Permit File Scanning Request from ___**Cindy Phillips**_____

Priority: ☐-ASAP (Public Records Request, etc.) ☒-Place in Normal Scanning Queue

Facility ID	Project#/PATS#	Type	PSD #	Submittal Date	Batch #
0090093	003	AC	274		

☒ File Approved For Disposal ☐ Correspondence ☒ Intent ☐ Permit ☐ Draft (Title V)

☐ Return File to BAR ☐ Amendment ☐ Application ☐ OGC ☐ Proposed (Title V)

Document Date 10-6-99

Department of
Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

October 6, 1999

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.

(Clerk) 10-7-99 (Date)

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.

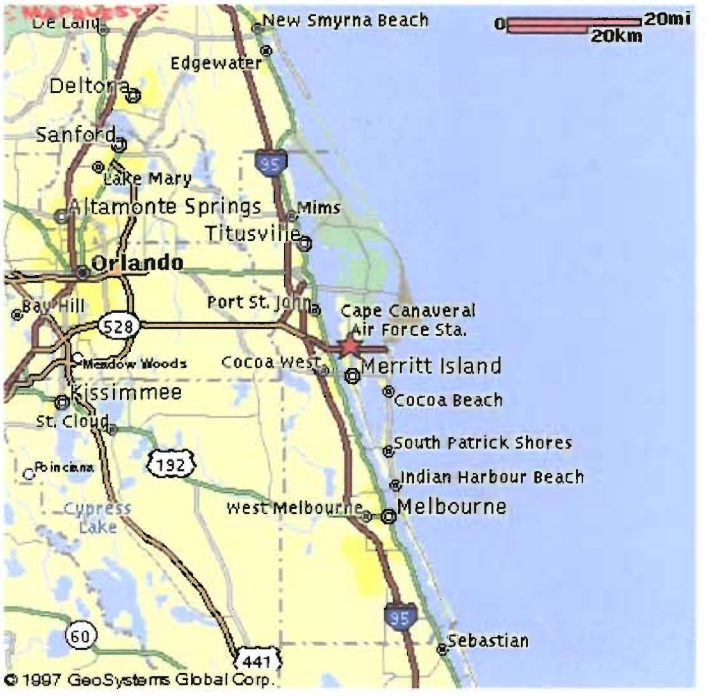

Figure 1. Location of Sea Ray Merritt Island Facility

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 (down-loaded 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.

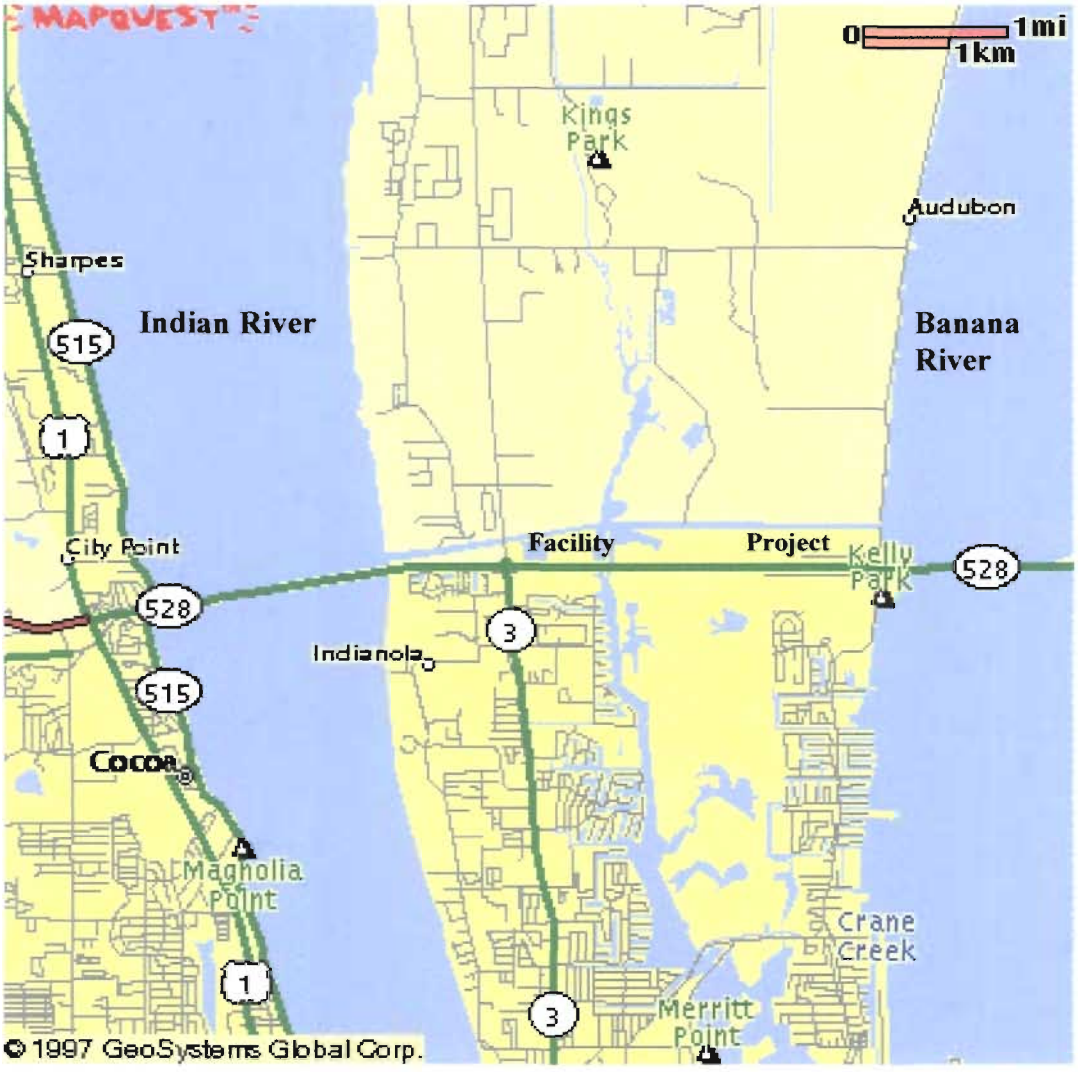

Figure 3. Relative Location of Project to Existing Facility

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).

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

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

(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-feet 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

- 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

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 11[9], 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.

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

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.

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 11[15]. 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

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

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

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.]

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 if 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.

(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.]

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.]

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.]

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:

$$PR\ avg = \frac{(HAPa)\ WTa + (HAPb)\ WTb + \ldots + (HAPi)\ WTi}{WTa + WTb + \ldots + WTi} \times 100$$

Where,

PR avg = The 3-month weighted average, expressed as a percentage, for the production resins component;

HAPi = The weight percentage of total HAP (expressed as a decimal fraction) in material i; and

WTi = 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]

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.]

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/PM_{10} 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.

- 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.

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 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:

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 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.

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

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

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.

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.

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.

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

	Cost Estimate $ / ton of VOC Removed	
CONTROL OPTION	**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
PADRETM 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.

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

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 x 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%

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

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

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

lamination working area as a spray booth using the 50 cfm/ft^2 spray booth ventilation factor (250 ft long x 30 ft high x 50 cfm/ft^2).

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/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/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.

MACT DETERMINATION:

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).

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;

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.

BACT DETERMINATION:

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 possibilites 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

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 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.

BACT/MACT DETERMINATION

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

Cindy L. Phillips, P.E. (MACT)
Air Toxics/Title III Section
2600 Blair Stone Road, MS #5505
Tallahassee, Florida 32399-2400
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John Reynolds (BACT) or A.A, Linero, P.E.
New Source Review Section
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Tallahassee, Florida 32399-2400
850/921-9536, 921-9523

Recommended By:

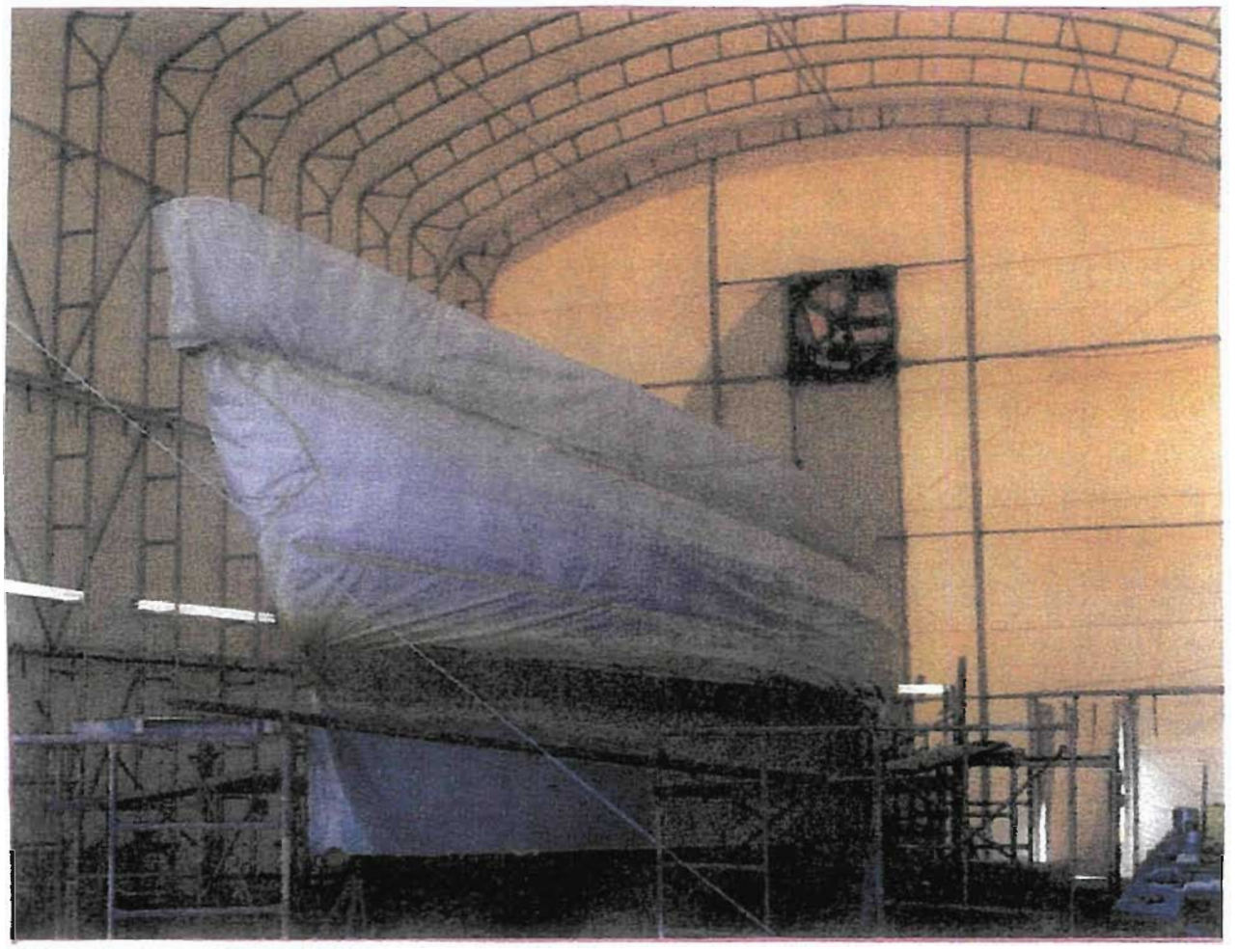
C. H. Fancy, P.E., Chief
Bureau of Air Regulation

Date:

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

Date:



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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.

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Photograph of Spray Booth Enclosure for Large Boats, provided by Big Top Manufacturing, September, 1999.

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.

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.

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 #	VOC	HAP	RFS	Ace	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
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	Bilge 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			37.2%	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	0.09
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	[illegible]	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)	4,430.00	can	11	oz	3,045.63	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				x	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)	Emis 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				2.96%	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
95	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
95	65	191734	Silicone Spray Lubricant	2,668.00	can	24	oz	4,002.00	lbs	Other:VOC		x				80.0%	3201.60	100%	3,201.60	1.60
75	15	191742	Cleaner, Glass	125.00	btl	20	oz	156.25	lbs	2-Butoxyethanol	111-76-2	x	x			5.7%	8.95	100%	8.95	0.00
75	15	191742	Cleaner, Glass Spartan	125.00	btl	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		16.0%	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	108-65-6	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
95	35	192864	Super Polyglaze	86.00	cn (2 qt)	7.92	#/gl	340.56	lbs	Other:VOC		x				65.0%	221.36	100%	221.36	0.11
95	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
75	15	192898	Bilge Cleaner	2.00	ea	16	oz	2.00	lbs	Other:VOC		x				1.0%	0.02	100%	0.02	0.00
75	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
95	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
95	35	194282	Compound, Polishing Dixtler	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	7.16	#/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%	2294.75	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	RFS	Ace	% 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	8.72	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		15.2%	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%	296.44	48%	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	8.7	222.87	lbs	Other:VOC		x				5.2%	11.59	100%	11.59	0.01
195	35	353482	Compound, Polishing Finesse It 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 It 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 It 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				x	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	556944	Antique White Gel					37,055.00	lbs	Methyl Methacrylate	80-62-6	x	x			3.0%	1,111.65	48%	533.59	0.27
10	120	556944	Antique White Gel					37,055.00	lbs	Styrene	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	11.0%	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	RFS	Ace	% 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 Altek 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	18,585.60	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					210,060.00	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					55,290.00	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 gl)	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

SC	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
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		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	868893	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, Btm Paint Brushing Dewaxe	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, Hvy 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/Bisq	302.00	ea	1.5	oz	28.31	lbs	Other:VOC		x				40.0%	11.33	100%	11.33	0.01
15	80	945980	Primer, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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	20	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	32.0%	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	1151588	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.

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 extend 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 Achieveable 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.

Permit File Scanning Request from ___**Cindy Phillips**_____

Priority: ☐-ASAP (Public Records Request, etc.) ☒-Place in Normal Scanning Queue

Facility ID	Project#/PATS#	Type	PSD #	Submittal Date	Batch #
0090093	003	AC	27f		

☒ File Approved For Disposal ☐ Correspondence ☐ Intent ☒ Permit ☐ Draft (Title V)

☐ Return File to BAR ☐ Amendment ☐ Application ☐ OGC ☐ Proposed (Title V)

Document Date 5-11-00

STATE OF FLORIDA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
NOTICE OF FINAL PERMIT

In the Matter of an
Application for Permit

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

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

Enclosed is Final Permit Number PSD-FL-274 to construct a new fiberglass boat manufacturing plant located at 1200 Sea Ray Drive, Merritt Island, Brevard County, Florida. This permit is issued pursuant to Chapter 403, Florida Statutes (F.S.).

Any party to this order (permit) has the right to seek judicial review of the permit pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure, with the Clerk of the Department in the Legal Office; and, by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 (thirty) days from the date this Notice is filed with the Clerk of the Department.

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 NOTICE OF FINAL PERMIT (including the FINAL permit) was sent by certified mail (*) and copies were mailed by U.S. Mail before the close of business on 5-11-00 to the person(s) listed or as otherwise noted:

Mr. Dennis Wilson, Sea Ray Boats, Inc.*
Mr. Kevin Thompson, Sea Ray Boats, Inc.
Mr. Clarence Rowe
Mr. Lewis A. Bowman
Mr. Isam Yunis
Mr. Len Kozlov, DEP CD
Mr. Gregg Worley, U.S. EPA, Region 4
Mr John Bunyak, NPS
Chairman, Brevard County BCC
Ms. Leesa Souto, Brevard County ONRM
Mr. Pete Cantelou, P.E., CHP, Inc.
Ms. Angela Morrison, Esq., HGSS

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Kim Taber 5-11-00
(Clerk) (Date)

FINAL DETERMINATION
SEA RAY BOATS, INC.
Merritt Island Facility
Cape Canaveral Plant
Permit No. 0090093-003-AC
PSD-FL-274

An Intent to Issue Air Construction Permit to Sea Ray Boats, Inc. for the construction of a fiberglass boat manufacturing plant in Cape Canaveral, Brevard County, Florida was distributed on October 7, 1999. The proposed permit covered the construction of a new plant to expand the applicant's Merritt Island facility by adding production capability for larger boats. The proposed Cape Canaveral plant is designed to produce approximately 80 boats per year in the sixty-five to seventy foot range and will be a major source of emissions of Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP) including styrene. This chemical is used in the lamination process and its emissions are a source of public concern regarding its objectionable odor as well as its potential adverse health effects from ambient exposure levels in nearby neighborhoods.

The Public Notice of Intent to Issue Air Construction Permit was published by the Department in the Florida Today newspaper on October 31, 1999. Copies of the draft construction permit and related documents were available for public inspection at the Department's offices in Tallahassee and Orlando and at the Brevard County Office of Natural Resource Management in Viera.

During the Department's public meeting on November 17, 1999 in Viera, and during the 30-day public comment period ending on November 30, many comments were received from the public opposing the issuance of the permit. Commenters requested that the permit be denied, or in the alternative, that the plant be required to have full emission controls at startup rather than the Department's proposed pilot-scale controls initially followed by total controls installed within a three year period after startup (if economically and technologically feasible).

In addition to the many comments from the public, comments were also received from the National Park Service, the U.S. Environmental Protection Agency, Eastern Research Group, Inc., the National Marine Manufacturers Association, and the applicant. All of these comments are addressed below:

Public's Comments: (Due to their large number, these comments have been summarized and grouped by issues)

Issue: Permit Denial vs. Issuance

Commenters stated that the permit should be denied on the basis of the Department's existing rule prohibiting the discharge of air pollutants that cause or contribute to an objectionable odor (Rule 62-296.320(2), F.A.C.). Following the issuance on October 7, 1999 of an Intent to Issue the proposed permit, Department staff were heading east on Sea Ray Drive just off of SR 528 preparing to visit the site of Sea Ray's new construction on November 17, 1999 when each of them became highly aware of the odor of styrene that penetrated the automobile. Since there are no other styrene emitters in that area, the styrene was believed to have come from the existing Merritt Island facility operated by the applicant. Thus, the odor problem the public complains of was witnessed first-hand and documented by the Department. The severity of the odor situation had not been made known to the department prior to issuing the Intent to Issue.

Response:

As a result of the large number of public complaints and comments, the Department has revised its permitting approach. Instead of viewing the odor problem and the HAP emissions (styrene) as concomitant problems to be addressed in the pilot program, the Department will require that Sea Ray take measures

initially that will prevent objectionable odors going beyond its property line. The basis for this change is Rule 62-296.320(2), Florida Administrative Code. Pursuant to this rule, permit conditions have been added that will make continued operation of Sea Ray's new plant contingent upon the avoidance of objectionable odors being experienced in the local neighborhoods. The originally-proposed pilot-scale program for capturing and destroying styrene vapors will also be required allowing Sea Ray to have a period of between two and three years to demonstrate the feasibility of controls on a small scale before implementing them at full-scale (if economically and technologically feasible). The rationale for the change in approach is that odor controls can be required independently from the Department's Determination of Best Available Control Technology made pursuant to the federal Prevention of Significant Deterioration regulations (40CFR52.21) and the corresponding state regulations (Rule 62-212.400, F.A.C.). Those regulations require that cost effectiveness be considered in the determination of Best Available Control Technology.

Many commenters requested that the permit be denied outright. By law, as long as all requirements of the Department's rules and permit conditions are met and the applicant has not indicated by past or present actions that it will not abide by said rules and permit conditions, the Department must issue the permit. One of the aforesaid requirements is that the applicant must provide the Department with reasonable assurance that it can and will comply with all conditions of the final permit. Although the applicant has not provided such reasonable assurance totally on its own, the Department, through its own research, now has reasonable assurance that styrene air concentrations will be reduced to acceptable levels in the areas surrounding the new plant site. The Department's reasonable assurance is based, in part, on the combination of modifications to the building ventilation system (negative pressure-no air outflow) and exhaust stack design (single stack-high velocity discharge for greater dispersion).

Issue: Sea Ray's Pre-Permit Construction Activities

Several commenters questioned whether Sea Ray should have been allowed to begin construction of buildings at the Cape Canaveral site prior to obtaining a construction permit from the Department.

Response:

This issue was explained at the public hearing by the Department's Central District Office staff. Essentially, upon learning of the construction, the Central District Office told Sea Ray that it should not construct any facilities that could be used to generate emissions of air pollutants. Sea Ray replied that the construction going on involved only an office building and a warehouse. Sea Ray was then authorized to complete the construction of the office and warehouse buildings but to cease all other construction activities. The PSD rules do allow certain pre-construction activities such as clearing of the site prior to obtaining a PSD permit, but construction of facilities that enable an owner or operator to generate emissions of air pollutants may not be commenced until the permit is obtained. Construction of such facilities at Sea Ray's new site has been stopped and will not be allowed to resume until the permit has been issued. Therefore, this issue has been resolved.

