	0.0%	53.50%	0.00040	0.625	5.04	5.04	0.00	0.03	0.01	0.0000	6.41	100%	plastic
RW Touch up Paint 5-FSC	7.00	94.00%	29.3%	64.7%	29.3%	1.34%	0.00120	0.625	6.41	4.53	0.00	0.08	0.01	0.0008	339.04	40%	aluminum
G&T Ind. Vinyl Patch	7.41	70.00%	0.0%	70.0%	0.0%	30.00%	0.00005	0.625	5.19	5.19	0.00	0.00	0.00	0.0000	17.29	100%	plastic
3M Polishing Cmpd # 7	8.33	85.00%	58.7%	26.3%	58.7%	15.00%	0.00230	0.625	5.30	2.19	0.00	0.08	0.01	0.0000	14.61	100%	plastic
Beaver Terp A Kleen	7.16	100.00%	0.0%	100.0%	0.0%	0.00%	0.03130	0.625	7.16	7.16	0.14	3.36	0.61	0.0000	19.60	100%	aluminum
Evinrude Tracker MET	6.91	85.70%	34.5%	51.2%	34.5%	13.80%	0.00030	0.625	5.40	3.54	0.00	0.02	0.00	0.0005	25.64	40%	plastic
RW Paint White 5-FSC	7.00	93.89%	29.3%	64.5%	29.3%	1.34%	0.00070	0.625	6.39	4.52	0.00	0.05	0.01	0.0005	338.45	40%	aluminum
Rust Stop Paint	11.00	28.80%	0.0%	28.8%	0.0%	71.20%	0.00070	0.625	3.17	3.17	0.00	0.03	0.01	0.0090	2.50	40%	plastic
ScotchKote	7.33	75.00%	45.0%	30.0%	45.0%	25.00%	0.00090	0.625	4.00	2.20	0.00	0.03	0.01	0.0000	8.80	100%	plastic
Chemtech 7227 Premium Adhesive	6.73	81.40%	40.7%	40.7%	40.7%	18.60%	0.06260	0.626	4.62	2.74	0.11	2.58	0.47	0.0000	14.73	100%	fabric
Total Potential Emission for Pontoon Line											1.41	33.76	6.16	0.21			
Fishing Boat Paint Booth																	
Black Elpolydur Enamel Paint	8.06	61.76%	0.00%	61.8%	0.00%	38.24%	0.64000	0.500	4.98	4.98	1.59	38.23	6.98	1.0800	#REF!	75%	aluminum
Elpolydur Hardener	8.14	57.25%	0.00%	57.3%	0.00%	42.75%	0.16000	0.500	4.66	4.66	0.37	8.947	1.633	0.3048	#REF!	75%	aluminum
Wash Primer 1871P2	7.61	81.47%	0.00%	81.5%	0.00%	18.53%	0.25000	0.500	6.20	6.20	0.77	18.60	3.39	0.1930	33.46	75%	aluminum
Acid Thinner 1871P2	6.96	100.00%	4.17%	95.8%	4.17%	0.00%	0.25000	0.500	6.96	6.67	0.83	20.01	3.65	0.0000	#DIV/0!	75%	aluminum
VM & P Naphtha	6.24	100.00%	0.00%	100.0%	0.00%	0.00%	0.35000	0.500	6.24	6.24	1.09	26.21	4.78	0.0000	#DIV/0!	100%	aluminum
Total Potential Emission for Fishing Boat Paint Booth											1.97	47.18	8.61	1.38			
Total Potential Emissions									4.62	110.84	20.23	1.86					

NOTES:

Note: The values under columns Weight % Water and Volume % Water for Bostik Super Tack Adhesive, Cyclo C-111 Cleaner, Evinrude Tracker MET, Chemtech 7227 Adhesive, Spray N Go Touch up, PL-FIX Pro wood filler, Cyclo Cleaner, Acrylyd Satin Black, Scotchco and Chemtech Adhesive is Acetone, which is an exempted solvent.

