



Jeb Bush
Governor

Department of Environmental Protection

Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400
October 6, 1999

David B. Struhs
Secretary

CERTIFIED MAIL - RETURN RECEIPT REQUESTED

Mr. Dennis Wilson, VP/General Manager
Sea Ray Boats, Inc.
350 Sea Ray Drive
Merritt Island, Florida 32953

Re: DEP File No. 0090093-003-AC, PSD-FL-274
Sea Ray Boats, Inc., Merritt Island Facility, Cape Canaveral Plant

Dear Mr. Wilson:


Enclosed is one copy of the Intent to Issue, Draft Air Construction Permit pursuant to the requirements for the Prevention of Significant Deterioration (PSD), Technical Evaluation and Preliminary Determination, Draft Best Available Control Technology (BACT)/Maximum Achievable Control Technology (MACT) Determination for the referenced project at 350 Sea Ray Drive, Merritt Island, Brevard County. The Department's Intent to Issue Air Construction Permit and the "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" are also included.

The "PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT" must be published one time only as soon as possible in a newspaper of general circulation in the area affected, pursuant to the requirements of Chapter 50, Florida Statutes. Proof of publication, i.e., newspaper affidavit, must be provided to the Department's Bureau of Air Regulation office within 7 (seven) days of publication. Failure to publish the notice and provide proof of publication within the allotted time may result in the denial of the permit.

Please submit an updated construction schedule including Phase II. Please submit any updated engineering documents (such as the BACT/MACT proposals) or provide (prior to issuance of the final permit) an engineer's certification that Sea Ray will comply with the Final BACT/MACT. This will provide reasonable assurance as required to issue the final permit in accordance with Rule 62-4.070, F.A.C.

Please submit any written comments you wish to have considered concerning the Department's proposed action to A. A. Linero, P.E., of the New Source Review Section at the above letterhead address. If you have any other questions, please contact John Reynolds at 850/921-9523.

Sincerely,


C. H. Fancy, P.E., Chief,
Bureau of Air Regulation

CHF/al.

Enclosures

In the Matter of an
Application for Permit by:

Mr. Dennis Wilson, VP/General Manager
Sea Ray Boats, Inc. Merritt Island Facility
350 Sea Ray Drive
Merritt Island, Florida 32953

DEP File No. 0090093-003-AC
PSD-FL-274
Cape Canaveral Plant
Brevard County

INTENT TO ISSUE AIR CONSTRUCTION PERMIT

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit (copy of DRAFT Permit attached) for the proposed project, detailed in the application specified above and the attached Technical Evaluation and Preliminary Determination, for the reasons stated below.

The applicant, Sea Ray Boats, Inc. applied on May 10, 1999 to the Department to construct a new fiberglass boat production plant near its existing Merritt Island Facility in Brevard County. Additional details regarding control technology were received on July 17 and September 3. Additional fees were received on September 30.

The Department has permitting jurisdiction under the provisions of Chapter 403, Florida Statutes (F.S.), and Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, and 62-212. The above actions are not exempt from permitting procedures. The Department has determined that an air construction permit pursuant to the rules for the Prevention of Significant Deterioration (PSD) is required to conduct the work. The project must also satisfy requirements for maximum achievable control technology (MACT) for hazardous air pollutants (HAP) and best available control technology (BACT) for volatile organic compounds (VOC) and HAP.

The Department intends to issue this air construction permit based on the belief that reasonable assurances have been provided to indicate that operation of these emission units will not adversely impact air quality, and the emission units will comply with all appropriate provisions of Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297, F.A.C.

Pursuant to Section 403.815, F.S., and Rule 62-110.106(7)(a)1., F.A.C., you (the applicant) are required to publish at your own expense the enclosed Public Notice of Intent to Issue Air Construction Permit. The notice shall be published one time only in the legal advertisement section of a newspaper of general circulation in the area affected. Rule 62-110.106(7)(b), F.A.C., requires that the applicant cause the notice to be published as soon as possible after notification by the Department of its intended action. For the purpose of these rules, "publication in a newspaper of general circulation in the area affected" means publication in a newspaper meeting the requirements of Sections 50.011 and 50.031, F.S., in the county where the activity is to take place. If you are uncertain that a newspaper meets these requirements, please contact the Department at the address or telephone number listed below. The applicant shall provide proof of publication to the Department's Bureau of Air Regulation, at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, Florida 32399-2400 (Telephone: 850/488-0114; Fax 850/ 922-6979). You must provide proof of publication within seven days of publication, pursuant to Rule 62-110.106(5), F.A.C. No permitting action for which published notice is required shall be granted until proof of publication of notice is made by furnishing a uniform affidavit in substantially the form prescribed in section 50.051, F.S. to the office of the Department issuing the permit. Failure to publish the notice and provide proof of publication may result in the denial of the permit pursuant to Rules 62-110.106(9) & (11), F.A.C.

The Department will issue the final permit with the attached conditions unless a response received in accordance with the following procedures results in a different decision or significant change of terms or conditions.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of Public Notice of Intent to Issue Air Permit. Written comments and requests for public meetings should be provided to the Department's Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available in this proceeding.

In addition to the above, a person subject to regulation has a right to apply for a variance from or waiver of the requirements of particular rules, on certain conditions, under Section 120.542 F.S. The relief provided by this state statute applies only to state rules, not statutes, and not to any federal regulatory requirements. Applying for a variance or waiver does not substitute or extend the time for filing a petition for an administrative hearing or exercising any other right that a person may have in relation to the action proposed in this notice of intent.

The application for a variance or waiver is made by filing a petition with the Office of General Counsel of the Department, 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. The petition must specify the following information: (a) The name, address, and telephone number of the petitioner; (b) The name, address, and telephone number of the attorney or qualified representative of the petitioner, if any; (c) Each rule or portion of a rule from which a variance or waiver is requested; (d) The citation to the statute underlying (implemented by) the rule identified in (c) above; (e) The type of action requested; (f) The specific facts that would

justify a variance or waiver for the petitioner; (g) The reason why the variance or waiver would serve the purposes of the underlying statute (implemented by the rule); and (h) A statement whether the variance or waiver is permanent or temporary and, if temporary, a statement of the dates showing the duration of the variance or waiver requested.

The Department will grant a variance or waiver when the petition demonstrates both that the application of the rule would create a substantial hardship or violate principles of fairness, as each of those terms is defined in Section 120.542(2) F.S., and that the purpose of the underlying statute will be or has been achieved by other means by the petitioner.

Persons subject to regulation pursuant to any federally delegated or approved air program should be aware that Florida is specifically not authorized to issue variances or waivers from any requirements of any such federally delegated or approved program. The requirements of the program remain fully enforceable by the Administrator of the EPA and by any person under the Clean Air Act unless and until the Administrator separately approves any variance or waiver in accordance with the procedures of the federal program.

Executed in Tallahassee, Florida.



C. H. Fancy, P.E., Chief
Bureau of Air Regulation

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this INTENT TO ISSUE AIR CONSTRUCTION PERMIT (including the PUBLIC NOTICE, Technical Evaluation and Preliminary Determination, Draft BACT and MACT Determinations, and the Draft Permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 10-7-99 to the person(s) listed:

Dennis Wilson, Sea Ray*
Kevin Thompson, Sea Ray
Len Kozlov, DEP CD
Gregg Worley, EPA
John Bunyak, NPS
Chairman, Brevard County BCC
Leesa Souto, Brevard County ONRM
Pete Cantelou, P.E., CHP, Inc.
Angela Morrison, Esq., HGSS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52, Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Hani Deben
(Clerk)

10-7-99
(Date)

Is your RETURN ADDRESS completed on the reverse side?

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write "Return Receipt Requested" on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

I also wish to receive the following services (for an extra fee):

- 1. Addressee's Address
- 2. Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Dennis Wilson, VP
Sea Ray Boats
350 Sea Ray Drive
Meritt Island, FL

32953

4a. Article Number

Z 031 392 016

4b. Service Type

- Registered Certified
- Express Mail Insured
- Return Receipt for Merchandise COD

7. Date of Delivery

10/12/99

5. Received By: (Print Name)

6. Signature: (Addressee or Agent)

X J. Johnson

8. Addressee's Address (Only if requested and fee is paid)

SAME

Thank you for using Return Receipt Service.

Z 031 392 016

US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail (See reverse)

Sent to	
Dennis Wilson	
Street & Number	
Sea Ray	
Post Office, State, & ZIP Code	
Meritt Island, FL	
Postage	\$
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	\$
Postmark or Date	
10-7-99	
0090093-003 AC	
PSD-F1-274	

PS Form 3800, April 1995

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PUBLIC NOTICE OF INTENT TO ISSUE AIR CONSTRUCTION PERMIT

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION

DEP File No. 0090093-003-AC (PSD-FL-274)

Sea Ray Boats, Inc., Merritt Island Facility
Cape Canaveral Plant
Brevard County

The Department of Environmental Protection (Department) gives notice of its intent to issue an air construction permit pursuant to the Rules for the Prevention of Significant Deterioration of Air Quality (PSD) to Sea Ray Boats, Inc. to construct a new fiberglass boat production plant at 1200 Sea Ray Drive, Merritt Island, Brevard County. A Best Available Control Technology (BACT) determination and a Maximum Achievable Control Technology (MACT) determination were required pursuant to Rules 62-212.400 and 62-204.800(10)(d)2, F.A.C. for volatile organic compounds (VOC) and hazardous air pollutants (HAP), respectively. The applicant's name and address are Sea Ray Boats, Inc., 350 Sea Ray Drive, Merritt Island, Florida 32953.

The existing facility lies on property bounded by the Barge Canal to the North, Sea ray Drive (parallel to SR 528) to the South, Highway 3 to the West and Sykes Creek to the East. The new plant will be located West of the Banana River and 1.2 miles East of the existing facility. The Department determined that the new plant will be part of the existing facility based on common control, industrial classification, and adjacency. Because the new plant is considered by the Department to be a modification of an existing major facility, PSD review and a BACT determination are required. The Region IV U.S. Environmental Protection Agency office made the same determination.

EPA is developing MACT standards for the fiberglass boat industry pursuant to Section 112(d) of the Clean Air Act. Because the standards have not been finalized, the State must prepare a case-by-case new source MACT determination in accordance with Section 112(g) of the Act and 40CFR63, Subpart B as adopted in the Department's Rules. The final permit, if issued, will serve the purposes of the required Notice of MACT Approval

Sea Ray produces fiberglass boats by a process called "contact open molding." Emissions of VOC/HAP result primarily from the application and curing of gel coat and resin that is applied to various molds for the boat parts. The plant will be constructed in three phases. Per Sea Ray's applications and control technology proposals, VOC emissions from the fully constructed new plant are expected to be 211 tons per year (TPY), including 149 TPY of HAP, of which 125 TPY will be styrene. This level of control will be accomplished by limits on HAP content of raw materials and low-emitting application techniques.

The Department's preliminary determination is that further control may be feasible and cost-effective including: capture and add-on controls for gel coat application and lamination emissions; compliant finishing materials for interior wood finishing parts; compliant materials for bottom and non-wood exterior coatings; and non-HAP resin and gel coat cleaning solvents. Therefore emissions could be substantially lower than projected by Sea Ray.

The Department will initially require additional control of emissions from gel coat application and lamination by a system designed to capture and destroy at least 50 percent of the total VOC/HAP. If the initial control system is shown to be feasible and cost-effective, a full-scale control system designed to capture and destroy at least 85 percent will be required. Fabric filters will control particulate emissions from wood shop operations.

Sea Ray will be required to submit a proposed pilot-scale add-on control system design for the Department's approval six months after beginning lamination. One year will be allowed for installation following approval of the control system design. During a one-year demonstration program, the Department will make a final determination whether a full-scale control system is feasible and cost-effective. Another Public Notice will be published if the Department determines that a full-scale system is not required.

The applicant believes that particulate emissions will be minimal because of high efficiency filtration throughout the ventilation system. VOC emissions will contribute to ground-level ozone formation. The impacts of this type of project on ambient ozone levels cannot be accurately modeled. However the Department believes that the project will not cause or contribute to a violation on any National Ambient Air Quality Standards or Increments.

The Department will accept written comments and requests for public meetings concerning the proposed permit issuance action for a period of 30 (thirty) days from the date of publication of this Public Notice of Intent to Issue Air Construction Permit. Written comments and requests for public meetings should be provided to the Department's

Bureau of Air Regulation at 2600 Blair Stone Road, Mail Station #5505, Tallahassee, FL 32399-2400. Any written comments filed shall be made available for public inspection. If written comments received result in a significant change in the proposed agency action, the Department shall revise the proposed permit and require, if applicable, another Public Notice.

The Department will issue the permit with the attached conditions unless a timely petition for an administrative hearing is filed pursuant to sections 120.569 and 120.57 F.S., before the deadline for filing a petition. The procedures for petitioning for a hearing are set forth below. Mediation is not available in this proceeding.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida, 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of intent. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of intent, whichever occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall mail a copy of the petition to the applicant at the address indicated above at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57 F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205 of the Florida Administrative Code.

A petition that disputes the material facts on which the Department's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner, the name, address, and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of how and when petitioner received notice of the agency action or proposed action; (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action; and (g) A statement of the relief sought by the petitioner, stating precisely the action petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the Department's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

A complete project file is available for public inspection during normal business hours, 8:00 a.m. to 5:00 p.m., Monday through Friday, except legal holidays, at:

Florida Department of
Environmental Protection
Bureau of Air Regulation
111 S. Magnolia Drive, Suite 4
Tallahassee, Florida, 32301
Telephone: 850/488-1344
Fax: 850/922-6979

Florida Department of
Environmental Protection
Central District Office
3319 Maguire Boulevard, Suite 232
Orlando, Florida 32803-3767
Telephone: 407/894-7555
Fax: 407/897-5963

Brevard County Office of Natural
Resource Management
Building A
2725 Judge Fran Jamison Way
Melbourne (Viera), Florida 32940
Telephone: 407/633-2016
Fax: 407/633-2029

The complete project file includes the application, technical evaluation, draft permit, and the information submitted by the responsible official, exclusive of confidential records under Section 403.111, F.S. Interested persons may contact the Administrator, New Resource Review Section at 111 South Magnolia Drive, Suite 4, Tallahassee, Florida 32301, or call 850/488-0114, for additional information.

TECHNICAL EVALUATION
AND
PRELIMINARY DETERMINATION

Sea Ray Boats, Inc.

Merritt Island Facility
Cape Canaveral Plant

Brevard County

DEP File No. 0090093-003-AC (PSD-FL-274)

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

October 6, 1999

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

1. APPLICATION INFORMATION

Applicant Name and Address

Sea Ray Boats, Inc.
350 Sea Ray Drive
Merritt Island, Florida 32953

Authorized Representative: Dennis Wilson, VP/General Manager

Application Review Schedule

05-05-99 Date of Receipt of Application by Central District
07-19-99 Received Revised Volume II and MACT Proposal
08-11-99 Received EPA PSD Applicability Determination
09-03-99 Received PSD Analysis and Control Technology Review
09-30-99 Received Supplemental PSD Application Fee
10-06-99 Intent Issued

2. FACILITY INFORMATION

The existing Sea Ray Merritt Island Facility is located at 100, 200, and 350 Sea Ray Drive, South of the Barge Canal and East of Highway 3 on Merritt Island, Brevard County. This facility is approximately 190 kilometers East of the Chassahowitzka National Wilderness Area. Following is a map showing the general location of the existing facility.

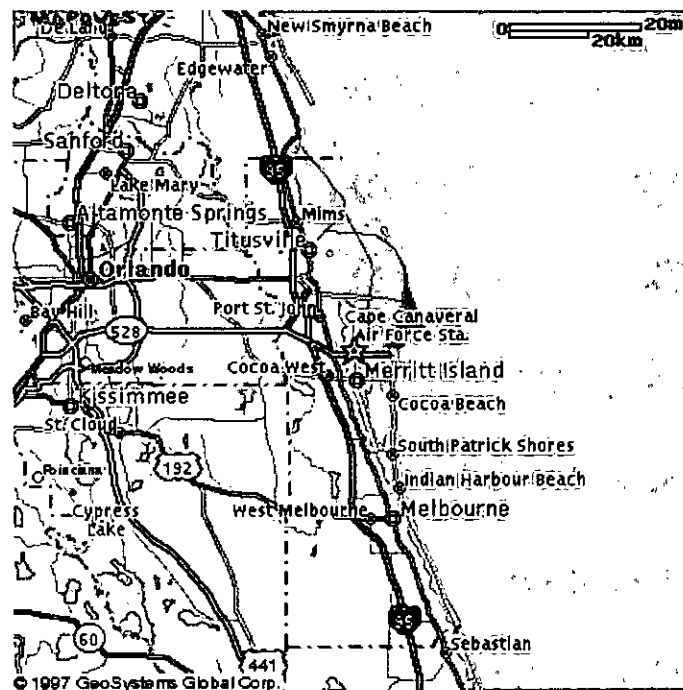


Figure 1. Location of Sea Ray Merritt Island Facility

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The developed properties include the Merritt Island Plant, the Product Development and Engineering Plant (PD&E), and the Sykes Creek Plant. Below is an aerial view (downloaded from Sea Ray's website) of the existing plants. The Merritt Island Plant is in the foreground (West). The PD&E and the Sykes Creek Plant are to the East. The Barge Canal, SR 528, and Sykes Creek are clearly visible. The Banana River can be discerned in the background (East). Sea Ray Drive is the frontage road visible to the South of the facility (parallel to SR 528).



Figure 2. Aerial View of Developed Facility (Source: www.searay.com)

The proposed Cape Canaveral Plant will be located at 1200 Sea Ray Drive, 1.2 miles East of the Sykes Creek Plant and just West of the Banana River. The UTM coordinates of the proposed Cape Canaveral Plant are Zone 17; 531.85 km E; 3242.15 km N. Following is a map showing the relative locations of the facility and proposed project on Merritt Island.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

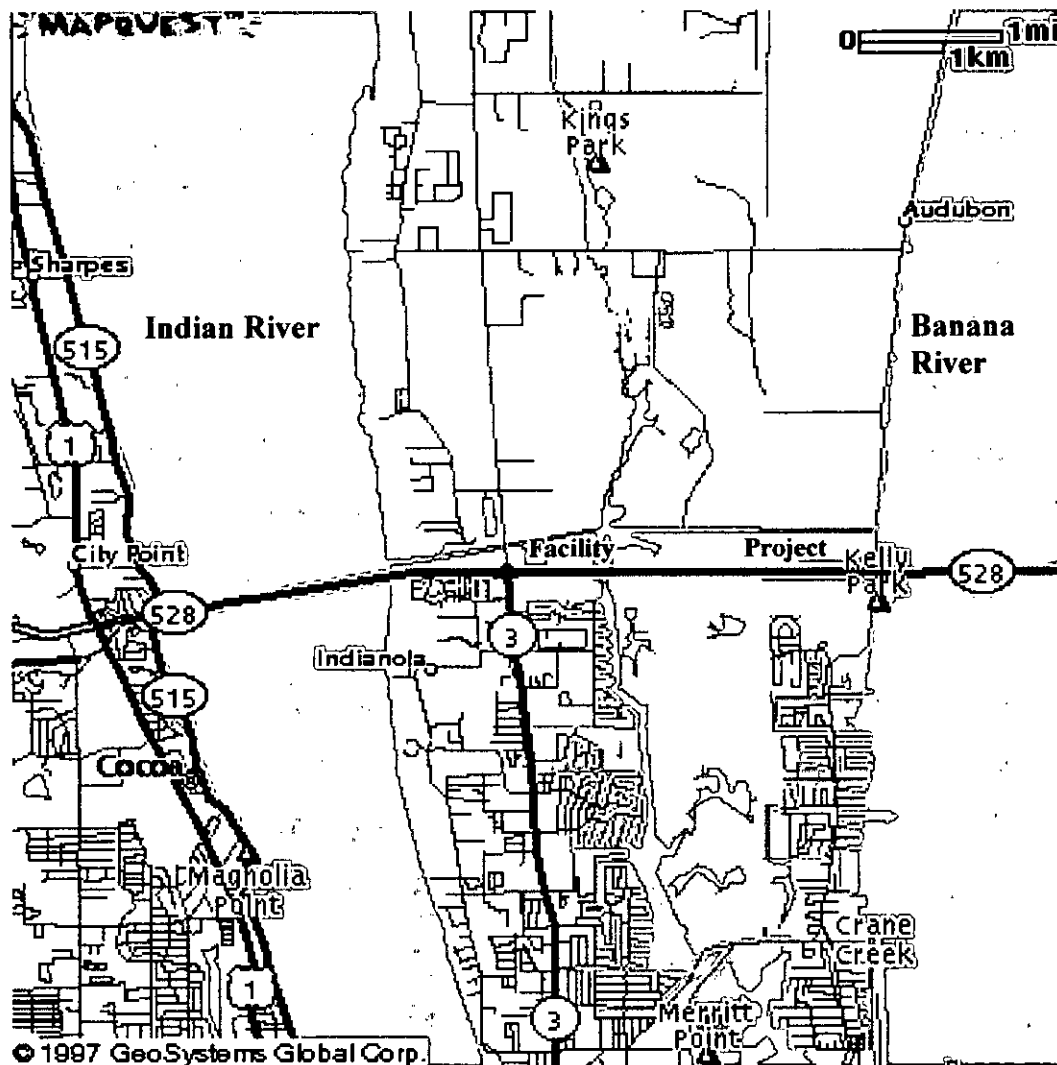


Figure 3. Relative Location of Project to Existing Facility

Standard Industrial Classification Codes (SIC)

Industry Group No.	37	Transportation Equipment
Industry No.	3732	Boat Building and Repairing

Facility Category

The existing facility is a Major or Title V Source of air pollution because emissions of VOC exceed 100 TPY or because emissions of a hazardous air pollutant (HAP – styrene) exceed 10 TPY.

It is also a Major Facility with respect to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), because emissions of volatile organic compounds (VOC) exceed 250 tons per year (TPY).

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

3. PROJECT DESCRIPTION

This permit addresses the following emissions units at the proposed Cape Canaveral Plant:

EMISSION UNIT NO.	SYSTEM	EMISSION UNIT DESCRIPTION
001	Lamination/ Assembly	Building 101. 88,400 square feet (ft ²) Building and Additions including 72,000 ft ² housing Gel Coat & Lamination Application Area, Assembly Space, and Inspection/Cutting Area.
002	Fabrication	Building 102. 48,000 ft ² Building and Additions including 20,100 ft ² Fabrication Area and 22,900 ft ² of Support Areas such as Woodshop and excluding Administration.
003	Accessory Structures	Resin and Materials Storage. Marine Refueling.

Sea Ray Boats, Inc. proposes to construct a fiberglass boat production plant near its existing Merritt Island Facility. The project is planned for three phases. Only plans related to the first phase are described in the application. These consist of the construction of three buildings to be known as the Lamination/Assembly Building, the Fabrication Building, and Accessory Structures. The second phase includes a separate building (Building 201) for assembly. Thereafter Building 101 will be used primarily for gel coat application and lamination.

In addition to or within the functions listed within the described emission units, there will be administrative offices and restrooms, a final finishing overhang, a lamination woodshop, an upholstery shop, a lectra room, loading docks and a hose, insulation and wirepull room. The plant will include dust control equipment as well as ventilation equipment.

Following is a listing of proposed emission points. All are related to Building 101 (Emission Unit 101) and, per the application, exhaust at approximately ambient temperature and humidity.

EMISSION POINT	HEIGHT (FT)	FLOW (ACFM)	FUNCTION
101-01	55	20,000	Vent Small Parts Assembly
101-02	55	40,000	Vent Lamination
101-03	55	40,000	Vent Lamination
101-04	55	40,000	Vent Lamination
101-05	55	40,000	Vent Lamination
101-06	55	40,000	Vent Lamination
101-07	55	40,000	Vent Lamination
101-08	55	30,000	Vent Lamination
101-09	55	15,000	Vent Gel Coat Booth
101-10	55	15,000	Vent Assembly/Fabrication
101-11	55	15,000	Vent Assembly/Fabrication

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

Emissions from the proposed plant for all phases were estimated by the applicant as 211 TPY of VOC including 149 TPY of HAP of which 125 TPY are styrene.

4. PROCESS DESCRIPTION

Much of the following discussion is paraphrased from a discussion supplied by the applicant that partially relied on a discussion prepared by Radian Corporation. The process is based on "Contact Open Molding." The specific steps employed by Sea Ray are as follows:

- Mold maintenance
- Gel Coat Application
- Gel Coat Holding
- Lamination (resin and wood application)
- Parts Extraction (from molds)
- Parts Inspection,
- Repair
- Wood Shop
- Upholstery
- Assembly
- Test, Final Finish, Inspection
- Delivery

The gel coat is a pigmented polyester resin that forms the smooth visible surface of the molded piece. Gel coat application can actually be a high technology operation due to precision requirements. Following are pictures from Sea Ray's website showing computerized precision mold cutting and robotic application of the materials onto a mold.

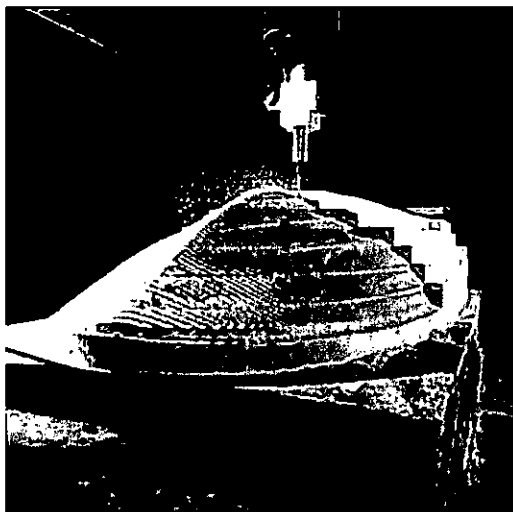


Figure 4. Mold Cutting

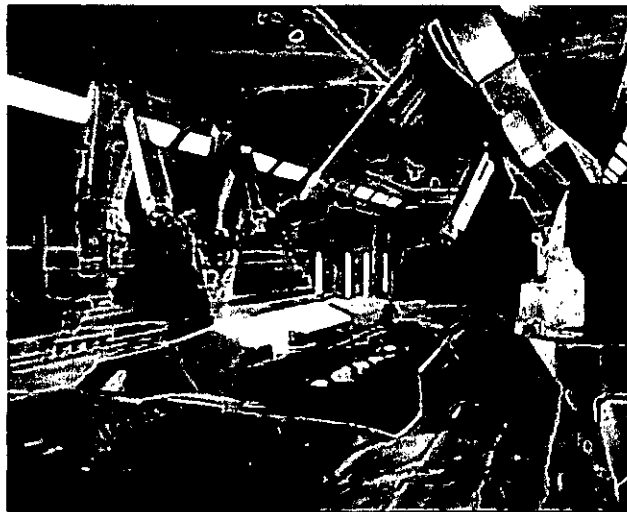


Figure 5. Robotic Application of Gel Coat

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

(Note that the precise techniques used at the Cape Canaveral Plant might be different than those shown in the photographs depending on whether a particular model is suited for a repetitive production run or is a unique product).

The gel coat cures and hardens and leaves a tacky surface on the open side that promotes adherence of the subsequent first layer of laminate. Layers of resin, fiberglass laminate, and structural reinforcement material are progressively added and cured until the desired thickness is attained.

Sea Ray employs two variations in the lamination step. The first (hand lay-up) relies on resin application with a catalyst injection resin gun followed by application of a variety of fiberglass reinforcement. The second relies on chopper gun application of resin and chopped fiberglass. The choice depends on the strength requirement of the particular component. Sea Ray proposes non-atomizing methods at the new plant.

Most emissions are generated in the application and curing of the laminates. These consist primarily of styrene monomer that is evolved prior to completion of polymerization. Trimming is performed by grinding in closed booths. Because of the presence of very efficient filters in the air handling (extraction) system, Sea Ray believes that very little particulate matter will leave the buildings. Styrene and other VOC evolved are extracted by the ventilation system and emitted from the building(s) at ambient conditions from eleven 55-foot stacks.

5. RULE APPLICABILITY

The proposed project is subject to preconstruction review and permitting requirements under the provisions of Chapter 403, Florida Statutes, and Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code (F.A.C.).