Issue: Appropriateness of the original BACT Determination

Several commenters raised the issue of whether full controls should be required initially. They suggested that the pilot plant approach would endanger the health of nearby residents by prolonging the timetable for installation of full-scale air pollution controls. Their concern arises from the status of styrene as both an EPA-listed hazardous air pollutant and a "potential carcinogen" as classified by the International Agency for Research on Cancer. Some commenters also stressed concern about possible genotoxic effects of styrene exposure, citing studies reported in the medical literature.

Response:

The Department is aware that a number of medical studies have concluded that styrene can and does cause mutagenic and other damage to humans as a result of varying levels of occupational exposure. These effects reportedly can result from exposure levels as low as 18 PPM in the workplace. However, the exposure levels that will be incurred by nearby residents will be far lower, in all likelihood as low as a few parts per billion (ppb). Although this is a very low level of exposure, unfortunately there is no conclusive

evidence to indicate what level of ambient exposure might be harmful to nearby residents. The U.S. Environmental Protection Agency has established an air Reference Concentration (RfC) for styrene that is intended to indicate concentration levels at which no adverse health effects are known or suspected to occur in humans. For styrene, this level is 1,000 micrograms per cubic meter (approximately 235 ppb). Air pollution dispersion models indicate that, under the revised permit conditions, ambient concentrations of styrene from the proposed Cape Canaveral Plant should be less than the styrene odor detection threshold at Sea Ray's property line as a worst case estimate.

Eastern Research Group's comments:

Issue: Appropriateness of comparing Sea Ray's new plant with Bombardier

The Eastern Research Group, Inc., (ERG) submitted its comments to the EPA instead of the Department but they will be addressed since the EPA forwarded them to the Department. The ERG pointed out that EPA's revised MACT model point value equations are based on more current data than the original point value table that the Department used in its BACT determination and therefore should be used for comparing the Bombardier facility with Sea Ray's new plant. However, after applying the revised values, the ERG found that the Department's conclusion about Bombardier's plant being "best controlled" is still valid, with the existing line having a point value of 242 lb/ton and the new line achieving 36 lb/ton. Combining these separate line values results in a facility value of 88 lb/ton compared to the existing source MACT floor value of 91 lb/ton. Yet, the ERG stated that since the performance of Bombardier's control device had not been confirmed as of the date of EPA's MACT proposal, the EPA removed the Bombardier facility from its MACT analysis.

Response:

Whereas the EPA grouped the existing uncontrolled line at Bombardier's plant into its MACT analysis, resulting in a higher "facility" emission factor, the Department's approach was based on comparing "new source MACT" with BACT for a new facility. The Department believes that to include Bombardier's existing line in an evaluation of new source control technology is "mixing apples and oranges" and creates the false notion that a BACT determination should not consider the control technology employed in Bombardier's facility.

National Marine Manufacturers Association's (NMMA) comments:

Issue: Concern about this BACT affecting future boat building BACT/MACT Determinations

The boat manufacturers association expressed concern about the Sea Ray BACT/MACT determination setting a 'BACT floor' for other boat builders. It took issue with the Department's reference to the Bombardier plant in Benton, Illinois as a 'best controlled plant' that could be used as a basis for requiring controls for Sea Ray's plant. NMMA's argument is essentially that since Sea Ray makes boats that are three times longer with deeper hulls than those built by Bombardier, it is therefore improper to assume that extrapolations can be made about emission control equipment for the two facilities. NMMA attempts to bolster this argument by pointing out the differences in processing techniques such as use of robotic resin application equipment, intermittent incineration requirements, and the unique tunnel enclosure design used at the Bombardier facility.

Response:

The Department stated in its BACT determination that the aforementioned differences are not sufficient to rule out a similar capture and control system at Sea Ray. This is still the case after reviewing comments by Sea Ray and the NMMA. Clearly, no evidence has been presented to show that a control system similar to Bombardier's cannot be installed in Sea Ray's plant in a cost-effective manner. In fact, the cost estimates reviewed by the Department indicate that such a control system would be cost-effective.

Issue: Whether commonly available enclosures designed for paint spray operations can be effectively applied for styrene capture in boat manufacturing

The NMMA objected to the idea that a commonly-used paint spray booth enclosure could be applied in conjunction with a control device for capturing and destroying styrene emissions from the boat lamination process. The NMMA stated that this a "technically irrelevant" discussion, evidently for the reason that the enclosure illustrated in the BACT determination was actually capturing paint emissions rather than styrene.

Response:

The Department's discussion of the paint spray booth enclosure depicted in the BACT determination clearly explains that it is used for paint spraying operations but that it can be easily adapted for the boat lamination process and mounted on wheels if necessary. Therefore, the NMMA's comment about paint booths not being applicable misses the point of the BACT discussion which is that paint spraying enclosures could be easily adapted for boat lamination processing.

Issue: Whether incineration would be effective at concentrations well below the flammability limit

The NMMA stated, "...the problem with incinerating styrene is achieving a high enough concentration so that it will burn. The lower flammability limit for styrene is 11,000 PPM. ...When ventilating the work area to achieve the levels necessary to meet the worker exposure limits, the vapor concentration levels passing through the plenum of the incinerator would be less than 1% of the lower flammability limit. To operate an efficient incinerator system requires much higher concentrations. ... ".

Response:

The NMMA's discussion of styrene concentrations being below flammability limits (and therefore too low to properly incinerate) is misplaced from an engineering standpoint because this is not a case where styrene is being burned as a fuel. Rather, the process of incineration involves the thermal destruction of an organic substance, which does not depend upon flammability limits. Lower flammability limits refer to the concentration below which a combustible component in a gaseous mixture such as air will not support combustion to the extent that flame is self-propagating through it. Likewise, an upper flammability limit or concentration exists above which combustion would not be self-propagating. Simply stated, this means that there are lean and rich boundary limiting compositions beyond which flame will not propagate. These limits for styrene are 0.9 to 6.8% by volume, respectively. However, flame propagation is not required for thermal destruction mechanisms that occur in an oxidizer. Thermal destruction occurs as a result of the high temperatures to which organic substances are exposed for the required time and the resulting breakdown of molecular bonds such that the hydrocarbon is directly oxidized. Hydrocarbons ordinarily will oxidize beginning at 1100 - 1200°F, forming relatively high amounts of CO, while reaching ideal conversions to CO_2 at around 1350 – 1400°F. Catalytic oxidizers accomplish destruction through the use of catalysts that lower the activation energy necessary for the molecules to react.

Where flammability limits do enter the picture in choosing a VOC control system (thermal vs. catalytic oxidizer or other technology) is in the area of operating costs for auxiliary fuel. Generally, if the VOC concentration is greater than the upper explosive limit, incineration is definitely not appropriate and carbon adsorption may be the proper choice. If the VOC concentration is above 50% of the mixture's lower explosive limit (LEL), safety considerations generally dictate that technologies other than incineration be considered. If the concentration is less than 50% of the LEL, incineration is appropriate. However, where very low concentrations exist, as here, auxiliary fuel must be supplied for either thermal or catalytic incineration. Thus, the primary consideration in incinerating very low concentrations of VOCs is whether the fuel cost can be justified on the basis of accepted ranges for cost effectiveness (dollars per ton removed). In the case of styrene abatement, tests on a commercially available rotary concentrator installed in a plastics plant have demonstrated that styrene can be efficiently recovered from ventilated work areas at concentrations below 50 PPM and elevated to practical incineration levels for cost effective destruction in a regenerative thermal oxidizer.

Sea Ray's comments:

Issue: What Sea Ray proposes to do in response to the public's comments

Following the public meeting and receipt of public comments, Sea Ray met with the Department and proposed a revised design of the lamination building exhaust system. The revised design will involve maintaining a negative pressure at all times in the lamination building. Also, the various rooftop emission points will be combined into a single discharge stack while injecting additional air at the base of the common stack so that a minimum stack velocity of 70 feet per second is maintained at all times while the lamination process is in operation. According to air dispersion modeling calculations, this stack velocity, combined with increasing the stack height by five feet, will effectively cause dissipation of the styrene component to levels below the styrene odor threshold in the areas surrounding the new plant. Sea Ray further proposed masking of the odor by injecting chemical substances into the stack discharge air that will overcome the distinctive odor of styrene.

Sea Ray also submitted a document that assesses the health risk of ambient exposure to styrene in the vicinity of Sea Ray's proposed plant. The report concludes:

> "In response to concerns that have been expressed regarding the potential health risks that may be associated with air emissions of styrene from the proposed Cape Canaveral plant of Sea Ray Boats, Inc., modeling and risk evaluation activities have been conducted. Long and shorter term projected air concentrations are in the range where some odor may be detectable from time to time at or beyond the property boundary. However, in all instances the projected styrene air concentrations are well below those which would cause any health effects to local residents, including potentially more sensitive individuals."

The report also stated:

> "The projected average and maximum annual average air concentrations at the property boundary and at the nearest residential property boundary ranges from 61.5 to 73 ppb (average of 65.7 ppb). These values for the residential property are in the range of those reported for odor thresholds of 10-150 ppb, but are on the low end of the detectable range based on most reported studies. These predicted concentrations at the closest residential property boundary may explain why some complaints of odor in the vicinity of the Sea Ray plant have occurred in the past. However, as discussed in Section III of this report, the annual average values are all at least 65 times lower than the reference concentration of 235 ppb established by the U.S. EPA as the concentration that is likely to be without an appreciable risk of deleterious effects during a life time of exposure. Thus, while odor may be detected from time to time, this does not mean that a health risk is associated with those odors. Sea Ray has operated in their present location in the Merritt Island community for over 27 years. While odor complaints have occasionally been received, they are irregular short-term events generally related to specific weather conditions. The low level at which styrene can be detected by odor is much less than the level associated with any health effects. Therefore, this information suggests that the air modeling data are a reasonable representation of conditions at and near the plant site."

Response:

The Department evaluated Sea Ray's proposed design revision and their air dispersion modeling results. In addition, the Department consulted EPA's Reference Guide to Odor Thresholds for Hazardous Air Pollutants Listed in the Clean Air Act Amendments of 1990, EPA/600/R-92/047. The best available EPA-peer reviewed and -approved information on odor thresholds for styrene are contained in this document. Two types of odor thresholds are evaluated in this document: the *detection* threshold and the *recognition* threshold. The *detection* threshold is the lowest concentration of odorant that will elicit an

olfactory response without reference to odor quality in a specified percentage of a given population. The *recognition* threshold is defined as the minimum concentration that is recognized as having a characteristic odor quality by a specific percentage (usually 50%) of the population. The difference in concentration between detection and recognition thresholds can vary from approximately two to ten times. In the case of styrene, the EPA-accepted detection threshold value is 73 ug/m^3 (17 ppb) and the recognition threshold value is 640 ug/m^3 (150 ppb). Sea Ray compared their modeling results to the odor recognition threshold value of 640 ug/m^3. In order to provide further assurance that the public's objectionable odor concerns have been adequately addressed, the Department did additional modeling, which included varying stack heights and stack velocities in order to arrive at an optimum combination of stack parameters that would result in the lowest reasonably achievable predicted styrene impacts. The Department compared its modeling results to the lower detection threshold value of 73 ug/m^3. This modeling showed maximum predicted 1-hour impacts of about 100 ug/m^3 with a 75-ft stack and a 70 ft/sec exhaust stack velocity. The 75-ft stack and 70 ft/sec stack exhaust velocity will be the permitted values. If a variance from the zoning ordinance necessary for a 75-ft stack is not received from Brevard County, then ambient concentrations of styrene may be greater and the styrene odors may be detectable under certain atmospheric conditions. Based on these stack parameters the dilution is down near the detection level and is six times below the recognition threshold level. In addition, the Department did modeling to evaluate the predicted percentage of time that styrene emission impacts would be above the detection threshold, both in an area surrounding the proposed facility and in the adjoining neighborhood to the south. Impacts greater than the detection threshold are predicted to occur less than 7% of the time throughout a 2 km area surrounding the facility and less than 1 % of the time in the adjoining neighborhood. In the event that objectionable odors persist, this permit contains further measures that will be put in place to reduce odor impacts.

While masking of the styrene odor is utilized by Sea Ray at other manufacturing sites, the Department believes that, due to the proximity of the Cape Canaveral site to a residential area, a way should be found to eliminate the styrene odors rather than masking them. Masking reduces the perception of the odor problem but does not destroy the cause of the odor. According to Sea Ray's representatives, some of the neighbors do not want the odors masked. The Department has learned that it may be practical to install new odor destruction technology at the Sea Ray site that will actually destroy the styrene using enzyme bioaerosol technology. This technology involves injecting an atomized spray into the duct system ahead of the discharge stack. The solution acts to destroy the styrene through biodegradation and catalytic oxidation. Reports indicate that only a few seconds of contact time are required to achieve significant reductions in the concentration of organic contaminants. The revised permit includes a requirement that Sea Ray investigate the feasibility of this technology by having a special test performed at the existing Merritt Island plant within 60 days after receiving the final construction permit for the Cape Canaveral site. The time required to complete these special tests would be approximately two months. If the tests indicate that the technology is technically feasible and cost-effective, Sea Ray will be required to use it for the Lamination/Assembly Building at the Cape Canaveral plant beginning with the very first day of lamination processing. If the special test at the existing Merritt Island plant does not demonstrate conclusively that the new technology is technically feasible and cost-effective, then the originally proposed pilot-scale control project will be required as indicated in the final permit. If it is concluded from the test that the enzyme bioaerosol technology is technically feasible and cost-effective for destroying styrene, then it shall be installed on the Cape Canaveral Lamination/Assembly Building exhaust and no other air pollution control equipment shall be required.

Another condition that has been incorporated into the permit requires ambient monitoring for styrene. Prior to the commencement of lamination processing, Sea Ray must conduct ambient monitoring to detect and record styrene emissions. Ambient monitoring will have to be conducted once a week during the operation of the lamination building. The monitoring will be done on the first day of the business week that the wind blows in the direction of the Island Crossing and Riverwalk neighborhoods between the hours of 6:00 a.m. and 8:00 a.m.; otherwise, the monitoring will be conducted on Thursday regardless of the wind direction. The monitoring will be conducted for at least 30 months starting within 30 days after issuance of

this permit. Cessation of the ambient monitoring requirement after the 30-month period will require Department approval and will depend upon the number and nature of complaints registered by neighbors over the 30-month period. The ambient monitoring will be performed at a location selected jointly by the Department and representatives of the local residential community. "Authorized representatives of the local residential community," means any member of a single board or council established by local homeowners for this purpose. In addition, within 90 days after commencement of operation of the lamination building, the permittee will be required to conduct an odor test to confirm that no odors can be detected when one volume unit of ambient air (at the property boundary) is mixed with 7 volumes of odorless air based on ASTM Method E769-91.

To provide further assurances that Sea Ray's neighbors will have knowledge of any styrene emissions that may be carried across State Road 528 into their neighborhoods, the Department plans to set up, for a limited time, a Differential Optical Absorption Spectroscopy (DOAS) system that will continuously detect styrene emissions and record their concentrations in the ambient air. This system utilizes the variations in optical absorption characteristics of various substances when a light source is beamed across a specific linear path. It will specifically identify styrene and will provide monitoring data that can be accessed remotely by telephone. The DOAS system has already been ordered by the Department for other projects and it will be assigned for monitoring Sea Ray's operations at the Cape Canaveral site.

EPA's Comments:

Region IV commended the Department on the thoroughness of the BACT analysis and agreed with the decision to require a pilot-scale program for capturing and treating VOC emissions. EPA also pointed out that the pilot-plant implementation schedules proposed in the BACT determination and in the permit should coincide in regard to the startup of the full-scale control system. As a result of the public's concern about exposure to a hazardous air pollutant as well as the odor of styrene in the interim period prior to startup of the full-scale system, the pilot-scale implementation schedule has been tightened by 14 months from the published intent.

National Park Service's comments:

The only concern mentioned by the NPS was the possibility of styrene emissions impacting the Merritt Island National Wildlife Refuge and the prescribed burns that are periodically conducted.

Final Action:

The final action of the Department will be to issue the permit as discussed above.

136387.1

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

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:	January 31, 2003

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) initially consisting of a single lamination/assembly building, a single warehouse building, and associated facilities for employee offices and testing of finished boats. Any phased expansion of this facility that may involve segregation or separation of lamination processing into additional buildings will require a modification of this permit per Rule 62-4.080 and Chapters 62-210 and 62-212 of the Florida Administrative Code. 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

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 about 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
10-31-99	Notice of Intent Published in Florida Today Newspaper

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

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 January 31, 2003. 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 as applied to any new or modified emission units. [Rules 62-4.070(4), 62-4.210(2) & (3), 62-210.300(1)(a), and 62-212.400(6)(b), F.A.C.]

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 if 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.

    (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. (Not federally enforceable)

    [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.]

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.]

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 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.]

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. Production Limits/Hours of Operation: Emissions Units 001, 002 and 003 may each operate for up to 5,000 hours/year. The facility is required to keep daily records of the operating hours. [Rules 62-210.200, Definitions-Potential to Emit (PTE) and 62-213.440(1)(b)1.b., F.A.C.]

MATERIAL USAGE/APPLICATION REQUIREMENTS AND LIMITATIONS

2. VOC and HAP Emissions Limited: Emissions of volatile organic compounds (VOC) including hazardous air pollutants (HAP) shall not exceed 211 tons prior to capture and control; emissions of HAP (including styrene) shall not exceed 149 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. [Rules 62-4.070(3), 62-204.800(10)(d)2., and 62-210.200 (PTE), F.A.C., and BACT/MACT]

3. Resins HAP Contents Limits: The weight percentage of total HAP content in resins shall be limited to an aggregate resin maximum average limit (ARMAL) calculated from the following resin component maximum average HAP contents:

   - Production resins (pr), 35% total HAP content.
   - Non-atomized tooling resins (natr), used for making and repair of molds, 39% total HAP content.

   The ARMAL is based on a 3-month rolling average and is calculated using the following equation:

   $$ARMAL = \frac{[(0.35\ WT_{pr}) + (0.39\ Wt_{natr})]}{[(WT_{pr}) + (Wt_{natr})]} \times 100$$

   Where,

   WT_{pr} = Total weight of production resins used in the current month and preceding two months;

   Wt_{natr} = Total weight of non-atomized tooling resins 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]

4. Gel Coats HAP Contents Limits: The weight percentage of total HAP content in gelcoats shall be limited to an aggregate gelcoat maximum average limit (AGMAL) calculated from the following gel coat component maximum average HAP contents:

   - Pigmented gel coats (pgc), 33% total HAP content.
   - Base gel coats (bgc), 33% total HAP content.

- Clear gel coats (cgc), 48% total HAP content.
- Tooling gel coats (tgc), used for making and repair of molds, 40% total HAP content.

The AGMAL is based on a 3-month rolling average and is calculated using the following equation:

$$AGMAL = \frac{[(0.33\ WT_{pgc}) + (0.33\ Wt_{bgc}) + (0.48\ Wt_{cgc}) + (0.40\ Wt_{tgc})]}{[(WT_{pgc}) + (Wt_{bgc}) + (Wt_{cgc}) + (Wt_{tgc})\ ]} \times 100$$

Where,

WT_{pgc} = Total weight of pigmented gelcoats used in the current month and preceding two months;

Wt_{bgc} = Total weight of base gel coats used in the current month and preceding two months.

Wt_{cgc} = Total weight of clear coats used in the current month and preceding two months.

Wt_{tgc} = Total weight of tooling gel coats 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. Sprayed tooling resins HAP Contents Limits (SL): The maximum average weight percentage of total HAP content in sprayed tooling resins, used for the making and repair of molds shall be limited to 30%, based on a 3-month rolling weighted average.
[Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]

6. Calculation of weighted average HAP contents:
The weighted average HAP content shall be calculated for each component (i.e., resins, gelcoats, sprayed tooling resins) by multiplying the weight of each material used during the three month period times the total HAP content, in weight percent, of each material, totaling the results, and then dividing the resulting sum by the total weight of all materials used. For example, for the resins component, the 3-month weighted average would be:

$$AVG_r = \frac{[(HAP_{ra})\ WT_{ra} + (HAP_{rb})\ WT_{rb} + \ldots + (HAP_{ri})\ WT_{ri}]}{[WT_{ra} + WT_{rb} + \ldots + WT_{ri}]} \times 100$$

Where,

AVG_r = 3-month weighted average, expressed as a percentage, for the resins component;

HAP_{ri} = Weight percentage of total HAP (expressed as a decimal fraction) in resin i, based on the highest value for each range listed on the Manufacturer's Safety Data Sheets; and

WT_{ri} = Weight of resin i used in the current month and preceding two months.

The 3-month weighted average percentage for the gelcoat component, AVG_g, and the 3-month weighted average percentage for the sprayed tooling resin component, AVG_s, shall be likewise calculated.