The Alumicolor Metal Paint has 44% acetone and 11% water

Materials for both lines have the potential to get used or applied in one time, since they are applied in an Open Area. Therefore, they are all added towards the PTE.

METHODOLOGY

Summation Coatings = Sum Coatings (Densitycoat * Wt % Org. * quantity of coatings, gal/unit) / (1-vol % water * Densitycoat/density water)

Volume Weighted Average = Summation Coatings / Total coatings Used

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)

Potential VOC Pounds per Hour = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr)

Potential VOC Pounds per Day = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (24 hr/day)

Potential VOC Tons per Year = Pounds of VOC per Gallon coating (lb/gal) * Gal of Material (gal/unit) * Maximum (units/hr) * (8760 hr/yr) * (1 ton/2000 lbs)

Particulate Potential Tons per Year = (units/hour) * (gal/unit) * (lbs/gal) * (1 - Transfer efficiency) * (8760 hrs/yr) * (1 ton/2000 lbs)

Pounds VOC per Gallon of Solids = (Density (lbs/gal) * Weight % organics) / (Volume % solids)

Total = Worst Coating + Sum of all solvents used

Appendix A: Emission Calculations

HAP Emission Calculations
 Company Name: Forest River, Inc. - Odyssey Boat Division
 Address City IN Zip: 51773 C.R. 39, Middlebury, IN 46540
 Exemption No.: 039-18026
 Reviewer: Femi Ogunsoola/EVP
 Date: 05/28/2004