This facility is located in Brevard County, an area designated as attainment for all criteria pollutants in accordance with Rule 62-204.360, F.A.C. The proposed project is subject to Rule 62-212.400, F.A.C., Prevention of Significant Deterioration (PSD), for VOC. The reasons are summarized below:

- VOC emissions from the three project phases are estimated by the applicant as 211 TPY.
- VOC emissions from the Merritt Island Facility already exceed 250 TPY. The projected increase from the Cape Canaveral Plant exceeds the Significant Emission Rate of 40 TPY for VOC given in Table 62-212.400-2, F.A.C. Thus the increase of 211 TPY subjects the modification (construction of the Cape Canaveral Plant) to the PSD requirements of Rule 62-212.400.

Sea Ray believes the project is a separate facility and is not subject to PSD because it will emit less VOC than the Major Facility threshold of 250 TPY. Sea Ray's rationale is:¹

- The project will be approximately 1 mile from the existing facility
- Current Sea Ray facilities are not capable of building boats longer than 65 feet
- New plant will be capable of building boats over 65 feet
- The land in-between is not owned, leased, or used by Sea Ray
- The plant is designed and planned to operate separately and independently

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

- The plant will have a separate manager, staff, financial reporting, etc.
- There will be no functional interrelationship between the facility and the new plant

Department's Rationale for Determination as Single Facility

The Department's definition of a facility is:²

"Facility" – All of the emissions units which are located on one or more contiguous or adjacent properties and which are under the control of the same person (or persons under common control).

Although the plants might have separate managers, they will be under control of Mr. Dennis Wilson, VP/General Manager. He is the Responsible Official indicated in the Title V Permit for the existing facility and the Authorized Representative with respect to the present application. This is sufficient to establish common control since the same corporation controls the management at each of the several locations.

Although the Cape Canaveral Plant is not contiguous to properties on which the other Merritt Island plants are located (it is 1.2 miles east of the Sykes Creek Plant) the Department considers it to be "adjacent" to the Merritt Island facility for the following reasons: The word "adjacent" is defined as:³

"Adjacent" – ad. 1. Close to; Lying near. 2. Next to; adjoining. [ME < Lat. Adjacens, pr. Part. Of adjacere, to lie near : Ad-, near to + jacere, to lie.] – adjacently adv

Since the second connotation "next to; adjoining" is already covered by the term "contiguous," the connotation of adjacent in the facility definition is "close to; lying near." "Near" simply means to be within a short distance of interval in space or time. These are relative terms, but are encountered every day and readily interpreted based on context.

Referring back to Figure 1, it is clear that on the large scale, the project property lies near the existing facility. The star shown in the diagram would hardly shift based on whether it is placed on 100, 200, or 350 Sea Ray Drive (Merritt Island Facility addresses) or 1200 Sea Ray Drive (Cape Canaveral Plant address).

On a smaller scale such as Figure 3, it can also be shown that the proposed plant may still be considered close to the existing facility. Both properties lie within a sliver of land bounded by the Barge Canal to the North, Sea Ray Drive (parallel to SR 528) to the South, Highway 3 to the West, and Kelly Park to the East. Both lie on Merritt Island, which is the narrow island between the Indian and Banana Rivers.

If the plots of land occupied by the facility and proposed project were small, it could be argued that they are not near, just as two cabinet shops in an densely populated area containing a variety of small businesses might not consider themselves close. Their owners might not even know of each other's existence. Two large cement plants separated by the same distance would clearly be near to each other and known to each other, whether or not they are under common control. The Sea Ray properties have total frontage along both the Barge Canal and Sea Ray Drive that is on the order of the distance between them. They are the only air pollution sources at or between the two properties. These facts together would seem to fit a common sense notion of nearby

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

PSD applies to pollutants at certain Major Facilities as follows:⁴

“For any pollutant regulated under the Act, except for lead, the sum of the quantifiable fugitive emissions and the potential emissions of all emissions units at the facility which have the same “Major Group” Standard Industrial Classification (SIC) Code (as described in the Standard Industrial manual, 1972, as amended by the 1977 Supplement; U.S. Government Printing Office, stock numbers 4101-006 and 003-005-00176-01, respectively) would be equal to or greater than 250 tons per year; or”

The emissions from the existing facility and the proposed project emanate from emissions units having the same “Major Group” SIC Code. It is Industry Group 37, Transportation Equipment. Even if totally different types of transportation equipment were manufactured at the proposed project compared to the existing facility, the emissions units could still be aggregated to determine whether or not they are equal to 250 TPY. In fact the business of the existing facility and the project is to produce fiberglass boats. They are linked beyond the Industry Group Classification all the way to the specific Industry Number 3712, Boat Building and Repair and even beyond to Fiberglass Boat Production.

There is nothing in the above definitions that provides for the argument that the facility and proposed plant can be treated as different facilities if they are operated independently. EPA addressed this matter in the preamble to the 1980 PSD Rules as follows:⁵

“...While EPA sought to distinguish between activities on that basis (SIC Codes), it also sought to maximize the predictability of aggregating activities and to minimize the difficulty of administering the definition. To have merely added function to the proposed definition as another factor would have reduced the predictability of aggregating activities under the definition dramatically, since any assessment of functional interrelationships would be highly subjective. To have merely added function would have embroiled the Agency in numerous fine-grained analyses. A classification Code by contrast, offers objectivity and relative simplicity.” Parenthetical note (SIC Codes) added by Department.

The possibility of this determination was conveyed to Sea Ray via written correspondence dated June 28, 1999.⁶ The decision of PSD applicability was conveyed to Sea Ray at a meeting held at their request on July 23, 1999.⁷ Sea Ray then requested the ability to get EPA’s input prior to making a final decision on the matter. The Department agreed to take EPA’s opinion into consideration but that opinion had not yet been provided by the time the Department prepared its initial analysis.⁸ On August 11⁹, the Department received EPA’s determination, which is consistent with the Department’s interpretation of its rules.

MACT Applicability

The project is subject to Rule 62-204.800(10)(d)2, F.A.C., which requires a Maximum Achievable Control Technology (MACT) determination for all major sources of HAPs to be constructed or reconstructed, except under certain specific circumstance that are not applicable to this project. The initial application did not indicate that a Major Source of HAP is to be constructed. However based on a subsequent submittal and MACT proposal, Sea Ray agrees that it is subject to a MACT determination.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

The Department received a letter on October 1 from Sea Ray's legal representatives requesting inclusion in the draft permit of a condition that will ultimately require replacement of the Department's new source case-by-case MACT determination pursuant to section 112(g) with EPA's future fiberglass boat industry MACT pursuant to section 112(d).¹⁰

According to section 112(a)(4) of the Clean Air Act, if the source begins construction before the section 112(d) standard is proposed, then it is considered an existing source under a Section 112(d) MACT standard. Sources constructed after a section 112(d) standard is proposed are treated as new sources under section 112(d). This applies as well to sources that have met new source MACT under section 112(g).¹¹ For all practical purposes, the request can only relax the Department's case-by-case MACT.

The Department is not required to change the MACT requirements in the permit to reflect the future EPA 112(d) standard if the level of control required by the MACT in the permit is as least as stringent as that required by the final EPA MACT standard.¹² It appears that Department is not prohibited from changing the MACT in the permit condition to reflect the future EPA 112(d) MACT and has proposed a condition in the draft permit allowing for the future change.

The Department's case-by-case MACT determination will be the "floor" for the case-by-case BACT determination for the present project. The BACT will continue to be based on that floor regardless of any relaxation. It is also noted that the BACT can be re-assessed in the future based on the results of a pilot plant demonstration proposed by the Department and the authority provided by the rules for BACT determinations at phased construction projects.¹³

The emission units affected by this permit shall comply with all applicable provisions of the Florida Administrative Code (including applicable portions of the Code of Federal Regulations incorporated therein) and, specifically, the following Chapters and Rules:

Chapter 62-4	Permits.
Rule 62-204.220	Ambient Air Quality Protection
Rule 62-204.240	Ambient Air Quality Standards
Rule 62-204.800	Federal Regulations Adopted by Reference (40CFR63 in Particular)
Rule 62-210.300	Permits Required
Rule 62-210.350	Public Notice and Comments
Rule 62-210.370	Reports
Rule 62-210.550	Stack Height Policy
Rule 62-210.650	Circumvention
Rule 62-210.700	Excess Emissions
Rule 62-210.900	Forms and Instructions
Rule 62-212.300	General Preconstruction Review Requirements
Rule 62-212.400	Prevention of Significant Deterioration (including BACT)
Rule 62-213	Operation Permits for Major Sources of Air Pollution
Rule 62-296.320	General Pollutant Emission Limiting Standards
Rule 62-297.310	General Test Requirements
Rule 62-297.401	Compliance Test Methods

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

6. AIR POLLUTION CONTROL TECHNOLOGY

The emission control technology proposed by the applicant and by the Department is discussed at length in the draft BACT/MACT determination issued with this review. The applicant proposes to control VOC/HAP emissions by use of resins with relatively low styrene content and "non-atomizing" application techniques wherever possible, claiming that these emissions will be 40 percent less than emissions from a similar plant that does not employ these techniques.

The Department has determined that additional measures are necessary in accordance with its case-by-case MACT determination. These include: compliant finishing materials for interior wood finishing parts; compliant materials for bottom and non-wood exterior coatings; and non-HAP resin and gel coat cleaning solvents.

The Department believes that add-on BACT controls are feasible and cost-effective, but is not requiring a full-scale control system until the feasibility and cost-effectiveness are actually demonstrated on a pilot scale. Then, if the Department finds that the full-scale control system will be feasible based on the pilot system, the full-scale system can be required with the assurance that experience provides. In view of the applicant's combined emissions exceeding 600 tons per year of VOC/HAP and styrene's status as both a HAP and a possible carcinogen, it is reasonable and justifiable that the applicant should be required to install an add-on control system to reduce these emissions.

7. AIR QUALITY IMPACTS

Although VOC emissions will contribute to ground-level ozone formation, the air quality impacts of this type of project cannot be accurately modeled. However, the Department believes that the project will not cause or contribute to a violation of any National Ambient Air Quality Standards or Increments. Though this project will cause increased ambient concentrations of VOC/HAP including styrene, there are no applicable ambient standards for these pollutants. Implementation of BACT and MACT will ensure that this impact will be reduced.

Impacts from subsequent ozone formation would be minimal in the vicinity of the plant and in the surrounding PSD Class II Area and the nearest Class I Area (Chassahowitzka National Wilderness Area). The Department did not review the impacts of styrene on nearby soils and vegetation.

Visibility will probably not be affected from operations, with the exception of occasional smoke from maintenance work at the facility such as the starting of engines, etc. Styrene has a characteristic odor, which may be noticeable under certain meteorological conditions.

The proposed project will provide a wide variety of employment in the area. It is not likely to place undue demands on local resources beyond those already expected from generalized sustained growth.

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

8. PERMIT PROCESSING

The non-PSD, non-MACT application submitted to the Department's Central District Office in defaulted to completeness on June 3, 1999. It was subsequently recognized that a case-by-case MACT determination was required and that the project was possibly subject to PSD. The applicant was immediately notified that a MACT proposal is required. The proposed MACT was received by the Department's Bureau of Air Regulation (BAR) on July 19. After determinations by both the Department and EPA that PSD is applicable, responsibility for the permitting action was transferred to the BAR in Tallahassee.

Due to these circumstances, the applicant provided until August 30 to review the material.¹⁴ The applicant subsequently requested several extensions of the 90-day permit-processing clock. The latest extension is until October 11¹⁵. The applicant submitted a PSD Analysis a control technology proposal on September 3 and the Department received a supplementary payment of \$2,500 on September 30 thus completing the PSD application fee.¹⁶ Sea Ray reserves the option to challenge the PSD applicability determination.

9. CONCLUSION

The Department conducted its own accelerated, extensive review of the control technology alternatives for this project. This review resulted in a draft BACT/MACT determination and proposed permit that will require the applicant to further control the significant increases in VOC/HAP emissions from its proposed expansion. Because the determination is more stringent than the applicant's proposal, the Department does not yet have reasonable assurance per Rule 62-4.070, F.A.C. that the applicant will comply with the Department's BACT/MACT determination. This level of assurance is expected to be attained through future negotiations with the applicant and consideration of public and agency input.

Based on information provided by the applicant and supplemented by the Department's own research, the Department has reasonable assurance that the proposed project will not cause a violation of any air quality standard or PSD increment.

J. M. Reynolds, Permit Engineer
A. A. Linero, P.E. Administrator
Cindy Phillips, P.E. II
Cleve Holladay, Meteorologist

TECHNICAL EVALUATION AND PRELIMINARY DETERMINATION

REFERENCES

- ¹ Letter. Stoeker, G., to Reynolds, J., FDEP. Cape Canaveral Plant. July 14, 1999
- ² Rule. Rule 62-204.200, F.A.C., Definitions. July 1, 1999
- ³ Dictionary. Stein, J., Editor. The Random House College Dictionary. Revised Edition. 1975.
- ⁴ Rule. Rule 62-212.400, F.A.C., Prevention of Significant Deterioration.
- ⁵ Publication. Final PSD Regulations. Preamble. Federal Register 45FR52695. August 7, 1980
- ⁶ Letter. Linero, A.A., FDEP to Cantelou, G.E., Jr., CHP. Sea Ray Boats, Inc. June 28, 1999
- ⁷ Meeting. FDEP, Sea Ray, HGSS, CHF. Sea Ray Application Status Meeting. July 23, 1999
- ⁸ Letter. Fancy, C.H., FDEP to Neeley, D., EPA Region IV. Request for Comments on Sea Ray Application. July 27, 1999
- ⁹ Letter. Neeley, R.D., EPA Region IV, to Fancy, C.H., FDEP. Sea Ray Boats. August 11, 1999
- ¹⁰ Letter. Morrison, A.R., Esq., Hopping Green Sams Smith. Sea Ray Boats. September 30, 1999.
- ¹¹ Preamble. Hazardous Air Pollutants: Regulations Governing Constructed or Reconstructed Major Sources; Final Rule. FR Volume 61, Number 250, Page68397. December 27, 1999
- ¹² Regulation. 40CFR63.56©, Requirements for Case-by-Case Determination of Equivalent Emission Limitations After Promulgation of a Subsequent MACT Standard.
- ¹³ Rule. 62-212.400(6)(b), F.A.C., Phased Construction Projects.
- ¹⁴ Letter. Wilson, D., Sea Ray to Kozlov, L., FDEP. Extension. July 20, 1999
- ¹⁵ Letter. Wilson, D., Sea Ray to Linero, A.A., FDEP. Extension Request. September 29, 1999
- ¹⁶ Letter. Thompson, K., Sea Ray to fancy, C.H., FDEP. Fee Submittal. September 29, 1999

PERMITTEE

Sea Ray Boats, Inc.
Cape Canaveral Plant
350 Sea Ray Drive
Merritt Island, Florida 32953

Permit No.	0090093-003-AC PSD-FL-274
Project	Fiberglass Boat Mfg. Plant
Expires:	April 6, 2001

AUTHORIZED REPRESENTATIVE:

Mr. Dennis Wilson, General Manager/Vice President

PROJECT AND LOCATION

This permit authorizes the applicant to construct a fiberglass boat manufacturing plant (Cape Canaveral Plant). The SIC code for this project is 3732.

The project is to be located at 1200 Sea Ray Drive, Merritt Island, Brevard County. The UTM coordinates are Zone 17; 531.85 km E; 3142.15 km N. This site is not located within 100 km of any Class I PSD Area. The Chassahowitzka National Wildlife Refuge is approximately 191 km west-northwest of the site.

STATEMENT OF BASIS

This construction/PSD permit is issued under the provisions of Chapter 403 of the Florida Statutes (F.S.), and the Florida Administrative Code (F.A.C.) Chapters 62-4, 62-204, 62-210, 62-212, 62-296, and 62-297. The above named permittee is authorized to construct the emissions units in accordance with the conditions of this permit and as described in the application, approved drawings, plans, and other documents on file with the Department of Environmental Protection (Department).

APPENDICES

The attached appendices are a part of this permit:

- Appendix A BACT/MACT Determination
- Appendix B NESHAP General Provisions
- Appendix C Applicant's Table 3 – Proposed Emissions Calculations
- Appendix GC General Permit Conditions

Howard L. Rhodes, Director
Division of Air Resources
Management

AIR CONSTRUCTION PERMIT
SECTION I. FACILITY INFORMATION

FACILITY DESCRIPTION

Sea Ray Boats operates three existing plants; the Merritt Island Plant, the Product Development and Engineering Plant, and the Sykes Creek Plant, located on Sea Ray Drive in Merritt Island approximately one mile west of the proposed plant. These plants are used to design and manufacture fiberglass boats. These plants and the proposed Cape Canaveral Plant are considered by the Department to comprise one facility.

PROJECT DETAILS

The proposed Cape Canaveral Plant will manufacture fiberglass boats of varying sizes up to 75 feet in length. The plant's two production buildings will house facilities for the gel coat and lamination processes as well as parts and fabrication activities such as woodshop operations and warehousing. A separate building will be erected for offices and administration. The new plant will be located on Sea Ray Drive approximately one mile east of the existing plants between Sea Ray Drive to the south and the barge canal to the north. The first phase of the proposed plant will consist of the following emissions units.

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Building 101, Lamination & Assembly
002	Building 102, Fabrication
003	Accessory Structures

REGULATORY CLASSIFICATION

The facility, consisting of the three existing plants and the proposed plant, is classified as a Major or Title V Source of air pollution because emissions of volatile organic compounds (VOC) exceed 100 tons per year (TPY), and because emissions of one hazardous air pollutant (HAP) (styrene) exceed 10 tons per year and emissions of total HAP exceed 25 tons per year. This facility is not within an industry included in the list of the 28 Major Facility Categories per Table 62-212.400-1, F.A.C. Since emissions are greater than 250 TPY for VOC, the facility is also a Major Facility with respect to Rule 62-212.400, Prevention of Significant Deterioration (PSD). The emissions units are subject to limits determined as BACT for VOC and are subject to limits determined to be MACT for HAP.

REVIEWING AND PROCESS SCHEDULE

05-05-99	Date of Receipt of Application by Central District
07-19-99	Received Revised Volume II and MACT Proposal
08-11-99	Received EPA PSD Applicability Determination
09-03-99	Received PSD Analysis and Control Technology Review
09-30-99	Received Supplemental PSD Application Fee
10-06-99	Distributed Notice of Intent and Supporting Documents
DRAFT	Notice of Intent Published in _____

RELEVANT DOCUMENTS

The documents listed below constitute the basis for the permit and are on file with the Department.

- Permit application
- Applicant's additional information noted above
- Department's Technical Evaluation and Preliminary Determination and Intent to Issue

Sea Ray Boats, Inc.
Cape Canaveral Plant

DEP File No. 0090093-003-AC
PSD-FL-274

AIR CONSTRUCTION PERMIT
SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

The following specific conditions apply to all emissions units at this facility addressed by this permit.

ADMINISTRATIVE

1. Regulating Agencies: All documents related to applications for permits to construct, operate or modify an emissions unit should be submitted to the Bureau of Air Regulation (BAR), Florida Department of Environmental Protection at Mail Station #5505, 2600 Blair Stone Road, Tallahassee, Florida 32399-2400, phone number 850/488-0114. All documents related to reports, tests, minor modifications and notifications shall be submitted to the Department's Central District office at 3319 Maguire Boulevard, Suite 232, Orlando, Florida 32803-3767, phone number 407/894-7555.
2. General Conditions: The permittee is subject to and shall operate under the attached General Permit Conditions G.1 through G.15 listed in Appendix GC of this permit. General Permit Conditions are binding and enforceable pursuant to Chapter 403 of the Florida Statutes. [Rule 62-4.160, F.A.C.]
3. Terminology: The terms used in this permit have specific meanings as defined in the corresponding chapters of the Florida Administrative Code.
4. Applicable Regulations, Forms and Application Procedures: Unless otherwise indicated in this permit, the construction and operation of the subject emissions unit shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of Chapter 403, F.S. and Florida Administrative Code Chapters 62-4, 62-110, 62-204, 62-212, 62-213, 62-296, 62-297 and the Code of Federal Regulations Title 40, Part 60, adopted by reference in the Florida Administrative Code (F.A.C.) regulations. The permittee shall use the applicable forms listed in Rule 62-210.900, F.A.C. and follow the application procedures in Chapter 62-4, F.A.C. Issuance of this permit does not relieve the facility owner or operator from compliance with any applicable federal, state, or local permitting or regulations. [Rules 62-204.800, 62-210.300 and 62-210.900, F.A.C.]
5. New or Additional Conditions: Pursuant to Rule 62-4.080, F.A.C., for good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time. [Rule 62-4.080, F.A.C.]
6. Expiration: This air construction permit shall expire on April 6, 2001. The permittee, for good cause, may request that this construction/PSD permit be extended. Such a request shall be submitted to the Department's Bureau of Air Regulation prior to 60 days before the expiration of the permit. [Rules 62-210.300(1), 62-4.070(4), 62-4.080, and 62-4.210, F.A.C.]

PSD Expiration: Approval to construct shall become invalid if construction is not commenced within 18 months after receipt of such approval, or if construction is discontinued for a period of 18 months or more, or if construction is not completed within a reasonable time. The Department may extend the 18-month period upon a satisfactory showing that an extension is justified. [Rules 62-4.070(4), 62-4.210(2) & (3), and 62-210.300(1)(a), F.A.C.]

BACT Determination: In conjunction with extension of the 18 month periods to commence or continue construction, extension of the permit expiration date, or construction of Phases II and III, the permittee may be required to demonstrate the adequacy of any previous determination of Best Available Control Technology (BACT) for the source. [Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

7. Modifications: No emissions unit or facility subject to this permit shall be constructed or modified without obtaining an air construction permit from the Department. Such permit must be obtained prior to the beginning of construction or modification. [Rules 62-210.300(1) and 62-212.300(1)(a), F.A.C.]
8. Title V Operation Permit Required: This permit authorizes construction and/or installation of the permitted emissions unit and initial operation to determine compliance with Department rules. A Title V operation permit is required for regular operation of the permitted emissions unit. The owner or operator shall apply for and receive a Title V operation permit prior to expiration of this permit. To apply for a Title V operation permit, the applicant shall submit the appropriate application form, compliance test results, and such additional information as the Department may by law require. The application shall be submitted to the Department's Central District office. [Rules 62-4.030, 62-4.050, 62-4.220, and Chapter 62-213, F.A.C.]

GENERAL EMISSIONS LIMITING STANDARDS

9. General Visible Emissions Standard: Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer, or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20% opacity). The test method for visible emissions shall be EPA Method 9, incorporated and adopted by reference in Chapter 62-297, F.A.C. Test procedures shall meet all applicable requirements of Chapter 62-297, F.A.C. [Rule 62-296.320(4)(b)1, F.A.C.]
10. Unconfined Emissions of Particulate Matter: [Rules 62-296.320(4)(c) and 62-212.400, F.A.C.]
- (a) No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions.
- (b) Any permit issued to a facility with emissions of unconfined particulate matter shall specify the reasonable precautions to be taken by that facility to control the emissions of unconfined particulate matter.
- (c) Reasonable precautions include the following:
- Paving and maintenance of roads, parking areas and yards.
 - Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing.
 - Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities.
 - Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
 - Landscaping or planting of vegetation.
 - Use of hoods, fans, filters, and similar equipment to contain, capture and/or vent particulate matter.
 - Confining abrasive blasting where possible.
 - Enclosure or covering of conveyor systems.

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

(d) In determining what constitutes reasonable precautions for a particular source, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice.

11. General Pollutant Emission Limiting Standards: [Rule 62-296.320(1)(a)&(2), F.A.C.]

(a) No person shall store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds or organic solvents without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department.

(b) No person shall cause, suffer, allow or permit the discharge of air pollutants which cause or contribute to an objectionable odor.

[Note: An objectionable odor is defined in Rule 62-210.200(203), F.A.C., as any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance.]

OPERATIONAL REQUIREMENTS

12. Plant Operation - Problems: If temporarily unable to comply with any of the conditions of the permit due to breakdown of equipment or destruction by hazard of fire, wind or by other cause, the permittee shall immediately notify the Department's Central District office. The notification shall include pertinent information as to the cause of the problem, and what steps are being taken to correct the problem and to prevent its recurrence, and where applicable, the owner's intent toward reconstruction of destroyed facilities. Such notification does not release the permittee from any liability for failure to comply with Department rules. [Rule 62-4.130, F.A.C.]

13. Circumvention: No person shall circumvent any air pollution control device or allow the emission of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

14. Excess Emissions:

For purposes of this permit, all limits established pursuant to the State Implementation Plan, including those limits established as BACT, include emissions during periods of startup and shutdown, and are not subject to the provisions of Rule 62-210.700(1), F.A.C. This provision can not be used to vary any NESHAP requirements from any subpart of 40 CFR 63. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during start-up, shutdown or malfunction shall be prohibited pursuant to Rule 62-210.700(4), F.A.C. [Rules 62-4.070(3) and 62-210.700(5), F.A.C.]

Excess emissions resulting from malfunction of any emissions units shall be permitted providing (1) best operational practices to minimize emissions are adhered to and (2) the duration of excess emissions shall be minimized, but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

15. Required Number of Test Runs: For mass emission limitations, a compliance test shall consist of three complete and separate determinations of the total air pollutant emission rate through the test section of the stack or duct and three complete and separate determinations of any applicable process variables corresponding to the three distinct time periods during which the stack emission rate was measured; provided, however, that three complete and separate determinations shall not be required if the process variables are not subject to variation during a compliance test, or if three determinations are not necessary in order to calculate the unit's emission rate. The three required test runs shall be completed within one consecutive five-day period. In the event that a sample is lost or one of the three runs must be discontinued because of circumstances beyond the control of the owner or operator, and a valid third run cannot be obtained within the five-day period allowed for the test, the Secretary or his or her designee may accept the results of two complete runs as proof of compliance, provided that the arithmetic mean of the two complete runs is at least 20% below the allowable emission limiting standard. [Rule 62-297.310(1), F.A.C.]
16. Operating Rate During Testing: Unless otherwise stated in the applicable emission limiting standard rule, testing of emissions shall be conducted with the emissions unit operation at permitted capacity. Permitted capacity is defined as 90 to 100 percent of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emissions unit may be tested at less than the minimum permitted capacity; in this case, subsequent emissions unit operation is limited to 110 percent of the test load until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for the purpose of additional compliance testing to regain the authority to operate at the permitted capacity. [Rule 62-297.310(2), F.A.C.]
17. Calculation of Emission Rate: The indicated emission rate or concentration shall be the arithmetic average of the emission rate or concentration determined by each of the three separate test runs unless otherwise specified in a particular test method or applicable rule. [Rule 62-297.310(3), F.A.C.]
18. Test Procedures shall meet all applicable requirements of Rule 62-297.310(4), F.A.C. [Rule 62-297.310(4), F.A.C.]
19. Determination of Process Variables: [Rule 62-297.310(5), F.A.C.]
 - (a) Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.
 - (b) Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.
20. Required Stack Sampling Facilities: Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E. Sampling facilities shall also conform to the requirements of Rule 62-297.310(6), F.A.C. [Rule 62-297.310(6), F.A.C.]