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

7. 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 working 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 limits: ARMAL, AGMAL, and SL, expressed as weight percentages.
- Rolling 3-month weighted average total HAP contents: AVG_r, AVG_g, AVG_s, expressed as weight percentages, based on the materials 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]

8. Resin & Gel Coat Cleaning Solvents: The owner or operator shall only use resin and gel coat cleaning solvents which contain no HAP. If solvent cleaning machines are used, they must comply with the requirements of 40 CFR 63 Subpart T – Halogenated Solvent Cleaning. A solvent cleaning machine means device or piece of equipment that uses halogenated HAP solvent liquid or vapor to clean the surfaces of materials. Buckets, pails, and beakers with capacities of 7.6 liters (2 gallons) or less are not considered solvent cleaning machines. Halogenated HAP solvents are: methylene chloride, perchloroethylene, trichloroethylene, 1,1,1,-trichloroethane, carbon tetrachloride, and chloroform. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]

9. Carpet and Fabric Adhesives: The permittee shall use carpet and fabric adhesives that contain no HAP. Excluded from this limit are aerosol adhesives. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]

10. 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]

11. 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 HAP from coating processes for exterior wood parts. [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]

12. Non-Structural Interior Wood Parts: The owner or operator shall comply with 40 CFR 63 Subpart JJ – NESHAP for Wood Furniture Manufacturing Operations for carpentry adhesives and non-structural interior wood parts (e.g., cabinets, furniture and trim). [Rules 62-4.070(3) and 62-204.800(10)(d)2., F.A.C., and MACT]

13. 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]

CONTROL SYSTEMS REQUIRED/EMISSIONS LIMITS

14. Odor Prevention Measures Required: To prevent odors from escaping at ground level, Emissions Unit 001 (Lamination/Assembly Building) shall be properly ventilated under negative pressure. "Properly ventilated under negative pressure" means no venting of air from the building's interior except through a single stack, the top of which is at least 75 feet above ground elevation and which discharges air from the building at a minimum stack velocity of 70 feet per second. In the event a zoning variance is not approved by Brevard County for a 75-foot stack, an alternative stack/velocity design shall be submitted

to the Department for approval. At all times during lamination processing, and for at least two hours after the last application of resin or gel coat, Emissions Unit 001 shall be operated under negative pressure as specified above and the stack discharge velocity continuously measured and recorded. Emissions Unit 001 shall be equipped with a system that will prevent the detection of objectionable odors beyond the permittee's property line.

15. Ambient Monitoring/Odor Testing Required: Prior to the commencement of lamination processing, the permittee shall conduct ambient monitoring to detect and record styrene emissions. Ambient monitoring shall be conducted once a week during the operation of the Lamination/Assembly Building. The monitoring shall be done on the first day of the business week that the wind blows in the direction of the Island Crossing and Riverwalk neighborhoods between the hours of 6:00 a.m. and 8:00 a.m.; otherwise, the monitoring shall be conducted on Thursday regardless of the wind direction. The monitoring shall be conducted for at least 30 months starting within 30 days after issuance of this permit. Cessation of the ambient monitoring requirement after the 30 month period shall require Department approval and shall depend upon the number and nature of complaints registered by neighbors over the 30-month period. The ambient monitoring shall be conducted using EPA Method TO14. The ambient monitoring location shall be selected jointly by the Department and representatives of the local residential community. The ambient monitoring data shall be made available for inspection by the Department and/or authorized representatives of the local residential community as reasonably requested. "Authorized representatives of the local residential community" means any member of a single board or council established by local homeowners for this purpose. [Rules 62-296.320(1)(a)&(2) and 62-210.200(203), F.A.C.]

16. Odor Testing. Within 90 days after commencement of operation of the lamination building, permittee shall conduct an odor test to confirm that no odors can be detected when one volume unit of ambient air (at the property boundary) is mixed with 7 volumes of odorless air based on ASTM Method E769-91. [Rule 62-296.320(2), F.A.C.; Applicant Request]

17. Evaluation of Odor Control (Destruction) Technology Required Initially: An initial requirement shall be the immediate evaluation of state-of-the-art enzyme bioaerosol odor destruction technology for the Cape Canaveral plant. This technology shall be evaluated with the objective of removing approximately 70 to 80 percent of the styrene from the Lamination/Assembly Building exhaust air. To determine the technical and economic feasibility of the technology, the permittee shall, within 60 days after issuance of this permit, conduct special feasibility tests consisting of injecting test solutions into the ventilation system at its existing Merritt Island boat manufacturing plant and measuring the destruction of styrene. The styrene destruction results shall be provided to the Department's Bureau of Air Regulation within 14 days after completion of the tests. If the feasibility tests at the existing Merritt Island plant demonstrate to the Department's satisfaction that styrene control technology would be technically feasible and cost effective at the Cape Canaveral site, the Department may propose to revise this permit, as provided under Condition II.5, to require that the permittee install a full-scale system based on this technology and have it operating properly prior to the initial commencement of lamination processing. The Department shall modify this permit as provided under Condition II.5 to include operating, testing and compliance parameters for this system and no other air pollution control equipment shall be required. [Rules 62-296.320(1)(a)&(2), 62-210.200(203), and 62-4.070(3), F.A.C.]

18. Pilot Plant Required if Odor Destruction Not Feasible: If enzyme bioaerosol destruction technology is

shown not to be technically and economically feasible on the basis of the Department's evaluation of the feasibility tests, then, as an additional requirement, within 120 days following the commencement of lamination processing, the permittee shall submit a proposed design for a pilot-scale VOC and/or HAP (VOC/HAP) capture and control system to the Department's Bureau of Air Regulation for approval. The pilot-scale system shall be sized to capture for treatment at least 10,000 cfm of VOC/HAP-laden air exhausted from a single boat hull of at least 65 feet in length. The design submittal shall contain all data necessary to evaluate the system's performance capabilities for arriving at a net overall VOC/HAP capture and destruction efficiency of 76 percent for Emissions Unit 001. The pilot-scale control system may utilize one or more of the following approaches for a selected area of hull lamination processing within the Lamination/Assembly building: a localized pickup system, a permanent booth enclosure or a movable-enclosure venting and capture system. The Department shall notify the permittee within 30 days of receipt of the design proposal as to whether it will be accepted. If the proposal is not approved, the Department shall notify the permittee within the same 30 day period as to what changes are required to make the proposal acceptable. Construction of buildings and installation of process equipment, including the pilot plant control project, may begin upon issuance of the PSD permit. Lamination processing may begin at any time thereafter provided that 15 days advance written notification is provided to the Department's Bureau of Air Regulation in Tallahassee and the Department's Central District Office in Orlando. [Rules 62-296.320(1)(a)&(2), 62-210.200(203), 62-4.070(3), 62-212.400, F.A.C., and BACT]

19. Testing and Evaluation of Pilot Plant Required: The permittee shall commence operation of the pilot-scale control system within 180 days following the approval of the pilot system design by the Department. The permittee shall provide written notice of the lamination commencement date to the Bureau of Air Regulation and the Department's Central District Office. Monthly progress reports detailing the status of the pilot project shall be submitted to the Bureau by the permittee during the 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 180 days 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 have conducted a capture efficiency test and a VOC/HAP destruction efficiency test on the system according to the procedures specified below in Specific Conditions No. 26 and 27 and shall have presented the results of these tests along with a cost effectiveness determination to the Department. The permittee is authorized to continue operating the lamination building following the conclusion of the pilot system testing and shall be given a reasonable amount of time to conform to any new requirements imposed as provided under Condition 20. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

20. Full-Scale VOC/HAP Controls Required if Pilot Plant Demonstrates Feasibility: 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 will propose (as provided under Condition II.5.) that the permittee install a full-scale VOC/HAP control system for the entire Lamination/Assembly Building. The Department's proposal will include a revised BACT determination, which will be subject (in its entirety), to the protections provided under Condition II.5. The permittee shall begin its operation of the full-scale system within twelve months from the date of the submission of test results from the pilot-scale project. The full-scale control system may augment or replace the pilot system and shall be designed to capture at least 90 percent of the total VOC/HAP emissions generated from the hull and deck lamination process while destroying at least 95 percent (85.5 percent minimum overall capture and destruction). The full-scale control system shall be

operated at the maximum capture rate demonstrated by the pilot-scale control system. 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 pilot-scale system and shall be incorporated into the Title V permit for this facility (as provided under Condition II.5). [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

21. Removal of Pilot Plant Control System if Not Feasible: If the Department determines that a full-scale VOC/HAP capture and control system is not feasible, the permittee shall be allowed to remove the pilot-scale control system following publication by the Department of a public notice of such action in a newspaper of general circulation in the area in accordance with Rule 62-210.350(1) and (2), F.A.C. However, the permittee shall continue to comply with the Department's odor control rules. [Rules 62-4.070(3), 62-296.320, and 62-212.400, F.A.C.]

22. Public Notice: After the Department analyzes the test results and other data from the pilot-scale project to determine the feasibility of full-scale controls and revises its BACT determination accordingly, the Department will provide notice and an opportunity for hearing. The notice shall be published in accordance with Rule 62-210.350(1) and (2), F.A.C. The determination of what constitutes BACT will be subject (in its entirety) to the procedures under Condition II.5. [Rules 62-4.080 and 62-212.400, F.A.C.]

23. PM/PM_{10} Control System Required: The woodworking operations of Emissions Unit 002 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 building exhaust shall be limited to 5 percent. [Rule 62-4.070(3), F.A.C.]

24. No Air Outflow Through Doors and Openings Allowed. The Lamination/Assembly Building air ventilation system shall be designed so that whenever any doors or openings are either partially or totally open the total air volume exhausted through the "pull side" air fans shall always exceed the total volume entering from the "push side" air fans by a minimum of 10 percent. Fan motor amperages for all Lamination/Assembly Building ventilation fans shall be continuously monitored and recorded to show compliance with this requirement. [Rule 62-4.070(3), F.A.C.]

25. Air Outflow Prevention Design and Operation Plan Required: Pursuant to the requirements of Specific Condition 24 above, and 45 days prior to the initial operation of the lamination process, the permittee shall submit its Air Outflow Prevention Design and Operation plan for the Lamination/Assembly Building to the Department for approval. The plan shall identify the final ventilation design air flows for the push and pull sides and show in detail how the fan motor amperages will be monitored and recorded. [Rule 62-4.070(3), F.A.C.]

COMPLIANCE MONITORING AND TESTING REQUIREMENTS

26. Capture Efficiency Demonstration: Pursuant to the requirements of Specific Condition 19, the permittee shall demonstrate the capture efficiency of the pilot plant 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 18, 25 or 25A, as described in 40 CFR 60 Appendix A (1997 version). Within 90 days following commencement of operation of the full scale control system required by Specific Condition 20 above, the same capture efficiency demonstration shall be performed on the full scale control system after providing 15 days written

notification to the Bureau of Air Regulation and the Central District Office. [Rule 62-4.070(3) and 62-212.400, F.A.C., and BACT]

27. Destruction Efficiency Test: Pursuant to the requirements of Specific Condition 19, the permittee shall determine the destruction efficiency of the pilot plant control system by sampling the inlet and outlet of the destruction device over a three-hour lamination period for VOC concentrations using EPA Method 18, 25 or 25A, as described in 40 CFR 60 Appendix A (1997 version). The same requirement shall apply to the full scale control system as specified in Specific Condition 20 above. [Rules 62-4.070(3) and 62-212.400, F.A.C., and BACT]

28. PM Testing Required: Visible emissions from Emissions Unit 002 shall be tested initially and annually using EPA Method 9. [Rule 62-4.070(3), F.A.C.]

REPORTING AND RECORD KEEPING REQUIREMENTS

29. Records of Emissions Required: The permittee shall continuously keep and maintain a five-year ongoing compilation of the following records to demonstrate compliance with the VOC and HAP emissions limitations of Specific Condition No. 2 of this section. Records shall be completed no later than five working days after the end of each month.
    - Amounts in pounds of each material used each month that contains VOC and/or HAP.
    - Weight percentage of HAP in materials using the highest value listed on Manufacturer's Safety Data (MSD) Sheets. For non-HAP VOC the mid-point value may be used.
    - 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. 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), 62-212.400, F.A.C., MACT and BACT]

PROVISION FOR FUTURE EPA SECTION 112(D) MACT DETERMINATION

30. 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 the "new source" standards and may then, for purposes of MACT compliance, comply with any less restrictive specific provision of the promulgated MACT for "new" sources 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 new source MACT when adopted shall be the BACT floor for PSD purposes in the event that the Department must reconsider the BACT provisions of this permit.

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

May 10, 2000

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 originally proposed no add-on emission controls, but subsequently agreed to operate the Lamination Building with negative pressure and a single high velocity exhaust stack to dissipate emissions for odor control reasons. Emissions from the Cape Canaveral project are proposed at 211 tons per year of VOC/HAP vented primarily through 1 stack of Building 101 and exhausting 60-75 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 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 this 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:

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 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.

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

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

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, carbon adsorption, biofiltration, bio/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.

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.

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.

Bio/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. Conventional 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. However, a new technology that shows great promise for removing VOC/HAP emissions from building ventilation systems is the injection of finely atomized bioenzyme spray into the air inlet ducts allowing catalytic degradation of organic compounds to occur prior to their exhaust from the building. A scrubber can be added at the outlet to insure maximum destruction of air pollutants.

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 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.

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. 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. There has been little 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 x 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%

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 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, doors are typically left open at the existing Merritt Island plant 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 conveyor-type operation is compartmentalized.

Sea Ray's current ventilation practice at the Merritt Island Plant 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 at the same time allowing cost effective emission control and how can that be effected? 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 lamination working area as a spray booth using the 50 cfm/ft^2 spray booth ventilation factor (250 ft long x 30 ft high x 50 cfm/ft^2).

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, assuming all lamination is performed in one spray booth.

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 percent 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/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/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.

MACT DETERMINATION:

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).

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;
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. compliance with 40 CFR 63 Subpart JJ, NESHAPs for Wood Furniture Manufacturing Operations, for carpentry adhesives and non-structural interior wood parts (e.g., cabinets, furniture and trim);
11. the use of bottom coatings and any other exterior coatings (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. An exception is the use of aerosol adhesives;
14. the use of the highest styrene content in calculations when Manufacturer's Safety Data (MSD) Sheets with styrene content ranges are used.

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.

PROVISION FOR FUTURE EPA SECTION 112(D) MACT DETERMINATION

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 the "new source" standards and may then, for purposes of MACT compliance, comply with any less restrictive specific provision of the promulgated MACT for "new" sources rather than the more restrictive specific provisions of the case-by-case MACT.

BACT DETERMINATION:

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 believes that both questions can be answered in the affirmative, but additional information is needed before full-scale controls can be proven feasible for the Cape Canaveral Plant.

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 may be cost-effective add-on control technologies that are available for application to Sea Ray's lamination process and that Sea Ray may be able to adapt one or more of them with the assistance of qualified ventilation and control system specialists. Fiberglass boat building ventilation and capture issues may be resolvable 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 may be able to 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 is included as a specific condition of the final permit The pilot-scale project is being required under this permit to provide additional information on the technical and economic feasibility of add-on controls.

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 must be designed to capture for treatment at least 10,000 cfm of exhausted air from the hull lamination area that will contain a single boat hull (minimum of 60 feet in length) while capturing at least 80 percent of the total VOC/HAP emissions from that hull and destroying 95 percent of the captured VOCs. 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 120 days 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 the 120-day 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 proposal shall include 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 submittal as to whether it will be accepted. 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.

Within 180 days following commencement of operation of the pilot system, the pilot project must be installed and operating. A reasonable amount of time for testing and evaluation would be 180 days beyond the deadline for the startup date of the pilot control system. By that time, 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. The Department will analyze the test results or other data provided by the applicant to determine whether a full-scale control system is feasible from a technical, operational or cost standpoint. If the Department determines that full-scale add-on controls constitute BACT, then the Department shall propose to modify the permit and shall provide twelve additional months from the date of submission of test results 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. If the Department determines, based on the test results and other data provided by the applicant, that full-scale add-on controls do not constitute BACT, the pilot program equipment may be removed and the public shall be provided proper notice.

Construction of the buildings and installation of process equipment may begin upon issuance of the permit. Operation of the lamination process may continue following the conclusion of the pilot study and the permittee shall be given a reasonable amount of time to conform to any new

requirements imposed through the permit revision process.

DETAILS OF THE ANALYSIS MAY BE OBTAINED BY CONTACTING:

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John Reynolds (BACT) or A.A, Linero, P.E.
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Recommended By:

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

Date: 5/11/00

Approved By:

Howard L. Rhodes, Director
Division of Air Resources Management

Date: 5/11/00

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Burton, D. Jeff, Industrial Ventilation Workbook, Fourth Edition, 1994.

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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.

Photograph of Spray Booth Enclosure for Large Boats, provided by Big Top Manufacturing, September, 1999.

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.

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

40 CFR 63 Subpart A - General Provisions
Last Updated 7/01/98
SOURCE: 40 CFR 63 (7-1-96 Edition) and Federal Register revisions dated 12-17-96 and 5-4-98.

§ 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) This part contains national emission standards for hazardous air pollutants (NESHAP) established pursuant to section 112 of the Act as amended November 15, 1990. These standards regulate specific categories of stationary sources that emit (or have the potential to emit) one or more hazardous air pollutants listed in this part pursuant to section 112(b) of the Act. This section explains the applicability of such standards to sources affected by them. The standards in this part are independent of NESHAP contained in 40 CFR part 61. The NESHAP in part 61 promulgated by signature of the Administrator before November 15, 1990 (i.e., the date of enactment of the Clean Air Act Amendments of 1990) remain in effect until they are amended, if appropriate, and added to this part.

(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) To obtain the most current list of categories of sources to be regulated under section 112 of the Act, or to obtain the most recent regulation promulgation schedule established pursuant to section 112(e) of the Act, contact the Office of the Director, Emission Standards Division, Office of Air Quality Planning and Standards, U.S. EPA (MD–13), Research Triangle Park, North Carolina 27711.

(7) Subpart D of this part 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) Subpart E of this part contains regulations that provide for the establishment of procedures consistent with section 112(l) of the Act for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(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) In addition to complying with the provisions of this part, the owner or operator of any such source may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to title V of the Act (42 U.S.C. 7661). For more information about obtaining an operating permit, see part 70 of this chapter.

(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) If a relevant standard has been established under this part, the owner or operator of an affected source may be required to obtain a title V permit from the permitting authority in the

State in which the source is located. Emission standards promulgated in this part for area sources will specify whether -

(i) States will have the option to exclude area sources affected by that standard from the requirement to obtain a title V permit (i.e., the standard will exempt the category of area sources altogether from the permitting requirement);

(ii) States will have the option to defer permitting of area sources in that category until the Administrator takes rulemaking action to determine applicability of the permitting requirements; or

(iii) Area sources affected by that emission standard are immediately subject to the requirement to apply for and obtain a title V permit in all States. If a standard fails to specify what the permitting requirements will be for area sources affected by that standard, then area sources that are subject to the standard will be subject to the requirement to obtain a title V permit without deferral. If the owner or operator is required to obtain a title V permit, he or she shall apply for such permit in accordance with part 70 of this chapter and applicable State regulations, or in accordance with the regulations contained in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

(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) *Applicability of permit program before a relevant standard has been set under this part.* After the effective date of an approved permit program in the State in which a stationary source is (or would be) located, the owner or operator of such source may be required to obtain a title V permit
from the permitting authority in that State (or revise such a permit if one has already been issued to the source) before a relevant standard is established under this part. If the owner or operator is required to obtain (or revise) a title V permit, he/she shall apply to obtain (or revise) such permit in accordance with the regulations contained in part 70 of this chapter and applicable State regulations, or the regulations codified in this chapter to implement the Federal title V permit program (42 U.S.C. 7661), whichever regulations are applicable.

§ 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, for the purposes of this part, means the stationary source, the group of stationary sources, or the portion of a stationary source that is regulated by a relevant standard or other requirement established pursuant to section 112 of the Act. Each relevant standard will define the "affected source" for the purposes of that standard. The term "affected source," as used in this part, is separate and distinct from any other use of that term in EPA regulations such as those implementing title IV of the Act. Sources regulated under part 60 or part 61 of this chapter are not affected sources for the purposes of part 63.

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.