Material	Density (Lb/Gal)	Gallons of Material (gal/unit)	Maximum (unit/hour)	Weight % Xylene	Weight % Toluene	Weight % MEK	Weight % Glycol Ethers	Weight % Styrene	Weight % Ethyl Benzene	Weight % Hexane	Xylene Emissions (ton/yr)	Toluene Emissions (ton/yr)	MEK Emissions (ton/yr)	Glycol Ethers Emissions (ton/yr)	Styrene Emissions (ton/yr)	Ethyl Benzene Emissions (ton/yr)	Hexane Emissions (ton/yr)
Fishing Boat Line																	
Denatured Alcohol	6.58	0.07500	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NuFlex 302 Silicone Sealant	8.58	0.00080	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NuFlex White Acrylic Sealant	13.33	0.04600	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WD40	6.67	0.04800	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Bostik Super Tack Adhesive	6.40	0.51890	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	3.6365
Cyclo C-111 Cleaner	6.33	0.00005	0.500	0.00%	30.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000	0.0000
Beaver Terp-a-Kleen	7.16	0.03130	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Evinrude Tracker MET Black Paint	6.91	0.00030	0.500	9.60%	11.66%	0.00%	1.50%	0.00%	2.47%	0.00%	0.000436	0.0005	0.0000	0.00007	0.0000	0.0000	0.0000
3M Polishing Cmp #7	8.33	0.00230	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Autofroth 91B0032	9.16	0.02340	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Autofroth 9300A Flotation Foam	10.16	0.06250	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Chemtech 7227 Premium Adhesive	6.73	0.06260	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Worst HAP											0.00044	0.00074	0.00000	0.00007	0.00000	0.00000	3.63645
Total Combined HAP											3.63769						
Pontoon Line																	
Spray N Go Touch Up	6.66	0.00070	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Denatured Alcohol	6.58	0.07500	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Vetac 7747-00 Adhesive	9.16	3.00000	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NuFlex 302 Silicone	8.58	0.00080	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
NuFlex 180 White Acrylic Sealant	13.33	0.04600	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
WD40	6.67	0.04800	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Alumicolor Metal Paint	6.17	0.00030	0.625	0.00%	0.00%	5.00%	8.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0003	0.0004	0.0004	0.0000	0.0000
PL-FIX Pro Wood Filler	9.91	0.00005	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Law 8403 Bonding Cement	8.33	0.16800	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Cyclo C 111- Cleaner	6.33	0.00005	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Acrylud Satin Black	6.44	0.00030	0.625	16.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0008	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Bondo Fiberglass	9.58	0.00020	0.625	0.00%	0.00%	0.00%	0.00%	20.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Interplastic Marine Resin	10.83	0.00040	0.625	0.00%	0.00%	0.00%	0.00%	46.50%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
RW Touch up Paint 5-FSC	7.00	0.00120	0.625	12.22%	0.00%	4.03%	0.00%	0.00%	0.00%	0.00%	0.0028	0.0000	0.0009	0.0000	0.0000	0.0000	0.0000
G&T Ind. Vinyl Patch	7.41	0.00005	0.625	0.00%	0.00%	24.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0002	0.0000	0.0000	0.0000	0.0000
3M Polishing Cmpd #7	8.33	0.00230	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Beaver Terp A Kleen	7.16	0.03130	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Evinrude Tracker MET	6.91	0.00030	0.625	9.86%	11.66%	0.00%	1.52%	0.00%	0.00%	0.00%	0.0006	0.0007	0.0000	0.0001	0.0001	0.0000	0.0000
RW Paint White 5-FSC	7.00	0.00070	0.625	12.22%	31.78%	4.03%	0.00%	0.00%	0.00%	0.00%	0.0016	0.0043	0.0005	0.0000	0.0000	0.0000	0.0000
Rust Stop Paint	11.00	0.00070	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
ScotchKote	7.33	0.00090	0.625	0.00%	15.00%	15.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0027	0.0027	0.0000	0.0000	0.0000	0.0000
Chemtech 7227 Premium Adhesive	6.73	0.06260	0.625	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Worst HAP											0.00585	0.00763	0.00467	0.00049	0.00049	0.00000	0.00000
Total Combined HAP											0.01914						
Fishing Boat Paint Booth																	
Black Epilydur Enamel 5260EB	8.08	0.64000	0.500	59.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	6.6817	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Hardener for Urethane 4096CL	8.14	0.16000	0.500	40.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	1.1572	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Wash Primer 1871P2	7.61	0.25000	0.500	18.99%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.7912	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Acid Thinner 1872T2	6.96	0.25000	0.500	25.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.9527	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
VM & P Naphtha	6.24	0.35000	0.500	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000	0.0000
Single Worst HAP											7.8389	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000
Total Combined HAP											7.8389						
Combined Total of HAPs											11.50						

METHODOLOGY

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

Appendix A: Welding

Company Name: Forest River, Inc. - Odyssey Boat Division
Address City IN Zip: 51773 C.R. 39, Middlebury, IN 46540
Registration No.: 039-19134-00576
Reviewer: Femi Ogunsola/EVP
Date : 05/28/2004

PROCESS	Number of Stations	Max. electrode consumption per station (lbs/hr)	EMISSION FACTORS * (lb pollutant / lb electrode)				EMISSIONS (lb/hr)				TOTAL HAPS (lb/hr)
			PM = PM10	Mn	Ni	Cr	PM = PM10	Mn	Ni	Cr	
WELDING											
Metal Inert Gas (MIG)(ER70S)	4	1.7	0.0055	0.00346	0.00104	0.00001	0.037	0.023528	0.007	0.000068	0.031
Metal Inert Gas (MIG)(ER70S)	12	1.0	0.0055	0.00346	0.00104	0.00001	0.066	0.04152	0.012	0.00012	0.054
Tungsten Inert Gas (TIG)	14	1.0	0.0055	0.00346	0.00104	0.00001	0.077	0.04844	0.015	0.00014	0.063
EMISSION TOTALS							PM = PM10	Mn	Ni	Cr	Total HAPs
Potential Emissions lbs/hr							0.18	0.11	0.03	0.0003	0.15
Potential Emissions lbs/day							4.33	2.72	0.82	0.0079	3.55
Potential Emissions tons/year							0.79	0.497	0.149	0.0014	0.65

METHODOLGY

*Emission Factors are from AP-42, Chapter 12, Fifth Edition

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

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

Emissions, tons/yr = emissions, lb/hr x 8,760 hrs/day x 1 ton/2,000 lbs.