AIR CONSTRUCTION PERMIT

SECTION II. FACILITY-WIDE SPECIFIC CONDITIONS

21. Test Notification: The permittee shall notify the Department's Central District office and, if applicable, appropriate local program, at least 15 days prior to the date on which each formal compliance test is to begin. Notification shall include the date, time, and place of each such test, and the test contact person who will be responsible for coordinating and having such test conducted for the owner or operator. [Rule 62-297.310(7)(a)9., F.A.C.]
22. Special Compliance Tests: When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standard contained in a Department rule or in a permit issued pursuant to those rules is being violated, it shall require the owner or operator of the facility to conduct compliance tests which identify the nature and quantity of pollutant emissions from the emissions units and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

23. Duration of Record Keeping: Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least five three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule. [Rules 62-4.160(14)(a)&(b) and 62-213.440(1)(b)2.b., F.A.C.]
24. Test Reports: The owner or operator of an emissions unit for which a compliance test is required shall file a report with the Department on the results of each such test. The required test report shall be filed with the Department as soon as practical but no later than 45 days after the last sampling run of each test is completed. The test report shall provide sufficient detail on the emissions unit tested and the test procedures used to allow the Department to determine if the test was properly conducted and the test results properly computed. As a minimum, the test report, other than for an EPA or DEP Method 9 test, shall provide the applicable information listed in Rule 62-297.310(8)(c), F.A.C. [Rule 62-297.310(8), F.A.C.]
25. Excess Emissions Report: If excess emissions occur, the owner or operator shall notify the Department within one working day of: the nature, extent, and duration of the excess emissions; the cause of the excess emissions; and the actions taken to correct the problem. In addition, the Department may request a written summary report of the incident. Pursuant to the NESHAP requirements, excess emissions shall also be reported in accordance with 40 CFR 63, Subpart A. [Rule 62-4.130, F.A.C.]
26. Excess Emissions Report - Malfunctions: In case of excess emissions resulting from malfunctions, each owner or operator shall notify the Department's Central District office in accordance with Rule 62-4.130, F.A.C. A full written report on the malfunctions shall be submitted in a quarterly report if requested by the Department. [Rule 62-210.700(6), F.A.C.]
27. Annual Operating Report for Air Pollutant Emitting Facility: The Annual Operating Report for Air Pollutant Emitting Facility shall be completed each year and shall be submitted to the Department's Central District office by March 1 of the following year. [Rule 62-210.370(3), F.A.C.]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

The following specific conditions apply to the following emissions units:

EMISSIONS UNIT NO.	EMISSIONS UNIT DESCRIPTION
001	Building 101, Lamination & Assembly
002	Building 102, Fabrication
003	Accessory Structures

[Note: Emissions units 001, 002 and 003 are subject to PSD for VOC; subject to MACT for HAPs; and are subject to the requirements of the state rules as indicated in this permit. This permit includes the MACT requirements, and constitutes MACT for this project.]

OPERATIONAL REQUIREMENTS

1. Hours of Operation: These emissions units may operate continuously, i.e., 8,760 hours/year. [Rule 62-210.200, F.A.C., Definitions-potential to emit (PTE)]

MATERIAL USAGE/APPLICATION REQUIREMENTS AND LIMITATIONS

2. VOC and Styrene Emissions Limited: Emissions of volatile organic compounds (VOC) (including styrene) shall not exceed 211 tons prior to capture and control, and emissions of styrene shall not exceed 125 tons prior to capture and control, in any consecutive 12-month period. These emission rates are the total for all three project phases. [Rules 62-4.070(3), 62-204.800(10)(d)2., and 62-210.200 (PTE), F.A.C., and BACT/MACT]
3. Resins and Gel Coats HAP Contents Limits: The following components shall be limited to the following maximum average HAP contents as listed on the respective Manufacturer's Safety Data Sheets, expressed as percent by weight, and based on a 3-month rolling weighted average:
 - Production resins, 35% total HAP content.
 - Pigmented gel coats, 33% total HAP content.
 - Base gel coats, 33% total HAP content.
 - Clear gel coats, 48% total HAP content.
 - Sprayed tooling resins, used for making and repair of molds, 30% total HAP content.
 - Non-atomized tooling resins, used for making and repair of molds, 39% total HAP content.
 - Tooling gel coats, used for making and repair of molds, 40% total HAP content.[Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]
4. Records of Weighted Average HAP Contents Required: The permittee shall keep and maintain the following records to demonstrate compliance with the HAP content limitations of the previous specific condition. Records shall be completed no later than five days after the end of each month.
 - Weight in pounds of each material used each month.
 - Weight percentage of total HAP (expressed as a decimal fraction) in each material using the highest value for each range listed on the Manufacturer's Safety Data Sheets.
 - Rolling 3-month weighted average total HAP content, expressed as a weight percentage, for each component specified in the previous specific condition, based on the materials used in the current month and preceding two months. The weighted average shall be calculated for each component by multiplying the weight of each material used during the three month period times the total HAP content of each material, totaling the results, and then dividing the resulting sum by the total weight of all materials. For example, for the production resins component, the 3-month weighted average would be:

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

$$PR_{avg} = \frac{(HAP_a) WT_a + (HAP_b) WT_b + \dots + (HAP_i) WT_i}{WT_a + WT_b + \dots + WT_i} \times 100$$

Where,

- PR avg = The 3-month weighted average, expressed as a percentage, for the production resins component;
- HAP_i = The weight percentage of total HAP (expressed as a decimal fraction) in material i; and
- WT_i = The weight of material i used in the current month and preceding two months.

[Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]

5. Resin & Gel Coat Cleaning Solvents: The owner or operator shall only use resin and gel coat cleaning solvents which contain no HAP except for the use of solvent cleaning machines which comply with the requirements of 40 CFR 63 Subpart T – Halogenated Solvent Cleaning. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]
6. Carpet and Fabric Adhesives: The permittee shall use carpet and fabric adhesives that contain no HAP. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]
7. Carpentry Adhesives: The owner or operator shall use carpentry adhesives which achieve a volatile HAP (VHAP) limit for contact adhesives of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids) as applied using either of the compliance methods in 40 CFR 63.804(e). Excluded from this limit are aerosol adhesives and contact adhesives applied to nonporous substrates. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]
8. Non-atomizing Equipment Required: The owner or operator shall only use non-atomizing application equipment for production resins. Sea Ray shall submit an operation and maintenance plan and operator training plan including but not limited to equipment calibration methods to achieve maximum HAP reduction; [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]
9. No Controls Required: The owner or operator is not required to control emissions of HAP from mold sealing, releasing, stripping and repair materials. The owner or operator is not required to control emissions of HAPs from coating processes for exterior wood parts. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]
10. Interior Wood Parts: The owner or operator shall only use finishing materials for interior wood parts which are compliant with 40 CFR 63 Subpart JJ – NESHAP for Wood Furniture Manufacturing Operations. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]
11. Bottom Coatings & Other Exterior Coatings: The owner or operator shall only use bottom coatings and any other exterior coatings (except for wood parts) which are compliant with 40 CFR 63 Subpart II – NESHAP for Ship Building and Ship Repair (Surface Coating). [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

CONTROL SYSTEMS REQUIRED/EMISSION LIMITS

12. VOC/HAP Capture and Control System Required: Emissions Unit 001 shall be equipped with a pilot-scale capture system ducted to a control system sized to treat at least 10,000 cfm of VOC/HAP-laden air exhausted from the hull lamination process. Within 180 days following commencement of hull or deck lamination processing, the permittee shall submit its proposed design for a 10,000 cfm VOC/HAP BACT control system to the Department's Bureau of Air Regulation for approval. The permittee shall provide written notice of the lamination commencement date to the Bureau of Air Regulation and the Department's Central District Office. The design submittal shall contain all data necessary to evaluate the system's performance capabilities. The pilot-scale control system must utilize one or more of the following: a localized pickup system, a permanent booth enclosure or a movable-enclosure venting and capture system. The system shall be designed and operated to capture least 53 percent of the total VOC and HAP emissions generated in the hull lamination process while destroying 95 percent. The Department shall notify the permittee within 30 days of receipt of the design proposal as to whether it will be accepted as BACT. If the proposal is not approved, the Department shall notify the permittee within the same 30 day period as to what modifications are required to make the proposal acceptable. Construction of buildings and installation of process equipment may begin upon issuance of this PSD permit. The permittee shall have a period of one year following the Department's written approval of the design to install and commence operation of the pilot-scale BACT system. Quarterly progress reports detailing the status of the pilot project shall be submitted to the Bureau by the permittee during the one year construction period. The permittee shall notify the Bureau and the Department's Central District Office at least 15 days in advance of the startup date of the pilot project. Within one year following commencement of operation of the pilot system, and after notifying the Bureau and the Central District Office at least 15 days in advance, the permittee shall conduct a capture efficiency test and a VOC/HAP destruction efficiency test on the system according to the procedures specified below in Specific Conditions No. 15 and 16. Results of these tests shall be submitted to the Department with 45 days after completion. Unless the test results or other data provided by the permittee convince the Department that a full-scale system is not feasible from a technical, operational or cost standpoint, the Department shall provide one additional year for installation of a full-scale control system based on the pilot system. The full-scale system, which may augment or replace the pilot system, shall be designed to capture 90 percent of the total VOC/HAP emissions generated from the hull and deck lamination process while destroying at least 95 percent. Appropriate emission limits and compliance requirements for the full-scale VOC/HAP control system shall be established by the Department within 45 days following receipt of test results for the pilot-scale system and shall be incorporated into the Title V permit for this facility. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

PM/PM10 Control System Required: The grinding operations of Emissions Unit 001 shall be equipped with a local exhaust ventilation system ducted to a fabric filter to capture and control emissions of particulate matter. The opacity of the fabric filter exhaust shall be limited to 5 percent. [Rule 62-4.070(3), F.A.C.]

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

13. Doors and Openings to Remain Closed During Gel Coat/Resin Application and Curing. Following the startup date for the pilot VOC/HAP emission control system, access doors and openings for Emissions Unit 001 shall not be opened except for transfer of materials, components and finished products, and entry and exit of personnel, or as specified in the operation plan required by Specific Condition No 14. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]
14. Air Makeup/Ingress Operation Plan Required: At least 45 days prior to the initial operation of the lamination process, the permittee shall submit an air makeup/ingress operation plan for the lamination building (Emission Unit 001) to the Department for approval specifying the operating conditions under which doors and openings may remain open and for what duration. The plan must provide a detailed description of how the permittee's internal approval process for opening doors will work and how the door openings and duration will be monitored and recorded. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

15. Capture Efficiency Demonstration: During the first year of operation of the pilot control system, the permittee shall demonstrate the capture efficiency of the pickup system by comparing raw VOC/HAP emissions generated over a six-hour lamination period (based on material usage rates and appropriate emission factors) with captured emissions based on measured flow rates and VOC concentrations in the exhaust duct as determined by EPA Methods 2 and 25 or 25A, as described in 40 CFR 60 Appendix A (1997 version). [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]
16. Destruction Efficiency Test: During the first year of operation of the pilot control system, the permittee shall determine the destruction efficiency required in Specific Condition 12 of this section by sampling the inlet and outlet of the destruction device over a three-hour lamination period for VOC concentrations using EPA Method 25 or 25A, as described in 40 CFR 60 Appendix A (1997 version). [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]
17. PM Testing Required: Visible emissions from the fabric filter controlling the grinding operation of Emissions Unit 001 shall be tested initially and annually using EPA Method 9. If the opacity limit is not met, a particulate matter emission test using EPA Method 5 as described in 40 CFR 60 Appendix A (1997 version) shall be conducted within 72 hours and a PM/PM₁₀ mass emission limit shall be established based on the results and added as a condition of the facility's Title V permit. [Rule 62-4.070(3), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

18. Records of Emissions Required: The permittee shall keep and maintain for at least five years the following records to demonstrate compliance with the VOC and styrene emissions limitations of Specific Condition No. 2 of this section. Records shall be completed no later than five days after the end of each month.
 - Amounts in pounds of each material used each month that contains VOC/HAP.
 - Weight percentage of VOC/HAP in materials using the highest value listed on Manufacturer's Safety Data (MSD) Sheets.

AIR CONSTRUCTION PERMIT

SECTION III. EMISSIONS UNITS SPECIFIC CONDITIONS

- Amount in pounds of VOC/HAP emitted each month from each material used during the month, calculated by multiplying the amount of each material used by its VOC/HAP content and then by the appropriate emission factor. Unless notified otherwise, the permittee may use emission factors contained in *Table Three: Proposed Emissions Calculations*, submitted as part of the permittee's MACT application dated July 16, 1999.
- Total amount in pounds of VOC/HAP emitted each month, calculated as the sum of VOC/HAP emitted from each material used during the month as determined above.
- Rolling 12-month total amount in pounds and tons of VOC/HAP emitted in the most recent consecutive 12-month period, calculated as the sum of VOC/HAP emitted for the current month and the preceding eleven months.

[Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

PROVISION FOR FUTURE EPA SECTION 112(D) MACT DETERMINATION

19. At such time as the U.S. EPA promulgates final regulations in 40CFR63 establishing standards for the Boat Manufacturing Industry, and the Department adopts such standards into its rules, the permittee may provide reasonable assurances of its ability to comply with any such standards and may then, for purposes of MACT compliance, comply with any less restrictive specific provision of the promulgated MACT rather than the more restrictive specific provisions of the case-by-case MACT. However, if this change results in a modification, as defined by the State Implementation Plan (S.I.P.), it shall be processed as a permit revision in accordance with the S.I.P. In any event, the case-by-case MACT shall remain as the BACT floor for PSD purposes in the event that the Department must reconsider the BACT provisions of this permit.

AIR CONSTRUCTION PERMIT
APPENDIX A. BACT/MACT DETERMINATION

The BACT/MACT Determination is attached as part of this permit following this page.

DETERMINATIONS OF
BEST AVAILABLE CONTROL TECHNOLOGY (BACT)
AND
MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT)

Sea Ray Boats, Inc.

Merritt Island Facility
Cape Canaveral Plant

Brevard County

DEP File No. 0090093-003-AC
PSD-FL-274

Department of Environmental Protection
Division of Air Resources Management
Bureau of Air Regulation

Month XX, 1999

BACT/MACT DETERMINATION

**Sea Ray Boats, Inc.
Cape Canaveral Project
Merritt Island, Brevard County**

Sea Ray proposes to construct a new fiberglass boat production plant near its existing Merritt Island Facility in Brevard County. The proposed site is approximately 1 mile East of Sykes Creek and West of the Banana River between the Barge Canal and SR528.

The proposed project will result in a significant emissions increase of volatile organic compounds (VOC) with respect to Table 212.400-2, Florida Administrative Code (F.A.C.). The project is therefore subject to review for the Prevention of Significant Deterioration (PSD) and a determination of Best Available Control Technology (BACT) in accordance with Rule 62-212.400, F.A.C. The project is also subject to a case-by-case Maximum Achievable Control Technology (MACT) Determination in accordance with Rule 62-204.800(10)(d)2, F.A.C. since it will be a major source of hazardous air pollutants (HAP) and the federal MACT standards for the Fiberglass Boat Building industry have not yet been promulgated under the National Emission Standards for Hazardous Air Pollutants (NESHAP).

The details of PSD applicability and a description of the process are presented in the separate Technical Evaluation and Preliminary Determination issued on October 6, 1999.

DATE OF RECEIPT OF APPLICATION:

The original application was received on May 5, 1999. A separate MACT proposal for HAP emissions was received on July 19, 1999. A PSD application and BACT proposal was subsequently received on September 3, 1999.

BACT/MACT DETERMINATION REQUESTED BY THE APPLICANT:

SOURCE	CONTROL TECHNOLOGY	PROPOSED BACT LIMIT
Production Resins	Styrene Content	35 percent (%) styrene
Resin Application	Non-Atomizing Equipment	
Gel Coats	Styrene Content	34 % styrene

The Department and EPA determined that the applicant's proposed Cape Canaveral Plant and the existing Merritt Island Facility are adjacent and comprise a single facility. PSD applies to the proposed project since the VOC emission increases at a major facility will exceed significant levels. This BACT/MACT determination covers the requirements of both the PSD and NESHAP regulations. The applicant requested that the Department's BACT and MACT determinations be the same and as indicated above.

The applicant's position is that add-on controls are not cost-effective and therefore should not be required. Emissions from the Cape Canaveral project are proposed at 211 tons per year of VOC/HAP vented primarily through 11 stacks located on the roof of Building 101 and exhausting 55 feet above the ground. Total VOC emissions would exceed 600 tons per year from the existing Merritt Island Facility and the Cape Canaveral Plant combined.

BACT/MACT DETERMINATION

BACT/MACT DETERMINATION PROCEDURE:

In accordance with Chapter 62-212, F.A.C., this BACT determination is based on the maximum degree of reduction of each pollutant emitted which the Department of Environmental Protection (Department), on a case by case basis, taking into account energy, environmental and economic impacts, and other costs, determines is achievable through application of production processes and available methods, systems, and techniques. In addition, the regulations state that, in making the BACT determination, the Department shall give consideration to:

- Any Environmental Protection Agency determination of BACT pursuant to Section 169, and any emission limitation contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants.
- All scientific, engineering, and technical material and other information available to the Department.
- The emission limiting standards or BACT determination of any other state.
- The social and economic impact of the application of such technology.

The EPA currently stresses that BACT should be determined using the "top-down" approach. The first step in this approach is to determine, for the emission unit in question, the most stringent control available for a similar or identical emission unit or emission unit category. If it is shown that this level of control is technically or economically unfeasible for the emission unit in question, then the next most stringent level of control is determined and similarly evaluated. This process continues until the BACT level under consideration cannot be eliminated by any substantial or unique technical, environmental, or economic objections.

There are no promulgated emission limitations contained in 40 CFR Part 60 - Standards of Performance for New Stationary Sources (NSPS) or 40 CFR Part 61 - National Emission Standards for Hazardous Air Pollutants (NESHAP) that apply to "Contact Open Molding," which is the main process emission generating process involved in fiberglass boat manufacturing.

The U.S. Environmental Protection Agency (EPA) is currently developing MACT standards for processes used in the fiberglass reinforced plastics/composites (FRP/C) and boat manufacturing industries and will propose them next year. Until a NESHAP is proposed, the Department is required by its rules to develop a case-by-case determination of Maximum Achievable Control Technology (MACT) for new major sources of HAP. In this instance, the MACT determination forms the basis for the minimum level of control required by the BACT determination. The MACT determination procedure is outlined below.

The provisions of 40 CFR 63, Subpart B, Requirements for Control Technology Determinations for Major Sources in Accordance with Clean Air Act Sections, Sections 112(g) and 112(j), were adopted as Rule 62-204.800(10)(d)2, F.A.C. Section 112(g) requires the case-by-case MACT determination mentioned above. Following is the definition of case-by-case MACT pursuant to Section 112(g) for new sources of hazardous air pollutants:

BACT/MACT DETERMINATION

Maximum Achievable Control Technology (MACT) emission limitation for new sources means “the emission limitation which is not less stringent than the emission limitation achieved by the best controlled similar source, and which reflects the maximum degree of reduction in emissions that the permitting authority, taking into consideration the cost of achieving such emission reduction, and any non-air quality health and environmental impacts and energy requirements, determines is achievable by the constructed source.”

Similar source means “a stationary source or process that has comparable emissions and is structurally similar in design and capacity to a constructed or reconstructed source such that the source could be controlled using the same control technology.”

Per Federal Register Volume 61, Number 250, Pages 68394-95, EPA believes that because the Clean Air Act specifically indicates that *existing source* MACT should be determined from *within* the source category (e.g. Fiberglass Boat Manufacturing) and does not make this distinction for *new source* MACT, that Congress intends for transfer technologies to be considered when establishing the minimum criteria for new sources. EPA believes that Congress could have explicitly restricted the minimum level of control for new sources, but did not. The use of the term “best controlled source” rather than “best controlled source within the source category” suggests that the intent is to consider transfer technologies when appropriate.

In addition, the regulations state that in making the MACT Determination, the Department should give consideration to:

- (a) Any Environmental Protection Agency proposed relevant emission standard pursuant to section 112(d) or section 112(h) of the Act or an adopted presumptive MACT determination for the source category which includes the constructed or reconstructed major source.
- (b) Available information as defined in 40 CFR 63.41. *Available information* means, for purposes of identifying control technology options for the affected source, information contained in the following information sources as of the date of the approval of the MACT determination by the permitting authority:
 - (1) A relevant proposed regulation, including all supporting information;
 - (2) Background information documents for a draft or proposed regulation;
 - (3) Data and information available for the Control Technology Center developed pursuant to Section 113 of the Act;
 - (4) Data and information contained in the Aerometric Informational Retrieval System including information in the MACT data base;
 - (5) Any additional information that can be expeditiously provided by the Administrator; and
 - (6) For the purpose of determinations by the permitting authority, any additional information considered available by the permitting authority.

BACT/MACT DETERMINATION

BACT/MACT DETERMINATIONS BY EPA AND STATES:

The EPA is currently working on a draft proposed MACT for boat manufacturing sources, although the regulations have not been published as of this issuance. However, based upon statements by the EPA, the proposed MACT for new and reconstructed sources is expected to include:

1. The use of production resins that contain a maximum average of 35% total HAP content, based on Manufacturer's Safety Data Sheets (MSDS), with compliance determined on a 3-month rolling average;
2. The use of non-atomizing application equipment for production resins;
3. The use of base gel coats and pigmented gel coats that contain a maximum average of 33% total HAP content, based on MSDS, with compliance determined on a 3-month rolling average;
4. The use of clear gel coats that contain a maximum average of 48% total HAP content, based on MSDS, with compliance determined on a 3-month rolling average;
5. The use of sprayed tooling resins, used for repair of molds, that contain a maximum average of 30% total HAP content, based on MSDS, with compliance determined on a 3-month rolling average;
6. The use of non-atomized tooling resins, used for making and repair of molds, that contain a maximum average of 39% total HAP content based on MSDS, with compliance determined on a 3-month rolling average;
7. The use of tooling gel coats, used for making and repair of molds, that contain a maximum average of 40% total HAP content, based on MSDS, with compliance determined on a 3-month rolling average;
8. No control of hazardous air pollutants emitted from mold sealing, releasing, stripping, and repair materials;
9. No control of hazardous air pollutants emitted from wood coating ;
10. The use of resin and gel coat cleaning solvents that contain no HAP;
11. The use of carpet and fabric adhesives that contain no HAP;
12. The use of the highest styrene content in calculations when MSDS ranges are used.

Consideration has been given by EPA to use of add-on control equipment. It is not certain whether such equipment will be required at new sources by the time EPA issues new source MACT requirements for the industry pursuant to Section 112(d). This uncertainty does not affect consideration of add-on control equipment under Section 112(g) case-by-case MACT determinations or case-by-case BACT determinations.

The following table provides information on recent emission limitations by EPA and the States for projects involving gel coat and resin application in a lamination process.

BACT/MACT DETERMINATION

PROJECT LOCATION	INSTALLATION DATE	TECHNOLOGY	FLOWRATE (ACFM)	COMMENTS
Bombardier, IL	1996	Thermal Oxidizer	~40.000	Makes up to 20 ft. sport boats using enclosed automated assembly line
Metro Machine, VA	1999	Thermal Oxidizer	60.000	Uses modular enclosure for painting hulls of large ships
Corsair Marine	?	Vacuum bagging		Makes Trimarans
Cor Tec, OH	1992	Catalytic	5.000	
Tomkins-Lasko, TX	1985	Thermal Oxidizer	18.000	
Tomkins-Lasko, PA	1985	Thermal Oxidizer	24.000	
Tomkins Lasko, VA	1986	Thermal Oxidizer	18.000	
A.R.E., OH	1995	Thermal Oxidizer	100.000	
Crane Kemlite	1990	Thermal Oxidizer	26.000	
Enduro	1991	Thermal Oxidizer	15.000	

OTHER INFORMATION AVAILABLE TO THE DEPARTMENT:

In addition to the information submitted by the applicant and that mentioned above, other information available to the Department includes the references at the end of this review and the following:

- Assessment of Styrene Emissions Controls for FRP/C and Boat Building Industries
- EPA communication approving an alternative shipbuilding MACT for Metro Machine Corporation's Norfolk, VA facility using an enclosure and RTO
- EPA Unified Air Toxics Web site including information on the Boat Manufacturing MACT
- Web Site for Anguil Environmental Systems, Inc.: <http://www.anguil.com>
- Web Site for Bombardier Motor Corporation of America: <http://www.bombardier.com>
- Web Site for National Marine Manufacturers Association: <http://www.nmma.org>
- Web Site for Sea Ray Boats, Inc.: <http://www.searay.com>
- Web Site for Big Top Manufacturing, Inc.: <http://www.bigtopshelters.com>
- Memorandum to the EPA from the Eastern Research Group, Inc. dated July 7, 1999.
- Informational Paper entitled, "Fiberglass Reinforced Plastics: Indiana's Section 112(g) Experience" by the Indiana Department of Environmental Management
- Bombardier permit file obtained from the Illinois Environmental Protection Agency
- Personal communications with control equipment manufacturers
- Personal communications with state environmental agencies

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VOC/HAP CONTROL/PREVENTION BACT OPTIONS

Most VOC emissions are generated in the application, holding, and curing of the gel coat and subsequent laminates. These emissions consist primarily of styrene monomer that is evolved prior to completion of polymerization. In combustion processes the key is to prevent VOC formation. In this process, the VOC is a process raw material and the key is to prevent its evolution. Thereafter possibilities exist to contain it, possibly concentrate it and destroy or consume it.

The applicant and the Department were able to identify several potential methods available to prevent and/or control VOC and styrene emissions from this production facility. These include a variety of add-on control equipment, materials substitution, process modifications, solvent replacement, and transfer efficiency improvements. A brief description is presented below.

Local Airflow Control: This involves moving air pollutants directly from the emission source to minimize the amount of air to be ventilated. In a large open space, this can be achieved by supplying fresh air toward the emission source and capturing the emissions with a mobile exhaust hood and flexible duct in the vicinity of the source. Such push-pull systems have been installed in other industries to provide effective capture and treatment. The capture efficiency is generally better for a push-pull system than for an exhaust hood by itself. The applicant's airflow arrangement amounts to a large push-pull system for the entire building rather than an optimized design for the collection of pollutants.

Several companies in Europe have installed "displacement ventilation" systems to reduce worker exposure to contaminants, as well as the volume of air to be handled. Displacement ventilation relies on the concept that there is a temperature gradient between air near the ceiling and air near the floor, at a typical industrial facility. Cool, "fresh" air is supplied, at a low velocity, to the work zone. If the source of the work zone emissions is at a higher temperature than the supply air, the supply air is heated and picks up contaminants as it rises out of the work zone. Because the proposed project involves handling and moving very large parts, displacement ventilation may or may not be feasible for this project.

Enclosures: An enclosure is simply a means of physically confining the emissions at the source to prevent dispersion into the surrounding air. Enclosures might include covers on resin mixing tanks, enclosed resin baths, and spray booths for the lamination process. Captured emissions would be contained in lower volumes at higher concentrations making it easier to control. Enclosures could also be fashioned with curtains or portable walls. A high-velocity air curtain down draft system may also be technically feasible.

The airflow rate and VOC concentration play an extremely important part in determining costs. To develop an accurate assessment of the related control costs, it is first necessary to investigate minimizing the flow rates to be treated and concentrating the VOC captured prior to treatment, or capturing emissions at the source. A complete assessment of the possible capture and control systems, integrated with the ventilation design, is what is needed.

Materials Substitution: The emissions of VOC and HAP result from the evaporation of these pollutants during the use of raw materials in the fabrication process. Substituting low or non-VOC/HAP raw materials in place of solvent containing raw materials can significantly reduce emissions. For example, the majority of styrene emissions come from the application of the resins and gel coats during the lamination process. It may be feasible to substitute low styrene resins and

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gel coats to minimize the available styrene that could be emitted. However, because much of the styrene polymerizes to form the fiberglass part, this method has a practical limit. Another example would be replacing solvent-containing coatings with water-based coatings. This not only eliminates the VOC/HAP from the application of the paint, but also the need for solvent-based thinners and cleaning agents. Other processes that may benefit from material substitution would include interior wood surface coating, exterior wood surface coating, carpet and upholstery adhesives, and hull bottom surface coating. Raw material substitutions for the fiberglass boat fabrication industry have been identified as commercially available and result in quantifiable reductions. This strategy should be included as part of the final control technology determination. The applicant has proposed the use of low styrene resins and gel coats as MACT.

Process Modifications: Some plants that fabricate the same small model of fiberglass boat are able to make process modifications to reduce emissions. It may be possible for such a plant to adopt the fabrication process to include closed molds, which emit much less VOC/HAP than the open molding process. Closed molding has been successfully used for small assemblies and parts. Another example of process modification would be vacuum bagging an open mold process to reduce emissions. Vacuum bagging has been successful for the narrow, long hulls on catamarans and trimarans. However, the applicant indicated that closed molding and vacuum bagging is not feasible for this specific plant. The Department does not have enough information to confirm or deny the applicant's assertion that open molding in a very large unrestricted space is the only workable method of fabricating its product.