Used in this part are abbreviations and symbols of units of measure. These are defined as follows:

(a) System International (SI) units of measure:

A = ampere
g = gram
Hz = hertz
J = joule
°K = degree Kelvin
kg = kilogram

l = liter
m = meter
m^3 = cubic meter
mg = milligram = 10^{-3} gram
ml = milliliter = 10^{-3} liter
mm = millimeter = 10^{-3} meter
Mg = megagram = 10^{6} gram = metric ton
MJ = megajoule
mol = mole
N = newton
ng = nanogram = 10^{-9} gram
nm = nanometer = 10^{-9} meter
Pa = pascal
s = second
V = volt
W = watt
Ω = ohm
µg = microgram = 10^{-6} gram
µl = microliter = 10^{-6} liter

(b) Other units of measure:

Btu = British thermal unit
°C = degree Celsius (centigrade)
cal = calorie
cfm = cubic feet per minute
cc = cubic centimeter
cu ft = cubic feet
d = day
dcf = dry cubic feet
dcm = dry cubic meter
dscf = dry cubic feet at standard conditions
dscm = dry cubic meter at standard conditions
eq = equivalent
°F = degree Fahrenheit
ft = feet
ft^2 = square feet
ft^3 = cubic feet
gal = gallon
gr = grain
g-eq = gram equivalent
g-mole = gram mole
hr = hour
in. = inch
in. H_2O = inches of water
K = 1,000
kcal = kilocalorie
lb = pound
lpm = liter per minute
meq = milliequivalent
min = minute

MW = molecular weight
oz = ounces
ppb = parts per billion
ppbw = parts per billion by weight
ppbv = parts per billion by volume
ppm = parts per million
ppmw = parts per million by weight
ppmv = parts per million by volume
psia = pounds per square inch absolute
psig = pounds per square inch gage
°R = degree Rankine
scf = cubic feet at standard conditions
scfh = cubic feet at standard conditions per hour
scm = cubic meter at standard conditions
sec = second
sq ft = square feet
std = at standard conditions
v/v = volume per volume
yd^2 = square yards
yr = year

(c) Miscellaneous:
act = actual
avg = average
I.D. = inside diameter
M = molar
N = normal
O.D. = outside diameter
% = percent

§ 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) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions; 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) for sources subject to a relevant emission standard that has been promulgated in this part. 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 this part, 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 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 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) *Approval of construction or reconstruction.*

(1) (i) If the Administrator determines that, if properly constructed, or reconstructed, and operated, a new or existing source for which an application under paragraph (d) of this section was submitted will not cause emissions in violation of the relevant standard(s) and any other federally enforceable requirements, the Administrator will approve the construction or reconstruction.

(ii) In addition, in the case of reconstruction, the Administrator's determination under this paragraph will be based on:

(A) The fixed capital cost of the replacements in comparison to the fixed capital cost that would be required to construct a comparable entirely new source;

(B) The estimated life of the source after the re-placements compared to the life of a comparable entirely new source;

(C) The extent to which the components being replaced cause or contribute to the emissions from the source; and

(D) Any economic or technical limitations on compliance with relevant standards that are inherent in the proposed replacements.

(2) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of construction or reconstruction within 60 calendar days after receipt of sufficient information to evaluate an application submitted under paragraph (d) of this section. The 60-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 30 calendar days after receipt of the original application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(3) Before denying any application for approval of construction or reconstruction, the Administrator will notify the applicant of the Administrator's intention to issue the denial together with - (i) Notice of the information and findings on which the intended denial is based; and

(ii) Notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator to enable further action on the application.

(4) A final determination to deny any application for approval will be in writing and will specify the grounds on which the denial is based. The final determination will be made within 60 calendar days of presentation of additional information or arguments (if the application is complete), or within 60 calendar days after the final date specified for presentation if no presentation is made.

(5) Neither the submission of an application for approval nor the Administrator's approval of construction or reconstruction shall -

(i) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or (ii) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(f) *Approval of construction or reconstruction based on prior State preconstruction review.*

(1) The Administrator may approve an application for construction or reconstruction specified in paragraphs (b)(3) and (d) of this section if the owner or operator of a new or reconstructed source who is subject to such requirement demonstrates to the Administrator's satisfaction that the following conditions have been (or will be) met:

(i) The owner or operator of the new or reconstructed source has undergone a preconstruction review and approval process in the State in which the source is (or would be) located before the promulgation date of the relevant standard and has received a federally enforceable construction permit that contains a finding that the source will meet the relevant emission standard as proposed, if the source is properly built and operated;

(ii) In making its finding, the State has considered factors substantially equivalent to those specified in paragraph (e)(1) of this section; and either

(iii) The promulgated standard is no more stringent than the proposed standard in any relevant aspect that would affect the Administrator's decision to approve or disapprove an application for approval of construction or reconstruction under this section; or

(iv) The promulgated standard is more stringent than the proposed standard but the owner or operator will comply with the standard as proposed during the 3-year period immediately following the effective date of the standard as allowed for in § 63.6(b)(3) of this subpart.

(2) The owner or operator shall submit to the Administrator the request for approval of construction or reconstruction under this paragraph no later than the application deadline specified in paragraph (d)(1) of this section (see also § 63.9(b)(2) of this subpart). The owner or operator shall include in the request information sufficient for the Administrator's determination. The Administrator will evaluate the owner or operator's request in accordance with the

procedures specified in paragraph (e) of this section. The Administrator may request additional relevant information after the submittal of a request for approval of construction or reconstruction under this paragraph.

§ 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) The Administrator (or a State with an approved permit program) has granted an extension of compliance consistent with paragraph (i) of this section; or

(ii) The President has granted an exemption from compliance with any relevant standard in accordance with section 112(i)(4) of the Act.

(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) *Compliance dates for new and reconstructed sources.*

(1) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup before the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard not later than the standard's effective date.

(2) Except as specified in paragraphs (b)(3) and (b)(4) of this section, the owner or operator of a new or reconstructed source that has an initial startup after the effective date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act shall comply with such standard upon startup of the source.

(3) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established under this part pursuant to section 112(d), 112(f), or 112(h) of the Act but before the effective date (that is, promulgation) of such standard shall comply with the relevant emission standard not later than the date 3 years after the effective date if:

(i) The promulgated standard (that is, the relevant standard) is more stringent than the proposed standard; and

(ii) The owner or operator complies with the standard as proposed during the 3-year period immediately after the effective date.

(4) The owner or operator of an affected source for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of a relevant standard established pursuant to section 112(f)
shall comply with the emission standard under section 112(f) not later than the date 10 years after
the date construction or reconstruction is commenced, except that, if the section 112(f) standard is promulgated more than 10 years after construction or reconstruction is commenced, the owner or
operator shall comply with the standard as provided in paragraphs (b)(1) and (b)(2) of this section.

(5) The owner or operator of a new source that is subject to the compliance requirements of paragraph (b)(3) or paragraph (b)(4) of this section shall notify the Administrator in accordance with § 63.9(d) of this subpart.

(6) [Reserved]

(7) After the effective date of an emission standard promulgated under this part, the owner or operator of an unaffected new area source (i.e., an area source for which construction or reconstruction was commenced after the proposal date of the standard) that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source that is subject to the emission standard, shall comply with the relevant emission standard immediately upon becoming a major source. This compliance date shall apply to new area sources that become affected major sources regardless of whether the new area source previously was affected by that standard. The new affected major source shall comply with all requirements of that standard that affect new sources.

(c) *Compliance dates for existing sources.*

(1) After the effective date of a relevant standard established under this part pursuant to section 112(d) or 112(h) of the Act, the owner or operator of an existing source shall comply with such standard by the compliance date established by the Administrator in the applicable subpart(s) of this part. Except as otherwise provided for in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard.

(2) After the effective date of a relevant standard established under this part pursuant to section 112(f) of the Act, the owner or operator of an existing source shall comply with such standard not later than 90 days after the standard's effective date unless the Administrator has granted an extension to the source under paragraph (i)(4)(ii) of this section.

(3)–(4) [Reserved]

(5) After the effective date of an emission standard promulgated under this part, the owner or operator of an unaffected existing area source that increases its emissions of (or its potential to emit) hazardous air pollutants such that the source becomes a major source that is subject to the emission standard shall comply by the date specified in the standard for existing area sources that become major sources. If no such compliance date is specified in the standard, the source shall have a period of time to comply with the relevant emission standard that is equivalent to the compliance period specified in that standard for other existing sources. This compliance period shall apply to existing area sources that become affected major sources regardless of whether the existing area source previously was affected by that standard. Notwithstanding the previous two sentences, however, if the existing area source becomes a major source by the addition of a new affected source or by reconstructing, the portion of the existing facility that is a new affected source or a reconstructed source shall comply with all requirements of that standard that affect new sources, including the compliance date for new sources.

(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) The Administrator will determine compliance with nonopacity emission standards in this part based on the results of performance tests conducted according to the procedures in § 63.7, unless otherwise specified in an applicable subpart of this part.

(ii) The Administrator will determine compliance with nonopacity emission standards in this part by evaluation of an owner or operator's conformance with operation and maintenance requirements, including the evaluation of monitoring data, as specified in § 63.6(e) and applicable subparts of this part.

(iii) If an affected source conducts performance testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The performance test was conducted within a reasonable amount of time before an initial performance test is required to be conducted under the relevant standard;

(B) The performance test was conducted under representative operating conditions for the source;

(C) The performance test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The performance test was appropriately quality-assured, as specified in § 63.7(c) of this subpart.

(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) *Use of an alternative nonopacity emission standard.*

(1) If, in the Administrator's judgment, an owner or operator of an affected source has established that an alternative means of emission limitation will achieve a reduction in emissions of
a hazardous air pollutant from an affected source at least equivalent to the reduction in emissions of that pollutant from that source achieved under any design, equipment, work practice, or operational emission standard, or combination thereof, established under this part pursuant to section 112(h) of the Act, the Administrator will publish in the FEDERAL REGISTER a notice permitting the use of the alternative emission standard for purposes of compliance with the promulgated standard. Any FEDERAL REGISTER notice under this paragraph shall be published only after the public is notified and given the opportunity to comment. Such notice will restrict the permission to the stationary source(s) or category(ies) of sources from which the alternative emission standard will achieve equivalent emission reductions. The Administrator will condition permission in such notice on requirements to assure the proper operation and maintenance of equipment and practices required for compliance with the alternative emission

standard and other requirements, including appropriate quality assurance and quality control requirements, that are deemed necessary.

(2) An owner or operator requesting permission under this paragraph shall, unless otherwise specified in an applicable subpart, submit a proposed test plan or the results of testing and monitoring in accordance with § 63.7 and § 63.8, a description of the procedures followed in testing or monitoring, and a description of pertinent conditions during testing or monitoring. Any testing or monitoring conducted to request permission to use an alternative nonopacity emission standard shall be appropriately quality assured and quality controlled, as specified in § 63.7 and § 63.8.

(3) The Administrator may establish general procedures in an applicable subpart that accomplish the requirements of paragraphs (g)(1) and (g)(2) of this section.

(h) *Compliance with opacity and visible emission standards* -

(1) *Applicability.* The opacity and visible 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) The Administrator will determine compliance with opacity and visible emission standards in this part based on the results of the test method specified in an applicable subpart. Whenever a continuous opacity monitoring system (COMS) is required to be installed to determine compliance with numerical opacity emission standards in this part, compliance with opacity emission standards in this part shall be determined by using the results from the COMS. Whenever an opacity emission test method is not specified, compliance with opacity emission standards in this part shall be determined by conducting observations in accordance with Test Method 9 in appendix A of part 60 of this chapter or the method specified in paragraph (h)(7)(ii) of this section. Whenever a visible emission test method is not specified, compliance with visible emission standards in this part shall be determined by conducting observations in accordance with Test Method 22 in appendix A of part 60 of this chapter.

(ii) [Reserved]

(iii) If an affected source undergoes opacity or visible emission testing at startup to obtain an operating permit in the State in which the source is located, the results of such testing may be used to demonstrate compliance with a relevant standard if -

(A) The opacity or visible emission test was conducted within a reasonable amount of time before a performance test is required to be conducted under the relevant standard;

(B) The opacity or visible emission test was conducted under representative operating conditions for the source;

(C) The opacity or visible emission test was conducted and the resulting data were reduced using EPA-approved test methods and procedures, as specified in § 63.7(e) of this subpart; and

(D) The opacity or visible emission test was appropriately quality-assured, as specified in § 63.7(c) of this section.

(3) [Reserved]

(4) *Notification of opacity or visible emission observations.* The owner or operator of an affected source shall notify the Administrator in writing of the anticipated date for conducting opacity or visible emission observations in accordance with § 63.9(f), if such observations are required for the source by a relevant standard.

(5) *Conduct of opacity or visible emission observations.* When a relevant standard under this part includes an opacity or visible emission standard, the owner or operator of an affected source shall comply with the following:

(i) For the purpose of demonstrating initial compliance, opacity or visible emission observations shall be conducted concurrently with the initial performance test required in § 63.7 unless one of the following conditions applies:

(A) If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 60 days after achieving the maximum production rate at which a new or reconstructed source will be operated, but not later than 120 days after initial startup of the source, or within 120 days after the effective date of the relevant standard in the case of new sources that start up before the standard's effective date. If no performance test under § 63.7 is required, opacity or visible emission observations shall be conducted within 120 days after the compliance date for an existing or modified source; or

(B) If visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under
§ 63.7, or within the time period specified in paragraph (h)(5)(i)(A) of this section, the source's owner or operator shall reschedule the opacity or visible emission observations as soon after the initial performance test, or time period, as possible, but not later than 30 days thereafter, and shall advise the Administrator of the rescheduled date. The rescheduled opacity or visible emission observations shall be conducted (to the extent possible) under the same operating conditions that existed during the initial performance test conducted under § 63.7. The visible emissions observer shall determine whether visibility or other conditions prevent the opacity or visible emission observations from being made concurrently with the initial performance test in accordance with procedures contained in Test Method 9 or Test Method 22 in appendix A of part 60 of this chapter.

(ii) For the purpose of demonstrating initial compliance, the minimum total time of opacity observations shall be 3 hours (30 6-minute averages) for the performance test or other required set of observations (e.g., for fugitive-type emission sources subject only to an opacity emission standard).

(iii) The owner or operator of an affected source to which an opacity or visible emission standard in this part applies shall conduct opacity or visible emission observations in accordance with the provisions of this section, record the results of the evaluation of emissions, and report to the Administrator the opacity or visible emission results in accordance with the provisions of § 63.10(d).

(iv) [Reserved]

(v) Opacity readings of portions of plumes that contain condensed, uncombined water vapor shall not be used for purposes of determining compliance with opacity emission standards.

(6) *Availability of records.* The owner or operator of an affected source shall make available, upon request by the Administrator, such records that the Administrator deems necessary to determine the conditions under which the visual observations were made and shall provide evidence indicating proof of current visible observer emission certification.

(7) *Use of a continuous opacity monitoring system.*

(i) The owner or operator of an affected source required to use a continuous opacity monitoring system (COMS) shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results in accordance with the provisions of § 63.10(e)(4).

(ii) Whenever an opacity emission test method has not been specified in an applicable subpart, or an owner or operator of an affected source is required to conduct Test Method 9 observations (see appendix A of part 60 of this chapter), the owner or operator may submit, for compliance purposes, COMS data results produced during any performance test required under § 63.7 in lieu of Method 9 data. If the owner or operator elects to submit COMS data for compliance with the opacity emission standard, he or she shall notify the Administrator of that decision, in writing, simultaneously with the notification under § 63.7(b) of the date the performance test is scheduled to begin. Once the owner or operator of an affected source has notified the Administrator to that effect, the COMS data results will be used to determine opacity compliance during subsequent performance tests required under § 63.7, unless the owner or operator notifies the Administrator in writing to the contrary not later than with the notification under § 63.7(b) of the date the subsequent performance test is scheduled to begin.

(iii) For the purposes of determining compliance with the opacity emission standard during a performance test required under § 63.7 using COMS data, the COMS data shall be reduced to 6-minute averages over the duration of the mass emission performance test.

(iv) The owner or operator of an affected source using a COMS for compliance purposes is responsible for demonstrating that he/she has complied with the performance evaluation requirements of § 63.8(e), that the COMS has been properly maintained, operated, and data quality-assured, as specified in § 63.8(c) and § 63.8(d), and that the resulting data have not been altered in any way.

(v) Except as provided in paragraph (h)(7)(ii) of this section, the results of continuous monitoring by a COMS that indicate that the opacity at the time visual observations were made was not in excess of the emission standard are probative but not conclusive evidence of the actual opacity of an emission, provided that the affected source proves that, at the time of the alleged violation, the instrument used was properly maintained, as specified in § 63.8(c), and met Performance Specification 1 in appendix B of part 60 of this chapter, and that the resulting data have not been altered in any way.

(8) *Finding of compliance.* The Administrator will make a finding concerning an affected source's compliance with an opacity or visible emission standard upon obtaining all the compliance information required by the relevant standard (including the written reports of the results of the performance tests required by § 63.7, the results of Test Method 9 or another required opacity or visible emission test method, the observer certification required by paragraph (h)(6) of this section, and the continuous opacity monitoring system results, whichever is/are applicable) and any information available to the Administrator needed to determine whether proper operation and maintenance practices are being used.

(9) *Adjustment to an opacity emission standard.*

(i) If the Administrator finds under paragraph (h)(8) of this section that an affected source is in compliance with all relevant standards for which initial performance tests were conducted under § 63.7, but during the time such performance tests were conducted fails to meet any relevant opacity emission standard, the owner or operator of such source may petition the Administrator to make appropriate adjustment to the opacity emission standard for the affected source. Until the Administrator notifies the owner or operator of the appropriate adjustment, the relevant opacity emission standard remains applicable.

(ii) The Administrator may grant such a petition upon a demonstration by the owner or operator that -

(A) The affected source and its associated air pollution control equipment were operated and maintained in a manner to minimize the opacity of emissions during the performance tests;

(B) The performance tests were performed under the conditions established by the Administrator; and

(C) The affected source and its associated air pollution control equipment were incapable of being adjusted or operated to meet the relevant opacity emission standard.

(iii) The Administrator will establish an adjusted opacity emission standard for the affected source meeting the above requirements at a level at which the source will be able, as indicated by the performance and opacity tests, to meet the opacity emission standard at all times during which the source is meeting the mass or concentration emission standard. The Administrator will promulgate the new opacity emission standard in the FEDERAL REGISTER.

(iv) After the Administrator promulgates an adjusted opacity emission standard for an affected source, the owner or operator of such source shall be subject to the new opacity emission standard, and the new opacity emission standard shall apply to such source during any subsequent performance tests.

(i) *Extension of compliance with emission standards.*

(1) Until an extension of compliance has been granted by the Administrator (or a State with an approved permit program) under this paragraph, the owner or operator of an affected source subject to the requirements of this section shall comply with all applicable requirements of this part.

(2) *Extension of compliance for early reductions and other reductions*

(i) *Early reductions.* Pursuant to section 112(i)(5) of the Act, if the owner or operator of an existing source demonstrates that the source has achieved a reduction in emissions of hazardous air pollutants in accordance with the provisions of subpart D of this part, the Administrator (or the State with an approved permit program) will grant the owner or operator an extension of compliance with specific requirements of this part, as specified in subpart D.

(ii) *Other reductions.* Pursuant to section 112(i)(6) of the Act, if the owner or operator of an existing source has installed best available control technology (BACT) (as defined in section 169(3) of the Act) or technology required to meet a lowest achievable emission rate (LAER) (as defined in section 171 of the Act) prior to the promulgation of an emission standard in this part applicable to such source and the same pollutant (or stream of pollutants) controlled pursuant to the BACT or LAER installation, the Administrator will grant the owner or operator an extension of compliance with such emission standard that will apply until the date 5 years after the date on which such installation was achieved, as determined by the Administrator.

(3) *Request for extension of compliance.* Paragraphs (i)(4) through (i)(7) of this section concern requests for an extension of compliance with a relevant standard under this part (except requests for an extension of compliance under paragraph (i)(2)(i) of this section will be handled through procedures specified in subpart D of this part).

(4) (i) (A) The owner or operator of an existing source who is unable to comply with a relevant standard established under this part pursuant to section 112(d) of the Act may request that the Administrator (or a State, when the State has an approved part 70 permit program and the source is required to obtain a part 70 permit under that program, or a State, when the State has been delegated the authority to implement and enforce the emission standard for that source) grant an extension allowing the source up to 1 additional year to comply with the standard, if such additional period is necessary for the installation of controls. An additional extension of up to 3 years may be added for mining waste operations, if the 1-year extension of

compliance is insufficient to dry and cover mining waste in order to reduce emissions of any hazardous air pollutant. The owner or operator of an affected source who has requested an extension of compliance under this paragraph and who is otherwise required to obtain a title V permit shall
apply for such permit or apply to have the source's title V permit revised to incorporate the conditions of the extension of compliance. The conditions of an extension of compliance granted under this paragraph will be incorporated into the affected source's title V permit according to the
provisions of part 70 or Federal title V regulations in this chapter (42 U.S.C. 7661), whichever are
applicable.

(B) Any request under this paragraph for an extension of compliance with a relevant standard shall be submitted in writing to the appropriate authority not later than 12 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are not including emission points in an emissions average, or not later than 18 months before the affected source's compliance date (as specified in paragraphs (b) and (c) of this section) for sources that are including emission points in an emissions average. Emission standards established under this part may specify alternative dates for the submittal of requests for an extension of compliance if alternatives are appropriate for the source categories affected by those standards, e.g., a compliance date specified by the standard is less than 12 (or 18) months after the standard's effective date.