Welding and other flame cutting emission factors are from an internal training session document.

Appendix A: Emissions Calculations

Natural Gas Combustion Only

MM BTU/HR <100

Small Industrial Boiler

Company Name: Forest River, Inc. - Odyssey Boat Division
 Address City IN Zip: 51773 C.R. 39, Middlebury, IN 46540
 Registration No.: 039-19134-00576
 Reviewer: Femi Ogunsola/EVP
 Date : 05/28/2004

Heat Input Capacity MMBtu/hr		Potential Throughput MMCF/yr	Pollutant					
5.4	3 space heaters each 1.8 mmBtu/hr	47.3						
4.5	Air Make-up unit	39.4						
9.9	Total	86.7						
Emission Factor in lb/MMCF			PM*	PM10*	SO2	NOx	VOC	CO
			1.9	7.6	0.6	100.0	5.5	84.0
Potential Emission in tons/yr			0.08	0.33	0.03	4.34	0.24	3.64

*PM emission factor is filterable PM only. PM10 emission factor is filterable and condensable PM10 combined.

**Emission Factors for NOx: Uncontrolled = 100, Low NOx Burner = 50, Low NOx Burners/Flue gas recirculation = 32

Methodology

All emission factors are based on normal firing.

MMBtu = 1,000,000 Btu

MMCF = 1,000,000 Cubic Feet of Gas

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

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

(SUPPLEMENT D 3/98)

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

HAPs Emissions					
HAPs - Organics					
	Benzene	Dichlorobenzene	Formaldehyde	Hexane	Toluene
Emission Factor in lb/MMcf	2.1E-03	1.2E-03	7.5E-02	1.8E+00	3.4E-03
Potential Emission in tons/yr	9.106E-05	5.203E-05	3.252E-03	7.805E-02	1.474E-04
HAPs - Metals					
	Lead	Cadmium	Chromium	Manganese	Nickel
Emission Factor in lb/MMcf	5.0E-04	1.1E-03	1.4E-03	3.8E-04	2.1E-03
Potential Emission in tons/yr	2.168E-05	4.770E-05	6.071E-05	1.648E-05	9.106E-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.

Appendix A: Process Particulate Emissions

Company Name: Forest River, Inc. - Odyssey Boat Division
Address City IN Zip: 51773 C.R. 39, Middlebury, IN 46540
Registration No.: 039-19134-00576
Reviewer: Femi Ogunsola/EVP
Date : 05/28/2004

Particulate Emissions Before Control (tons/year)						
Process	Raw Material Fed (lb/hr)	Particulate Generated (lb/hr)	% PM	% PM-10	PM emissions (tons/yr)	PM-10 emissions (tons/yr)
Woodworking	75	7.50	10	1	3.29	0.33

Particulate Emissions After Control (tons/year)							
Process	Raw Material Fed (lb/hr)	Particulate Generated (lb/hr)	% PM	% PM-10	PM emissions (tons/yr)	PM-10 emissions (tons/yr)	Control Efficiency
Woodworking	75	7.50	10	1	0.07	0.01	98.00%

Methodology:

Uncontrolled Emissions:

Uncontrolled Emissions (tons/yr) = Particulate Generated (lb/hr) * PM % * 8760 hr/yr * 1 ton/2,000 lbs

Controlled Emissions :

Controlled Emissions (tons/yr) = Particulate Generated (lb/hr) * PM % * 8760 hr/yr * 1 ton/2,000 lbs * 1/(1-Control Efficiency)