Solvent Replacement: Existing fiberglass boat fabrication plants use a wide variety of cleaning and thinning solvents, many containing numerous VOC/HAP. Replacement of many of these solvents with low or zero VOC/HAP is possible without affecting product quality. For example, it may be possible to replace a solvent-cleaning agent with a non-VOC/HAP cleaning agent for the majority of hand-wipe cleaning operations. Replacing organic solvents with low- or non-VOC/HAP solvents have been identified as commercially available for the fiberglass boat fabrication industry. This alternative, particularly for cleaning agents, will result in measurable emission reductions and should be included as part of the final control technology determination.

Transfer Efficiency Improvements: Conventional spray applicators will atomize gel coats and resins and greatly increase VOC/HAP emissions. To decrease emissions and reduce raw material costs, most plants switched to high volume, low-pressure applicators that would increase the transfer efficiency. Current technology for this industry includes the use of non-atomizing applicators and flow coaters to further reduce VOC/HAP emissions. This technology is commercially available and demonstrated. Therefore, it should be included as part of the final control technology determination. The applicant proposed non-atomized applicators as MACT.

Add-On Control Equipment: A review of the EPA RACT/BACT/LAER Clearinghouse database shows that add-on controls have not generally been applied to fiberglass boat fabrication plants except for the Bombardier facility in Illinois. This is most likely due to the approach to ventilation used and the high capital and operating costs associated with the capture and control of a large exhaust stream containing a relatively low VOC concentration. Yet, a wide variety of add-on control equipment may be applicable to such a plant, including thermal oxidation, catalytic oxidation, activated carbon adsorption, biofiltration, chemical scrubbers, and condensation. Recent efforts by several manufacturers have focused on concentrating the VOC prior to destruction with a conventional technology. The following section describes available control options.

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Thermal Oxidation (Incineration)

The gas stream is exposed to high temperatures (approximately 1480°F for styrene) to oxidize the VOC to carbon dioxide and water. An auxiliary fuel is used to initially reach and then maintain the high operating temperatures required. A recuperative thermal incineration system includes a heat exchanger to preheat the inlet gas stream prior to incineration. A regenerative thermal incinerator typically uses ceramic materials to store a large thermal mass generated by the thermal incinerator and then use the fuel value of the inlet gas stream to maintain the incineration process. Both of these methods attempt to reduce the operating costs incurred from firing an auxiliary fuel. Thermal incineration is technically feasible and commercially available. However, because this project requires the treatment of a large volume of dilute gas, a standard thermal incinerator would probably be cost prohibitive. However, combined with a preconcentrator system (described below) or a ventilation system with a reduced airflow, this technology could be cost effective.

A preconcentrator removes the organic compounds from the dilute gas stream and then releases it back to a smaller, purging gas stream with a much higher concentration. The smaller flow rate and higher concentration of the new gas stream is much easier and cost effective to control with conventional technology. For example, the dilute gas stream could be passed over a bed of activated carbon to remove organics. When the carbon bed approaches saturation, a diverter valve switches the exhaust stream to a second carbon bed. A small volume of hot air or steam is then passed across the saturated carbon bed to release the organics, which are destroyed by a catalytic or thermal oxidizer. A new technology involves a "rotor concentrator" that consists of a large, slowly rotating concentrator wheel coated with activated carbon or zeolites. The carbon or zeolites adsorb the organics as they pass through the wheel. A small sector of the wheel is partitioned off from the inlet gas stream and hot air is passed through this portion to desorb the organics for destruction in a small thermal incinerator. A rotor concentrator is capable of reducing the treatable gas stream to 10% of the original stream and concentrating the organic compounds by a factor of ten. Although a rotor concentrator has a relatively high capital cost, operating costs are greatly reduced due to the smaller, more concentrated gas stream requiring treatment.

Catalytic Oxidation (Incineration)

This technology passes the captured gas stream over a catalyst bed at a moderate temperature (approximately 450°F for styrene), oxidizing the organic compounds to carbon dioxide and water. An auxiliary fuel is required to elevate the gas stream to the required temperature range. Ideally, once this temperature is reached and the incineration process begins, there would be enough fuel value in the inlet gas stream so that only minor amounts of auxiliary fuel would be required to maintain the operating temperature. A heat exchanger may be added to preheat the inlet gas stream prior to incineration (recuperative incineration). Likewise, ceramic materials may be included in the design to store a large thermal mass generated by the incinerator in order to make use of the fuel value of the inlet gas stream to maintain the incineration process (regenerative incineration). Both of these methods attempt to reduce the operating costs incurred by the combustion of an auxiliary fuel. The applicant commented that it is possible for styrene to polymerize on the precious metal catalyst bed and gradually decrease the effectiveness. However, case studies seem to indicate that the loss in effectiveness may be due the VOC concentration of the inlet gas stream and the life of the catalyst, as much as polymerization. There does not appear to be enough information to reject this technology solely based on poisoning due to polymerization.

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Activated Carbon Adsorption

The captured gas stream is passed across a bed of activated carbon to adsorb the volatile organic compounds. Activated carbon is generally used because its internal pore structure provides a very large surface area on which to adsorb the volatile organic compounds. Once the carbon bed becomes saturated with organic compounds, hot air or steam is used to release the VOC for recovery or destruction and regenerate the bed for another cycle. For these systems, when one carbon bed is in operation, another carbon bed is being regenerated. Destruction may include a small catalytic or thermal incinerator and recovery could include refrigeration. In this manner, the carbon bed acts as a preconcentrator. The applicant commented that it is possible for styrene to polymerize on the activated carbon and decrease the effectiveness. However, the carbon bed only remains "active" for a defined period and must eventually be replaced. It is uncertain whether polymerization would significantly reduce the life of the activated carbon.

Biofiltration

This relatively new technology has been used in Europe to control odors from organic compounds. The VOC-laden gas stream is collected and passed under an active bed of soil containing microorganisms. As the air rises through the soil, the microorganisms consume the chemicals and convert them to carbon dioxide and water. Although there are a few applications of biofiltration for odor control in the United States, the effect of styrene on such a system is unknown as well as the level of control. Therefore, this technology is not yet considered to be commercially available or demonstrated as technologically feasible for this project.

Chemical Scrubber

Chemical scrubbers are absorption systems designed to dissolve a specific pollutant in a solvent, usually water, but based on the chemistry of the exhaust stream. Exhaust streams that include a variety of chemicals may also require a variety of solvents, adding complexity to the control system and potential disposal costs if recovery is not practical. Although the primary pollutant from the fabrication of fiberglass boats is styrene, there are significant amounts of many other volatile organic compounds. Typically, a VOC concentration above 200 ppm is necessary to make chemical scrubbing practical. Chemical scrubbers have been tested on a pilot scale, but do not appear to be a viable control technology for this industry at this time.

Condensation

A condensation system includes refrigeration units to cool the exhaust stream and condense out the chemical contaminants. The condensate is collected and perhaps separated for reuse or disposed of as a waste. For highly concentrated gas streams, these systems can be more than 95% efficient. However, the gas stream from this plant would be very dilute and the condensate would have little or no value for reuse. Therefore, a condensation system is not considered a viable option for this project. However, combined with a preconcentrator system (described below), this technology could be considered technically feasible.

Emerging BACT Technologies: The Department also identified the following emerging add-on control technologies that are in various stages of development: membrane technology, biofilter systems, ultraviolet/oxidation technology, and photocatalytic oxidation.

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INITIAL COST ESTIMATES FOR ADD-ON BACT CONTROLS

The following tables present cost estimates and assumptions made initially by the applicant and the Department prior to the applicant's submittal of the PSD analysis and control equipment evaluation. It is noted that per the original application, the applicant had already designed the project under the assumption that neither PSD/BACT nor MACT applied. The original project design included *fixed* airflow requirements that became Sea Ray's basis when subsequently considering add-on control equipment. The applicant's cost estimates (prior to submission of the September 3 analysis) indicate that treating a large volume of dilute gas makes the cost of add-on controls prohibitively expensive. The Department's initial estimates demonstrated that reducing the ventilation flow rate greatly affects cost effectiveness.

Table A. Assumptions made for cost estimates.

Parameter	Applicant	Department
Flow Rate, cfm	290,000 (Based on ventilation rate proposed by the applicant)	97,000 (Assumes one-third of applicant's flow rate may be adequate to capture emissions at source.)
VOC available for control, TPY	141 (Assumes 20% are fugitive and escape capture.)	171 (Assumes 81% capture and includes all VOC emissions.)
Operation, hours per year	5000	8760 (Assumes continuous operation.)
VOC concentration of gas stream prior to treatment, ppm	12	25

Table B. Cost Estimates for Several Control Options

CONTROL OPTION	Cost Estimate \$/ ton of VOC Removed	
	Applicant	Department
Fluidized Bed Preconcentrator W/Oxidizer (EC&C)	17,597	5351
Rotor Preconcentrator W/Thermal Oxidizer & Heat Recovery	14,050	3849
Catalytic Oxidizer W/70% Heat Recovery	20,058	6510
Condenser	Infinite	Infinite
MIAB-C™ Carbon Bed Preconcentrator W/Oxidizer	12,722	4830
Polyad™ Fluidized Bed Preconcentrator W/Oxidizer	11,232	4375
Thermal Oxidizer W/95% Heat Recovery	19,828	7094
PADRE™ Adsorber W/Solvent Recovery	23,742	6434
Biofiltration	20,743	6301

The following section was prepared following the PSD Applicability Determination and receipt of the applicant's PSD and control equipment dated September 3, 1999.

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FEASIBILITY AND COST OF ADD-ON CONTROLS

The applicant asserts that add-on control technologies are not feasible due to the prohibitive cost of treating a very large volume of exhaust air with low VOC concentrations. The applicant's position is based on the presumption that making changes to the air handling system so that less air is introduced into the building (making the exhaust treatable while not exceeding OSHA exposure limits) is not possible where large boats are being manufactured. However, in other industries such as automobile manufacturing, ways have been found to reduce air volumes substantially by rethinking the approach to ventilation and optimization of current designs. In that industry, exhaust volumes similar to the applicant's proposed 290,000 cfm have been reduced to as low as 80,000 acfm or less through optimization of existing designs using computerized models for calculating contaminant concentration with greater precision.

In every case, ventilation design procedures require reconciliation of the geometry of the system with the volumetric flow rates required to capture air contaminants and evacuate them properly. The extent to which a building is evacuated depends on the factor of safety that the designer selects relative to the permissible exposure level (PEL). In the applicant's case, a safety factor of 4.2 has been selected (12 ppm styrene vs. the OSHA limit of 50 ppm). Therefore, the issue that must be addressed here is whether or not the applicant's safety factor is really justifiable for employee safety or for other considerations such as insurance costs, legal liability concerns, or perhaps for other reasons. Industrial ventilation literature contains several references that deal with this issue, one of which appears in the Handbook of Ventilation for Contaminant Control by Henry J. Dermott, Second Edition, 1985, p. 283:

"The adequacy of a ventilation system is determined by evaluating employee exposures with the system in operation. If the exposures are within acceptable limits compared to OSHA permissible exposure standards, Threshold Limit Values (TLVs) or other toxicological guidelines, *the system is providing sufficient protection to the workers.*" (emphasis added)

The above excerpt affirms that no particular safety factor is really required in ventilation design. Due to the variable nature of pollutant concentrations for a process such as fiberglass boat building, it appears that some safety factor is a prudent practice but perhaps not the four-fold factor that the applicant proposes here. There may exist a less conservative safety factor that would allow for feasible add-on controls while adequately providing for worker safety. The need for very close examination of the feasibility of add-on controls for Sea Ray's proposed Cape Canaveral Complex is clear in view of styrene's classification as a hazardous air pollutant and the fact that proposed emission levels would bring Sea Ray's total VOC emissions to well over 600 tons per year emitted in an area with a radius of only a couple of miles.

According to the "Toxicological Profile for Styrene" published by the U.S. Public Health Service (1992), adverse health effects of short-term styrene exposure include nervous system effects such as nausea, muscle weakness, tiredness, and depression, while the ill effects of long-term exposure in the workplace remain unknown. Studies on high level exposure of female workers to styrene have suggested that lower birth rates and risk of spontaneous abortions may be linked to elevated air concentrations of the chemical. However, these studies are inconclusive because the workers were exposed to other chemicals as well as styrene. Animal studies have shown that styrene can have a prolonged effect on the lining of the nose as well as cause liver damage when the exposure

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is at higher concentrations. The International Agency for Research on Cancer has determined that styrene is possibly a carcinogen.

Although a lot of work in ventilation research appears in the professional literature for other manufacturing processes, not as much effort has been undertaken to optimize air handling and ventilation design in the fiberglass boat building industry. Certainly there has been little if any impetus for boat builders to research this on their own in the absence of a regulatory requirement for add-on controls. Consequently, rethinking the approach to ventilation design for boat building will require some effort as it has in the automobile and other industries. Yet, the need for further research and development in the area of ventilation should not forestall efforts by regulatory agencies to do something about the styrene pollution problem within the confines of existing regulations.

The Bombardier boat building facility in Benton, Illinois installed a thermal incineration control system in 1996. This facility avoided PSD review by installing control equipment that was sufficient to mitigate PSD threshold emission increases. According to information in the Illinois Environmental Protection Agency's (IEPA) permitting file, Bombardier acquired the Benton facility from Celebrity Boats several years ago. Bombardier continued to manufacture Celebrity's line of 18 to 31-foot pleasure boats while adding an automated production system for its new line of smaller sport boats called "jet boats" that are made in 14.5 and 18 foot lengths. The Automated Assembly Line (AAL) had an initial total capacity of 10 boats per hour for these two sizes - - 6 for the smaller size and 4 for the larger boats. Total raw materials used including gel coat, resin and catalyst were approximately 6,350 lbs/hr with about 83 percent of the total or 5,310 lbs/hr consisting of resin and about 14 percent or 915 lbs/hr of gel coat.

Emissions increases from the AAL for its sport boats caused Bombardier to install a 95 percent efficient (design) Regenerative Thermal Oxidizer (RTO) using natural gas as fuel. According to the Illinois Administrative Code (35 IAC 215.301), VOC emissions must be less than 8 lbs/hr per "source" which has been interpreted to mean "per spray gun". Since "per-gun" emissions were determined to be 11 lbs/hr, 35 IAC 215.302 applies requiring 85% VOC control. This required a system with a capture efficiency of 90% and a destruction efficiency of 95% ($0.9 \times 0.95 = 0.855$). Regenerative Thermal Oxidation was selected over Catalytic Oxidation due to the low VOC concentrations involved.

When initially permitted in 1995, styrene emissions from the AAL totaled about 156 lbs/hr - - 106 from resin and 50 from gel coat. Other VOC emissions brought the total uncontrolled VOC emissions vented to the incinerator to 179 lbs/hr. Following thermal destruction, about 120 TPY are emitted from the AAL to the atmosphere. Another 105 TPY of VOC were emitted from the facility's non-AAL sources. The following assumptions were made in arriving at these emissions estimates:

Content of styrene in gel coat and resin	35%
Percent of styrene emitted from gel coat	30%
Percent of styrene emitted from resin	11%
"Other" VOC content of gel coat	5%
No. of applicator guns/lbs. per gun	22/8.2
Design Capture/Destruction Efficiency	90%/95%*
Minimum Thermal Destruction	85%

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At present, Bombardier still operates under its construction permit, which has been revised several times since its issuance on December 21, 1995. Revisions have included increasing the styrene content from 35 to 42% and an associated reduction in the total material usage from 14,382 to 9,011 TPY. Most recently the permit was modified to include an annual cap on VOC (VOM) emissions from the AAL of 120 TPY and an annual cap on plant-wide emissions of 225 TPY (to clarify the AAL's status as a "non-major" source or modification).

The controversy about applying Bombardier's control technology elsewhere in the boat industry was discussed at the June 8, 1999 Boat Manufacturing NESHAP meeting between the EPA and the National Marine Manufacturers Association (NMMA) dealing with MACT floors for boat manufacturing operations. An excerpt from the written summary of that meeting follows. (The summary was prepared by staff of the Eastern Research Group, Inc.):

"The boat manufacturers stated that they are concerned that the Bombardier facility, which has a thermal oxidizer on the jet boat line, could be new source MACT for production resin operations. The industry does not believe this facility is representative of the industry. They stated that Bombardier has the only capture and control system in the industry and was set up specifically for controlling emissions from small, jet boat production. They added that boat manufacturers often change the sizes and type of boats they produce and this capture and control system is not flexible to allow larger boats in the capture enclosure. Industry representatives also mentioned that a control system similar to Bombardier's is not cost feasible for most of the boat manufacturers. ... The EPA responded that they currently have concluded, based on available data, that Bombardier is not the best-controlled source in the industry and their emissions are probably no better than a facility using 35-percent styrene resin and non-atomized application. Therefore, the Bombardier facility will not affect the new source floor. In addition, EPA has made the determination that new source MACT and existing source MACT are both 35-percent styrene resin and non-atomized resin application.

The boat manufacturers stated that they are still concerned about the physical performance of 35-percent styrene resins. They noted that many boat manufacturers guarantee their boats for 5 or 10 years and that earlier low-styrene resins led to hull cracking and expensive warranty repairs. ...

The EPA responded that they will...consider the same limits for new and existing sources for all of the open molding resin and gel coat operations."

At this time, the Department questions the accuracy of the statement that Bombardier's emissions are no better than a facility using 35% styrene resin and non-atomized application. A review of Bombardier's permit file reveals that the facility uses spray lay-up for resin and gel coat and that the originally permitted 35% styrene resin was increased to 42% while the originally permitted material usage has been reduced from 14,382 to 9,011 TPY. Total VOC emissions from Bombardier's AAL after control are limited to 120 TPY. Using spray lay-up and 35% non-vapor suppressed resin results in an EPA MACT Model Point Value of 160 (points equal pounds of HAP per ton of resin or gel coat).

For non-atomized application of 35% non-vapor suppressed resin, the EPA MACT Model Point Value is 85. Bombardier's calculated *uncontrolled* styrene emissions from the originally permitted 35% resin is 77.2 pounds per ton of resin. However, after 90% capture and 95% destruction, this

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value drops off the EPA's Point Value chart to 11.2. If the current 42% resin is compared at the lower material usage rate, a similar result is obtained. Therefore, unless shown otherwise, the Department cannot agree that Bombardier is not the best-controlled MACT or BACT boat building source. At the very least, the Department can consider Bombardier as a similar source within the MACT definition for 112(g) determinations. At this time it appears that a section 112(d) MACT will rely almost exclusively on 'pollution prevention' to protect the environment. As a result, in this case, BACT will be the 'pace-setter' regulation for new major sources since it is always a case-by-case determination.

The ventilation system for Bombardier's AAL uses two 3.5 MMBtu/hr air makeup units each providing about 40,000 cfm of conditioned (heated) air to the manufacturing areas from above the production lines. The production lines are housed in a building that is roughly 530 feet by 230 feet at its widest point. The width narrows to about 110 feet at one end so the total area is probably around 100,000 square feet. Each of the lines is conveyORIZED and has its own air management system, which is tied into the general ventilation system for the RTO. There are a total of 11 spray application booths. Enclosures are utilized to contain emissions within each respective area so that they are captured and vented to the RTO without being released into the general air space of the plant.

In contrast, Sea Ray's facility, as proposed, would emit 211 TPY of VOC in total (consisting of 125 TPY of styrene) from two (or possibly three) buildings - the Lamination/Assembly Building(s) (No. 101) and the Fabrication Building (No. 102). Most of the VOC emissions would be emitted from the Lamination/Assembly Building which, covers 72,000 square feet (21,000 for gel coat/lamination, 36,000 for assembly and 15,000 for parts processing and inspection). The total area of Sea Ray's Fabrication Building would be 43,000 square feet, about half of which would be used for fabrication and the other half for woodworking, warehousing, and related activities. The heights of Sea Ray's Lamination/Assembly Building and Bombardier's building are believed to be roughly equivalent.

The ventilation system that Sea Ray proposes would supply fresh makeup air from fans mounted on the ceiling above the lamination area blowing down across the open molds. Along the outside walls would be intake ducts to exhaust the VOC-laden air to the ventilation fans on the roof of the building. Sea Ray claims that the ventilation design should achieve a level of 12 ppm as the average indoor air concentration of styrene to provide a safe margin for workers, as well as Sea Ray's health and liability insurance premiums. Sea Ray proposes to evacuate around 335,000 cfm from the 72,000 square foot Lamination/ Assembly Building which results in an overall ventilation ratio of 4.7 cfm per square foot of plant area compared to Bombardier's ventilation ratio for the AAL of 0.8. Thus, Sea Ray proposes to ventilate at an overall flow rate per square foot that is almost six times that of Bombardier's facility. Sea Ray's ventilation ratio for the lamination area itself is about 12.1 cfm per square foot based on exhausting 290,000 cfm from a 24,000 square foot "enclosed" room. Although designed to be enclosed, it's doors are left open for employee comfort and movement of materials.

Although there are commonalties with Bombardier's process in the way emissions are generated, Sea Ray's process is not an automated conveyor-type operation and it produces larger boats (58, 63, and 65 feet long). Total allowable VOC emissions from the two companies are comparable, however. Sea Ray's lamination area is a 24,000 square foot room with a height of 50 feet, which must remain open at the top for operation of a bridge crane system whereas Bombardier's

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conveyor-type operation is compartmentalized.

Sea Ray's ventilation practice of keeping the doors open for employee comfort and movement of materials defeats the purpose of a conventional ventilation system for contaminant control. Thus, it appears that a different type of ventilation system is needed - one that balances the need for worker protection with the protection of the facility's neighbors. A duct system with its intake mounted below a floor grate network would take advantage of styrene's 3.6 to 1 density ratio relative to air and perhaps offset the "open door" factor while allowing concentrations high enough for treatment with add-on controls.

The main questions that arise about ventilation are: Is it necessary for Sea Ray to ventilate at such a high rate? If not, what is the minimum practical rate at which the building must be ventilated to meet OSHA standards while allowing ? How can that be done? It seems that these questions can be answered only by investigating ventilation rates and flow patterns under actual operating conditions such as afforded by a pilot-scale demonstration project.

Ventilation options that might be investigated in a pilot project include lowering the maximum volume of exhaust air, varying the air flow according to the measured concentrations in specific processing zones, exhausting only the more concentrated air using mobile hoods and ducts, or using floor level exhaust intakes to prevent updraft dilution. A variable zone airflow system would provide needed operational flexibility since there is no way designers can know for sure what the concentrations will be at any given point in the system.

Enclosure options that can be evaluated include fixed and movable designs. Metro Machine Corporation of Norfolk, Virginia provides an example of how capture problems have been solved for coating operations involving large vessels. Metro has developed a movable modular enclosure system used with a Regenerative Thermal Oxidizer (RTO) to capture and treat VOCs emitted from coating operations at the Norfolk shipyard. Metro's CAPE (Compliant All Position Enclosure) system is designed to exhaust 60,000 cfm to a fabric filter while recycling 10,000 of the 60,000 cfm to the RTO. This system has been approved by the EPA as an alternative to the shipbuilding MACT. As previously mentioned, the similar source definition for case-by-case MACT under Section 112(g) as well as the BACT procedures certainly allow for consideration of technologies and approaches in-use outside the narrow category of the fiberglass boat industry.

The Department's research indicates that relatively inexpensive movable spray booth enclosures are presently available for large boats. Big Top Manufacturing of Perry, Florida, manufactures movable enclosures for spray painting of boats up to 125 feet. An enclosure for attachment to an exhaust duct can be made for repositioning with an overhead crane or mounted on wheels. An aluminum framed enclosure measuring 36 feet wide, 100 feet long and 25 feet high and mounted on wheels costs less than \$40,000.

Sea Ray evaluated the cost effectiveness of two control options for exhausting and treating VOC emissions from the boat hull lamination process. The first involves two spray booth designs - - one for length-wise ventilation at 40,000 cfm and the other for cross-flow ventilation of the spray booth at 100,000 cfm. These are based on the American Conference of Governmental Industrial Hygienists' (ACGIH) recommended ventilation rate of 50 cfm per square foot of cross sectional area and areas of 800 and 2,000 square feet for the length-wise and cross-flow options, respectively. The second control option evaluated by Sea Ray involves exhausting the entire lamination building with a flow of about 370,000 cfm. Sea Ray based this on treating the entire

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lamination working area as a spray booth using the 50 cfm/ft² spray booth ventilation factor (250 ft long x 30 ft high x 50 cfm/ft²).

Sea Ray estimated the total annual VOC (styrene) emissions for the 40,000 and 100,000 cfm cases using an emission factor of 48 percent of the styrene in the gel coat and skin coats and 11 percent emitted from the total styrene content in the resin. These factors were multiplied by the material usage rates for one hull and then projected to an annual emission basis using a total of 5,000 hours of production time per year. Based on Sea Ray's estimate of 62.75 hours per boat hull and 5,000 hours of production per year, approximately 80 hulls per year would be produced (assuming hulls of the same size). This would roughly equate to one hull manufactured every 2.6 days (based on 208 days per year of lamination production time). However, Sea Ray stated on page 2-4 of the application that one hull takes about 6 working days to construct.

Nonetheless, Sea Ray projected its total VOC emissions for the two spray booth cases at only 12.4 TPY based on 80 hulls per year being produced at an emission rate of 312.3 lb. per hull. This assumes that the majority of emissions occur from processing steps other than applying gel coat and resin to the hulls, which is not the case. Yet, for the option of ventilating the entire building, Sea Ray used the total VOC removal of 167 tons for its cost effectiveness calculation. If the same tonnage removed is applied to all three cases, the cost effectiveness of the 40,000 cfm option (as calculated by Sea Ray) becomes \$2,383/ton vs. \$33,610/ton and the 100,000 cfm option becomes \$4,315/ton vs. \$60,847. Consequently, Sea Ray's cost effectiveness analysis is interpreted to reflect the control costs being applied to the entire 167 tons removed in each case. This means that both spray booth options as calculated by Sea Ray are cost-effective.

The Department's cost effectiveness calculations are based on quotes received from MEGTEC Systems of De Pere, Wisconsin. MEGTEC has installed over 4,000 VOC control systems throughout the world since 1970 covering a variety of industries. A 100,000 cfm Regenerative Thermal Oxidizer unit will cost about \$13 per treated cfm for the basic equipment. Installation adds another 40 per cent resulting in an installed equipment cost of approximately \$1,800,000 for the 100,000 cfm option. Indirect costs add another 35 percent yielding a total capital cost of about \$2,448,000 (\$269,000 annualized over 15 years). Operating costs bring the total annualized RTO system cost to about \$514,000 for a cost effectiveness of $\$514,000/167 = \$3,078/\text{ton VOC}$ removed. Adding Sea Ray's cost estimate for the spray booth (\$116,864) results in a worst-case total cost effectiveness of $(514,000 + 116,864)/167 = \$3,777/\text{ton}$ for the 100,000 cfm option. Given styrene's status as a hazardous air pollutants, this cost per ton is within the Department's guidelines for cost-effective add-on controls.

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Background information documents posted on the United Air Toxics Website include Draft Data Summary Tables. The Production Resin Draft Summary Table lists Bombardier Motor Corp. of America as the best controlled fiberglass boat manufacturing facility. Bombardier uses a thermal oxidizer to control emissions from atomized spray application of resin. The table notes that Bombardier uses a resin with a weighted average of 42.0 % HAP in "neat resin plus", and notes that for the thermal oxidizer, 100% capture and 95% control are assumed. "Neat resin plus" is defined as the neat resin plus and HAP that is added to the resin at the facility (fillers not included).

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Sea Ray Boats, Inc. does not believe that they are similar to Bombardier because Bombardier uses their thermal oxidizer to control VOC emissions from their personal water craft manufacturing line. Sea Ray Boats, Inc. believes that it is not cost effective to use a thermal oxidizer to control VOC emissions from the manufacturing of large yachts. The Production Resin Draft Summary Table lists Corsair Marine as the second best controlled fiberglass boat manufacturing facility. Corsair Marine located in Chula Vista, California, uses low styrene content materials and vacuum bagging to manufacture trimarans, 3-part catamarans. Vacuum bagging reduces HAP emissions by 45 percent. Sea Ray Boats, Inc., states that vacuum bagging is not compatible with their manufacturing process.