(ii) The owner or operator of an existing source unable to comply with a relevant standard established under this part pursuant to section 112(f) of the Act may request that the Administrator grant an extension allowing the source up to 2 years after the standard's effective date to comply with the standard. The Administrator may grant such an extension if he/she finds that such additional period is necessary for the installation of controls and that steps will be taken during the period of the extension to assure that the health of persons will be protected from imminent endangerment. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 15 calendar days after the effective date of the relevant standard.

(5) The owner or operator of an existing source that has installed BACT or technology required to meet LAER [as specified in paragraph (i)(2)(ii) of this section] prior to the promulgation of a relevant emission standard in this part may request that the Administrator grant an extension allowing the source 5 years from the date on which such installation was achieved, as determined by the Administrator, to comply with the standard. Any request for an extension of compliance with a relevant standard under this paragraph shall be submitted in writing to the Administrator not later than 120 days after the promulgation date of the standard. The Administrator may grant such an extension if he or she finds that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(6) (i) The request for a compliance extension under paragraph (i)(4) of this section shall include the following information:

(A) A description of the controls to be installed to comply with the standard;

(B) A compliance schedule, including the date by which each step toward compliance will be reached. At a minimum, the list of dates shall include:

(*1*) The date by which contracts for emission control systems or process changes for emission control will be awarded, or the date by which orders will be issued for the purchase of component parts to accomplish emission control or process changes;

(*2*) The date by which on-site construction, installation of emission control equipment, or a process change is to be initiated;

(*3*) The date by which on-site construction, installation of emission control equipment, or a process change is to be completed; and

(*4*) The date by which final compliance is to be achieved;

(C) A description of interim emission control steps that will be taken during the extension period, including milestones to assure proper operation and maintenance of emission control and process equipment; and

(D) Whether the owner or operator is also requesting an extension of other applicable requirements (e.g., performance testing requirements).

(ii) The request for a compliance extension under paragraph (i)(5) of this section shall include all information needed to demonstrate to the Administrator's satisfaction that the installation of BACT or technology to meet LAER controls the same pollutant (or stream of pollutants) that would be controlled at that source by the relevant emission standard.

(7) Advice on requesting an extension of compliance may be obtained from the Administrator (or the State with an approved permit program).

(8) *Approval of request for extension of compliance.* Paragraphs (i)(9) through (i)(14) of this section concern approval of an extension of compliance requested under paragraphs (i)(4) through (i)(6) of this section.

(9) Based on the information provided in any request made under paragraphs (i)(4) through (i)(6) of this section, or other information, the Administrator (or the State with an approved permit program) may grant an extension of compliance with an emission standard, as specified in paragraphs (i)(4) and (i)(5) of this section.

(10) The extension will be in writing and will -

(i) Identify each affected source covered by the extension;

(ii) Specify the termination date of the extension;

(iii) Specify the dates by which steps toward compliance are to be taken, if appropriate;

(iv) Specify other applicable requirements to which the compliance extension applies (e.g., performance tests); and

(v) (A) Under paragraph (i)(4), specify any additional conditions that the Administrator (or the State) deems necessary to assure installation of the necessary controls and protection of the health of persons during the extension period; or

(B) Under paragraph (i)(5), specify any additional conditions that the Administrator deems necessary to assure the proper operation and maintenance of the installed controls during the extension period.

(11) The owner or operator of an existing source that has been granted an extension of compliance under paragraph (i)(10) of this section may be required to submit to the Administrator (or the State with an approved permit program) progress reports indicating whether the steps toward compliance outlined in the compliance schedule have been reached. The contents of the progress reports and the dates by which they shall be submitted will be specified in the written extension of compliance granted under paragraph (i)(10) of this section.

(12) (i) The Administrator (or the State with an approved permit program) will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(i) or (i)(5) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains

sufficient information to make a determination, within 30 calendar days after receipt of the original
application and within 30 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 30 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator (or the State with an approved permit program) will notify the owner or operator in writing of the Administrator's (or the State's) intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator (or the State) before further action on the request.

(iv) The Administrator's final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(13) (i) The Administrator will notify the owner or operator in writing of approval or intention to deny approval of a request for an extension of compliance within 30 calendar days after receipt of sufficient information to evaluate a request submitted under paragraph (i)(4)(ii) of this section. The 30-day approval or denial period will begin after the owner or operator has been notified in writing that his/her application is complete. The Administrator (or the State) will notify the owner or operator in writing of the status of his/her application, that is, whether the application contains sufficient information to make a determination, within 15 calendar days after receipt of the original application and within 15 calendar days after receipt of any supplementary information that is submitted.

(ii) When notifying the owner or operator that his/her application is not complete, the Administrator will specify the information needed to complete the application and provide notice of opportunity for the applicant to present, in writing, within 15 calendar days after he/she is notified of the incomplete application, additional information or arguments to the Administrator to enable further action on the application.

(iii) Before denying any request for an extension of compliance, the Administrator will notify the owner or operator in writing of the Administrator's intention to issue the denial, together with -

(A) Notice of the information and findings on which the intended denial is based; and

(B) Notice of opportunity for the owner or operator to present in writing, within 15 calendar days after he/she is notified of the intended denial, additional information or arguments to the Administrator before further action on the request.

(iv) A final determination to deny any request for an extension will be in writing and will set forth the specific grounds on which the denial is based. The final determination will be made within 30 calendar days after presentation of additional information or argument (if the application is complete), or within 30 calendar days after the final date specified for the presentation if no presentation is made.

(14) The Administrator (or the State with an approved permit program) may terminate an extension of compliance at an earlier date than specified if any specification under paragraphs (i)(10)(iii) or (i)(10)(iv) of this section is not met.

(15) [Reserved]

(16) The granting of an extension under this section shall not abrogate the Administrator's authority under section 114 of the Act.

(j) *Exemption from compliance with emission standards.* The President may exempt any stationary source from compliance with any relevant standard established pursuant to section 112 of the Act for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years.

§ 63.7 Performance testing requirements.

(a) *Applicability and performance test dates.*

(1) Unless otherwise specified, this section applies to the owner or operator of an affected source required to do performance testing, or another form of compliance demonstration, under a relevant standard.

(2) If required to do performance testing by a relevant standard, and unless a waiver of performance testing is obtained under this section or the conditions of paragraph (c)(3)(ii)(B) of this section apply, the owner or operator of the affected source shall perform such tests as follows -

(i) Within 180 days after the effective date of a relevant standard for a new source that has an initial startup date before the effective date; or

(ii) Within 180 days after initial startup for a new source that has an initial startup date after the effective date of a relevant standard; or

(iii) Within 180 days after the compliance date specified in an applicable subpart of this part for an existing source subject to an emission standard established pursuant to section 112(d) of the Act, or within 180 days after startup of an existing source if the source begins operation after the effective date of the relevant emission standard; or

(iv) Within 180 days after the compliance date for an existing source subject to an emission standard established pursuant to section 112(f) of the Act; or

(v) Within 180 days after the termination date of the source's extension of compliance for an existing source that obtains an extension of compliance under § 63.6(i); or

(vi) Within 180 days after the compliance date for a new source, subject to an emission standard established pursuant to section 112(f) of the Act, for which construction or reconstruction is commenced after the proposal date of a relevant standard established pursuant to section 112(d) of the Act but before the proposal date of the relevant standard established pursuant to section 112(f) [see § 63.6(b)(4)]; or

(vii) [Reserved]; or (viii) [Reserved]; or

(ix) When an emission standard promulgated under this part is more stringent than the standard proposed (see § 63.6(b)(3)), the owner or operator of a new or reconstructed source subject to that standard for which construction or reconstruction is commenced between the proposal and promulgation dates of the standard shall comply with performance testing requirements within 180 days after the standard's effective date, or within 180 days after startup of the source, whichever is later. If the promulgated standard is more stringent than the proposed standard, the owner or operator may choose to demonstrate compliance with either the proposed

or the promulgated standard. If the owner or operator chooses to comply with the proposed standard initially, the owner or operator shall conduct a second performance test within 3 years and 180 days after the effective date of the standard, or after startup of the source, whichever is later, to demonstrate compliance with the promulgated standard.

(3) The Administrator may require an owner or operator to conduct performance tests at the affected source at any other time when the action is authorized by section 114 of the Act.

(b) *Notification of performance test.*

(1) The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator, upon request, to review and approve the site-specific test plan required under paragraph (c) of this section and to have an observer present during the test. Observation of the performance test by the Administrator is optional.

(2) In the event the owner or operator is unable to conduct the performance test on the date specified in the notification requirement specified in paragraph (b)(1) of this section, due to unforeseeable circumstances beyond his or her control, the owner or operator shall notify the Administrator within 5 days prior to the scheduled performance test date and specify the date when the performance test is rescheduled. This notification of delay in conducting the performance test shall not relieve the owner or operator of legal responsibility for compliance with any other applicable provisions of this part or with any other applicable Federal, State, or local requirement, nor will it prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(c) *Quality assurance program.*

(1) The results of the quality assurance program required in this paragraph will be considered by the Administrator when he/she determines the validity of a performance test.

(2) (i) *Submission of site-specific test plan.* Before conducting a required performance test, the owner or operator of an affected source shall develop and, if requested by the Administrator, shall submit a site-specific test plan to the Administrator for approval. The test plan shall include a test program summary, the test schedule, data quality objectives, and both an internal and external quality assurance (QA) program. Data quality objectives are the pretest expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of test data precision; an example of internal QA is the sampling and analysis of replicate samples.

(iii) The external QA program shall include, at a minimum, application of plans for a test method performance audit (PA) during the performance test. The PA's consist of blind audit samples provided by the Administrator and analyzed during the performance test in order to provide a measure of test data bias. The external QA program may also include systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iv) The owner or operator of an affected source shall submit the site-specific test plan to the Administrator upon the Administrator's request at least 60 calendar days before the performance test is scheduled to take place, that is, simultaneously with the notification of intention to conduct a performance test required under paragraph (b) of this section, or on a mutually agreed upon date.

(v) The Administrator may request additional relevant information after the submittal of a site-specific test plan.

(3) *Approval of site-specific test plan.*

(i) The Administrator will notify the owner or operator of approval or intention to deny approval of the site-specific test plan (if review of the site-specific test plan is requested) within 30 calendar days after receipt of the original plan and within 30 calendar days after receipt of any supplementary information that is submitted under paragraph (c)(3)(i)(B) of this section. Before disapproving any site-specific test plan, the Administrator will notify the applicant of the Administrator's intention to disapprove the plan together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present, within 30 calendar days after he/she is notified of the intended disapproval, additional information to the Administrator before final action on the plan.

(ii) In the event that the Administrator fails to approve or disapprove the site-specific test plan within the time period specified in paragraph (c)(3)(i) of this section, the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the test method(s) specified in the relevant standard, the owner or operator shall conduct the performance test within the time specified in this section using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to any test method specified in the relevant standard, the owner or operator shall refrain from conducting the performance test until the Administrator approves the use of the alternative method when the Administrator approves the site-specific test plan (if review of the site-specific test plan is requested) or until after the alternative method is approved (see paragraph (f) of this section). If the Administrator does not approve the site-specific test plan (if review is requested) or the use of the alternative method within 30 days before the test is scheduled to begin, the performance test dates specified in paragraph (a) of this section may be extended such that the owner or operator shall conduct the performance test within 60 calendar days after the Administrator approves the site-specific test plan or after use of the alternative method is approved. Notwithstanding the requirements in the preceding two sentences, the owner or operator
may proceed to conduct the performance test as required in this section (without the Administrator's prior approval of the site-specific test plan) if he/she subsequently chooses to use the specified testing and monitoring methods instead of an alter-native.

(iii) Neither the submission of a site-specific test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator's failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) (i) *Performance test method audit program.* The owner or operator shall analyze performance audit (PA) samples during each performance test. The owner or operator shall request performance audit materials 45 days prior to the test date. Cylinder audit gases may be obtained by contacting the Cylinder Audit Coordinator, Quality Assurance Division (MD–77B), Atmospheric Research and Exposure Assessment Laboratory (AREAL), U.S. EPA, Research Triangle Park, North Carolina 27711. All other audit materials may be obtained by contacting the

Source Test Audit Coordinator, Quality Assurance Division (MD–77B), AREAL, U.S. EPA, Research Triangle Park, North Carolina 27711.

(ii) The Administrator will have sole discretion to require any subsequent remedial actions of the owner or operator based on the PA results.

(iii) If the Administrator fails to provide required PA materials to an owner or operator of an affected source in time to analyze the PA samples during a performance test, the requirement to conduct a PA under this paragraph shall be waived for such source for that performance test. Waiver under this paragraph of the requirement to conduct a PA for a particular performance test does not constitute a waiver of the requirement to conduct a PA for future required performance tests.

(d) *Performance testing facilities.* If required to do performance testing, the owner or operator of each new source and, at the request of the Administrator, the owner or operator of each existing source, shall provide performance testing facilities as follows:

(1) Sampling ports adequate for test methods applicable to such source. This includes:

(i) Constructing the air pollution control system such that volumetric flow rates and pollutant emission rates can be accurately determined by applicable test methods and procedures; and

(ii) Providing a stack or duct free of cyclonic flow during performance tests, as demonstrated by applicable test methods and procedures;

(2) Safe sampling platform(s);

(3) Safe access to sampling platform(s);

(4) Utilities for sampling and testing equipment; and

(5) Any other facilities that the Administrator deems necessary for safe and adequate testing of a source.

(e) *Conduct of performance tests.*

(1) Performance tests shall be conducted under such conditions as the Administrator specifies to the owner or operator based on representative performance (i.e., performance based on normal operating conditions) of the affected source. Operations during periods of startup, shutdown, and malfunction shall not constitute representative conditions for the purpose of a performance test, nor shall emissions in excess of the level of the relevant standard during periods of startup, shutdown, and malfunction be considered a violation of the relevant standard unless otherwise specified in the relevant standard or a determination of noncompliance is made under
§ 63.6(e). Upon request, the owner or operator shall make available to the Administrator such records as may be necessary to determine the conditions of performance tests.

(2) Performance tests shall be conducted and data shall be reduced in accordance with the test methods and procedures set forth in this section, in each relevant standard, and, if required, in applicable appendices of parts 51, 60, 61, and 63 of this chapter unless the Administrator -

(i) Specifies or approves, in specific cases, the use of a test method with minor changes in methodology; or

(ii) Approves the use of an alternative test method, the results of which the Administrator has determined to be adequate for indicating whether a specific affected source is in compliance; or

(iii) Approves shorter sampling times and smaller sample volumes when necessitated by process variables or other factors; or

(iv) Waives the requirement for performance tests because the owner or operator of an affected source has demonstrated by other means to the Administrator's satisfaction that the affected source is in compliance with the relevant standard.

(3) Unless otherwise specified in a relevant standard or test method, each performance test
shall consist of three separate runs using the applicable test method. Each run shall be conducted for the time and under the conditions specified in the relevant standard. For the purpose of determining compliance with a relevant standard, the arithmetic mean of the results of the three runs shall apply. Upon receiving approval from the Administrator, results of a test run may be replaced with results of an additional test run in the event that

(i) A sample is accidentally lost after the testing team leaves the site; or

(ii) Conditions occur in which one of the three runs must be discontinued because of forced shutdown; or

(iii) Extreme meteorological conditions occur; or

(iv) Other circumstances occur that are beyond the owner or operator's control.

(4) Nothing in paragraphs (e)(1) through (e)(3) of this section shall be construed to abrogate the Administrator's authority to require testing under section 114 of the Act.

(f) *Use of an alternative test method* -

(1) *General.* Until permission to use an alternative test method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) The owner or operator of an affected source required to do performance testing by a relevant standard may use an alternative test method from that specified in the standard provided that the owner or operator -

(i) Notifies the Administrator of his or her intention to use an alternative test method not later than with the submittal of the site-specific test plan (if requested by the Administrator) or at least 60 days before the performance test is scheduled to begin if a site-specific test plan is not submitted;

(ii) Uses Method 301 in appendix A of this part to validate the alternative test method; and

(iii) Submits the results of the Method 301 validation process along with the notification of intention and the justification for not using the specified test method. The owner or operator may submit the information required in this paragraph well in advance of the deadline specified in paragraph (f)(2)(i) of this section to ensure a timely review by the Administrator in order to meet the performance test date specified in this section or the relevant standard.

(3) The Administrator will determine whether the owner or operator's validation of the proposed alternative test method is adequate when the Administrator approves or disapproves the site-specific test plan required under paragraph (c) of this section. If the Administrator finds reasonable grounds to dispute the results obtained by the Method 301 validation process, the Administrator may require the use of a test method specified in a relevant standard.

(4) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative test method for the purposes of demonstrating compliance with a relevant standard, the Administrator may require the use of a test method specified in a relevant standard.

(5) If the owner or operator uses an alternative test method for an affected source during a required performance test, the owner or operator of such source shall continue to use the alternative test method for subsequent performance tests at that affected source until he or she receives approval from the Administrator to use another test method as allowed under § 63.7(f).

(6) Neither the validation and approval process nor the failure to validate an alternative test method shall abrogate the owner or operator's responsibility to comply with the requirements of this part.

(g) *Data analysis, recordkeeping, and reporting.*

(1) Unless otherwise specified in a relevant standard or test method, or as otherwise approved by the Administrator in writing, results of a performance test shall include the analysis of samples, determination of emissions, and raw data. A performance test is ''completed'' when field sample collection is terminated. The owner or operator of an affected source shall report the results of the performance test to the Administrator before the, close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator (see § 63.9(i)). The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h). Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the results of the performance test to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall send the
results of the performance test to the appropriate permitting authority.

(2) [Reserved]

(3) For a minimum of 5 years after a performance test is conducted, the owner or operator shall retain and make available, upon request, for inspection by the Administrator the records or results of such performance test and other data needed to determine emissions from an affected source.

(h) *Waiver of performance tests.*

(1) Until a waiver of a performance testing requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section.

(2) Individual performance tests may be waived upon written application to the Administrator if, in the Administrator's judgment, the source is meeting the relevant standard(s) on a continuous basis, or the source is being operated under an extension of compliance, or the owner or operator has requested an extension of compliance and the Administrator is still considering that request.

(3) Request to waive a performance test.

(i) If a request is made for an extension of compliance under § 63.6(i), the application for a waiver of an initial performance test shall accompany the information required for the request for an extension of compliance. If no extension of compliance is requested
or if the owner or operator has requested an extension of compliance and the Administrator is still considering that request, the application for a waiver of an initial performance test shall be submitted at least 60 days before the performance test if the site-specific test plan under paragraph
(c) of this section is not submitted.

(ii) If an application for a waiver of a subsequent performance test is made, the application may accompany any required compliance progress report, compliance status report, or excess emissions and continuous monitoring system performance report [such as those required under § 63.6(I), § 63.9(h), and § 63.10(e) or specified in a relevant standard or in the source's title V permit], but it shall be submitted at least 60 days before the performance test if the site-specific test plan required under paragraph (c) of this section is not submitted.

(iii) Any application for a waiver of a performance test shall include information justifying the owner or operator's request for a waiver, such as the technical or economic infeasibility, or the impracticality, of the affected source performing the required test.

(4) Approval of request to waive performance test. The Administrator will approve or deny a request for a waiver of a performance test made under paragraph (h)(3) of this section when
he/she -

(i) Approves or denies an extension of compliance under § 63.6(i)(8); or

(ii) Approves or disapproves a site-specific test plan under § 63.7(c)(3); or

(iii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iv) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.8 Monitoring requirements.

(a) *Applicability.*

(1) (i) Unless otherwise specified in a relevant standard, this section applies to the owner or operator of an affected source required to do monitoring under that standard.

(ii) Relevant standards established under this part will specify monitoring systems, methods, or procedures, monitoring frequency, and other pertinent requirements for source(s) regulated by those standards. This section specifies general monitoring requirements such as those governing the conduct of monitoring and requests to use alternative monitoring methods. In addition, this section specifies detailed requirements that apply to affected sources required to use continuous monitoring systems (CMS) under a relevant standard.

(2) For the purposes of this part, all CMS required under relevant standards shall be subject to the provisions of this section upon promulgation of performance specifications for CMS as specified in the relevant standard or otherwise by the Administrator.

(3) [Reserved]

(4) Additional monitoring requirements for control devices used to comply with provisions in relevant standards of this part are specified in § 63.11.

(b) *Conduct of monitoring.*

(1) Monitoring shall be conducted as set forth in this section and the relevant standard(s) unless the Administrator -

(i) Specifies or approves the use of minor changes in methodology for the specified monitoring requirements and procedures; or

(ii) Approves the use of alternatives to any monitoring requirements or procedures.

(iii) Owners or operators with flares subject to § 63.11(b) are not subject to the requirements of this section unless otherwise specified in the relevant standard.

(2) (i) When the effluents from a single affected source, or from two or more affected sources, are combined before being released to the atmosphere, the owner or operator shall install an applicable CMS on each effluent.