The Department requested a determination from USEPA Region 4 as to whether or not 40 CFR 63 Subpart II – NESHAPs for Shipbuilding and Ship Repair (Surface Coating) applies to facilities that coat pleasure vessels that are 20 meters or greater in length. Regardless of this determination, the HAP limits for ship marine coatings as listed in Subpart II can be reasonably applied to boat marine coatings on the basis of the similar source definition applicable to 112(g) case-by-case MACT determinations. Marine coatings for ships have emissions comparable to emissions from marine coatings for boats. Ships and boats are structurally similar in design and capacity such that the source could be controlled using the same control technology, i.e., low-HAP marine coatings. The Antifoulant Coatings Draft Summary Table found on the United Air Toxics Website, indicates that the ship antifoulant coating HAP limits contained in Subpart II can be met by boat manufacturers as well. In terms of “similar sources,” it is also reasonable to expect coatings and adhesives, used for custom wood furniture and cabinetry installed inside yachts, to be able to comply with the wood furniture coating limitations found in 40 CFR 63 Subpart JJ NESHAPs for Wood Furniture Manufacturing Operations.

After reviewing the applicant’s proposed MACT, information from EPA, information concerning facilities permitted in other states, and existing NESHAP standards, the Department has made the determination that Maximum Achievable Control Technology (MACT) for this facility shall be:

1. the use of production resins that contain a maximum average of 35% total HAP content, based on Manufacturer’s Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
2. the use of non-atomizing application equipment for production resins; Sea Ray shall submit an operation and maintenance plan and operator training plan including but not limited to equipment calibration methods to achieve maximum HAP reduction;
3. the use of base gel coats and pigmented gel coats that contain a maximum average of 33% total HAP content, based on Manufacturer’s Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
4. the use of clear gel coats that contain a maximum average of 48% total HAP content, based on Manufacturer’s Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
5. the use of sprayed tooling resins, used for making and repairing molds, that contain a maximum average of 30% total HAP content, based on Manufacturer’s Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;

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6. the use of non-atomized tooling resins, used for making and repair of molds, that contain a maximum average of 39% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
7. the use of tooling gel coats, used for making and repair of molds, that contain a maximum average of 40% total HAP content, based on Manufacturer's Safety Data (MSD) Sheets, with compliance determined on a 3-month rolling average;
8. no control of hazardous air pollutants emitted from mold sealing, releasing, stripping, and repair materials;
9. no control of hazardous air pollutants emitted from coating processes for exterior wood parts.
10. the use of finishing materials for interior wood parts which are compliant with 40 CFR 63 Subpart JJ – NESHAPs for Wood Furniture Manufacturing Operations;
11. the use of marine coatings for coating surfaces (except for wood parts) that are compliant with 40 CFR 63 Subpart II – NESHAPs for Shipbuilding and Ship Repair (Surface Coating);
12. the use of resin and gel coat cleaning solvents that contain no HAPs. An exception is the use of solvent cleaning machines which comply with the requirements of 40 CFR 63 Subpart T- Halogenated Solvent Cleaning;
13. the use of carpet and fabric adhesives that contain no HAPs;
14. the use of carpentry adhesives that achieve a volatile hazardous air pollutant (VHAP) limit for contact adhesives, excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, of no greater than 0.2 kg VHAP/kg solids (0.2 lb VHAP/lb solids), as applied using either of the compliance methods in 40 CFR 63.804(e).
15. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used.
16. Add-on control equipment derived from similar sources evaluation as described in the BACT determination

Recordkeeping and Reporting Requirements:

1. Sea Ray Boats, Inc., shall compile records on a monthly basis and maintain those records for a minimum of 5 years. At a minimum, these records shall include:
 - a. the identification of all coatings used (resins, gel coats, marine coatings, adhesives, etc.),
 - b. certification of the as-supplied HAP/VOC content of each batch of coating,
 - c. the volume of each coating applied,
 - d. amount of thinner used, and
 - e. determination of compliance with the appropriate HAP limit.
2. Within 60 days following the end of each 6-month period after startup, Sea Ray Boats, Inc., shall submit a semi-annual compliance report.

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The MACT determination above is adopted and incorporated into this BACT determination. Add-on control equipment is also required as described in the following section.

In reaching a decision on the BACT determination, the above facts led to two questions that had to be resolved. The first was whether the control technology demonstrated in these other facilities is available for full-scale adaptation in Sea Ray's lamination operation. The second question concerned whether adaptation and operating costs that may approach the 'upper range' of cost effectiveness (around \$4,000 per ton) can be justified considering that Sea Ray's Merritt Island and Cape Canaveral Plants together will be emitting over 600 tons per year of VOCs of which the major part are hazardous air pollutants. The Department finds that both questions can be answered in the affirmative.

Based on a review of the information currently available, the Department finds that differences pointed out by Sea Ray between the proposed Cape Canaveral plant and other controlled facilities are not sufficient to rule out a capture and control system to meet BACT requirements. The Department concludes that there are cost-effective add-on control technologies that are available for application to Sea Ray's lamination process and that Sea Ray can adapt one or more of them with the assistance of qualified ventilation and control system specialists. There is every indication that fiberglass boat building ventilation and capture issues can be resolved by qualified consultants with sufficient experience in industrial ventilation design as has been the case in other industries such as automobile manufacturing.

The facts indicate that Sea Ray can install either a localized pickup/treatment system or an enclosure/treatment system for the application of gel coat and resin while ventilating the rest of the building to a lesser extent than Sea Ray proposed. There is no evidence that a capture and control system will subject workers to higher concentrations of styrene. Either type of capture system should improve the quality of the air inside the lamination building so that net worker exposure will be reduced. Bureau staff who visited Sea Ray's Merritt Island Plant on September 21, 1999, indicated that possibilities exist for further improvement in air quality for workers inside the lamination building, particularly in the hull processing area. They observed that workers doing flow coating inside the hull could probably wear air-supplied respirators but if not, workers would probably benefit from any type of pickup system that would vent the hull itself. A flexible exhaust duct routed through the engine hole and tied into a localized pickup system would be one way of doing this.

Since there are several control options that can be applied, the Department believes that Sea Ray can best make the selection of available control technology to be adapted to its Cape Canaveral Plant. The adaptation can be structured in stepwise fashion according to accepted procedures for implementing and demonstrating new applications; i.e., a pilot-scale project. Thus, a pilot project, designed by Sea Ray and its consultants and approved by the Department, will be required as a condition for issuing a permit for construction of the applicant's proposed facility. Overall specifications for the scope of the project along with a firm schedule for research, installation, and testing will be included as a specific condition of the final permit.

At a minimum, the pilot project must involve the installation of one or more of the following: a localized pickup system, a permanent booth enclosure, or a movable-enclosure venting and capture system. For the pilot project to be scaleable to a larger size, the pilot system equipment

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must be designed to handle at least 10,000 cfm of exhausted air from the hull lamination area while capturing at least 53 percent of the total VOC/HAP emissions and destroying 95 percent (50 percent overall control). The picture on the following page shows a typical spray booth enclosure designed for boats that can be mounted on wheels or lifted out of the way by an overhead crane. A flexible duct carries the fan exhaust to the control device. The Department estimates that the installed cost of the pilot project including enclosures and/or pickup devices and ductwork along with the destruction device will be in the range of \$350,000 to \$450,000 (based on equipment costs of \$25/cfm and associated installation/startup costs of \$10 - \$20/cfm).

A reasonable period for the applicant to select a control technology and submit a complete design to the Department for approval would be six months after the applicant has begun the lamination process so that production details and refinements that will affect the control system design are known. By the end of this six-month period, Sea Ray must have hired a qualified consultant experienced specifically in industrial ventilation design for contaminant control and have submitted a proposed design for the control option selected. The design report should provide a detailed description of the control option selected, the rationale for its selection, the projected performance in terms of VOC/HAP capture and destruction efficiencies, the projected costs of installation and operation, and a recommended test protocol for evaluating the performance of the pilot project. The Department shall notify the applicant within 30 days of receipt of the design report as to whether it will be accepted as BACT. If the proposal is not approved, the Department will notify the applicant within the same 30-day period as to what modifications are required to make the proposal acceptable.

By the end of the eighteenth month after hull or deck lamination processing begins, the pilot project must be installed and operating. A reasonable amount of time for testing and evaluation would be six months beyond the deadline for the startup date of the pilot control system. By the end of the twenty-fourth month after lamination has begun, a VOC/HAP capture efficiency test and a destruction efficiency test shall have been conducted on the pilot system and the results submitted to the Department for evaluation. Unless the test results or other data provided by the applicant convince the Department that a full-scale control system is not feasible from a technical, operational or cost standpoint, the Department shall provide one additional year for installation of a full-scale control system based on the pilot system. The full-scale system, which may augment or replace the pilot system, shall be designed to capture 90 percent of the total VOC/HAP emissions generated in the hull and deck lamination process while destroying 95 percent (85 percent overall control). Appropriate emission limits and compliance requirements for the pilot and/or full-scale VOC/HAP control system shall then be established by the Department and incorporated into the Title V permit for the facility.

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DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

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John Reynolds (BACT) or A.A. Linero, P.E.
New Source Review Section
2600 Blair Stone Road, MS # 5505
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Recommended By:

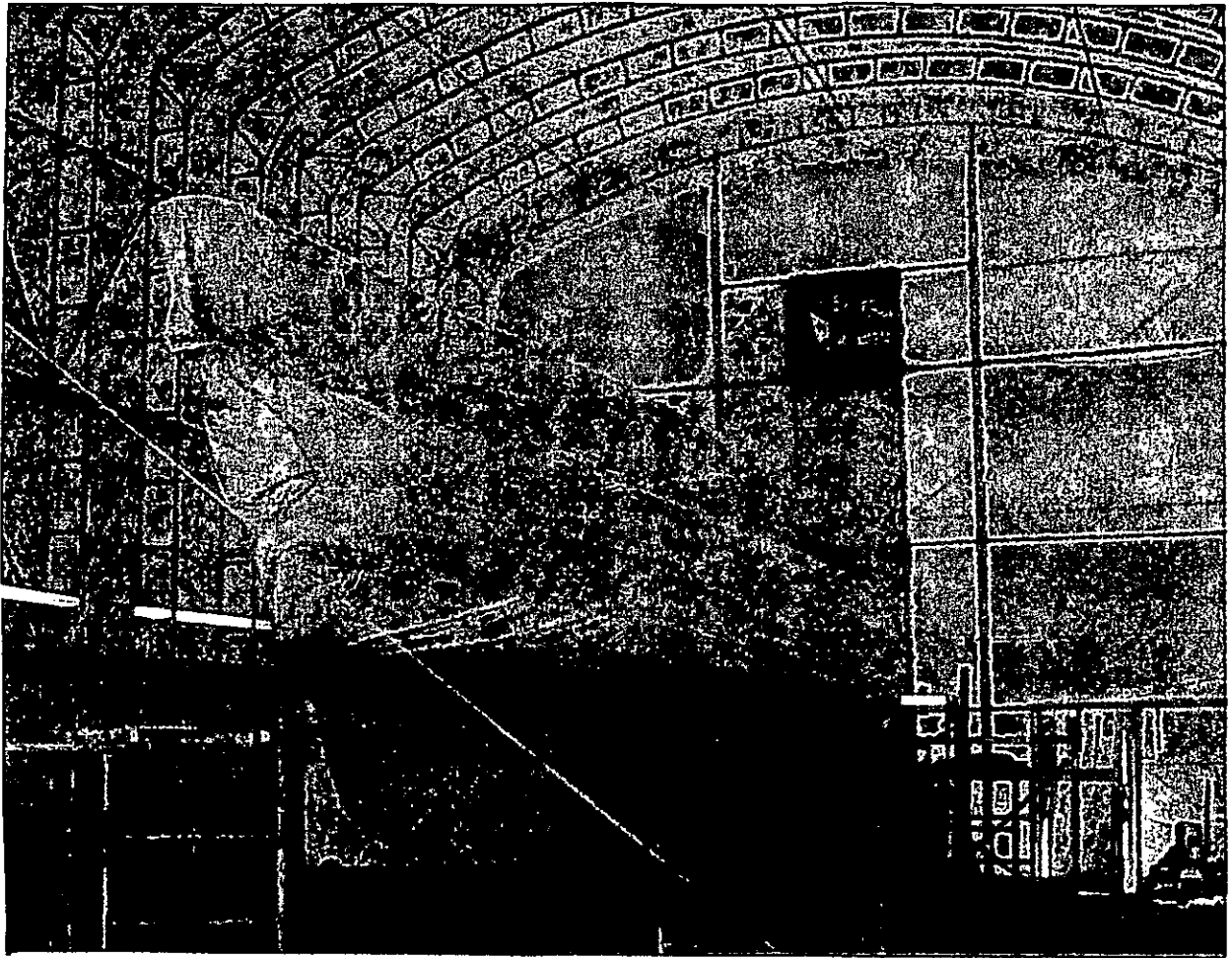
Approved By:

C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Howard L. Rhodes, Director
Division of Air Resources Management

Date:

Date:



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- Burton, D. Jeff, Industrial Ventilation Workbook, Fourth Edition, 1994.
- Dermott, Henry J., Handbook of Ventilation for Contaminant Control, second Edition, 1985.
- Kong, E. J., et al, Assessment of Styrene Emission Controls for FRP/C and Boat Building Industries. Final Report and Addendum, 1996.
- Personal communication, D. Jeff Burton, P.E., C.S.P., C.I.H., of IVE, Inc., Bountiful Utah, September 14, 1999.
- Personal communication, Mike Davidson, Illinois EPA, August 19, 1999.
- Personal communication, Rick Hathaway of Macho Products, Sebastian, Florida, September 14, 1999.
- Personal communication, Fred Horn, Mike Stanley, Ken Jenquin, of MEGTEC Systems, August 19, 1999.
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- Polyester Resin Fiberglass Technical Manual (Draft), California Air Resources Board, April 1999.
- Quotation on control equipment costs, MEGTEC Systems, August 27, 1999.
- The Clean Air Compliance Handbook, MEGTEC Systems, 1998.
- Toxicological Profile for Styrene (TP-91/25), U.S. Department of Health & Human Services, 1992.

AIR CONSTRUCTION PERMIT
APPENDIX B. NESHAP GENERAL PROVISIONS

The NESHAP General Provisions is attached as part of this permit following this page.

40 CFR 63 Subpart A - General Provisions (applicable to Boat Manufacturing MACT)

{Last Updated 8/4/99}

[SOURCE: 40 CFR 63 (7-1-96 Edition) and Federal Register revisions dated 12-17-96, 12-10-97, 5-4-98, 5-13-98, 9-21-98, and 4-12-99]

§ 63.1 Applicability.

(a) General.

(1) Terms used throughout this part are defined in § 63.2 or in the Clean Air Act (Act) as amended in 1990, except that individual subparts of this part may include specific definitions in addition to or that supersede definitions in § 63.2.

(2) [Reserved]

(3) No emission standard or other requirement established under this part shall be interpreted, construed, or applied to diminish or replace the requirements of a more stringent emission limitation or other applicable requirement established by the Administrator pursuant to other authority of the Act (including those requirements in part 60 of this chapter), or a standard issued under State authority.

(4) The provisions of this subpart (i.e., subpart A of this part) apply to owners or operators who are subject to subsequent subparts of this part, except when otherwise specified in a particular subpart or in a relevant standard. The general provisions in subpart A eliminate the repetition of requirements applicable to all owners or operators affected by this part. The general provisions in subpart A do not apply to regulations developed pursuant to section 112(r) of the amended Act, unless otherwise specified in those regulations.

(5) [Reserved]

(6) [Reserved]

(7) Subpart D [of 40 CFR 63] contains regulations that address procedures for an owner or operator to obtain an extension of compliance with a relevant standard through an early reduction of emissions of hazardous air pollutants pursuant to section 112(i)(5) of the Act.

(8) [Reserved]

(9) [Reserved]

(10) For the purposes of this part, time periods specified in days shall be measured in calendar days, even if the word "calendar" is absent, unless otherwise specified in an applicable requirement.

(11) For the purposes of this part, if an explicit postmark deadline is not specified in an applicable requirement for the submittal of a notification, application, test plan, report, or other written communication to the Administrator, the owner or operator shall postmark the submittal on or before the number of days specified in the applicable requirement. For example, if a notification must be submitted 15 days before a particular event is scheduled to take place, the notification shall be postmarked on or before 15 days preceding the event; likewise, if a notification must be submitted 15 days after a particular event takes place, the notification shall be postmarked on or before 15 days following the end of the event. The use of reliable non-Government mail carriers that provide indications of verifiable delivery of information required to be submitted to the Administrator, similar to the postmark provided by the U.S. Postal Service, or alternative means of delivery agreed to by the permitting authority, is acceptable.

(12) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. Procedures governing the implementation of this provision are specified in § 63.9(i).

(13) Special provisions set forth under an applicable subpart of this part or in a relevant standard established under this part shall supersede any conflicting provisions of this subpart.

(14) Any standards, limitations, prohibitions, or other federally enforceable requirements established pursuant to procedural regulations in this part [including, but not limited to, equivalent emission limitations established pursuant to section 112(g) of the Act] shall have the force and effect of requirements promulgated in this part and shall be subject to the provisions of this subpart, except when explicitly specified otherwise.

(b) Initial applicability determination for this part.

(1) The provisions of this part apply to the owner or operator of any stationary source that -

- (i) Emits or has the potential to emit any hazardous air pollutant listed in or pursuant to section 112(b) of the Act; and

- (ii) Is subject to any standard, limitation, prohibition, or other federally enforceable requirement established pursuant to this part.

(2) [Reserved]

(3) An owner or operator of a stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants who determines that the source is not subject to a relevant standard or other requirement established under this part, shall keep a record of the applicability determination as specified in § 63.10(b)(3) of this subpart.

(c) Applicability of this part after a relevant standard has been set under this part.

(1) If a relevant standard has been established under this part, the owner or operator of an affected source shall comply with the provisions of this subpart and the provisions of that standard, except as specified otherwise in this subpart or that standard.

(2) [Reserved]

(3) [Reserved]

(4) If the owner or operator of an existing source obtains an extension of compliance for such source in accordance with the provisions of subpart D of this part, the owner or operator shall comply with all requirements of this subpart except those requirements that are specifically overridden in the extension of compliance for that source.

(5) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source also shall be subject to the notification requirements of this subpart.

(d) [Reserved]

(e) [Reserved]

§ 63.2 Definitions.

The terms used in this part are defined in the Act or in this section as follows:

Act means the Clean Air Act (42 U.S.C. 7401 et seq., as amended by Pub. L. 101-549, 104 Stat. 2399).

Actual emissions is defined in subpart D of this part for the purpose of granting a compliance extension for an early reduction of hazardous air pollutants.

Administrator means the Administrator of the United States Environmental Protection Agency or his or her authorized representative (e.g., a State that has been delegated the authority to implement the provisions of this part).

Affected source, per 40 CFR 63.41, means the stationary source or group of stationary sources which, when fabricated (on site), erected or installed meets the definition of "construct a major source" or the definition of "reconstruct a major source."

Alternative emission limitation means conditions established pursuant to sections 112(i)(5) or 112(i)(6) of the Act by the Administrator or by a State with an approved permit program.

Alternative emission standard means an alternative means of emission limitation that, after notice and opportunity for public comment, has been demonstrated by an owner or operator to the Administrator's satisfaction to achieve a reduction in emissions of any air pollutant at least equivalent to the reduction in emissions of such pollutant achieved under a relevant design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act.

Alternative test method means any method of sampling and analyzing for an air pollutant that is not a test method in this chapter and that has been demonstrated to the Administrator's satisfaction, using Method 301 in Appendix A of this part, to produce results adequate for the Administrator's determination that it may be used in place of a test method specified in this part.

Approved permit program means a State permit program approved by the Administrator as meeting the requirements of part 70 of this chapter or a Federal permit program established in this chapter pursuant to title V of the Act (42 U.S.C. 7661).

Area source means any stationary source of hazardous air pollutants that is not a major source as defined in this part.

Commenced means, with respect to construction or reconstruction of a stationary source, that an owner or operator has undertaken a continuous program of construction or reconstruction or that an owner or operator has entered into a contractual obligation to undertake and complete, within a reasonable time, a continuous program of construction or reconstruction.

Compliance date means the date by which an affected source is required to be in compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established by the Administrator (or a State with an approved permit program) pursuant to section 112 of the Act.

Compliance plan means a plan that contains all of the following:

(1) A description of the compliance status of the affected source with respect to all applicable requirements established under this part;

(2) A description as follows:

(i) For applicable requirements for which the source is in compliance, a statement that the source will continue to comply with such requirements;

(ii) For applicable requirements that the source is required to comply with by a future date, a statement that the source will meet such requirements on a timely basis;

(iii) For applicable requirements for which the source is not in compliance, a narrative description of how the source will achieve compliance with such requirements on a timely basis;

(3) A compliance schedule, as defined in this section; and

(4) A schedule for the submission of certified progress reports no less frequently than every 6 months for affected sources required to have a schedule of compliance to remedy a violation.

Compliance schedule means:

(1) In the case of an affected source that is in compliance with all applicable requirements established under this part, a statement that the source will continue to comply with such requirements; or

(2) In the case of an affected source that is required to comply with applicable requirements by a future date, a statement that the source will meet such requirements on a timely basis and, if required by an applicable requirement, a detailed schedule of the dates by which each step toward compliance will be reached; or

(3) In the case of an affected source not in compliance with all applicable requirements established under this part, a schedule of remedial measures, including an enforceable sequence of actions or operations with milestones and a schedule for the submission of certified progress reports, where applicable, leading to compliance with a relevant standard, limitation, prohibition, or any federally enforceable requirement established pursuant to section 112 of the Act for which the affected source is not in compliance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction non-compliance with, the applicable requirements on which it is based.

Construction means the on-site fabrication, erection, or installation of an affected source.

Continuous emission monitoring system (CEMS) means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of emissions.

Continuous monitoring system (CMS) is a comprehensive term that may include, but is not limited to, continuous emission monitoring systems, continuous opacity monitoring systems, continuous parameter monitoring systems, or other manual or automatic monitoring that is used for demonstrating compliance with an applicable regulation on a continuous basis as defined by the regulation.

Continuous opacity monitoring system (COMS) means a continuous monitoring system that measures the opacity of emissions.

Continuous parameter monitoring system means the total equipment that may be required to meet the data acquisition and availability requirements of this part, used to sample, condition (if applicable), analyze, and provide a record of process or control system parameters.

Effective date means:

(1) With regard to an emission standard established under this part, the date of promulgation in the FEDERAL REGISTER of such standard; or

(2) With regard to an alternative emission limitation or equivalent emission limitation determined by the Administrator (or a State with an approved permit program), the date that the alternative emission limitation or equivalent emission limitation becomes effective according to the provisions of this part. The effective date of a permit program established under title V of the Act (42 U.S.C. 7661) is determined according to the regulations in this chapter establishing such programs.

Emission standard means a national standard, limitation, prohibition, or other regulation promulgated in a subpart of this part pursuant to sections 112(d), 112(h), or 112(f) of the Act.

Emissions averaging is a way to comply with the emission limitations specified in a relevant standard, whereby an affected source, if allowed under a subpart of this part, may create emission credits by reducing emissions from specific points to a level below that required by the relevant standard, and those credits are used to offset emissions from points that are not controlled to the level required by the relevant standard.

EPA means the United States Environmental Protection Agency.

Equivalent emission limitation means the maximum achievable control technology emission limitation (MACT emission limitation) for hazardous air pollutants that the

Administrator (or a State with an approved permit program) determines on a case-by-case basis, pursuant to section 112(g) or section 112(j) of the Act, to be equivalent to the emission standard that would apply to an affected source if such standard had been promulgated by the Administrator under this part pursuant to section 112(d) or section 112(h) of the Act.

Excess emissions and continuous monitoring system performance report is a report that must be submitted periodically by an affected source in order to provide data on its compliance with relevant emission limits, operating parameters, and the performance of its continuous parameter monitoring systems.

Existing source means any affected source that is not a new source.

Federally enforceable means all limitations and conditions that are enforceable by the Administrator and citizens under the Act or that are enforceable under other statutes administered by the Administrator. Examples of federally enforceable limitations and conditions include, but are not limited to:

(1) Emission standards, alternative emission standards, alternative emission limitations, and equivalent emission limitations established pursuant to section 112 of the Act as amended in 1990;

(2) New source performance standards established pursuant to section 111 of the Act, and emission standards established pursuant to section 112 of the Act before it was amended in 1990;

(3) All terms and conditions in a title V permit, including any provisions that limit a source's potential to emit, unless expressly designated as not federally enforceable;

(4) Limitations and conditions that are part of an approved State Implementation Plan (SIP) or a Federal Implementation Plan (FIP);

(5) Limitations and conditions that are part of a Federal construction permit issued under 40 CFR 52.21 or any construction permit issued under regulations approved by the EPA in accordance with 40 CFR part 51;

(6) Limitations and conditions that are part of an operating permit issued pursuant to a program approved by the EPA into a SIP as meeting the EPA's minimum criteria for Federal enforceability, including adequate notice and opportunity for EPA and public comment prior to issuance of the final permit and practicable enforceability;

(7) Limitations and conditions in a State rule or program that has been approved by the EPA under subpart E of this part for the purposes of implementing and enforcing section 112; and

(8) Individual consent agreements that the EPA has legal authority to create.

Fixed capital cost means the capital needed to provide all the depreciable components of an existing source.

Fugitive emissions means those emissions from a stationary source that could not reasonably pass through a stack, chimney, vent, or other functionally equivalent opening. Under section 112 of the Act, all fugitive emissions are to be considered in determining whether a stationary source is a major source.

Hazardous air pollutant means any air pollutant listed in or pursuant to section 112(b) of the Act.

Issuance of a part 70 permit will occur, if the State is the permitting authority, in accordance with the requirements of part 70 of this chapter and the applicable, approved State permit program. When the EPA is the permitting authority, issuance of a title V permit occurs immediately after the EPA takes final action on the final permit.

Lesser quantity means a quantity of a hazardous air pollutant that is or may be emitted by a stationary source that the Administrator establishes in order to define a major source under an applicable subpart of this part.

Major source means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants, unless the Administrator establishes a lesser quantity, or in the case of radionuclides, different criteria from those specified in this sentence.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control equipment, process equipment, or a process to operate in a normal or usual manner. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

New source means any affected source the construction or reconstruction of which is commenced after the Administrator first proposes a relevant emission standard under this part.

One-hour period, unless otherwise defined in an applicable subpart, means any 60-minute period commencing on the hour.

Opacity means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background. For continuous opacity monitoring systems, opacity means the fraction of incident light that is attenuated by an optical medium.

Owner or operator means any person who owns, leases, operates, controls, or supervises a stationary source.

Part 70 permit means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

Performance audit means a procedure to analyze blind samples, the content of which is known by the Administrator, simultaneously with the analysis of performance test samples in order to provide a measure of test data quality.

Performance evaluation means the conduct of relative accuracy testing, calibration error testing, and other measurements used in validating the continuous monitoring system data.

Performance test means the collection of data resulting from the execution of a test method (usually three emission test runs) used to demonstrate compliance with a relevant emission standard as specified in the performance test section of the relevant standard.

Permit modification means a change to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permit program means a comprehensive State operating permit system established pursuant to title V of the Act (42 U.S.C. 7661) and regulations codified in part 70 of this chapter and applicable State regulations, or a comprehensive Federal operating permit system established pursuant to title V of the Act and regulations codified in this chapter.

Permit revision means any permit modification or administrative permit amendment to a title V permit as defined in regulations codified in this chapter to implement title V of the Act (42 U.S.C. 7661).

Permitting authority means:

(1) The State air pollution control agency, local agency, other State agency, or other agency authorized by the Administrator to carry out a permit program under part 70 of this chapter; or

(2) The Administrator, in the case of EPA-implemented permit programs under title V of the Act (42 U.S.C. 7661).