(ii) If the relevant standard is a mass emission standard and the effluent from one affected source is released to the atmosphere through more than one point, the owner or operator shall install an applicable CMS at each emission point unless the installation of fewer systems is

(A) Approved by the Administrator; or

(B) Provided for in a relevant standard (e.g., instead of requiring that a CMS be installed at each emission point before the effluents from those points are channeled to a common control device, the standard specifies that only one CMS is required to be installed at the vent of the control device).

(3) When more than one CMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CMS. However, when one CMS is used as a backup to another CMS, the owner or operator shall report the results from the CMS used to meet the monitoring requirements of this part. If both such CMS are used during a particular reporting period to meet the monitoring requirements of this part, then the owner or operator shall report the results from each CMS for the relevant compliance period.

(c) Operation and maintenance of continuous monitoring systems.

(1) The owner or operator of an affected source shall maintain and operate each CMS as specified in this section, or in a relevant standard, and in a manner consistent with good air pollution control practices.

(i) The owner or operator of an affected source shall ensure the immediate repair or replacement of CMS parts to correct "routine" or otherwise predictable CMS malfunctions as defined in the source's startup, shutdown, and malfunction plan required by § 63.6(e)(3). The owner or operator shall keep the necessary parts for routine repairs of the affected equipment readily available. If the plan is followed and the CMS repaired immediately, this action shall be reported in the semiannual startup, shutdown, and malfunction report required under § 63.10(d)(5)(i).

(ii) For those malfunctions or other events that affect the CMS and are not addressed by the startup, shutdown, and malfunction plan, the owner or operator shall report actions that are not consistent with the startup, shutdown, and malfunction plan within 24 hours after commencing actions inconsistent with the plan. The owner or operator shall send a followup report within 2 weeks after commencing actions inconsistent with the plan that either certifies that corrections have been made or includes a corrective action plan and schedule. The owner or operator shall provide proof that repair parts have been ordered or any other records that would indicate that the delay in making repairs is beyond his or her control.

(iii) The Administrator's determination of whether acceptable operation and maintenance procedures are being used will be based on information that may include, but is not limited to, review of operation and maintenance procedures, operation and maintenance records, manufacturing recommendations and specifications, and inspection of the CMS. Operation and maintenance procedures written by the CMS manufacturer and other guidance also can be used to maintain and operate each CMS.

(2) All CMS shall be installed such that representative measurements of emissions or process parameters from the affected source are obtained. In addition, CEMS shall be located according to procedures contained in the applicable performance specification(s).

(3) All CMS shall be installed, operational, and the data verified as specified in the relevant standard either prior to or in conjunction with conducting performance tests under § 63.7. Verification of operational status shall, at a minimum, include completion of the

manufacturer's written specifications or recommendations for installation, operation, and calibration of the system.

(4) Except for system breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level calibration drift adjustments, all CMS, including COMS and CEMS, shall be in continuous operation and shall meet minimum frequency of operation requirements as follows:

(i) All COMS shall complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(ii) All CEMS for measuring emissions other than opacity shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(5) Unless otherwise approved by the Administrator, minimum procedures for COMS shall include a method for producing a simulated zero opacity condition and an upscale (high-level) opacity condition using a certified neutral density filter or other related technique to produce a
known obscuration of the light beam. Such procedures shall provide a system check of all the analyzer's internal optical surfaces and all electronic circuitry, including the lamp and photodetector assembly normally used in the measurement of opacity.

(6) The owner or operator of a CMS installed in accordance with the provisions of this part and the applicable CMS performance specification(s) shall check the zero (low-level) and high-level calibration drifts at least once daily in accordance with the written procedure specified in the performance evaluation plan developed under paragraphs (e)(3)(i) and (e)(3)(ii) of this section. The zero (low-level) and high-level calibration drifts shall be adjusted, at a minimum, whenever the 24-hour zero (low-level) drift exceeds two times the limits of the applicable performance specification(s) specified in the relevant standard. The system must allow the amount of excess zero (low-level) and high-level drift measured at the 24-hour interval checks to be recorded and quantified, whenever specified. For COMS, all optical and instrumental surfaces exposed to the effluent gases shall be cleaned prior to performing the zero (low-level) and high-level drift adjustments; the optical surfaces and instrumental surfaces shall be cleaned when the cumulative automatic zero compensation, if applicable, exceeds 4 percent opacity.

(7) (i) A CMS is out of control if -

(A) The zero (low-level), mid-level (if applicable), or high-level calibration drift (CD) exceeds two times the applicable CD specification in the applicable performance specification or in the relevant standard; or

(B) The CMS fails a performance test audit (e.g., cylinder gas audit), relative accuracy audit, relative accuracy test audit, or linearity test audit; or

(C) The COMS CD exceeds two times the limit in the applicable performance specification in the relevant standard.

(ii) When the CMS is out of control, the owner or operator of the affected source shall take the necessary corrective action and shall repeat all necessary tests which indicate that the system is out of control. The owner or operator shall take corrective action and conduct retesting until the performance requirements are below the applicable limits. The beginning of the out-of-control period is the hour the owner or operator conducts a performance check (e.g., calibration drift) that indicates an exceedance of the performance requirements established under this part. The end of the out-of-control period is the hour following the completion of corrective action and successful demonstration that the system is within the allowable limits. During the period the CMS is out of control, recorded data shall not be used in data averages and calculations, or to meet any data availability requirement established under this part.

(8) The owner or operator of a CMS that is out of control as defined in paragraph (c)(7) of this section shall submit all information concerning out-of-control periods, including start and end
dates and hours and descriptions of corrective actions taken, in the excess emissions and continuous monitoring system performance report required in § 63.10(e)(3).

(d) *Quality control program.*

(1) The results of the quality control program required in this paragraph will be considered by the Administrator when he/she determines the validity of monitoring data.

(2) The owner or operator of an affected source that is required to use a CMS and is subject to the monitoring requirements of this section and a relevant standard shall develop and implement a CMS quality control program. As part of the quality control program, the owner or operator shall develop and submit to the Administrator for approval upon request a site-specific performance evaluation test plan for the CMS performance evaluation required in paragraph (e)(3)(i) of this section, according to the procedures specified in paragraph (e). In addition, each quality control program shall include, at a minimum, a written protocol that describes procedures for each of the following operations:

(i) Initial and any subsequent calibration of the CMS;

(ii) Determination and adjustment of the calibration drift of the CMS;

(iii) Preventive maintenance of the CMS, including spare parts inventory;

(iv) Data recording, calculations, and reporting;

(v) Accuracy audit procedures, including sampling and analysis methods; and

(vi) Program of corrective action for a malfunctioning CMS.

(3) The owner or operator shall keep these written procedures on record for the life of the affected source or until the affected source is no longer subject to the provisions of this part, to be
made available for inspection, upon request, by the Administrator. If the performance evaluation plan is revised, the owner or operator shall keep previous (i.e., superseded) versions of the performance evaluation 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. Where relevant, e.g., program of corrective action for a malfunctioning CMS, these written procedures may be incorporated as part of the affected source's startup, shutdown, and malfunction plan to avoid duplication of planning and recordkeeping efforts.

(e) *Performance evaluation of continuous monitoring systems* -

(1) *General.* When required by a relevant standard, and at any other time the Administrator may require under section 114 of the Act, the owner or operator of an affected source being monitored shall conduct a performance evaluation of the CMS. Such performance evaluation shall be conducted according to the applicable specifications and procedures described in this section or in the relevant standard.

(2) *Notification of performance evaluation.* The owner or operator shall notify the Administrator in writing of the date of the performance evaluation simultaneously with the notification of the performance test date required under § 63.7(b) or at least 60 days prior to the date the performance evaluation is scheduled to begin if no performance test is required.

(3) (i) *Submission of site-specific performance evaluation test plan.* Before conducting a required CMS performance evaluation, the owner or operator of an affected source shall develop and submit a site-specific performance evaluation test plan to the Administrator for approval upon request. The performance evaluation test plan shall include the evaluation program objectives, an evaluation program summary, the performance evaluation schedule, data

quality objectives, and both an internal and external QA program. Data quality objectives are the pre-evaluation expectations of precision, accuracy, and completeness of data.

(ii) The internal QA program shall include, at a minimum, the activities planned by routine operators and analysts to provide an assessment of CMS performance. The external QA program shall include, at a minimum, systems audits that include the opportunity for on-site evaluation by the Administrator of instrument calibration, data validation, sample logging, and documentation of quality control data and field maintenance activities.

(iii) The owner or operator of an affected source shall submit the site-specific performance evaluation test plan to the Administrator (if requested) at least 60 days before the performance test or performance evaluation is scheduled to begin, or on a mutually agreed upon date, and review and approval of the performance evaluation test plan by the Administrator will occur with the review and approval of the site-specific test plan (if review of the site-specific test plan is requested).

(iv) The Administrator may request additional relevant information after the submittal of a site-specific performance evaluation test plan.

(v) In the event that the Administrator fails to approve or disapprove the site-specific performance evaluation test plan within the time period specified in § 63.7(c)(3), the following conditions shall apply:

(A) If the owner or operator intends to demonstrate compliance using the monitoring method(s) specified in the relevant standard, the owner or operator shall conduct the performance evaluation within the time specified in this subpart using the specified method(s);

(B) If the owner or operator intends to demonstrate compliance by using an alternative to a monitoring method specified in the relevant standard, the owner or operator shall refrain from conducting the performance evaluation until the Administrator approves the use of the alternative method. If the Administrator does not approve the use of the alternative method within 30 days before the performance evaluation is scheduled to begin, the performance evaluation deadlines specified in paragraph (e)(4) of this section may be extended such that the owner or operator shall conduct the performance evaluation within 60 calendar days after the Administrator approves the use of the alternative method. Notwithstanding the requirements in the preceding two sentences, the owner or operator may proceed to conduct the performance evaluation as required in this section (without the Administrator's prior approval of the site-specific performance evaluation test plan) if he/she subsequently chooses to use the specified monitoring method(s) instead of an alternative.

(vi) Neither the submission of a site-specific performance evaluation test plan for approval, nor the Administrator's approval or disapproval of a plan, nor the Administrator' failure to approve or disapprove a plan in a timely manner shall -

(A) Relieve an owner or operator of legal responsibility for compliance with any applicable provisions of this part or with any other applicable Federal, State, or local requirement; or

(B) Prevent the Administrator from implementing or enforcing this part or taking any other action under the Act.

(4) *Conduct of performance evaluation and performance evaluation dates.* The owner or operator of an affected source shall conduct a performance evaluation of a required CMS during any performance test required under § 63.7 in accordance with the applicable performance specification as specified in the relevant standard. Notwithstanding the requirement in the previous sentence, if the owner or operator of an affected source elects to submit COMS data for compliance with a relevant opacity emission standard as provided under § 63.6(h)(7), he/she shall conduct a performance evaluation of the COMS as specified in the relevant standard, before

the performance test required under § 63.7 is conducted in time to submit the results of the performance evaluation as specified in paragraph (e)(5)(ii) of this section. If a performance test is
not required, or the requirement for a performance test has been waived under § 63.7(h), the owner or operator of an affected source shall conduct the performance evaluation not later than 180 days
after the appropriate compliance date for the affected source, as specified in § 63.7(a), or as otherwise specified in the relevant standard.

(5) *Reporting performance evaluation results.*

(i) The owner or operator shall furnish the Administrator a copy of a written report of the results of the performance evaluation simultaneously with the results of the performance test required under § 63.7 or within 60 days of completion of the performance evaluation if no test is required, unless otherwise specified in a relevant standard. The Administrator may request that the owner or operator submit the raw data from a performance evaluation in the report of the performance evaluation results.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation under this paragraph. The copies shall be provided at least 15 calendar days before the performance test required under § 63.7 is conducted.

(f) *Use of an alternative monitoring method* -

(1) *General.* Until permission to use an alternative monitoring method has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to the requirements of this section and the relevant standard.

(2) After receipt and consideration of written application, the Administrator may approve alternatives to any monitoring methods or procedures of this part including, but not limited to, the following:

(i) Alternative monitoring requirements when installation of a CMS specified by a relevant standard would not provide accurate measurements due to liquid water or other interferences caused by substances within the effluent gases;

(ii) Alternative monitoring requirements when the affected source is infrequently operated;

(iii) Alternative monitoring requirements to accommodate CEMS that require additional measurements to correct for stack moisture conditions;

(iv) Alternative locations for installing CMS when the owner or operator can demonstrate that installation at alternate locations will enable accurate and representative measurements;

(v) Alternate methods for converting pollutant concentration measurements to units of the relevant standard;

(vi) Alternate procedures for performing daily checks of zero (low-level) and high-level drift that do not involve use of high-level gases or test cells;

(vii) Alternatives to the American Society for Testing and Materials (ASTM) test methods or sampling procedures specified by any relevant standard;

(viii) Alternative CMS that do not meet the design or performance requirements in this part, but adequately demonstrate a definite and consistent relationship between their measurements and the measurements of opacity by a system complying with the requirements as

specified in the relevant standard. The Administrator may require that such demonstration be performed for each affected source; or

(ix) Alternative monitoring requirements when the effluent from a single affected source or the combined effluent from two or more affected sources is released to the atmosphere through more than one point.

(3) If the Administrator finds reasonable grounds to dispute the results obtained by an alternative monitoring method, requirement, or procedure, the Administrator may require the use of a method, requirement, or procedure specified in this section or in the relevant standard. If the results of the specified and alternative method, requirement, or procedure do not agree, the results obtained by the specified method, requirement, or procedure shall prevail.

(4) (i) Request to use alternative monitoring method. An owner or operator who wishes to use an alternative monitoring method shall submit an application to the Administrator as described in paragraph (f)(4)(ii) of this section, below. The application may be submitted at any time provided that the monitoring method is not used to demonstrate compliance with a relevant standard or other requirement. If the alternative monitoring method is to be used to demonstrate compliance with a relevant standard, the application shall be submitted not later than with the site-specific test plan required in § 63.7(c) (if requested) or with the site-specific performance evaluation plan (if requested) or at least 60 days before the performance evaluation is scheduled to begin.

(ii) The application shall contain a description of the proposed alternative monitoring system and a performance evaluation test plan, if required, as specified in paragraph (e)(3) of this section. In addition, the application shall include information justifying the owner or operator's request for an alternative monitoring method, such as the technical or economic infeasibility, or the impracticality, of the affected source using the required method.

(iii) The owner or operator may submit the information required in this paragraph well in advance of the submittal dates specified in paragraph (f)(4)(i) above to ensure a timely review by the Administrator in order to meet the compliance demonstration date specified in this section or the relevant standard.

(5) Approval of request to use alternative monitoring method.

(i) The Administrator will notify the owner or operator of approval or intention to
deny approval of the request to use an alternative monitoring method within 30 calendar days after
receipt of the original request and within 30 calendar days after receipt of any supplementary information that is submitted. Before disapproving any request to use an alternative monitoring method, the Administrator will notify the applicant of the Administrator's intention to disapprove the request together with -

(A) Notice of the information and findings on which the intended disapproval is based; and

(B) Notice of opportunity for the owner or operator to present additional information to the Administrator before final action on the request. At the time the Administrator notifies the applicant of his or her intention to disapprove the request, the Administrator will specify how much time the owner or operator will have after being notified of the intended disapproval to submit the additional information.

(ii) The Administrator may establish general procedures and criteria in a relevant standard to accomplish the requirements of paragraph (f)(5)(i) of this section.

(iii) If the Administrator approves the use of an alternative monitoring method for an affected source under paragraph (f)(5)(i) of this section, the owner or operator of such

source shall continue to use the alternative monitoring method until he or she receives approval from the Administrator to use another monitoring method as allowed by § 63.8(f).

(6) Alternative to the relative accuracy test. An alternative to the relative accuracy test for CEMS specified in a relevant standard may be requested as follows:

(i) *Criteria for approval of alternative procedures.* An alternative to the test method for determining relative accuracy is available for affected sources with emission rates demonstrated to be less than 50 percent of the relevant standard. The owner or operator of an affected source may petition the Administrator under paragraph (f)(6)(ii) of this section to substitute the relative accuracy test in section 7 of Performance Specification 2 with the procedures in section 10 if the results of a performance test conducted according to the requirements in § 63.7, or other tests performed following the criteria in § 63.7, demonstrate that the emission rate of the pollutant of interest in the units of the relevant standard is less than 50 percent of the relevant standard. For affected sources subject to emission limitations expressed as control efficiency
levels, the owner or operator may petition the Administrator to substitute the relative accuracy test with the procedures in section 10 of Performance Specification 2 if the control device exhaust
emission rate is less than 50 percent of the level needed to meet the control efficiency requirement.
The alternative procedures do not apply if the CEMS is used continuously to determine compliance with the relevant standard.

(ii) *Petition to use alternative to relative accuracy test.* The petition to use an alternative to the relative accuracy test shall include a detailed description of the procedures to be applied, the location and the procedure for conducting the alternative, the concentration or response levels of the alternative relative accuracy materials, and the other equipment checks included in the alternative procedure(s). The Administrator will review the petition for completeness and applicability. The Administrator's determination to approve an alternative will depend on the intended use of the CEMS data and may require specifications more stringent than in Performance Specification 2.

(iii) *Rescission of approval to use alternative to relative accuracy test.* The Administrator will review the permission to use an alternative to the CEMS relative accuracy test and may rescind such permission if the CEMS data from a successful completion of the alternative relative accuracy procedure indicate that the affected source's emissions are approaching the level of the relevant standard. The criterion for reviewing the permission is that the collection of CEMS data shows that emissions have exceeded 70 percent of the relevant standard for any averaging period, as specified in the relevant standard. For affected sources subject to emission limitations expressed as control efficiency levels, the criterion for reviewing the permission is that the collection of CEMS data shows that exhaust emissions have exceeded 70 percent of the level needed to meet the control efficiency requirement for any averaging period, as specified in the relevant standard. The owner or operator of the affected source shall maintain records and determine the level of emissions relative to the criterion for permission to use an alternative for relative accuracy testing. If this criterion is exceeded, the owner or operator shall notify the Administrator within 10 days of such occurrence and include a description of the nature and cause of the increased emissions. The Administrator will review the notification and may rescind permission to use an alternative and require the owner or operator to conduct a relative accuracy
test of the CEMS as specified in section 7 of Performance Specification 2.

(g) *Reduction of monitoring data.*

(1) The owner or operator of each CMS shall reduce the monitoring data as specified in this paragraph. In addition, each relevant standard may contain additional requirements for reducing monitoring data. When additional requirements are specified in a relevant standard, the standard will identify any unnecessary or duplicated requirements in this paragraph that the owner or operator need not comply with.

(2) The owner or operator of each COMS shall reduce all data to 6-minute averages calculated from 36 or more data points equally spaced over each 6-minute period. Data from CEMS for measurement other than opacity, unless otherwise specified in the relevant standard, shall be reduced to 1-hour averages computed from four or more data points equally spaced over each 1-hour period, except during periods when calibration, quality assurance, or maintenance activities pursuant to provisions of this part are being performed. During these periods, a valid hourly average shall consist of at least two data points with each representing a 15-minute period. Alternatively, an arithmetic or integrated 1-hour average of CEMS data may be used. Time periods for averaging are defined in § 63.2.

(3) The data may be recorded in reduced or nonreduced form (e.g., ppm pollutant and percent O_2 or ng/J of pollutant).

(4) All emission data shall be converted into units of the relevant standard for reporting purposes using the conversion procedures specified in that standard. After conversion into units of the relevant standard, the data may be rounded to the same number of significant digits as used in that standard to specify the emission limit (e.g., rounded to the nearest 1 percent opacity).

(5) Monitoring data recorded during periods of unavoidable CMS breakdowns, out-of-control periods, repairs, maintenance periods, calibration checks, and zero (low-level) and high-level adjustments shall not be included in any data average computed under this part.

§ 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) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(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) Before 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 appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(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) A notification of the anticipated date of startup of the source, delivered or postmarked not more than 60 days nor less than 30 days before such date; 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) *Request for extension of compliance.* If the owner or operator of an affected source cannot comply with a relevant standard by the applicable compliance date for that source, or if the owner or operator has installed BACT or technology to meet LAER consistent with § 63.6(i)(5) of this subpart, he/she may submit to the Administrator (or the State with an approved permit program) a request for an extension of compliance as specified in § 63.6(i)(4) through § 63.6(i)(6).

(d) *Notification that source is subject to special compliance requirements.* An owner or operator of a new source that is subject to special compliance requirements as specified in § 63.6(b)(3) and § 63.6(b)(4) shall notify the Administrator of his/her compliance obligations not later than the notification dates established in paragraph (b) of this section for new sources that are not subject to the special provisions.

(e) *Notification of performance test.* The owner or operator of an affected source shall notify the Administrator in writing of his or her intention to conduct a performance test at least 60 calendar days before the performance test is scheduled to begin to allow the Administrator to review and approve the site-specific test plan required under § 63.7(c), if requested by the Administrator, and to have an observer present during the test.

(f) *Notification of opacity and visible emission observations*. The owner or operator of an affected
source shall notify the Administrator in writing of the anticipated date for conducting the opacity or
visible emission observations specified in § 63.6(h)(5), if such observations are required for the source by a relevant standard. The notification shall be submitted with the notification of the performance test date, as specified in paragraph (e) of this section, or if no performance test is required or visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the initial performance test required under § 63.7, the owner or operator shall deliver or postmark the notification not less than 30 days before the opacity or visible emission observations are scheduled to take place.

(g) *Additional notification requirements for sources with continuous monitoring systems*. The owner or operator of an affected source required to use a CMS by a relevant standard shall furnish
the Administrator written notification as follows:

(1) A notification of the date the CMS performance evaluation under § 63.8(e) is scheduled to begin, submitted simultaneously with the notification of the performance test date required under § 63.7(b). If no performance test is required, or if the requirement to conduct a performance test has been waived for an affected source under § 63.7(h), the owner or operator shall notify the Administrator in writing of the date of the performance evaluation at least 60 calendar days before the evaluation is scheduled to begin;

(2) A notification that COMS data results will be used to determine compliance with the applicable opacity emission standard during a performance test required by § 63.7 in lieu of Method 9 or other opacity emissions test method data, as allowed by § 63.6(h)(7)(ii), if compliance with an opacity emission standard is required for the source by a relevant standard. The notification shall be submitted at least 60 calendar days before the performance test is scheduled to begin; and

(3) A notification that the criterion necessary to continue use of an alternative to relative accuracy testing, as provided by § 63.8(f)(6), has been exceeded. The notification shall be delivered or postmarked not later than 10 days after the occurrence of such exceedance, and it shall include a description of the nature and cause of the increased emissions.

(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, unless specified otherwise in a relevant standard.

(2) For affected sources that have been granted an extension of compliance under subpart D of this part, the requirements of this section do not apply to those sources while they are operating under such compliance extensions.

(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) Before 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 appropriate Regional Office of the EPA (to the attention of the Director of the Division indicated in the list of the EPA Regional Offices in § 63.13).

(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) Each period during which a CMS is malfunctioning or inoperative (including out-of-control periods);

(vii) All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to re-port);

(viii) All results of performance tests, CMS performance evaluations, and opacity and visible emission observations;

(ix) All measurements as may be necessary to determine the conditions of performance tests and performance evaluations;

(x) All CMS calibration checks;

(xi) All adjustments and maintenance performed on CMS;

(xii) Any information demonstrating whether a source is meeting the requirements for a waiver of recordkeeping or reporting requirements under this part, if the source has been granted a waiver under paragraph (f) of this section;

(xiii) All emission levels relative to the criterion for obtaining permission to use an alternative to the relative accuracy test, if the source has been granted such permission under § 63.8(f)(6); and

(xiv) All documentation supporting initial notifications and notifications of compliance status under § 63.9.

(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) *Additional recordkeeping requirements for sources with continuous monitoring systems.* In

addition to complying with the requirements specified in paragraphs (b)(1) and (b)(2) of this section, the owner or operator of an affected source required to install a CMS by a relevant standard shall maintain records for such source of -

(1) All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods);

(2)–(4) [Reserved]

(5) The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks;

(6) The date and time identifying each period during which the CMS was out of control, as defined in § 63.8(c)(7);

(7) The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant
standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source;

(8) The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source;

(9) [Reserved]

(10) The nature and cause of any malfunction (if known);

(11) The corrective action taken or preventive measures adopted;

(12) The nature of the repairs or adjustments to the CMS that was inoperative or out of control;

(13) The total process operating time during the reporting period; and

(14) All procedures that are part of a quality control program developed and implemented for CMS under § 63.8(d).

(15) In order to satisfy the requirements of paragraphs (c)(10) through (c)(12) of this section and to avoid duplicative recordkeeping efforts, the owner or operator may use the affected source's startup, shutdown, and malfunction plan or records kept to satisfy the recordkeeping requirements of the startup, shutdown, and malfunction plan specified in § 63.6(e), provided that such plan and records adequately address the requirements of paragraphs (c)(10) through (c)(12).

(d) *General reporting requirements.*

(1) Not-withstanding 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) *Reporting results of performance tests.* Before a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of any performance test under § 63.7 to the Administrator. After a title V permit has been issued to the owner or operator of an affected source, the owner or operator shall report the results of a required performance test to the appropriate permitting authority. The owner or operator of an affected source shall report the results of the performance test to the Administrator (or the State with an approved permit program) before the close of business on the 60th day following the completion of the performance test, unless specified otherwise in a relevant standard or as approved otherwise in writing by the Administrator. The results of the performance test shall be submitted as part of the notification of compliance status required under § 63.9(h).

(3) *Reporting results of opacity or visible emission observations.* The owner or operator of an affected source required to conduct opacity or visible emission observations by a relevant standard shall report the opacity or visible emission results (produced using Test Method 9 or Test Method 22, or an alternative to these test methods) along with the results of the performance test required under § 63.7. If no performance test is required, or if visibility or other conditions prevent the opacity or visible emission observations from being conducted concurrently with the performance test required under § 63.7, the owner or operator shall report the opacity or visible emission results before the close of business on the 30th day following the completion of the opacity or visible emission observations.

(4) *Progress reports.* The owner or operator of an affected source who is required to submit progress reports as a condition of receiving an extension of compliance under § 63.6(i) shall submit such reports to the Administrator (or the State with an approved permit program) by the dates specified in the written extension of compliance.

(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) *Additional reporting requirements for sources with continuous monitoring systems* -

(1) *General.* When more than one CEMS is used to measure the emissions from one affected source (e.g., multiple breechings, multiple outlets), the owner or operator shall report the results as required for each CEMS.

(2) Reporting results of continuous monitoring system performance evaluations.

(i) The owner or operator of an affected source required to install a CMS by a relevant standard shall furnish the Administrator a copy of a written report of the results of the CMS performance evaluation, as required under § 63.8(e), simultaneously with the results of the performance test required under § 63.7, unless otherwise specified in the relevant standard.

(ii) The owner or operator of an affected source using a COMS to determine opacity compliance during any performance test required under § 63.7 and described in § 63.6(d)(6) shall furnish the Administrator two or, upon request, three copies of a written report of the results of the COMS performance evaluation conducted under § 63.8(e). The copies shall be furnished at least 15 calendar days before the performance test required under § 63.7 is conducted.

(3) *Excess emissions and continuous monitoring system performance report and summary report.*

(i) Excess emissions and parameter monitoring exceedances are defined in relevant standards. The owner or operator of an affected source required to install a CMS by a relevant standard shall submit an excess emissions and continuous monitoring system performance report and/or a summary report to the Administrator semiannually, except when -

(A) More frequent reporting is specifically required by a relevant standard;

(B) The Administrator determines on a case-by-case basis that more frequent reporting is necessary to accurately assess the compliance status of the source; or

(C) The CMS data are to be used directly for compliance determination and the source experienced excess emissions, in which case quarterly reports shall be submitted. Once a source reports excess emissions, the source shall follow a quarterly reporting format until a request to reduce reporting frequency under paragraph (e)(3)(ii) of this section is approved.

(ii) Request to reduce frequency of excess emissions and continuous monitoring system performance reports. Notwithstanding the frequency of reporting requirements specified in paragraph (e)(3)(i) of this section, an owner or operator who is required by a relevant standard to submit excess emissions and continuous monitoring system performance (and summary) reports on a quarterly (or more frequent) basis may reduce the frequency of reporting for that standard to semiannual if the following conditions are met:

(A) For 1 full year (e.g., 4 quarterly or 12 monthly reporting periods) the affected source's excess emissions and continuous monitoring system performance reports continually demonstrate that the source is in compliance with the relevant standard;

(B) The owner or operator continues to comply with all recordkeeping and monitoring requirements specified in this subpart and the relevant standard; and

(C) The Administrator does not object to a reduced frequency of reporting for the affected source, as provided in paragraph (e)(3)(iii) of this section.

(iii) The frequency of reporting of excess emissions and continuous monitoring system performance (and summary) reports required to comply with a relevant standard may be reduced only after the owner or operator notifies the Administrator in writing of his or her intention to make such a change and the Administrator does not object to the intended change. In deciding whether to approve a reduced frequency of reporting, the Administrator may review information concerning the source's entire previous performance history during the 5-year recordkeeping period prior to the intended change, including performance test results, monitoring data, and evaluations of an owner or operator's conformance with operation and maintenance requirements. Such information may be used by the Administrator to make a judgment about the source's potential for noncompliance in the future. If the Administrator disapproves the owner or operator's request to reduce the frequency of reporting, the Administrator will notify the owner or operator in writing within 45 days after receiving notice of the owner or operator's intention. The notification from the Administrator to the owner or operator will specify the grounds on which the disapproval is based. In the absence of a notice of disapproval within 45 days, approval is automatically granted.

(iv) As soon as CMS data indicate that the source is not in compliance with any emission limitation or operating parameter specified in the relevant standard, the frequency of reporting shall revert to the frequency specified in the relevant standard, and the owner or operator shall submit an excess emissions and continuous monitoring system performance (and summary) report for the noncomplying emission points at the next appropriate reporting period following the noncomplying event. After demonstrating ongoing compliance with the relevant standard for another full year, the owner or operator may again request approval from the Administrator to reduce the frequency of reporting for that standard, as provided for in paragraphs (e)(3)(ii) and (e)(3)(iii) of this section.

(v) *Content and submittal dates for excess emissions and monitoring system performance reports*. All excess emissions and monitoring system performance reports and all summary reports, if required, shall be delivered or postmarked by the 30th day following the end of each calendar half or quarter, as appropriate. Written reports of excess emissions or exceedances of process or control system parameters shall include all the information required in paragraphs (c)(5) through (c)(13) of this section, in § 63.8(c)(7) and § 63.8(c)(8), and in the relevant standard, and they shall contain the name, title, and signature of the responsible official who is certifying the accuracy of the report. When no excess emissions or exceedances of a parameter have occurred, or a CMS has not been inoperative, out of control, repaired, or adjusted, such information shall be stated in the report.

(vi) *Summary report*. As required under paragraphs (e)(3)(vii) and (e)(3)(viii) of this section, one summary report shall be submitted for the hazardous air pollutants monitored at each affected source (unless the relevant standard specifies that more than one summary report is required, e.g., one summary report for each hazardous air pollutant monitored). The summary report shall be entitled "Summary Report - Gaseous and Opacity Excess Emission and Continuous Monitoring System Performance" and shall contain the following information:

(A) The company name and address of the affected source;

(B) An identification of each hazardous air pollutant monitored at the affected source;

(C) The beginning and ending dates of the reporting period;

(D) A brief description of the process units;

(E) The emission and operating parameter limitations specified in the relevant standard(s);

(F) The monitoring equipment manufacturer(s) and model number(s);

(G) The date of the latest CMS certification or audit;

(H) The total operating time of the affected source during the reporting period;

(I) An emission data summary (or similar summary if the owner or operator monitors control system parameters), including the total duration of excess emissions during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of excess emissions expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total duration of excess emissions during the reporting period into those that are due to startup/shutdown, control equipment problems, process problems, other known causes, and other unknown causes;

(J) A CMS performance summary (or similar summary if the owner or operator monitors control system parameters), including the total CMS downtime during the reporting period (recorded in minutes for opacity and hours for gases), the total duration of CMS downtime expressed as a percent of the total source operating time during that reporting period, and a breakdown of the total CMS downtime during the reporting period into periods that are due to monitoring equipment malfunctions, nonmonitoring equipment malfunctions, quality assurance/quality control calibrations, other known causes, and other unknown causes;

(K) A description of any changes in CMS, processes, or controls since the last reporting period;

(L) The name, title, and signature of the responsible official who is certifying the accuracy of the report; and

(M) The date of the report.

(vii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is less than 1 percent of the total operating time for the reporting period, and CMS downtime for the reporting period is less than 5 percent of the total operating time for the reporting period, only the summary report shall be submitted, and the full excess emissions and continuous monitoring system performance report need not be submitted unless required by the Administrator.

(viii) If the total duration of excess emissions or process or control system parameter exceedances for the reporting period is 1 percent or greater of the total operating time for the reporting period, or the total CMS downtime for the reporting period is 5 percent or greater of the total operating time for the reporting period, both the summary report and the excess emissions and continuous monitoring system performance report shall be submitted.

(4) Reporting continuous opacity monitoring system data produced during a performance test. The owner or operator of an affected source required to use a COMS shall record the monitoring data produced during a performance test required under § 63.7 and shall furnish the Administrator a written report of the monitoring results. The report of COMS data shall be submitted simultaneously with the report of the performance test results required in paragraph (d)(2) of this section.

(f) *Waiver of recordkeeping or reporting requirements.*

(1) Until a waiver of a recordkeeping or reporting requirement has been granted by the Administrator under this paragraph, the owner or operator of an affected source remains subject to
the requirements of this section.

(2) Recordkeeping or reporting requirements may be waived upon written application to the Administrator if, in the Administrator's judgment, the affected source is achieving the relevant
standard(s), or the source is operating under an extension of compliance, or the owner or operator
has requested an extension of compliance and the Administrator is still considering that request.

(3) If an application for a waiver of record-keeping or reporting is made, the application shall accompany the request for an extension of compliance under § 63.6(i), any required compliance progress report or compliance status report required under this part (such as under § 63.6(i) and § 63.9(h)) or in the source's title V permit, or an excess emissions and continuous monitoring system performance report required under paragraph (e) of this section, whichever is applicable. The application shall include whatever information the owner or operator considers useful to convince the Administrator that a waiver of recordkeeping or reporting is warranted.

(4) The Administrator will approve or deny a request for a waiver of recordkeeping or reporting requirements under this paragraph when he/she -

(i) Approves or denies an extension of compliance; or

(ii) Makes a determination of compliance following the submission of a required compliance status report or excess emissions and continuous monitoring systems performance report; or

(iii) Makes a determination of suitable progress towards compliance following the submission of a compliance progress report, whichever is applicable.

(5) A waiver of any recordkeeping or reporting requirement granted under this paragraph may be conditioned on other recordkeeping or reporting requirements deemed necessary by the Administrator.

(6) Approval of any waiver granted under this section shall not abrogate the Administrator's authority under the Act or in any way prohibit the Administrator from later canceling the waiver. The cancellation will be made only after notice is given to the owner or operator of the affected source.

§ 63.11 Control device requirements.

(a) *Applicability.* This section contains requirements for control devices used to comply with provisions in relevant standards. These requirements apply only to affected sources covered by relevant standards referring directly or indirectly to this section.

(b) Flares.

(1) Owners or operators using flares to comply with the provisions of this part shall monitor these control devices to assure that they are operated and maintained in conformance with
their designs. Applicable subparts will provide provisions stating how owners or operators using flares shall monitor these control devices.

(2) Flares shall be steam-assisted, air-assisted, or non-assisted.

(3) Flares shall be operated at all times when emissions may be vented to them.

(4) Flares shall be designed for and operated with no visible emissions, except for periods not to exceed a total of 5 minutes during any 2 consecutive hours. Test Method 22 in appendix A of part 60 of this chapter shall be used to determine the compliance of flares with the visible emission provisions of this part. The observation period is 2 hours and shall be used according to Method 22.

(5) Flares shall be operated with a flame present at all times. The presence of a flare pilot flame shall be monitored using a thermocouple or any other equivalent device to detect the presence of a flame.

(6) An owner/operator has the choice of adhering to the heat content specifications in paragraph (b)(6)(ii) of this section, and the maximum tip velocity specifications in paragraph (b)(7) or (b)(8) of this section, or adhering to the requirements in paragraph (b)(6)(i) of this section.

(i) (A) Flares shall be used that have a hydrogen content of 8.0 percent (by volume) or greater, and are designed for and operated with an exit velocity less than 37.2 m/sec (122 ft/sec) and less than the velocity V_{max}, as determined by the following equation:

$$V_{max} = (X_{H2} - K_1) * K_2$$

Where:

V_{max} = Maximum permitted velocity, m/sec.

K_1 = Constant, 6.0 volume-percent hydrogen.

K_2 = Constant, 3.9 (m/sec)/volume-percent hydrogen.

X_{H2} = The volume-percent of hydrogen, on a wet basis, as calculated by using the American Society for Testing and Materials (ASTM) Method D1946-77. (Incorporated by reference as specified in § 63.14).

(B) The actual exit velocity of a flare shall be determined by the method specified in paragraph (b)(7)(i) of this section.

(ii) Flares shall be used only with the net heating value of the gas being combusted at 11.2 MJ/scm (300 Btu/scf) or greater if the flare is steam-assisted or air-assisted; or with the net heating value of the gas being combusted at 7.45 MJ/scm (200 Btu/scf) or greater if the flare is non-assisted. The net heating value of the gas being combusted in a flare shall be calculated using the following equation:

$$H_T = K \sum_{i=1}^{n} C_i H_i$$

Where:

H_T = Net heating value of the sample, MJ/scm; where the net enthalpy per mole of offgas is based on combustion at 25 °C and 760 mm Hg, but the standard temperature for determining the volume corresponding to one mole is 20 °C.

K = Constant = 1.740×10^{-7} (1/ppmv)(g-mole/scm)(MJ/kcal); where the standard temperature for (g-mole/scm) is 20 °C.

C_i = Concentration of sample component i in ppmv on a wet basis, as measured for organics by Test Method 18 and measured for hydrogen and carbon monoxide by American Society for Testing and Materials (ASTM) D1946–77b (incorporated by reference as specified in § 63.14).

H_i = Net heat of combustion of sample component i, kcal/g-mole at 25 °C and 760 mm Hg. The heats of combustion may be determined using ASTM D2382–76 (incorporated by reference as specified in § 63.14) if published values are not available or cannot be calculated.

n = Number of sample components.

(7) (i) Steam-assisted and nonassisted flares shall be designed for and operated with an exit velocity less than 18.3 m/sec (60 ft/sec), except as provided in paragraphs (b)(7)(ii) and (b)(7)(iii) of this section. The actual exit velocity of a flare shall be determined by dividing by the volumetric flow rate of gas being combusted (in units of emission standard temperature and pressure), as determined by Test Method 2, 2A, 2C, or 2D in appendix A to 40 CFR part 60 of this chapter, as appropriate, by the unobstructed (free) cross-sectional area of the flare tip.

(ii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, equal to or greater than 18.3 m/sec (60 ft/sec) but less than 122 m/sec (400 ft/sec), are allowed if the net heating value of the gas being combusted is greater than 37.3 MJ/scm (1,000 Btu/scf).

(iii) Steam-assisted and nonassisted flares designed for and operated with an exit velocity, as determined by the method specified in paragraph (b)(7)(i) of this section, less than the velocity V_{max}, as determined by the method specified in this paragraph, but less than 122 m/sec (400 ft/sec) are allowed. The maximum permitted velocity, V_{max}, for flares complying with this paragraph shall be determined by the following equation:

$$Log_{10}(V_{max})=(H_T+28.8)/31.7$$

Where:
V_{max} = Maximum permitted velocity, m/sec.
28.8 = Constant.
31.7 = Constant.
H_T = The net heating value as determined in paragraph (b)(6) of this section.

(8) Air-assisted flares shall be designed and operated with an exit velocity less than the velocity V_{max}. The maximum permitted velocity, V_{max}, for air-assisted flares shall be determined by the following equation:

$$V_{max} = 8.71 + 0.708(H_T)$$

Where:
V_{max} = Maximum permitted velocity, m/sec.
8.71 = Constant.
0.708 = Constant.
H_T = The net heating value as determined in paragraph (b)(6)(ii) of this section.

§ 63.12 State authority and delegations.

(a) The provisions of this part shall not be construed in any manner to preclude any State or political subdivision thereof from -

(1) Adopting and enforcing any standard, limitation, prohibition, or other regulation applicable to an affected source subject to the requirements of this part, provided that such standard, limitation, prohibition, or regulation is not less stringent than any requirement applicable to such source established under this part;

(2) Requiring the owner or operator of an affected source to obtain permits, licenses, or approvals prior to initiating construction, reconstruction, modification, or operation of such source; or

(3) Requiring emission reductions in excess of those specified in subpart D of this part as a condition for granting the extension of compliance authorized by section 112(i)(5) of the Act.

(b) (1) Section 112(l) of the Act directs the Administrator to delegate to each State, when appropriate, the authority to implement and enforce standards and other requirements pursuant to section 112 for stationary sources located in that State. Because of the unique nature of radioactive material, delegation of authority to implement and enforce standards that control radionuclides may require separate approval.

(2) Subpart E of this part establishes procedures consistent with section 112(l) for the approval of State rules or programs to implement and enforce applicable Federal rules promulgated under the authority of section 112. Subpart E also establishes procedures for the review and withdrawal of section 112 implementation and enforcement authorities granted through a section 112(l) approval.

(c) All information required to be submitted to the EPA under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act, provided that each specific delegation may exempt sources from a certain Federal or State reporting requirement. The Administrator may permit all or some of the information to be submitted to the appropriate State agency only, instead of to the EPA and the State agency.