Potential to emit means the maximum capacity of a stationary source to emit a pollutant under its physical and operational design. Any physical or operational limitation on the capacity of the stationary source to emit a pollutant, including air pollution control equipment and restrictions on hours of operation or on the type or amount of material combusted, stored, or

processed, shall be treated as part of its design if the limitation or the effect it would have on emissions is federally enforceable.

Reconstruction means the replacement of components of an affected or a previously unaffected stationary source to such an extent that:

(1) The fixed capital cost of the new components exceeds 50 percent of the fixed capital cost that would be required to construct a comparable new source; and

(2) It is technologically and economically feasible for the reconstructed source to meet the relevant standard(s) established by the Administrator (or a State) pursuant to section 112 of the Act. Upon reconstruction, an affected source, or a stationary source that becomes an affected source, is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

Regulation promulgation schedule means the schedule for the promulgation of emission standards under this part, established by the Administrator pursuant to section 112(e) of the Act and published in the FEDERAL REGISTER.

Relevant standard means:

(1) An emission standard;

(2) An alternative emission standard;

(3) An alternative emission limitation; or

(4) An equivalent emission limitation established pursuant to section 112 of the Act that applies to the stationary source, the group of stationary sources, or the portion of a stationary source regulated by such standard or limitation. A relevant standard may include or consist of a design, equipment, work practice, or operational requirement, or other measure, process, method, system, or technique (including prohibition of emissions) that the Administrator (or a State) establishes for new or existing sources to which such standard or limitation applies. Every relevant standard established pursuant to section 112 of the Act includes subpart A of this part and all applicable appendices of this part or of other parts of this chapter that are referenced in that standard.

Responsible official means one of the following:

(1) For a corporation: A president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or a duly authorized representative of such person if the representative is responsible for the overall operation of one or more manufacturing, production, or operating facilities and either:

(i) The facilities employ more than 250 persons or have gross annual sales or expenditures exceeding \$25 million (in second quarter 1980 dollars); or

(ii) The delegation of authority to such representative is approved in advance by the Administrator.

(2) For a partnership or sole proprietorship: a general partner or the proprietor, respectively.

(3) For a municipality, State, Federal, or other public agency: either a principal executive officer or ranking elected official. For the purposes of this part, a principal executive officer of a Federal agency includes the chief executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., a Regional Administrator of the EPA).

(4) For affected sources (as defined in this part) applying for or subject to a title V permit: "responsible official" shall have the same meaning as defined in part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever is applicable.

Run means one of a series of emission or other measurements needed to determine emissions for a representative operating period or cycle as specified in this part.

Shutdown means the cessation of operation of an affected source for any purpose.

Six-minute period means, with respect to opacity determinations, any one of the 10 equal parts of a 1-hour period.

Standard conditions means a temperature of 293 °K (68° F) and a pressure of 101.3 kilopascals (29.92 in. Hg).

Startup means the setting in operation of an affected source for any purpose.

State means all non-Federal authorities, including local agencies, interstate associations, and State-wide programs, that have delegated authority to implement:

- (1) The provisions of this part and/or
- (2) the permit program established under part 70 of this chapter. The term State shall have its conventional meaning where clear from the context.

Stationary source means any building, structure, facility, or installation which emits or may emit any air pollutant.

Test method means the validated procedure for sampling, preparing, and analyzing for an air pollutant specified in a relevant standard as the performance test procedure. The test method may include methods described in an appendix of this chapter, test methods incorporated by reference in this part, or methods validated for an application through procedures in Method 301 of appendix A of this part.

Title V permit means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

Visible emission means the observation of an emission of opacity or optical density above the threshold of vision.

§ 63.3 Units and abbreviations. [Reserved]

§ 63.4 Prohibited activities and circumvention.

(a) Prohibited activities.

(1) No owner or operator subject to the provisions of this part shall operate any affected source in violation of the requirements of this part except under-

- (i) An extension of compliance granted by the Administrator under this part; or
- (ii) An extension of compliance granted under this part by a State with an approved permit program; or
- (iii) An exemption from compliance granted by the President under section 112(i)(4) of the Act.

(2) No owner or operator subject to the provisions of this part shall fail to keep records, notify, report, or revise reports as required under this part.

(3) After the effective date of an approved permit program in a State, no owner or operator of an affected source in that State who is required under this part to obtain a title V permit shall operate such source except in compliance with the provisions of this part and the applicable requirements of the permit program in that State.

(4) [Reserved]

(5) An owner or operator of an affected source who is subject to an emission standard promulgated under this part shall comply with the requirements of that standard by the date(s) established in the applicable subpart(s) of this part (including this subpart) regardless of whether

- (i) A title V permit has been issued to that source; or
- (ii) If a title V permit has been issued to that source, whether such permit has been revised or modified to incorporate the emission standard.

(b) *Circumvention.* No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to

- (1) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere;
- (2) [Reserved]; and
- (3) The fragmentation of an operation such that the operation avoids regulation by a relevant standard.

(c) *Severability.* Notwithstanding any requirement incorporated into a title V permit obtained by an owner or operator subject to the provisions of this part, the provisions of this part are federally enforceable.

§ 63.5 Construction and reconstruction.

(a) *Applicability.*

(1) This section implements the preconstruction review requirements of section 112(i)(1) [of the Clean Air Act] for sources subject to a relevant emission standard that has been promulgated in [40 CFR 63]. In addition, this section includes other requirements for constructed and reconstructed stationary sources that are or become subject to a relevant promulgated emission standard.

(2) After the effective date of a relevant standard promulgated under [40 CFR 63], the requirements in this section apply to owners or operators who construct a new source or reconstruct a source after the proposal date of that standard. New or reconstructed sources that start up before the standard's effective date are not subject to the preconstruction review requirements specified in paragraphs (b)(3), (d), and (e) of this section.

(b) *Requirements for existing, newly constructed, and reconstructed sources.*

(1) Upon construction an affected source is subject to relevant standards for new sources, including compliance dates. Upon reconstruction, an affected source is subject to relevant standards for new sources, including compliance dates, irrespective of any change in emissions of hazardous air pollutants from that source.

(2) [Reserved]

(3) After the effective date of any relevant standard promulgated by the Administrator under [40 CFR 63], whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new major affected source or reconstruct a major affected source subject to such standard, or reconstruct a major source such that the source becomes a major affected source subject to the standard, without obtaining written approval, in advance, from the Administrator in accordance with the procedures specified in paragraphs (d) and (e) of this section.

(4) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, no person may construct a new affected source or reconstruct an affected source subject to such standard, or reconstruct a source such that the source becomes an affected source subject to the standard, without notifying the Administrator of the intended construction or reconstruction. The notification shall be submitted in accordance with the procedures in § 63.9(b) and shall include all the information required for an application

for approval of construction or reconstruction as specified in paragraph (d) of this section. For major sources, the application for approval of construction or reconstruction may be used to fulfill the notification requirements of this paragraph.

(5) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, no person may operate such source without complying with the provisions of this subpart and the relevant standard unless that person has received an extension of compliance or an exemption from compliance under § 63.6(i) or § 63.6(j) of this subpart.

(6) After the effective date of any relevant standard promulgated by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is located, equipment added (or a process change) to an affected source that is within the scope of the definition of affected source under the relevant standard shall be considered part of the affected source and subject to all provisions of the relevant standard established for that affected source. If a new affected source is added to the facility, the new affected source shall be subject to all the provisions of the relevant standard that are established for new sources including compliance dates.

(c) [Reserved]

(d) *Application for approval of construction or reconstruction.* The provisions of this paragraph implement section 112(i)(1) of the Act.

(1) *General application requirements.*

(i) An owner or operator who is subject to the requirements of paragraph (b)(3) of this section shall submit to the Administrator an application for approval of the construction of a new major affected source, the reconstruction of a major affected source, or the reconstruction of a major source such that the source becomes a major affected source subject to the standard. The application shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date of the relevant standard) if the construction or reconstruction commences after the effective date of a relevant standard promulgated in this part. The application shall be submitted as soon as practicable before startup but no later than 60 days after the effective date of a relevant standard promulgated in this part if the construction or reconstruction had commenced and initial startup had not occurred before the standard's effective date. The application for approval of construction or reconstruction may be used to fulfill the initial notification requirements of § 63.9(b)(5) of this subpart. The owner or operator may submit the application for approval well in advance of the date construction or reconstruction is planned to commence in order to ensure a timely review by the Administrator and that the planned commencement date will not be delayed.

(ii) A separate application shall be submitted for each construction or reconstruction. Each application for approval of construction or reconstruction shall include at a minimum:

- (A) The applicant's name and address;
- (B) A notification of intention to construct a new major affected source or make any physical or operational change to a major affected source that may meet or has been determined to meet the criteria for a reconstruction, as defined in § 63.2;
- (C) The address (i.e., physical location) or proposed address of the source;
- (D) An identification of the relevant standard that is the basis of the application;

(E) The expected commencement date of the construction or reconstruction;

(F) The expected completion date of the construction or reconstruction;

(G) The anticipated date of (initial) startup of the source;

(H) The type and quantity of hazardous air pollutants emitted by the source, reported in units and averaging times and in accordance with the test methods specified in the relevant standard, or if actual emissions data are not yet available, an estimate of the type and quantity of hazardous air pollutants expected to be emitted by the source reported in units and averaging times specified in the relevant standard. The owner or operator may submit percent reduction information if a relevant standard is established in terms of percent reduction. However, operating parameters, such as flow rate, shall be included in the submission to the extent that they demonstrate performance and compliance; and

(I) [Reserved]

(J) Other information as specified in paragraphs (d)(2) and (d)(3) of this section.

(iii) An owner or operator who submits estimates or preliminary information in place of the actual emissions data and analysis required in paragraphs (d)(1)(ii)(H) and (d)(2) of this section shall submit the actual, measured emissions data and other correct information as soon as available but no later than with the notification of compliance status required in § 63.9(h) (see § 63.9(h)(5)).

(2) *Application for approval of construction.* Each application for approval of construction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section, technical information describing the proposed nature, size, design, operating design capacity, and method of operation of the source, including an identification of each point of emission for each hazardous air pollutant that is emitted (or could be emitted) and a description of the planned air pollution control system (equipment or method) for each emission point. The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations. An owner or operator who submits approximations of control efficiencies under this subparagraph shall submit the actual control efficiencies as specified in paragraph (d)(1)(iii) of this section.

(3) *Application for approval of reconstruction.* Each application for approval of reconstruction shall include, in addition to the information required in paragraph (d)(1)(ii) of this section -

(i) A brief description of the affected source and the components that are to be replaced;

(ii) A description of present and proposed emission control systems (i.e., equipment or methods). The description of the equipment to be used for the control of emissions shall include each control device for each hazardous air pollutant and the estimated control efficiency (percent) for each control device. The description of the method to be used for the control of emissions shall include an estimated control efficiency (percent) for that method. Such technical information shall include calculations of emission estimates in sufficient detail to permit assessment of the validity of the calculations;

(iii) An estimate of the fixed capital cost of the replacements and of constructing a comparable entirely new source;

(iv) The estimated life of the affected source after the replacements; and

(v) A discussion of any economic or technical limitations the source may have in complying with relevant standards or other requirements after the proposed replacements. The discussion shall be sufficiently detailed to demonstrate to the Administrator's satisfaction that the technical or economic limitations affect the source's ability to comply with the relevant standard and how they do so.

(vi) If in the application for approval of reconstruction the owner or operator designates the affected source as a reconstructed source and declares that there are no economic or technical limitations to prevent the source from complying with all relevant standards or other requirements, the owner or operator need not submit the information required in subparagraphs (d)(3) (iii) through (v) of this section, above.

(4) *Additional information.* The Administrator may request additional relevant information after the submittal of an application for approval of construction or reconstruction.

(e) – (f) [Reserved]

63.6 Compliance with standards and maintenance requirements.

(a) *Applicability.*

(1) The requirements in this section apply to owners or operators of affected sources for which any relevant standard has been established pursuant to section 112 of the Act unless -

(i) – (ii) [Reserved]

(2) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source, such source shall be subject to the relevant emission standard or other requirement.

(b) – (d) [Reserved]

(e) *Operation and maintenance requirements.*

(1) (i) At all times, including periods of startup, shutdown, and malfunction, owners or operators shall operate and maintain any affected source, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards.

(ii) Malfunctions shall be corrected as soon as practicable after their occurrence in accordance with the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section.

(iii) Operation and maintenance requirements established pursuant to section 112 of the Act are enforceable independent of emissions limitations or other requirements in relevant standards.

(2) Determination of whether acceptable operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures (including the startup, shutdown, and malfunction plan required in paragraph (e)(3) of this section), review of operation and maintenance records, and inspection of the source.

(3) *Startup, shutdown, and malfunction plan.*

(i) The owner or operator of an affected source shall develop and implement a written startup, shutdown, and malfunction plan that describes, in detail, procedures for operating and maintaining the source during periods of startup, shutdown, and malfunction and a

program of corrective action for malfunctioning process and air pollution control equipment used to comply with the relevant standard. As required under § 63.8(c)(1)(i), the plan shall identify all routine or otherwise predictable CMS malfunctions. This plan shall be developed by the owner or operator by the source's compliance date for that relevant standard. The plan shall be incorporated by reference into the source's title V permit. The purpose of the startup, shutdown, and malfunction plan is to -

(A) Ensure that, at all times, owners or operators operate and maintain affected sources, including associated air pollution control equipment, in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards;

(B) Ensure that owners or operators are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

(C) Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

(ii) During periods of startup, shutdown, and malfunction, the owner or operator of an affected source shall operate and maintain such source (including associated air pollution control equipment) in accordance with the procedures specified in the startup, shutdown, and malfunction plan developed under paragraph (e)(3)(i) of this section.

(iii) When actions taken by the owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) are consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall keep records for that event that demonstrate that the procedures specified in the plan were followed. These records may take the form of a "checklist," or other effective form of recordkeeping, that confirms conformance with the startup, shutdown, and malfunction plan for that event. In addition, the owner or operator shall keep records of these events as specified in § 63.10(b) (and elsewhere in this part), including records of the occurrence and duration of each startup, shutdown, or malfunction of operation and each malfunction of the air pollution control equipment. Furthermore, the owner or operator shall confirm that actions taken during the relevant reporting period during periods of startup, shutdown, and malfunction were consistent with the affected source's startup, shutdown and malfunction plan in the semiannual (or more frequent) startup, shutdown, and malfunction report required in § 63.10(d)(5).

(iv) If an action taken by the owner or operator during a startup, shutdown, or malfunction (including an action taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall record the actions taken for that event and shall report such actions within 2 working days after commencing actions inconsistent with the plan, followed by a letter within 7 working days after the end of the event, in accordance with § 63.10(d)(5) (unless the owner or operator makes alternative reporting arrangements, in advance, with the Administrator (see § 63.10(d)(5)(ii))).

(v) The owner or operator shall keep the written startup, shutdown, and malfunction plan on record after it is developed to be made available for inspection, upon request, by the Administrator for the life of the affected source or until the affected source is no longer subject to the provisions of this part. In addition, if the startup, shutdown, and malfunction plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the startup, shutdown, and malfunction plan on record, to be made available for inspection, upon request, by the Administrator, for a period of 5 years after each revision to the plan.

(vi) To satisfy the requirements of this section to develop a startup, shutdown, and malfunction plan, the owner or operator may use the affected source's standard operating procedures (SOP) manual, or an Occupational Safety and Health Administration (OSHA) or other plan, provided the alternative plans meet all the requirements of this section and are made available for inspection when requested by the Administrator.

(vii) Based on the results of a determination made under paragraph (e)(2) of this section, the Administrator may require that an owner or operator of an affected source make changes to the startup, shutdown, and malfunction plan for that source. The Administrator may require reasonable revisions to a startup, shutdown, and malfunction plan, if the Administrator finds that the plan:

(A) Does not address a startup, shutdown, or malfunction event that has occurred;

(B) Fails to provide for the operation of the source (including associated air pollution control equipment) during a startup, shutdown, or malfunction event in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; or

(C) Does not provide adequate procedures for correcting malfunctioning process and/or air pollution control equipment as quickly as practicable.

(viii) If the startup, shutdown, and malfunction plan fails to address or inadequately addresses an event that meets the characteristics of a malfunction but was not included in the startup, shutdown, and malfunction plan at the time the owner or operator developed the plan, the owner or operator shall revise the startup, shutdown, and malfunction plan within 45 days after the event to include detailed procedures for operating and maintaining the source during similar malfunction events and a program of corrective action for similar malfunctions of process or air pollution control equipment.

(f) *Compliance with nonopacity emission standards -*

(1) *Applicability.* The nonopacity emission standards set forth in this part shall apply at all times except during periods of startup, shutdown, and malfunction, and as otherwise specified in an applicable subpart.

(2) *Methods for determining compliance.*

(i) – (iii) [Reserved]

(iv) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by review of records, inspection of the source, and other procedures specified in applicable subparts of this part.

(v) The Administrator will determine compliance with design, equipment, work practice, or operational emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, as specified in paragraph (e) of this section and applicable subparts of this part.

(3) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with a nonopacity emission standard, as specified in paragraphs (f)(1) and (f)(2) of this section, upon obtaining all the compliance information required by the relevant standard (including the written reports of performance test results, monitoring results, and other information, if applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(g) – (j) [Reserved]

§ 63.7 Performance testing requirements. [Reserved]

§ 63.8 Monitoring requirements. [Reserved]

§ 63.9 Notification requirements.

(a) Applicability and general information.

(1) The requirements in this section apply to owners and operators of affected sources that are subject to the provisions of this part, unless specified otherwise in a relevant standard.

(2) [Reserved]

(3) If any State requires a notice that contains all the information required in a notification listed in this section, the owner or operator may send the Administrator a copy of the notice sent to the State to satisfy the requirements of this section for that notification.

(4) (i) [Reserved]

(ii) After a State has been delegated the authority to implement and enforce notification requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit notifications to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated (permitting) authority is the State, the owner or operator shall send a copy of each notification submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any notifications at its discretion.

(b) Initial notifications.

(1) (i) The requirements of this paragraph apply to the owner or operator of an affected source when such source becomes subject to a relevant standard.

(ii) If an area source that otherwise would be subject to an emission standard or other requirement established under this part if it were a major source subsequently increases its emissions of hazardous air pollutants (or its potential to emit hazardous air pollutants) such that the source is a major source that is subject to the emission standard or other requirement, such source shall be subject to the notification requirements of this section.

(iii) Affected sources that are required under this paragraph to submit an initial notification may use the application for approval of construction or reconstruction under § 63.5(d) of this subpart, if relevant, to fulfill the initial notification requirements of this paragraph.

(2) The owner or operator of an affected source that has an initial startup before the effective date of a relevant standard under this part shall notify the Administrator in writing that the source is subject to the relevant standard. The notification, which shall be submitted not later than 120 calendar days after the effective date of the relevant standard (or within 120 calendar days after the source becomes subject to the relevant standard), shall provide the following information:

(i) The name and address of the owner or operator;

(ii) The address (i.e., physical location) of the affected source;

(iii) An identification of the relevant standard, or other requirement, that is the basis of the notification and the source's compliance date;

(iv) A brief description of the nature, size, design, and method of operation of the source, including its operating design capacity and an identification of each point of emission for each hazardous air pollutant, or if a definitive identification is not yet possible, a preliminary identification of each point of emission for each hazardous air pollutant; and

(v) A statement of whether the affected source is a major source or an area source.

(3) The owner or operator of a new or reconstructed affected source, or a source that has been reconstructed such that it is an affected source, that has an initial startup after the effective date of a relevant standard under this part and for which an application for approval of construction or reconstruction is not required under § 63.5(d), shall notify the Administrator in writing that the source is subject to the relevant standard no later than 120 days after initial startup. The notification shall provide all the information required in paragraphs (b)(2)(i) through (b)(2)(v) of this section, delivered or postmarked with the notification required in paragraph (b)(5).

(4) The owner or operator of a new or reconstructed major affected source that has an initial startup after the effective date of a relevant standard under this part and for which an application for approval of construction or reconstruction is required under § 63.5(d) shall provide the following information in writing to the Administrator:

(i) A notification of intention to construct a new major affected source, reconstruct a major affected source, or reconstruct a major source such that the source becomes a major affected source with the application for approval of construction or reconstruction as specified in § 63.5(d)(1)(i);

(ii) A notification of the date when construction or reconstruction was commenced, submitted simultaneously with the application for approval of construction or reconstruction, if construction or reconstruction was commenced before the effective date of the relevant standard;

(iii) A notification of the date when construction or reconstruction was commenced, delivered or postmarked not later than 30 days after such date, if construction or reconstruction was commenced after the effective date of the relevant standard;

(iv) [Reserved]; and

(v) A notification of the actual date of startup of the source, delivered or postmarked within 15 calendar days after that date.

(5) After the effective date of any relevant standard established by the Administrator under this part, whether or not an approved permit program is effective in the State in which an affected source is (or would be) located, an owner or operator who intends to construct a new affected source or reconstruct an affected source subject to such standard, or reconstruct a source such that it becomes an affected source subject to such standard, shall notify the Administrator, in writing, of the intended construction or reconstruction. The notification shall be submitted as soon as practicable before the construction or reconstruction is planned to commence (but no sooner than the effective date of the relevant standard) if the construction or reconstruction commences after the effective date of a relevant standard promulgated in this part. The notification shall be submitted as soon as practicable before startup but no later than 60 days after the effective date of a relevant standard promulgated in this part if the construction or reconstruction had commenced and initial startup had not occurred before the standard's effective date. The notification shall include all the information required for an application for approval of construction or reconstruction as specified in § 63.5(d). For major sources, the application for approval of construction or reconstruction may be used to fulfill the requirements of this paragraph.

(c) – (g) [Reserved]

(h) *Notification of compliance status.*

(1) The requirements of paragraphs (h)(2) through (h)(4) of this section apply when an affected source becomes subject to a relevant standard.

(2) (i) Before a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit to the Administrator a notification of compliance status, signed by the responsible official who shall certify its accuracy, attesting to whether the source has complied with the relevant standard. The notification shall list -

(A) The methods that were used to determine compliance;

(B) The results of any performance tests, opacity or visible emission observations, continuous monitoring system (CMS) performance evaluations, and/or other monitoring procedures or methods that were conducted;

(C) The methods that will be used for determining continuing compliance, including a description of monitoring and reporting requirements and test methods;

(D) The type and quantity of hazardous air pollutants emitted by the source (or surrogate pollutants if specified in the relevant standard), reported in units and averaging times and in accordance with the test methods specified in the relevant standard;

(E) An analysis demonstrating whether the affected source is a major source or an area source (using the emissions data generated for this notification);

(F) A description of the air pollution control equipment (or method) for each emission point, including each control device (or method) for each hazardous air pollutant and the control efficiency (percent) for each control device (or method); and

(G) A statement by the owner or operator of the affected existing, new, or reconstructed source as to whether the source has complied with the relevant standard or other requirements.

(ii) The notification shall be sent before the close of business on the 60th day following the completion of the relevant compliance demonstration activity specified in the relevant standard (unless a different reporting period is specified in a relevant standard, in which case the letter shall be sent before the close of business on the day the report of the relevant testing or monitoring results is required to be delivered or postmarked). For example, the notification shall be sent before close of business on the 60th (or other required) day following completion of the initial performance test and again before the close of business on the 60th (or other required) day following the completion of any subsequent required performance test. If no performance test is required but opacity or visible emission observations are required to demonstrate compliance with an opacity or visible emission standard under this part, the notification of compliance status shall be sent before close of business on the 30th day following the completion of opacity or visible emission observations.

(3) After a title V permit has been issued to the owner or operator of an affected source, the owner or operator of such source shall comply with all requirements for compliance status reports contained in the source's title V permit, including reports required under this part. After a title V permit has been issued to the owner or operator of an affected source, and each time a notification of compliance status is required under this part, the owner or operator of such source shall submit the notification of compliance status to the appropriate permitting authority following completion of the relevant compliance demonstration activity specified in the relevant standard.

(4) [Reserved]

(5) If an owner or operator of an affected source submits estimates or preliminary information in the application for approval of construction or reconstruction required in § 63.5(d) in place of the actual emissions data or control efficiencies required in paragraphs (d)(1)(ii)(H) and (d)(2) of § 63.5, the owner or operator shall submit the actual emissions data and other

correct information as soon as available but no later than with the initial notification of compliance status required in this section.

(6) Advice on a notification of compliance status may be obtained from the Administrator.

(i) *Adjustment to time periods or postmark deadlines for submittal and review of required communications.*

(1) (i) Until an adjustment of a time period or postmark deadline has been approved by the Administrator under paragraphs (i)(2) and (i)(3) of this section, the owner or operator of an affected source remains strictly subject to the requirements of this part.

(ii) An owner or operator shall request the adjustment provided for in paragraphs (i)(2) and (i)(3) of this section each time he or she wishes to change an applicable time period or postmark deadline specified in this part.

(2) Notwithstanding time periods or postmark deadlines specified in this part for the submittal of information to the Administrator by an owner or operator, or the review of such information by the Administrator, such time periods or deadlines may be changed by mutual agreement between the owner or operator and the Administrator. An owner or operator who wishes to request a change in a time period or postmark deadline for a particular requirement shall request the adjustment in writing as soon as practicable before the subject activity is required to take place. The owner or operator shall include in the request whatever information he or she considers useful to convince the Administrator that an adjustment is warranted.

(3) If, in the Administrator's judgment, an owner or operator's request for an adjustment to a particular time period or postmark deadline is warranted, the Administrator will approve the adjustment. The Administrator will notify the owner or operator in writing of approval or disapproval of the request for an adjustment within 15 calendar days of receiving sufficient information to evaluate the request.

(4) If the Administrator is unable to meet a specified deadline, he or she will notify the owner or operator of any significant delay and inform the owner or operator of the amended schedule.

(j) *Change in information already provided.* Any change in the information already provided under this section shall be provided to the Administrator in writing within 15 calendar days after the change.

§ 63.10 Recordkeeping and reporting requirements.

(a) *Applicability and general information.*

(1) The requirements of this section apply to owners or operators of affected sources who are subject to the provisions of this part [40 CFR 63], unless specified otherwise in a relevant standard.

(2) [Reserved]

(3) If any State requires a report that contains all the information required in a report listed in this section, an owner or operator may send the Administrator a copy of the report sent to the State to satisfy the requirements of this section for that report.

(4) (i) [Reserved]

(ii) After a State has been delegated the authority to implement and enforce recordkeeping and reporting requirements established under this part, the owner or operator of an affected source in such State subject to such requirements shall submit reports to the delegated State authority (which may be the same as the permitting authority). In addition, if the delegated

(permitting) authority is the State, the owner or operator shall send a copy of each report submitted to the State to the appropriate Regional Office of the EPA, as specified in paragraph (a)(4)(i) of this section. The Regional Office may waive this requirement for any reports at its discretion.

(5) If an owner or operator of an affected source in a State with delegated authority is required to submit periodic reports under this part to the State, and if the State has an established timeline for the submission of periodic reports that is consistent with the reporting frequency(ies) specified for such source under this part, the owner or operator may change the dates by which periodic reports under this part shall be submitted (without changing the frequency of reporting) to be consistent with the State's schedule by mutual agreement between the owner or operator and the State. For each relevant standard established pursuant to section 112 of the Act, the allowance in the previous sentence applies in each State beginning 1 year after the affected source's compliance date for that standard. Procedures governing the implementation of this provision are specified in § 63.9(i).

(6) If an owner or operator supervises one or more stationary sources affected by more than one standard established pursuant to section 112 of the Act, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required for each source shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the latest compliance date for any relevant standard established pursuant to section 112 of the Act for any such affected source(s). Procedures governing the implementation of this provision are specified in § 63.9(i).

(7) If an owner or operator supervises one or more stationary sources affected by standards established pursuant to section 112 of the Act (as amended November 15, 1990) and standards set under part 60, part 61, or both such parts of this chapter, he/she may arrange by mutual agreement between the owner or operator and the Administrator (or the State permitting authority) a common schedule on which periodic reports required by each relevant (i.e., applicable) standard shall be submitted throughout the year. The allowance in the previous sentence applies in each State beginning 1 year after the stationary source is required to be in compliance with the relevant section 112 standard, or 1 year after the stationary source is required to be in compliance with the applicable part 60 or part 61 standard, whichever is latest. Procedures governing the implementation of this provision are specified in § 63.9(i).

(b) General recordkeeping requirements.

(1) The owner or operator of an affected source subject to the provisions of this part shall maintain files of all information (including all reports and notifications) required by this part recorded in a form suitable and readily available for expeditious inspection and review. The files shall be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record. At a minimum, the most recent 2 years of data shall be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, or on microfiche.

(2) The owner or operator of an affected source subject to the provisions of this part shall maintain relevant records for such source of -

- (i) The occurrence and duration of each startup, shutdown, or malfunction of operation (i.e., process equipment);
- (ii) The occurrence and duration of each malfunction of the air pollution control equipment;
- (iii) All maintenance performed on the air pollution control equipment;

(iv) Actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3));

(v) All information necessary to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan (see § 63.6(e)(3)) when all actions taken during periods of startup, shutdown, and malfunction (including corrective actions to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the startup, shutdown, and malfunction plan may be recorded using a "checklist," or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events);

(vi) [Reserved];

(vii) [Reserved]

(3) Recordkeeping requirement for applicability determinations. If an owner or operator determines that his or her stationary source that emits (or has the potential to emit, without considering controls) one or more hazardous air pollutants is not subject to a relevant standard or other requirement established under this part, the owner or operator shall keep a record of the applicability determination on site at the source for a period of 5 years after the determination, or until the source changes its operations to become an affected source, whichever comes first. The record of the applicability determination shall include an analysis (or other information) that demonstrates why the owner or operator believes the source is unaffected (e.g., because the source is an area source). The analysis (or other information) shall be sufficiently detailed to allow the Administrator to make a finding about the source's applicability status with regard to the relevant standard or other requirement. If relevant, the analysis shall be performed in accordance with requirements established in subparts of this part for this purpose for particular categories of stationary sources. If relevant, the analysis should be performed in accordance with EPA guidance materials published to assist sources in making applicability determinations under section 112, if any.

(c) [Reserved]

(d) *General reporting requirements.*

(1) Notwithstanding the requirements in this paragraph or paragraph (e) of this section, the owner or operator of an affected source subject to reporting requirements under this part shall submit reports to the Administrator in accordance with the reporting requirements in the relevant standard(s).

(2) – (4) [Reserved]

(5) (i) Periodic startup, shutdown, and malfunction reports. If actions taken by an owner or operator during a startup, shutdown, or malfunction of an affected source (including actions taken to correct a malfunction) are consistent with the procedures specified in the source's startup, shutdown, and malfunction plan [see § 63.6(e)(3)], the owner or operator shall state such information in a startup, shutdown, and malfunction report. Reports shall only be required if a startup, shutdown, or malfunction occurred during the reporting period. The startup, shutdown, and malfunction report shall consist of a letter, containing the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, that shall be submitted to the Administrator semi-annually (or on a more frequent basis if specified otherwise in a relevant standard or as established otherwise by the permitting authority

in the source's title V permit). The startup, shutdown, and malfunction report shall be delivered or postmarked by the 30th day following the end of each calendar half (or other calendar reporting period, as appropriate). If the owner or operator is required to submit excess emissions and continuous monitoring system performance (or other periodic) reports under this part, the startup, shutdown, and malfunction reports required under this paragraph may be submitted simultaneously with the excess emissions and continuous monitoring system performance (or other) reports. If startup, shutdown, and malfunction reports are submitted with excess emissions and continuous monitoring system performance (or other periodic) reports, and the owner or operator receives approval to reduce the frequency of reporting for the latter under paragraph (e) of this section, the frequency of reporting for the startup, shutdown, and malfunction reports also may be reduced if the Administrator does not object to the intended change. The procedures to implement the allowance in the preceding sentence shall be the same as the procedures specified in paragraph (e)(3) of this section.

(ii) Immediate startup, shutdown, and malfunction reports. Notwithstanding the allowance to reduce the frequency of reporting for periodic startup, shutdown, and malfunction reports under paragraph (d)(5)(i) of this section, any time an action taken by an owner or operator during a startup, shutdown, or malfunction (including actions taken to correct a malfunction) is not consistent with the procedures specified in the affected source's startup, shutdown, and malfunction plan, the owner or operator shall report the actions taken for that event within 2 working days after commencing actions inconsistent with the plan followed by a letter within 7 working days after the end of the event. The immediate report required under this paragraph shall consist of a telephone call (or facsimile (FAX) transmission) to the Administrator within 2 working days after commencing actions inconsistent with the plan, and it shall be followed by a letter, delivered or postmarked within 7 working days after the end of the event, that contains the name, title, and signature of the owner or operator or other responsible official who is certifying its accuracy, explaining the circumstances of the event, the reasons for not following the startup, shutdown, and malfunction plan, and whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred. Notwithstanding the requirements of the previous sentence, after the effective date of an approved permit program in the State in which an affected source is located, the owner or operator may make alternative reporting arrangements, in advance, with the permitting authority in that State. Procedures governing the arrangement of alternative reporting requirements under this paragraph are specified in § 63.9(i).

(e) – (f) [Reserved]

§ 63.11 - 63.13 [Reserved]

63.14 Incorporations by reference.

(a) The materials listed in this section are incorporated by reference in the corresponding sections noted. These incorporations by reference were approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. These materials are incorporated as they exist on the date of the approval, and notice of any change in these materials will be published in the FEDERAL REGISTER. The materials are available for purchase at the corresponding addresses noted below, and all are available for inspection at the Office of the Federal Register, 800 North Capitol Street, NW, suite 700, Washington, DC, at the Air and

Radiation Docket and Information Center, U.S. EPA, 401 M Street, SW., Washington, DC, and at the EPA Library (MD-35), U.S. EPA, Research Triangle Park, North Carolina.

(b) The materials listed below are available for purchase from at least one of the following addresses: American Society for Testing and Materials (ASTM), 1916 Race Street, Philadelphia, Pennsylvania 19103; or University Microfilms International, 300 North Zeeb Road, Ann Arbor, Michigan 48106.

(1) – (7) [Reserved]

(8) ASTM D523–89, Standard Test Method for Specular Gloss, IBR approved for § 63.782.

(9) ASTM D1475–90, Standard Test Method for Density of Paint, Varnish, Lacquer, and Related Products, IBR approved for § 63.788 appendix A.

(10) ASTM D2369–93, Standard Test Method for Volatile Content of Coatings, IBR approved for § 63.788 appendix A.

(11) ASTM D3912–80, Standard Test Method for Chemical Resistance of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(12) ASTM D4017–90, Standard Test Method for Water and Paints and Paint Materials by Karl Fischer Method, IBR approved for § 63.788 appendix A.

(13) ASTM D4082–89, Standard Test Method for Effects of Gamma Radiation on Coatings for Use in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(14) ASTM D4256–89 [reapproved 1994], Standard Test Method for Determination of the Decontaminability of Coatings Used in Light-Water Nuclear Power Plants, IBR approved for § 63.782.

(15) ASTM D3792–91, Standard Test Method for Water Content of Water-Reducible Paints by Direct Injection into a Gas Chromatograph, IBR approved for § 63.788 appendix A.

(16) ASTM D3257–93, Standard Test Methods for Aromatics in Mineral Spirits by Gas Chromatography, IBR approved for § 63.786(b).

(17) ASTM E260–91, Standard Practice for Packed Column Gas Chromatography, IBR approved for § 63.786(b).

(18) ASTM E180–93, Standard Practice for Determining the Precision of ASTM Methods for Analysis and Testing of Industrial Chemicals, IBR approved for § 63.786(b).

(19) [Reserved]

(c) – (f) [Reserved]

§ 63.15 Availability of information and confidentiality.

(a) *Availability of information.*

(1) With the exception of information protected through part 2 of this chapter, all reports, records, and other information collected by the Administrator under this part are available to the public. In addition, a copy of each permit application, compliance plan (including the schedule of compliance), notification of compliance status, excess emissions and continuous monitoring systems performance report, and title V permit is available to the public, consistent with protections recognized in section 503(e) of the Act.

(2) The availability to the public of information provided to or otherwise obtained by the Administrator under this part shall be governed by part 2 of this chapter.

(b) *Confidentiality.*

(1) If an owner or operator is required to submit information entitled to protection from disclosure under section 114(c) of the Act, the owner or operator may submit such information separately. The requirements of section 114(c) shall apply to such information.

(2) The contents of a title V permit shall not be entitled to protection under section 114(c) of the Act; however, information submitted as part of an application for a title V permit may be entitled to protection from disclosure.

AIR CONSTRUCTION PERMIT

APPENDIX C. APPLICANT'S TABLE 3 – EMISSIONS CALCULATIONS

The Applicant's Table 3, Proposed emissions calculations, is attached as part of this permit following this page.

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	V	H	A	% Chem	Chemical (lbs)	Emiss Factor	Emissions #/Yr	Emissions Tons/Yr
												O	F	C					
												C	P	S					
10	120	100073	Orange Tooling					54.00	lbs	Methyl Methacrylate	80-62-6	x	x		5.0%	2.70	54%	1.46	0.00
10	120	100073	Orange Tooling					54.00	lbs	Styrene	100-42-5	x	x		40.8%	22.01	54%	11.89	0.01
10	120	101154	Blige Grey Gc					184,765.00	lbs	Styrene	100-42-5	x	x		34.4%	63,562.86	16.5%	10,487.87	5.24
10	190	101410	Polygard 33-441					2,438.00	lbs	Hexachloroethane	67-72-1	x	x		4.1%	100.69	11%	11.08	0.01
10	190	101410	Polygard 33-441					2,438.00	lbs	Styrene	100-42-5	x	x		37.5%	906.69	11%	99.74	0.05
10	120	101436	Black Tooling					162.00	lbs	Methyl Methacrylate	80-62-6	x	x		4.4%	7.12	54%	3.84	0.00
10	120	101436	Black Tooling					162.00	lbs	Styrene	100-42-5	x	x		42.5%	68.79	54%	37.15	0.02
15	60	101485	Paint, Latex Black (Delta Labs)	1,246.00	gal	10.1	#/gl	12,584.60	lbs	Ethylene Glycol	107-21-1	x	x		2.9%	364.95	100%	364.95	0.18
15	70	101923	Paint, Plasti-Dip (Red)	1.00	gal	6.91	#/gl	6.91	lbs	Hexane	110-54-3	x	x		18.0%	1.24	100%	1.24	0.00
15	70	101923	Paint, Plasti-Dip (Red)	1.00	gal	6.91	#/gl	6.91	lbs	Methyl Ethyl Ketone	78-93-3	x	x		8.0%	0.55	100%	0.55	0.00
15	70	101923	Paint, Plasti-Dip (Red)	1.00	gal	6.91	#/gl	6.91	lbs	Other:VOC		x			33.0%	2.28	100%	2.28	0.00
15	70	101923	Paint, Plasti-Dip (Red)	1.00	gal	6.91	#/gl	6.91	lbs	Toluene	108-88-3	x	x		15.0%	1.04	100%	1.04	0.00
15	50	102475	Moist Resist Lacquer	18.00	gal	7.4	#/gl	133.20	lbs	Methyl Ethyl Ketone	78-93-3	x	x		3.0%	4.00	100%	4.00	0.00
15	50	102475	Moist Resist Lacquer	18.00	gal	7.4	#/gl	133.20	lbs	Other:VOC		x			65.5%	87.25	100%	87.25	0.04
15	50	102475	Moist Resist Lacquer	18.00	gal	7.4	#/gl	133.20	lbs	Toluene	108-88-3	x	x		3.0%	4.00	100%	4.00	0.00
15	50	102475	Moist Resist Lacquer	18.00	gal	7.4	#/gl	133.20	lbs	Xylene	1330-20-7	x	x		4.0%	5.33	100%	5.33	0.00
15	10	102491	Additive, Retardant Butyl Cellulose	20.40	gal	7.48	#/gl	152.59	lbs	2-Butoxyethanol	111-76-2	x	x		100.0%	152.59	100%	152.59	0.08
15	100	102525	Sanding Sealer	161.00	gal	7.1	#/gl	1,143.10	lbs	Methyl Alcohol	67-56-1	x	x		3.9%	44.01	100%	44.01	0.02
15	100	102525	Sanding Sealer	161.00	gal	7.1	#/gl	1,143.10	lbs	Methyl Ethyl Ketone	78-93-3	x	x		15.0%	171.47	100%	171.47	0.09
15	100	102525	Sanding Sealer	161.00	gal	7.1	#/gl	1,143.10	lbs	Other:VOC		x			42.7%	488.10	100%	488.10	0.24
15	100	102525	Sanding Sealer	161.00	gal	7.1	#/gl	1,143.10	lbs	Toluene	108-88-3	x	x		15.0%	171.47	100%	171.47	0.09
15	100	102525	Sanding Sealer	161.00	gal	7.1	#/gl	1,143.10	lbs	Xylene	1330-20-7	x	x		3.9%	44.01	100%	44.01	0.02
10	110	102574	Flexbond Putty	984.00	gal	9.17	#/gl	9,023.28	lbs	Styrene	100-42-5	x	x		34.5%	3,113.03	11.0%	342.43	0.17
25	120	102665	Silicon, Lubricant (Wd-40)	5.00	gal	6.68	#/gl	33.40	lbs	Other:VOC		x			71.0%	23.71	100%	23.71	0.01
25	110	156984	Sealant, Silicone	7,897.00	ea	10.3	oz	5,083.69	lbs	Other:VOC		x			3.7%	188.10	100%	188.10	0.02
25	110	156992	Sealant, Silicone	238.00	ea	10.3	oz	153.21	lbs	Other:VOC		x			3.7%	5.67	100%	5.67	0.00
25	110	157008	Sealant, Silicone	15,437.00	ea	10.3	oz	9,937.57	lbs	Other:VOC		x			3.7%	367.69	100%	367.69	0.18
195	35	164939	Compound, Edge Wax Fin-Kare	13.00	ea (gal)	6.65	#/gl	86.45	lbs	Other:VOC		x			44.7%	38.64	100%	38.64	0.02
10	30	166488	Contact Disc Cement	148.00	ea	5	oz	46.25	lbs	Other:VOC	110-54-3	x	x		37.5%	17.34	100%	17.34	0.01
10	30	166488	Contact Disc Cement	148.00	ea	5	oz	46.25	lbs	Other:VOC		x			27.5%	12.72	100%	12.72	0.01
195	35	179341	Compound Sealer Glaze	11.00	gal	8.75	#/gl	48.13	lbs	Formaldehyde	50-00-0	x	x		0.5%	0.24	100%	0.24	0.00
195	35	179341	Compound Sealer Glaze	11.00	gal	8.75	#/gl	48.13	lbs	Other:VOC		x			33.0%	15.88	100%	15.88	0.01
195	35	179358	Compound, Mold Release TR Hi-Te	310.00	can	14	oz	271.25	lbs	Other:VOC		x			70.0%	189.88	100%	189.88	0.09
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Butane	106-97-8	x	x		11.7%	295.96	100%	295.96	0.15
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Isobutane	75-28-5	x	x		11.7%	295.96	100%	295.96	0.15
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Other:VOC		x			8.1%	206.61	100%	206.61	0.10
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Propane	74-98-6	x	x		11.7%	295.96	100%	295.96	0.15
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Toluene	108-88-3	x	x		25.0%	634.56	100%	634.56	0.32
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Xylene	1330-20-7	x	x		12.5%	380.70	100%	380.70	0.19
15	50	191429	Paint, Lacquer Hi-Gloss For Vitracor	74.00	gal	7.31	#/gl	540.94	lbs	Methyl Ethyl Ketone	78-93-3	x	x		4.0%	21.64	100%	21.64	0.01
15	50	191429	Paint, Lacquer Hi-Gloss For Vitracor	74.00	gal	7.31	#/gl	540.94	lbs	Other:VOC		x			69.0%	373.25	100%	373.25	0.19
15	50	191429	Paint, Lacquer Hi-Gloss For Vitracor	74.00	gal	7.31	#/gl	540.94	lbs	Xylene	1330-20-7	x	x		3.0%	16.23	100%	16.23	0.01
10	30	191510	3M Fast Foam Adhesive	11,908.00	ea	17.25	oz	12,838.31	lbs	Acetone	67-64-1			y	14.5%	1,861.56	100%	1,861.56	0.93
10	30	191510	3M Fast Foam Adhesive	11,908.00	ea	17.25	oz	12,838.31	lbs	Other:VOC		x			39.3%	5,045.46	100%	5,045.46	2.52
10	30	191510	3M Fast Foam Adhesive	11,908.00	ea	17.25	oz	12,838.31	lbs	Pentane	109-66-0	x	x		24.2%	3,106.87	100%	3,106.87	1.55
10	30	191569	Adhesive, Threadlocker	89.00	ea	1.69	oz	9.40	lbs	Methyl Alcohol	67-56-1	x	x		2.0%	0.19	100%	0.19	0.00

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RFS	Ace	% Chem	Chemical (lbs)	Emls Fctr	Emissions #/Yr	Emissions Tons/Yr
10	30	191569	Adhesive, Threadlocker	89.00	ea	1.69	oz	9.40	lbs	Other:VOC		x				11.3%	1.06	100%	1.06	0.00
10	30	191585	Adhesive, Threadlocker Primer Only	2.00	can	6	oz	0.75	lbs	Acetone	67-64-1				x	70.00%	0.53	100%	0.53	0.00
10	30	191585	Adhesive, Threadlocker Primer Only	2.00	can	6	oz	0.75	lbs	Isobutane	75-28-5	x	x			22.50%	0.17	100%	0.17	0.00
10	30	191585	Adhesive, Threadlocker Primer Only	2.00	can	6	oz	0.75	lbs	Isopropyl Alcohol	67-63-0	x				10.00%	0.08	100%	0.08	0.00
10	30	191585	Adhesive, Threadlocker Primer Only	2.00	can	6	oz	0.75	lbs	Other:VOC		x				2.95%	0.02	100%	0.02	0.00
10	30	191718	Adhesive, Pvc Cement	203.00	qt	7.99	#/gl	405.49	lbs	Methyl Ethyl Ketone	78-93-3	x	x			15.0%	60.82	40%	24.33	0.01
10	30	191718	Adhesive, Pvc Cement	203.00	qt	7.99	#/gl	405.49	lbs	Other:VOC		x				66.5%	269.65	40%	107.86	0.05
195	65	191734	Silicone Spray Lubricant	2,668.00	can	24	oz	4,002.00	lbs	Hexane	110-54-3	x	x			15.0%	600.30	100%	600.30	0.30
195	65	191734	Silicone Spray Lubricant	2,668.00	can	24	oz	4,002.00	lbs	Other:VOC		x				80.0%	3,201.60	100%	3,201.60	1.60
175	15	191742	Cleaner, Glass	125.00	bll	20	oz	156.25	lbs	2-Butoxyethanol	111-76-2	x	x			5.7%	8.95	100%	8.95	0.00
175	15	191742	Cleaner, Glass Spartan	125.00	bll	20	oz	156.25	lbs	Isobutane	75-28-5	x	x			5.7%	8.95	100%	8.95	0.00
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs	Acetone	67-64-1				x	49.0%	88.20	100%	88.20	0.04
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs	Methyl Alcohol	67-56-1	x	x			1.0%	1.80	100%	1.80	0.00
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs	Methyl Ethyl Ketone	78-93-3	x	x			1.0%	1.80	100%	1.80	0.00
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs	Other:VOC		x				17.0%	30.60	100%	30.60	0.02
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs	Propane	74-98-6	x	x			15.0%	27.00	100%	27.00	0.01
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs	Toluene	108-88-3	x	x			3.0%	5.40	100%	5.40	0.00
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs	Xylene	1330-20-7	x	x			1.0%	1.80	100%	1.80	0.00
15	80	191866	Paint, Spray Black Hi-Temp	8.00	can	12	oz	6.00	lbs	Acetone	67-64-1				x	45.0%	2.70	100%	2.70	0.00
15	80	191866	Paint, Spray Black Hi-Temp	8.00	can	12	oz	6.00	lbs	Methyl Ethyl Ketone	78-93-3	x	x			11.0%	0.66	100%	0.66	0.00
15	80	191866	Paint, Spray Black Hi-Temp	8.00	can	12	oz	6.00	lbs	Other:VOC		x				31.0%	1.86	100%	1.86	0.00
15	80	191866	Paint, Spray Black Hi-Temp	8.00	can	12	oz	6.00	lbs	Propane	74-98-6	x	x			3.0%	0.18	100%	0.18	0.00
15	80	191866	Paint, Spray Black Hi-Temp	8.00	can	12	oz	6.00	lbs	Toluene	108-88-3	x	x			10.0%	0.60	100%	0.60	0.00
15	80	191882	Paint, Spray Red	49.00	can	12	oz	36.75	lbs	Acetone	67-64-1				x	36.0%	13.23	100%	13.23	0.01
15	80	191882	Paint, Spray Red	49.00	can	12	oz	36.75	lbs	Butane	106-97-8	x	x			8.0%	2.94	100%	2.94	0.00
15	80	191882	Paint, Spray Red	49.00	can	12	oz	36.75	lbs	Other:VOC		x				1.0%	0.37	100%	0.37	0.00
15	80	191882	Paint, Spray Red	49.00	can	12	oz	36.75	lbs	Propane	74-98-6	x	x			15.0%	5.88	100%	5.88	0.00
15	80	191882	Paint, Spray Red	49.00	can	12	oz	36.75	lbs	Propylene Glycol Methyl Ether Acetate	108-05-6	x	x			12.5%	4.59	100%	4.59	0.00
15	80	191882	Paint, Spray Red	49.00	can	12	oz	36.75	lbs	Xylene	1330-20-7	x	x			12.0%	4.41	100%	4.41	0.00
15	80	191924	Spray Paint Hard Hat	821.00	can	15	oz	769.69	lbs	Other:VOC		x				50.8%	391.00	100%	391.00	0.20
15	80	191924	Spray Paint Hard Hat	821.00	can	15	oz	769.69	lbs	Xylene	1330-20-7	x	x			1.0%	7.70	100%	7.70	0.00
15	80	191932	Paint, Spray Pt (White)	184.00	can	11	oz	126.50	lbs	Butane	106-97-8	x	x			11.7%	14.75	100%	14.75	0.01
15	80	191932	Paint, Spray Pt (White)	184.00	can	11	oz	126.50	lbs	Isobutane	75-28-5	x	x			11.7%	14.75	100%	14.75	0.01
15	80	191932	Paint, Spray Pt (White)	184.00	can	11	oz	126.50	lbs	Other:VOC		x				8.1%	10.30	100%	10.30	0.01
15	80	191932	Paint, Spray Pt (White)	184.00	can	11	oz	126.50	lbs	Propane	74-98-6	x	x			11.7%	14.75	100%	14.75	0.01
15	80	191932	Paint, Spray Pt (White)	184.00	can	11	oz	126.50	lbs	Toluene	108-88-3	x	x			25.0%	31.63	100%	31.63	0.02
15	80	191932	Paint, Spray Pt (White)	184.00	can	11	oz	126.50	lbs	Xylene	1330-20-7	x	x			12.5%	15.81	100%	15.81	0.01
195	35	192864	Super Polyglaze	86.00	cn (2 qt)	7.92	#/gl	340.55	lbs	Other:VOC		x				65.0%	221.36	100%	221.36	0.11
195	35	192872	Imperial Hand Glaze	16.00	cn (qt)	7.92	#/gl	31.68	lbs	Other:VOC		x				14.3%	4.53	100%	4.53	0.00
175	15	192898	Bilge Cleaner	2.00	ea	16	oz	2.00	lbs	Other:VOC		x				1.0%	0.02	100%	0.02	0.00
175	15	192922	Cleaner, Vinyl Formula Lr	5.00	can	14	oz	4.38	lbs	Other:VOC		x				95.0%	4.16	100%	4.16	0.00
195	35	194274	Cpd Polishing Lackryl	72.00	gal	11.68	#/gl	840.96	lbs	Other:VOC		x				2.4%	20.18	100%	20.18	0.01
195	35	194282	Compound, Polishing Dxtler	20.00	gal	10.81	#/gl	216.20	lbs	Other:VOC		x				33.3%	72.06	100%	72.06	0.04
25	30	194308	Dykem Co	11.00	gal	7.18	#/gl	78.98	lbs	Other:VOC		x				89.4%	70.61	100%	70.61	0.04
25	30	194415	Denatured Alcohol	685.00	gal	6.7	#/gl	4,589.50	lbs	Methyl Alcohol	67-56-1	x	x			50.0%	2,294.75	100%	2,294.75	1.15

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RFPS	Ac	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
25	30	194415	Denatured Alcohol	685.00	gal	6.7	#/gl	4,589.50	lbs	Other:VOC		x				47.5%	2180.01	100%	2,180.01	1.09
25	110	209106	Sealant, Silicone	43.00	ea	3	#/72	8.79	lbs	Other:VOC		x				5.2%	0.46	100%	0.46	0.00
10	30	209783	Adhesive, Contact Spray Stuck-Up	20,120.00	ea	13	oz	16,347.50	lbs	Acetone	67-64-1				x	17.3%	2,833.02	100%	2,833.02	1.42
10	30	209783	Adhesive, Contact Spray Stuck-Up	20,120.00	ea	13	oz	16,347.50	lbs	Hexane	110-54-3	x	x			34.6%	5,656.24	100%	5,656.24	2.83
10	30	209783	Adhesive, Contact Spray Stuck-Up	20,120.00	ea	13	oz	16,347.50	lbs	Other:VOC		x				15.2%	2,478.28	100%	2,478.28	1.24
10	30	209783	Adhesive, Contact Spray Stuck-Up	20,120.00	ea	13	oz	16,347.50	lbs	Propane	74-98-6	x	x			2.2%	2,478.28	100%	2,478.28	1.24
175	15	225417	Cleaner, Industrial Citrus Base	1,312.00	can	18.5	oz	1,517.00	lbs	Other:VOC		x				80.0%	1,213.60	100%	1,213.60	0.61
175	15	225417	Cleaner, Industrial Citrus Base	1,312.00	can	18.5	oz	1,517.00	lbs	Propane	74-98-6	x	x			20.0%	303.40	100%	303.40	0.15
175	15	230557	Cleaner, Spot Remover	14.00	can	16	oz	14.00	lbs	Other:VOC		x				32.5%	4.55	100%	4.55	0.00
175	15	230557	Cleaner, Spot Remover	14.00	can	16	oz	14.00	lbs	Perchloroethylene	127-18-4	x	x			22.5%	3.15	100%	3.15	0.00
175	15	230557	Cleaner, Spot Remover	14.00	can	16	oz	14.00	lbs	Trichloroethylene	79-01-6	x	x			42.5%	5.95	100%	5.95	0.00
25	110	257600	Sealant, Pipe (PVC) w/Teflon	10.00	ea (50 ml)	9.51	#/gl	0.25	lbs	Other:VOC		x				8.6%	0.02	100%	0.02	0.00
25	110	257907	Sealant, Urethane White Sikaflex	362.00	ea	10.5	oz	237.56	lbs	Ethyl Benzene	100-41-4	x	x			4.5%	10.69	100%	10.69	0.01
25	110	257907	Sealant, Urethane White Sikaflex	362.00	ea	10.5	oz	237.56	lbs	Xylene	1330-20-7	x	x			4.5%	10.69	100%	10.69	0.01
25	30	270009	Chemical, Mineral Spirits	161.00	gal	6.43	#/gl	1,035.23	lbs	Other:VOC		x				100.0%	1035.23	100%	1,035.23	0.52
195	60	277681	Seam Fill Antique White	130.00	ea	1	oz	8.13	lbs	Acetone	67-64-1				x	13.7%	1.11	100%	1.11	0.00
195	60	277681	Seam Fill Antique White	130.00	ea	1	oz	8.13	lbs	Methyl Ethyl Ketone	78-93-3	x	x			9.1%	0.74	100%	0.74	0.00
195	60	277681	Seam Fill Antique White	130.00	ea	1	oz	8.13	lbs	Other:VOC		x				63.5%	5.16	100%	5.16	0.00
195	60	277681	Seam Fill Antique White	130.00	ea	1	oz	8.13	lbs	Xylene	1330-20-7	x	x			13.7%	1.11	100%	1.11	0.00
25	110	277731	Sealant, Silicone White	92.00	ea	8	oz	46.00	lbs	Other:VOC		x				4.0%	1.84	100%	1.84	0.00
10	140	308205	Clear Mekp-9H					14,822.00	lbs	Dimethyl Phthalate	131-11-3	x	x			43.0%	6,373.46	na	neg	0.00
10	140	308205	Clear Mekp-9H					14,822.00	lbs	Methyl Ethyl Ketone	78-93-3	x	x			2.0%	295.44	na	142.29	0.07
10	140	308213	Red Mekp9-H					39,302.00	lbs	Dimethyl Phthalate	131-11-3	x	x			50.0%	19,651.00	na	neg	0.00
10	140	308213	Red Mekp9-H					39,302.00	lbs	Xylene	1330-20-7	x	x			17.5%	6,877.85	100%	6,877.85	3.44
10	30	321190	Lokweld Contact Adh	3,894.00	gal	6.86	#/gl	26,712.84	lbs	Acetone	67-64-1				x	26.5%	7,078.90	100%	7,078.90	3.54
10	30	321190	Lokweld Contact Adh	3,894.00	gal	6.86	#/gl	26,712.84	lbs	Hexane	110-54-3	x	x			19.2%	5,128.87	100%	5,128.87	2.56
10	30	321190	Lokweld Contact Adh	3,894.00	gal	6.86	#/gl	26,712.84	lbs	Methyl Alcohol	67-56-1	x	x			2.5%	667.82	100%	667.82	0.33
10	30	321190	Lokweld Contact Adh	3,894.00	gal	6.86	#/gl	26,712.84	lbs	Other:VOC		x				19.2%	5,128.87	100%	5,128.87	2.56
10	30	321190	Lokweld Contact Adh	3,894.00	gal	6.86	#/gl	26,712.84	lbs	Toluene	108-88-3	x	x			13.0%	3,472.67	100%	3,472.67	1.74
25	110	352443	Sealant, Silicone	1,093.00	ea	3	#/7	222.87	lbs	Other:VOC		x				5.2%	11.59	100%	11.59	0.01
195	35	353482	Compound, Polishing Finesse II II	293.00	qt	8.345	#/gl	611.27	lbs	Ethylbenzene	100-41-4	x	x			0.1%	0.61	100%	0.61	0.00
195	35	353482	Compound, Polishing Finesse II II	293.00	qt	8.345	#/gl	611.27	lbs	Other:VOC		x				22.8%	139.37	100%	139.37	0.07
195	35	353482	Compound, Polishing Finesse II II	293.00	qt	8.345	#/gl	611.27	lbs	Xylene	1330-20-7	x	x			0.1%	0.61	100%	0.61	0.00
10	120	437145	Webbing Solution	128.00	gal	7	#/gl	896.00	lbs	Acetone	67-64-1					85.0%	761.60	100%	761.60	0.38
15	120	440230	T-70 Lacquer Thinner	408.00	gal	6.72	#/gl	2,741.76	lbs	Acetone	67-64-1				x	5.0%	137.09	100%	137.09	0.07
15	120	440230	T-70 Lacquer Thinner	408.00	gal	6.72	#/gl	2,741.76	lbs	Methyl Ethyl Ketone	78-93-3	x	x			10.0%	274.18	100%	274.18	0.14
15	120	440230	T-70 Lacquer Thinner	408.00	gal	6.72	#/gl	2,741.76	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			25.0%	685.44	100%	685.44	0.34
15	120	440230	T-70 Lacquer Thinner	408.00	gal	6.72	#/gl	2,741.76	lbs	Other:VOC		x				25.0%	685.44	100%	685.44	0.34
15	120	440230	T-70 Lacquer Thinner	408.00	gal	6.72	#/gl	2,741.76	lbs	Toluene	108-88-3	x	x			35.0%	959.62	100%	959.62	0.48
175	15	440727	Cleaner, All Purpose	36.00	can	19	oz	42.75	lbs	2-Butoxyethanol	111-76-2	x	x			6.0%	2.57	100%	2.57	0.00
175	15	440727	Cleaner, All Purpose	36.00	can	19	oz	42.75	lbs	Propane	74-98-6	x	x			5.0%	2.14	100%	2.14	0.00
10	120	555944	Antique White Gel					37,055.00	lbs	Methyl Methacrylate	95-62-6	x	x			3.0%	1,111.65	48%	533.59	0.27
10	120	555944	Antique White Gel					37,055.00	lbs	Other:VOC	100-42-5	x	x			35.0%	12,969.25	48%	6,225.24	3.11
10	110	581975	Polyester Putty	1,602.00	gal	13.27	#/gl	21,258.54	lbs	Styrene	100-42-5	x	x			15.0%	3,188.78	11.1%	350.77	0.18
15	30	592790	Bottomkote Black	149.00	gal	14.8	#/gl	2,205.20	lbs	Other:VOC		x				20.0%	441.04	100%	441.04	0.22

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RF	Ac	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
15	30	592790	Bottomkote Black	149.00	gal	14.8	#/gl	2,205.20	lbs	Xylene	1330-20-7	x	x			5.0%	110.26	100%	110.26	0.06
15	30	592816	Paint, Bottom Red	2.00	gal	16.3	#/gl	32.60	lbs	Other:VOC		x				17.0%	5.54	100%	5.54	0.00
15	30	592816	Paint, Bottom Red	2.00	gal	16.3	#/gl	32.60	lbs	Xylene	1330-20-7	x	x			5.0%	1.63	100%	1.63	0.00
15	120	592899	Bottom Paint Thinner	48.00	gal	7.3	#/gl	350.40	lbs	Xylene	1330-20-7	x	x			100.0%	350.40	100%	350.40	0.18
25	100	604025	Solvent, Vinyl-Lux Primer Wash	12.00	gal	7.5	#/gl	90.00	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			13.0%	11.70	100%	11.70	0.01
25	100	604025	Solvent, Vinyl-Lux Primer Wash	12.00	gal	7.5	#/gl	90.00	lbs	Other VOC		x				69.0%	62.10	100%	62.10	0.03
15	30	612077	Epoxy Btm Coat w/Hardener 2000	18.00	gal	12.9	#/gl	232.20	lbs	Methylene Chloride	75-09-2		x			10.7%	24.78	100%	24.78	0.01
15	30	612077	Epoxy Btm Coat w/Hardener 2001	18.00	gal	7.3	#/gl	131.40	lbs	Other:VOC		x				48.3%	63.52	100%	63.52	0.03
15	30	612077	Epoxy Btm Coat w/Hardener 2001	18.00	gal	7.3	#/gl	131.40	lbs	Xylene	1330-20-7	x	x			38.0%	49.93	100%	49.93	0.02
15	30	612077	Epoxy Btm Coat w/Hardener 2000	18.00	gal	12.9	#/gl	232.20	lbs	Xylene	1330-20-7	x	x			7.7%	17.81	100%	17.81	0.01
15	30	612085	Epoxy, Btm Coat w/Hardener 1000/1	19.00	gal	8.1	#/gl	153.90	lbs	Other:VOC		x				35.5%	54.63	100%	54.63	0.03
15	30	612085	Epoxy, Btm Coat w/Hardener 1000/1	19.00	gal	8.1	#/gl	153.90	lbs	Phenol	108-95-2	x	x			12.5%	19.24	100%	19.24	0.01
10	190	619981	Alpha Atek 80602F					3,552,635.00	lbs	Styrene	100-42-5	x	x			35.0%	1,243,422.25	11%	136,776.45	68.39
175	15	645952	Cleaner, TFX	14.00	gal	8.21	#/gl	114.94	lbs	Other:VOC		x				8.4%	9.65	100%	9.65	0.00
175	15	645952	Cleaner, TFX	14.00	gal	8.21	#/gl	114.94	lbs	Xylene	1330-20-7	x	x			1.6%	1.84	100%	1.84	0.00
175	15	662437	Cleaner, Super Blue Resin	2,112.00	gal	8.8	#/gl	18,565.60	lbs	Dipropylene glycol methyl ether	34950-94-8	x	x			7.0%	1,300.99	100%	1,300.99	0.65
25	100	662445	Solvent, Super Flush S-280	6,006.00	gal	8.88	#/gl	53,333.28	lbs	Dipropylene Glycol Methyl Ether	34590-94-8	x	x			9.0%	4,800.00	100%	4,800.00	2.40
25	100	662445	Solvent, Super Flush S-280	6,006.00	gal	8.88	#/gl	53,333.28	lbs	Other VOC		x				90.9%	48,479.95	100%	48,479.95	24.24
10	190	666057	Hydropell A35					210,000.00	lbs	Styrene	100-42-5	x	x			35.0%	73,521.00	11%	8,087.31	4.04
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Other:VOC		x				43.5%	31.95	100%	31.95	0.02
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Propylene Glycol Monomethyl Ether	108-65-6	x	x			7.2%	5.29	100%	5.29	0.00
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Toluene	108-88-3	x	x			3.7%	2.72	100%	2.72	0.00
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Xylene	3330-20-7	x	x			1.4%	1.03	100%	1.03	0.00
15	10	667451	Additive, Activator Imron	12.00	qt	8.01	#/gl	24.03	lbs	Other:VOC		x				67.8%	16.29	100%	16.29	0.01
10	120	677732	Arctic White Gel Coat					483,374.00	lbs	Methyl Methacrylate	80-62-6	x	x			4.0%	19,334.96	48%	9,280.78	4.64
10	120	677732	Arctic White Gel Coat					483,374.00	lbs	Styrene	100-42-5	x	x			28.5%	137,848.60	48%	66,167.33	33.08
10	120	680751	Bilge Grey Gel Coat					55,260.00	lbs	Styrene	100-42-5	x	x			30.0%	16,587.00	48.0%	7,961.76	3.98
10	60	699553	Gel Patch, Slow Patchaid					168.00	lbs	Methyl Methacrylate	80-62-6	x	x			47.9%	80.47	100%	80.47	0.04
10	60	699553	Gel Patch, Slow Patchaid					168.00	lbs	Styrene	100-42-5	x	x			48.0%	80.64	100%	80.64	0.04
195	35	715581	Cpd Polishing Lackryl 5 gal	101.00	pl (5 gal)	11.68	#/gl	5,898.40	lbs	Other:VOC		x				2.4%	141.56	100%	141.56	0.07
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Acetone	67-64-1				x	27.0%	10.13	100%	10.13	0.01
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Butane	106-97-8	x	x			6.0%	2.25	100%	2.25	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Other:VOC		x				15.9%	5.96	100%	5.96	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Propane	74-98-6	x	x			14.0%	5.25	100%	5.25	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Toluene	108-88-3	x	x			10.0%	3.75	100%	3.75	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Xylene	1330-20-7	x	x			3.0%	1.13	100%	1.13	0.00
10	120	721126	Gelcoat, Zephyr Armorcote					18,773.00	lbs	Methyl Methacrylate	80-62-6	x	x			9.4%	1,768.42	48%	848.84	0.42
10	120	721126	Gelcoat, Zephyr Armorcote					18,773.00	lbs	Styrene	100-42-5	x	x			33.7%	6,320.87	48%	3,034.02	1.52
10	120	721548	Airless Tooling Gel Coat					1,296.00	lbs	Methyl Methacrylate	80-62-6	x	x			5.0%	64.80	54%	34.99	0.02
10	120	721548	Airless Tooling Gel Coat					1,296.00	lbs	Styrene	100-42-5	x	x			42.7%	553.52	54%	298.90	0.15
10	110	723080	Hvy Wt Bonding Putty					74,204.00	lbs	Styrene	100-42-5	x	x			15.0%	11,130.60	11.0%	1,224.37	0.61
25	160	761346	Poly vinyl Alcohol	74.00	gal	7.63	#/gl	564.62	lbs	Other:VOC		x				44.2%	249.56	100%	249.56	0.12
10	110	761643	Hvy Wt Bond Putty Low					90,540.00	lbs	Styrene	100-42-5	x	x			15.0%	13,581.00	11.0%	1,493.91	0.75

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RF	Ac	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
15	120	789719	Thinner, Dykem Blue	191.00	gal	6.88	#/gl	1,314.08	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			3.0%	39.42	100%	39.42	0.02
15	120	789719	Thinner, Dykem Blue	191.00	gal	6.88	#/gl	1,314.08	lbs	Other:VOC		x				97.0%	1,274.66	100%	1,274.66	0.64
25	100	790477	Isopropyl Acetate					24,480.00	lbs	Other:VOC		x				100.0%	24,480.00	100%	24,480.00	12.24
195	65	810820	Lubricant, Protecto-Flex	1,282.00	ea	15	oz	1,201.88	lbs	Other:VOC		x				50.0%	600.94	100%	600.94	0.30
25	110	813220	Sealant, Silicone Lt Gray Starbrite R	5.00	(10.3 fl o	8.68	#/gl	3.49	lbs	Other:VOC		x				5.0%	0.17	100%	0.17	0.00
15	20	825745	Paint, Acrylic Black Fast Drying	144.00	gal	8.345	#/gl	1,201.68	lbs	Other:VOC		x				6.1%	73.30	100%	73.30	0.04
25	100	846824	Thermaclean, Wipe-Brite					3,168.00	lbs	Dipropylene Glycol Methyl Ether	34590-94-8	x	x			7.5%	237.60	100%	237.60	0.12
25	100	846824	Thermaclean, Wipe-Brite					3,168.00	lbs	Dipropylene Glycol Monobutyl Ether	29911-28-2	x	x			3.0%	95.04	100%	95.04	0.05
25	100	846824	Thermaclean, Wipe-Brite					3,168.00	lbs	Other:VOC		x				78.2%	2,477.38	100%	2,477.38	1.24
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Acetone	67-64-1				x	27.5%	1.83	100%	1.83	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Other:VOC		x				7.5%	0.50	100%	0.50	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Other:VOC		x				17.5%	1.17	100%	1.17	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Propylene Glycol Monomethyl Ether Acetate	108-65-6	x	x			7.5%	0.50	100%	0.50	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Toluene	108-88-3	x	x			22.5%	1.50	100%	1.50	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Xylene	1330-20-7	x	x			17.5%	1.17	100%	1.17	0.00
10	30	863142	Adhesive, Glue Instabond	527.00	ea	1.75	oz	57.64	lbs	Other:VOC		x				86.0%	49.57	100%	49.57	0.02
10	30	863159	Adhesive, Primer 48	335.00	ea	1	oz	20.94	lbs	Hydroquinone	123-31-6	x	x			0.1%	0.02	100%	0.02	0.00
10	30	863159	Adhesive, Primer 48	335.00	ea	1	oz	20.94	lbs	Other:VOC		x				99.8%	20.90	100%	20.90	0.01
15	30	868885	Paint, Bottom Black (Aqua-Clean)	716.00	gal	19.9	#/gl	14,248.40	lbs	2-Butoxyethanol	111-76-2	x	x			2.9%	406.08	100%	406.08	0.20
15	30	868885	Paint, Bottom Black (Aqua-Clean)	716.00	gal	19.9	#/gl	14,248.40	lbs	Ethylene Glycol	107-21-1	x	x			2.9%	406.08	100%	406.08	0.20
15	70	868885	Paint, Primer Sandless	238.00	gal	7.8	#/gl	1,856.40	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			50.0%	928.20	100%	928.20	0.46
15	70	868885	Paint, Primer Sandless	238.00	gal	7.8	#/gl	1,856.40	lbs	Other:VOC		x				30.0%	556.92	100%	556.92	0.28
15	120	868901	Thinner, Blm Paint Brushing Dewaxer	64.00	gal	7.1	#/gl	454.40	lbs	Other:VOC		x				100.0%	454.40	100%	454.40	0.23
10	120	893420	Gelcoat, Black Backcoat					1,380.00	lbs	Styrene	100-42-5	x	x			32.0%	441.60	48%	211.97	0.11
10	120	894782	Gelcoat, Sandstone					1,920.00	lbs	Methyl Methacrylate	80-62-6	x	x			4.0%	76.80	48%	36.86	0.02
10	120	894782	Gelcoat, Sandstone					1,920.00	lbs	Styrene	100-42-5	x	x			24.0%	460.80	48%	221.18	0.11
10	120	894790	Gelcoat, Bone Backcoat					2,580.00	lbs	Styrene	100-42-5	x	x			32.0%	825.60	48%	396.29	0.20
10	110	896886	Gunk, Hwy Wt Bonding Putty Lg					56,654.00	lbs	Styrene	100-42-5	x	x			12.0%	6,798.48	11.0%	747.83	0.37
175	15	900381	Cleaner, Dishsoap	8.00	gal	8.6	#/gl	68.80	lbs	Other:VOC		x				1.4%	0.96	100%	0.96	0.00
25	110	911859	Sealant, Silicone Clear (Corian)	170.00	ea	1.5	oz	15.94	lbs	Other:VOC		x				5.0%	0.80	100%	0.80	0.00
25	110	918706	Sealant, Joint Compound Bone/Bisc	302.00	ea	1.5	oz	26.31	lbs	Other:VOC		x				40.0%	11.33	100%	11.33	0.01
15	80	945980	Primer, Beataseal #43518	55.00	30 cc btl	6.9	#/gl	3.01	lbs	Methyl Alcohol	67-56-1	x	x			47.5%	1.43	100%	1.43	0.00
15	80	945980	Primer, Beataseal #43518	55.00	30 cc btl	6.9	#/gl	3.01	lbs	Toluene	108-88-3	x	x			52.5%	1.58	100%	1.58	0.00
15	80	945998	Primer, Beataseal #43520	84.00	30 cc btl	8.2	#/gl	5.46	lbs	Methyl Ethyl Ketone	78-93-3	x	x			40.0%	2.18	100%	2.18	0.00
15	80	945998	Primer, Beataseal #43520	84.00	30 cc btl	8.2	#/gl	5.46	lbs	Other:VOC						8.7%	0.47	100%	0.47	0.00
15	80	945998	Primer, Beataseal #43520	84.00	30 cc btl	8.2	#/gl	5.46	lbs	Toluene	108-88-3	x	x			10.0%	0.55	100%	0.55	0.00
15	80	946004	Primer, Beataseal #43532	85.00	30 cc btl	8.5	#/gl	5.73	lbs	Acetone	67-64-1				x	15.0%	0.86	100%	0.86	0.00
15	80	946004	Primer, Beataseal #43532	85.00	30 cc btl	8.5	#/gl	5.73	lbs	MDI	101-68-8	x	x			3.9%	0.22	na	negl	0.00
15	80	946004	Primer, Beataseal #43532	85.00	30 cc btl	8.5	#/gl	5.73	lbs	Methyl Ethyl Ketone	78-93-3	x	x			45.0%	2.58	100%	2.58	0.00
10	30	946012	Adhesive, Beatseal #58702	223.00	10.5 fl oz	9.93	#/gl	181.65	lbs	MDI	101-68-8	x	x			1.0%	1.82	na	negl	0.00
10	30	946012	Adhesive, Beatseal #58702	223.00	10.5 fl oz	9.93	#/gl	181.65	lbs	Toluene	108-88-3	x	x			5.0%	9.08	100%	9.08	0.00
10	120	946327	Gelcoat, Black					648.00	lbs	Methyl Methacrylate	80-62-6	x	x			3.0%	19.44	51%	9.91	0.00

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RFS	Ace	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
10	70	946327	Gelcoat, Black					648.00	lbs	Styrene	100-42-5	x	x			37.7%	244.42	51%	124.65	0.06
15	60	983130	Paint, Latex Cream Touch-Up Btl w/	36.00	ea	0.6	oz	1.35	lbs	Other:VOC		x				27.6%	0.37	100%	0.37	0.00
15	60	983130	Paint, Latex Cream Touch-Up Btl w/	36.00	ea	0.6	oz	1.35	lbs	Xylene	1330-20-7	x	x			30.0%	0.41	100%	0.41	0.00
10	120	987792	Gelcoat, Aurora (Granicoat)					15,780.00	lbs	Methyl Methacrylate	80-62-6	x	x			4.0%	631.20	48%	302.98	0.15
10	120	987792	Gelcoat, Aurora (Granicoat)					15,780.00	lbs	Styrene	100-42-5	x	x			24.0%	3,787.20	48%	1,817.86	0.91
10	120	992677	Gelcoat, Burnt Amber (Granicoat)					900.00	lbs	Methyl Methacrylate	80-62-6	x	x			4.0%	36.00	48%	17.28	0.01
10	120	992677	Gelcoat, Burnt Amber (Granicoat)					900.00	lbs	Styrene	100-42-5	x	x			24.0%	216.00	48%	103.68	0.05
10	120	992685	Gelcoat, Oceanic (Granicoat)					300.00	lbs	Methyl Methacrylate	80-62-6	x	x			4.0%	12.00	48%	5.76	0.00
10	120	992685	Gelcoat, Oceanic (Granicoat)					300.00	lbs	Styrene	100-42-5	x	x			24.0%	72.00	48%	34.56	0.02
10	120	1003250	Gelcoat, Tan Backcoat					300.00	lbs	Styrene	100-42-5	x	x			32.0%	96.00	48%	46.08	0.02
175	15	1004217	Cleaner, PVC Klean-N-Prime	26.00	ea	0.88	oz	1.43	lbs	Acetone	67-64-1			x		77.5%	1.11	100%	1.11	0.00
175	15	1004217	Cleaner, PVC Klean-N-Prime	26.00	ea	0.88	oz	1.43	lbs	Isobutane	75-28-5	x	x			22.5%	0.32	100%	0.32	0.00
25	110	1019231	Sealant, Pipe (PST)	26.00	ea (10 ml)	9.18	#/gl	0.63	lbs	Other:VOC		x				13.3%	0.08	100%	0.08	0.00
25	110	1081694	Sealant, Silicone Cream Starbrite RT	133.00	(10.3 fl o	8.68	#/gl	92.90	lbs	Other:VOC		x				5.0%	4.64	100%	4.64	0.00
15	80	1084912	Paint, Spray Royal Blue "Great Day"	43.00	ea	11.5	oz	30.91	lbs	Acetone	67-64-1			x		32.9%	9.89	100%	9.89	0.00
15	80	1084912	Paint, Spray Royal Blue "Great Day"	43.00	ea	11.5	oz	30.91	lbs	Ethylbenzene	100-41-4	x	x			4.0%	1.24	100%	1.24	0.00
15	80	1084912	Paint, Spray Royal Blue "Great Day"	43.00	ea	11.5	oz	30.91	lbs	Other:VOC		x				27.2%	8.42	100%	8.42	0.00
15	80	1084912	Paint, Spray Royal Blue "Great Day"	43.00	ea	11.5	oz	30.91	lbs	Xylene	1330-20-7	x	x			21.0%	6.49	100%	6.49	0.00
15	110	1084920	Stain, Maple Wiping	4.00	gal	6.76	#/gl	27.04	lbs	Other:VOC		x				77.9%	21.06	100%	21.06	0.01
15	110	1084920	Stain, Maple Wiping	4.00	gal	6.76	#/gl	27.04	lbs	Toluene	108-88-3	x	x			3.0%	0.81	100%	0.81	0.00
25	110	1096072	Sealant, Silicone Zephyr RTV	484.00	(10.3 fl o	8.68	#/gl	338.06	lbs	Other:VOC		x				5.0%	16.90	100%	16.90	0.01
25	30	1104843	Alcohol, Denatured	872.00	gal	6.72	#/gl	5,859.84	lbs	Methyl Alcohol	67-56-1	x	x			16.04%	939.92	100%	939.92	0.47
25	30	1104843	Alcohol, Denatured	872.00	gal	6.72	#/gl	5,859.84	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			1.00%	58.60	100%	58.60	0.03
25	30	1104843	Alcohol, Denatured	872.00	gal	6.72	#/gl	5,859.84	lbs	Other:VOC		x				82.96%	4,861.32	100%	4,861.32	2.43
195	35	1105485	Wax, Gruber Care X-Wax Soft	26.00	bx (2.5 gal	7.93	#/gl	515.45	lbs	Other:VOC		x				15.0%	77.32	100%	77.32	0.04
10	35	1129691	Coating, Strippable Wht	158.00	gal	7.68	#/gl	1,213.44	lbs	Acetone	67-64-1			x		24.0%	291.23	100%	291.23	0.15
10	35	1129691	Coating, Strippable Wht	158.00	gal	7.68	#/gl	1,213.44	lbs	Methyl Ethyl Ketone	78-93-3	x	x			10.0%	121.34	100%	121.34	0.06
10	35	1129691	Coating, Strippable Wht	158.00	gal	7.68	#/gl	1,213.44	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			10.0%	121.34	100%	121.34	0.06
10	35	1129691	Coating, Strippable Wht	158.00	gal	7.68	#/gl	1,213.44	lbs	Other:VOC		x				22.0%	266.96	100%	266.96	0.13
10	35	1129691	Coating, Strippable Wht	158.00	gal	7.68	#/gl	1,213.44	lbs	Toluene	108-88-3	x	x			4.0%	48.54	100%	48.54	0.02
25	100	1151528	Safety Clean Solvent	330.00	gal	6.65	#/gl	2,194.50	lbs	Other:VOC		x				100.0%	2,194.50	100%	2,194.50	1.10
10	30	1209303	Adhesive, Spray Whisper	714.00	gal	9.89	#/gl	7,061.46	lbs	Other:VOC		x				70.0%	4,943.02	100%	4,943.02	2.47
10	190	1226638	Resin, Hydropell A-35					23,220.00	lbs	Styrene	100-42-5	x	x			35.0%	8,127.00	11%	893.97	0.45
10	110	1235316	Gunk, Lt Wt Bonding Putty LV					51,840.00	lbs	Styrene	100-42-6	x	x			16.0%	8,294.40	11.0%	912.38	0.46
10	110	1235324	Gunk, Lt Wt Bonding Putty LG					48,000.00	lbs	Styrene	100-42-7	x	x			16.0%	7,680.00	11.0%	844.80	0.42
TOTAL																			435,274.10	217.64
Subtotals																				
Total VOC Compounds (VOC)																			422,181.12	211.09
Total Hazardous Air Pollutants (HAPs)																			297,433.50	148.72
Total Acetone																			13,092.98	6.55
Total Regulated and Toxic Substances (RFS)																			6,875.76	3.44

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.1 The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "Permit Conditions" and are binding and enforceable pursuant to Sections 403.161, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.
- G.2 This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings or exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.
- G.3 As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.
- G.4 This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.
- G.5 This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.
- G.6 The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit, as required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.
- G.7 The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at a reasonable time, access to the premises, where the permitted activity is located or conducted to:
- a) Have access to and copy and records that must be kept under the conditions of the permit;
 - b) Inspect the facility, equipment, practices, or operations regulated or required under this permit, and,
 - c) Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

- G.8 If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:
- a) A description of and cause of non-compliance; and
 - b) The period of noncompliance, including dates and times; or, if not corrected, the anticipated time the non-compliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the non-compliance.

The permittee shall be responsible for any and all damages which may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

APPENDIX GC
GENERAL PERMIT CONDITIONS [F.A.C. 62-4.160]

- G.9 In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is prescribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with the Florida Rules of Civil Procedure and appropriate evidentiary rules.
- G.10 The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided, however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.
- G.11 This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, F.A.C., as applicable. The permittee shall be liable for any non-compliance of the permitted activity until the transfer is approved by the Department.
- G.12 This permit or a copy thereof shall be kept at the work site of the permitted activity.
- G.13 This permit also constitutes:
- a) Determination of Best Available Control Technology (X)
 - b) Determination of Case-by-Case Maximum Achievable Control Technology (X)
 - c) Determination of Prevention of Significant Deterioration (X); and
 - d) Compliance with New Source Performance Standards (X).
- G.14 The permittee shall comply with the following:
- a) Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.
 - b) The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application or this permit. These materials shall be retained at least three years from the date of the sample, measurement, report, or application unless otherwise specified by Department rule.
 - c) Records of monitoring information shall include:
 - 1. The date, exact place, and time of sampling or measurements;
 - 2. The person responsible for performing the sampling or measurements;
 - 3. The dates analyses were performed;
 - 4. The person responsible for performing the analyses;
 - 5. The analytical techniques or methods used; and
 - 6. The results of such analyses.
- G.15 When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware that relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.