§ 63.13 Addresses of State air pollution control agencies and EPA Regional Offices.

(a) All requests, reports, applications, submittals, and other communications to the Administrator pursuant to this part shall be submitted to the appropriate Regional Office of the U.S. Environmental Protection Agency indicated as follows:

EPA Region IV; Director; Air, Pesticides and Toxics, Management Division; 61 Forsyth Street; Atlanta, GA 30303.

(b) All information required to be submitted to the Administrator under this part also shall be submitted to the appropriate State agency of any State to which authority has been delegated under section 112(l) of the Act. The owner or operator of an affected source may contact the appropriate EPA Regional Office for the mailing addresses for those States whose delegation requests have been approved.

(c) If any State requires a submittal that contains all the information required in an application, notification, request, report, statement, or other communication required in this part, an owner or operator may send the appropriate Regional Office of the EPA a copy of that submittal to satisfy the requirements of this part for that communication.

§ 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) ASTM D1946–77, Standard Method for Analysis of Reformed Gas by Gas Chromatography, IBR approved for § 63.11(b)(6).

(2) ASTM D2382–76, Heat of Combustion of Hydrocarbon Fuels by Bomb Calorimeter (High-Precision Method), IBR approved for § 63.11(b)(6).

(3) ASTM D2879–83, Standard Test Method for Vapor Pressure—Temperature Relationship and Initial Decomposition Temperature of Liquids by Isoteniscope, IBR approved for § 63.111 of subpart G of this part.

(4) ASTM D 3695–88, Standard Test Method for Volatile Alcohols in Water by Direct Aqueous-Injection Gas Chromatography, IBR approved for § 63.365(e)(1) of subpart O of this part.

(5) ASTM D 1193–77, Standard Specification for Reagent Water, IBR approved for Method 306, section 4.1.1 and section 4.4.2, of appendix A to part 63.

(6) ASTM D 1331–89, Standard Test Methods for Surface and Interfacial Tension of Solutions of Surface Active Agents, IBR approved for Method 306B, section 2.2, section 3.1, and section 4.2, of appendix A to part 63.

(7) ASTM E 260–91, Standard Practice for Packed Column Gas Chromatography, IBR approved for § 63.750(b)(2) of subpart GG of this part.

(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).

(c) The materials listed below are available for purchase from the American Petroleum Institute (API), 1220 L Street, NW., Washington, DC 20005.

(1) API Publication 2517, Evaporative Loss from External Floating-Roof Tanks, Third Edition, February 1989, IBR approved for § 63.111 of subpart G of this part.

(2) API Publication 2518, Evaporative Loss from Fixed-roof Tanks, Second Edition, October 1991, IBR approved for § 63.150(g)(3)(i)(C) of subpart G of this part.

(d) *State and Local Requirements*. The materials listed below are available at the Air and Radiation Docket and Information Center, U.S. EPA, 401 M Street, SW., Washington, DC.

(1) California Regulatory Requirements Applicable to the Air Toxics Program, March 1, 1996, IBR approved for § 63.99(a)(5)(ii) of subpart E of this part.

(2) [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.

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.

136354.2

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	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	Bilge Grey Gc					184,765.90	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			37.0%	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 (Della 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	0.09
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	[illegible]	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)	1,230.00	can	11	oz	3,045.63	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				x	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	20	191569	Adhesive, Threadlocker	89.00	ea	1.99	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)	Emis 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				2.96%	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%	3201.60	100%	3,201.60	1.60
175	15	191742	Cleaner, Glass	125.00	bll	20	oz	156.25	lbs	2-Buloxyethanol	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		16.0%	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	108-65-6	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 Dixtler	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%	2294.75	100%	2,294.75	1.15

Table Three. Proposed Emissions Calculations

SC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RFS	Acs	% 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	0.72	0.79	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		15.2%	2,478.28	100%	2,478.28	1.24
75	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
75	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
75	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
75	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
75	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%	296.44	48%	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	0.7	222.87	lbs	Other:VOC		x				5.2%	11.59	100%	11.59	0.01
195	35	353482	Compound, Polishing Finesse It 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 It 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 It 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	556944	Antique White Gel					37,055.00	lbs	Methyl Methacrylate	80-62-6	x	x			3.0%	1,111.65	48%	533.59	0.27
10	120	556944	Antique White Gel					37,055.00	lbs	Styrene	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	11.0%	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	RFS	Ace	% 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 Altek 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	18,585.60	lbs	Dipropylene glycol methyl ether	34590-94-8	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					210,060.00	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
	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					55,290.00	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 gl)	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 Armorcole					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 Armorcole					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

C	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
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
95	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		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	868893	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 Dewaxe	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, Hvy 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
75	15	900391	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/Bisq	302.00	ea	1.5	oz	28.31	lbs	Other:VOC		x				40.0%	11.33	100%	11.33	0.01
15	80	945980	Primer, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealaseal #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, Bealseal #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, Bealseal #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

GC	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	10	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 fl o	9.10	#/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	32.0%	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	1151508	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	150	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)																422,101.12	211.05
			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

The summary of public comments is attached as part of this permit following this page.

Public Comments Received Via E-Mail

Dear Mr. Alvaro,

Thank you for the opportunity to comment on Sea Ray's application to build a new boat manufacturing plant in Merritt Island, Florida.

I have lived approximately one quarter of a mile south of the existing plant in Villa de Palmas for over 22 years. Residents of Villa de Palmas have complained many, many times about the noxious fumes and airborne fallout emanating from the Sea Ray plant, but nothing has ever been done to correct the situation. I was not surprised to learn that Sea Ray has been classified as a major polluter. What does surprise me is the fact that the operation of their new facility will more than double the pollution that will be released from their two facilities. What effect does this pollution have on our health and our children's health? I feel that the residents and workers around Sea Ray are human guinea pigs.

In light of this, Sea Ray has said that since the installation of control systems to reduce the amount of pollution is not cost effective, it should not be required! The absurdity of this comment absolutely defies all reasonable logic. But Sea Ray's logic doesn't stop there, they want the new facility to be considered a separate and independent facility and not linked to the existing facility 1.2 miles west of the proposed plant. The pollution that Sea Ray generates knows no boundaries!

I do not understand why the DEP proposes that Sea Ray begin with a small scale pilot project that captures 53% of the volatile organic compounds and hazardous chemicals, including styrene. What about the 47% that will be dumped into our atmosphere and on hundreds of nearby residents? The DEP must deny Sea Ray's permit for the sake of the health and welfare of the people who live and work in the area of Sea Ray.

Sincerely, **Thomas M. Page**, 249 Via Havarre, Merritt Island, Fl 32953 (11/18/99)

Thank you for the opportunity to comment on Sea Ray's request to expand their production facilities on Merritt Island. I contacted Randy O'Brien and expressed my concerns about Sea Ray's expansion plans and request for tax exemptions. My point was that any tax breaks should be based on their meeting EPA air quality standards, and failure to do so should result in stiff penalties and /or loss of any tax exemptions until suitable styrene vapor capture equipment is installed.

We live in Sunset Groves, approximately one mile north of the plant and have been subjected to the toxic fumes during the evening on numerous occasions while taking our evening stroll through our development. We believe that the plant has released excessive amounts of fumes during the night shifts on several occasions. My wife and I have cut our walks short due to the fumes being strong enough to cause nausea. We are apprehensive that the pollution problem will get even worse if state of the art solvent capture systems are not installed in the new production facilities. We also recommend that the need for upgrading the toxic fume control practices of the existing plant be investigated by the EPA.

vjt@aol.com (11/18/99)

Dear Sir,

Regarding the proposed expansion of the Merritt Island Boat manufacturing plant I offer the following.

As a Merritt Island homeowner and nearby resident, I am deeply opposed to any increase in styrene emissions whether it be from a new or existing operation. In the context of business competition, stringent controls on styrene releases may indeed not be cost effective as Sea Ray officials argue. However, as boats and yachts are pleasure/luxury items, in the context of normal daily living, I prefer that Sea Ray products and all pleasure craft are not "cost effective" thereby exposing the Sea Ray position as null, void, and nonsensical. I do not own a boat and do not believe it legal for a Corporation to degrade the quality of life in the area I have chosen to live in and plan to remain for "cost effective" manufacture of luxury items. Pay the price to install and operate clean-up equipment, add the costs to the end product, and I'm all for expanding the plant. Otherwise, I strongly oppose the expansion and scoff at the company's hollow rationalization of "cost effective" manufacturing.

Sincerely, **Jim Haithcoat**, 3415 Spartina Ave., Merritt Island, Fl. 32953 (11/18/99)

Dear Mr. Linero,

I live in Villa De Palmas, a subdivision of 300 homes that is a quarter mile south of the first Sea Ray Boat plant. We can smell the chemicals from Sea Ray Boats and we can see it on our cars when they are left in the driveway. We have tried unsuccessfully to have the Dept. of Environmental Protection do something about it for the last twenty years. There is a subdivision of duplexes just east of Sea Ray that has a large percentage of leukemia in their children. They tried to do something about Sea Ray and they were unsuccessful.

When a company goes in business, it is to make money. Sea Ray must be making money or they would not be building another plant. I realize it would cut into the amount of profit they make if they have to contain their volatile organic compounds, hazardous chemicals,and styrene. I would like the Dept. of Environmental Protection to protect me, and everyone else that lives, works, or goes to school near these plants. I DO NOT want them to get a permit unless they can capture 100 percent of anything hazardous that they have. I have an e-mail from a county commissioner who used to live in this development saying that he knew Sea Ray released vapors early in the morning or on week ends when the EPA wasn't around.

Sea Ray Boats is on the south side of the barge canal and I have been told that one of our local attorneys owns land on the north side and is trying to sell it to another boat building company. If we don't take a stand now, and make the regulations strict, when this next company comes in it will be twice as bad. Now is the time to make the rules that everyone will have to follow and protect all of us.

Thank you for giving me the opportunity to be heard.

Patricia Saemmer, 2555 Castile Court, Merritt Island, Florida, 32953, patinfla@brevard.net (11/18/99)

NO, NO, NO to Sea Ray, give a foot and they will take a leg....Cape Canaveral, Cocoa beach, Merritt island, Cocoa, Titusville are not dependent upon Sea Ray economically, but we are dependent upon clean air and water.....Thank you and I must rely on your ability to make the right decision, for the present and the years to come .....

Mary Downing, Cocoa Beach, Fl.

Do'nt give up the fight !!! I can smell the styrene in the air from a mile away. If I lived across 5-28 next to that place especially when they start the Lamination going I'd have to wear a gas mask. By the way, did you know that your nice new houses are built on an old DUMP ??? They threw everything away back then. I would'nt drink the water or let my children play in those yards.....

Birdman, chillywilly41@webtv.net (11/18/99)

Dear Mr. Linero,

We are grateful for the opportunity of addressing the pollution issue regarding Sea Ray. My family has resided in Villa de Palmas for 33 years. Over the many years that Sea Ray has been here we have been subjected to noxious odors. Unfortunately we have never been apprised of the chemical components. Now we hear what some of them are, but not all of them, and the possibility of doubling the danger by adding another plant.

This hardly makes sense to anyone, especially if you live near both facilities. We have somewhat of a natural barrier with vegetation and trees along one side of Villa de Palmas now. However we are fighting the building of 264 townhouses by Pulte Developers. This will necessitate taking down our natural barrier and place 264 more families directly in the path of chemical emissions. These structures will not allow us nature's coverage to help diminish the harm to all of us.

Please stop the pollution. People are the most important consideration - not dollars.

If Sea Ray wants to build another plant, please insist they stop the pollution from their present plant, and guarantee there will be no pollution from the new facility. If it is not cost effective to control pollution, don't build a plant that generates it.

Thank you for your attention.

Mr. & Mrs. C. W. Wash, 109 Via Delareina, Merritt Island, Fl. 32953, 407/452-0235 (11/18/99)

CC: Jeff Schweers, Today Newspaper

To whom it may concern: Please register my opposition to the new Sea Ray facility, unless the emission control systems are installed. As a resident of Merritt Island, I have many times driven by the existing Sea Ray plant traveling on SR528, and very strongly smelled the chemical fumes inside my car with the A/C on. Also, my residence of the past 16 years is located 1 mile south of the new facility. During the winter months, the prevailing winds are generally from north to south, so I am concerned for the air quality of my neighborhood.

I can't really believe that there is any debate about this. When a company builds a new facility in an existing populated area, there is no question in my mind that they would be required to take the necessary steps and use the most advanced technology to minimize the negative impact. It's not like they are building anything that is going to better mankind; they are building boats for God's sake! (Just as an aside, has the state done studies yet as to how the increased amount of boats coming from this new facility will impact the local manatee population?)

However, being alive and breathing, I realize that rational thought has very little affect on outcomes, especially ones concerning the potential for 400 new employees and big property taxes. Anyway, please require the emission controls.

Sincerely, **Jonathan S. Wyse**, 2360 Queen Ann St., Merritt Island, FL 32952 **(11/19/99)**

Dear Mr.Linero,

I am a resident of Merritt Island, Fl (approximately 1/4 mile south of Sea Rays plant). For the last thieteen years I have endured the fiberglass odors emanating from the Sea Ray facility. I assumed it was a natural bi-product of their manufacturing process, but other than the acrid smell, I had no idea it contained toxins which are detrimental to our health and the environment!! There have been cases of abnormaly high lukemia rates in a housing area immediately West of the plant(see DER files from the late 1980s) people with difficulty breathing, irrated eyes and even paint peeling off of new cars.There is an elementary school located less than a mile from the plant, and teachers and kids state that they frequently smell the odors. It is beyond belief that anyone would allow the area residents to be "Human Guina Pigs" for a major polluter. This is placing profit before human safety!! Modern scrubbers capable of eliminating virtually all the toxins, would cost only a fraction of the cost of one new 50' boat. We don't want to become another "Love Canal".

Thank you in advance for considering my comments.

Lew A. Bowman, 241 Via Havarre, Merritt Island, Fl 32953, (321)453-1273 (11/19/99)

Regarding the current controvery over SeaRay's reluctance to provide evironmental protection for VOC/styrene emissions, SeaRay would be well advised to conform to current FDEP and EPA Regulations.

In addition, if the general public (potential customers) perceive SeaRay as uncaring regarding the health of the public and their employees, this,in the long run, would not be a very "cost effective" position to stand on.

Leonard Martin, 5305 Lovett Dr., Merritt Island, Fl 32953, email: mlmartin@scci.net (11/19/99)

I am very alarmed after reading the Nov 17th and 18th articles in Florida Today concerning the new Sea Ray plant, and their reluctance to install state of the art environmental protection equipment. The new plant is located directly across SR 528 from the 3 year old subdivision we live in (Island Crossings). There are approximately 150 new homes in this area. The Florida Today articles left me with the sinking feeling that the DEP is looking out for

industry instead of the environment and the public. Is there anything we can do to prevent the permit from being issued?

Bill Quarles, quarles@digital.net (11/20/99)

Please except these comments as I was unable to attend the public hearing on the subject: Living within 1 1/2 miles of the proposed Sea Ray Plant I am very concerned that the local air quality will be severely degraded if any additional air pollutants are allowed to be released to the local atmosphere.

As most people living in the vicinity of Sea Ray's plants can attest, the plant's are not and have not been in compliance for air emission's to the environment. One need only step outside in the Sunset Groves development to be exposed to the toxic vapors being released during the Sea Ray's exsisting plant operations.

Being an environmental engineer I am sensitive to the economic concerns of Sea Ray regarding plant construction and environmental compliance. To their credit Sea Ray is a huge employer and their factory's are pleasant to look at from the public view. However, It should be noted that there are also two major electrical power plants and a third planned within a ten mile radius of the proposed new Sea Ray plant.

The electrical power plants spew their air pollutants continuously into the local air...We all need electrical power not much choice there ,but what a cost. We all do not need a sixty five foot Sea Ray yacht so there is a choice here.

If environmental compliance adds to the cost of a new boat plant than so be it. let the cost be borne by the boat manufacturer of the end product user. not the air quality of the neighboring community. In this day and age it is more important than ever for our state regulators to insure that industry proceeds into the new millennium utilizing the most effective technology available. at whatever cost. for the good of us all.

I personally, and at the request of my neighbor's in the Sunset Groves Community want to go on record that we feel Sea Ray boats should be held to the strictest compliance standards for all air emission's from the proposed new plant.

Thank You! **E. L. Coyle**, 3350 Biscayne Dr., Merritt Island Fl. 32953 (11/22/99)

Mr. Linero,

The residents of Riverwalk and Island Crossing housing developments on Merritt Island are opposed to the Sea Ray expansion. We do not want our heath and our children's health to be endanger by the nerutoxin Styrene that this plant will release into the air.

Our home owners associations have met and all present agree that this harmful and damaging carcinogen should NOT be released into our area. Not only are our homes at risk of becoming contaminated with these deadly toxins, but the public elementary school our children attend will also be at risk. There is also the question of what this air pollution can do to the wildlife in the nature preserve that is nearby. Many endangered animals live in the area. I'm sure the impact from this pollution can do nothing to help thier endangered environment.

Sea Ray's intent to build the plant in this area in totally unacceptable. Hazardous chemicals have no business being in a residential family neighborhood.

Sea Ray is considered a major polluter under federal air quality guidelines. We don't WANT a major polluter in our neighborhood. We chose to live in this area for it's positive qualities and living conditions. Please help us to keep our quality of life SAFE and CLEAN.

We urge you to deny a permit for Sea Ray.

Sincerely,

Alexander and Re Monteith, 1234 Potomac Drive, Merritt Island, FL 32952, (321) 452-9218 (11/26/99)

Please, please, do not issue a permit for Sea Ray to pollute the air more than it already is. There are absolutely too many health risks now, not to mention the fact that many local residents already have respiratory problems from esisting pollution problems.

If they cannot clean up their emissions, then please do not let them continue to do business. I don't care how many people they employ. If they are not in business, another will take their place.

Linda and Ruby Frye, 1700 S. Merrimac Drive, Merritt Island, FL 32952 (11/26/99)

Mr. Linero, my name is Paul Whidby and I am a resident of the development located 200 meters south of Sea Ray's new plant on Merritt Island. I am extremely concerned about the threat this new facility will pose to my health and the health of my neighbors and their children.

The unrestrained release of Styrene into the atmosphere should be stopped before it begins. The refusal of Sea Ray to install scrubbers or other methods of dealing with the toxic release of Styrene into the atmosphere less than 1/8th of a mile from a major residential area is reprehensible.

Please take my concerns into account and insure Sea Ray is required to provide adequate impact studies and install recommended environmental fixes prior to commencing operations.

Thank you. **Paul Whidby**, 1201 Potomac Drive, Merritt Island, FL 32952-7222 (11/26/99)

Dear Mr. Linero,

Please open attachment. It is very important to our community that you understand this issue.

Sincerely **Don & Peggy Moore** (11/26/99) (note: Unable to open. AALinero)

I have attached a letter in MS-Word 97 format regarding the proposed

Sea Ray boat plant in Merritt Island, FL. If you cannot open it, please advise and I will send it in a different format. I will also send a paper copy for your records.

Thank you, Daniel Dvorak, 1577 Stafford Avenue, Merritt Island, FL 32952, 407-454-9012

November 26, 1999

Al Linero
New Source Review Section
Bureau of Air Regulation
Department of Environmental Protection
2600 Blair Stone Road
Tallahassee, FL 32399

Mr. Linero,

I am writing to urge the Department of Environmental Protection to deny Sea Ray Boats issuance of a permit allowing discharge of airborne pollutants from the proposed new plant in Merritt Island, FL.

In addition to myriad health concerns from the byproducts of fiberglass boat production, my family is concerned about the strong odor that accompanies such an operation. The smell of fiberglass has become an almost permanent fixture in the vicinity of Sea Ray's existing plant near the intersection of State Roads 3 and 528. Indeed, we find the odor quite potent inside our automobile when passing the plant on S.R. 528. If the odor can penetrate a closed automobile (with the ventilation system set to "recirculate") in the few seconds we are near the existing plant, we can only dreadfully imagine the potency of the odor inside our home, less than ¼ mile south of the proposed plant.

More than one article in *Florida Today* newspaper indicated that the DEP wants Sea Ray to start out capturing 53% of the VOC they emit, and study the feasibility and cost-effectiveness of the collection system. The cost of such a system was quoted as $450k. That is less than the cost of four homes in the housing development closest and most-effected by the pollution. We don't care how much it costs Sea Ray to contain their pollution. If it is not feasible to capture significantly all of their waste, Sea Ray should locate their plant farther from established communities.

One day during my wife's pregnancy, I painted our garage floor. That night the odor of paint became so strong that we left our home for fear of causing damage to our unborn son. We care about our health. We can leave our home for one night, but can do nothing short of moving to avoid pollution like Sea Ray plans to emit.

We do not want the odor of fiberglass boat production a part of our everyday lives. We do not want our infant son breathing toxic substances.

Sincerely,

Daniel J Dvorak

Daniel J. Dvorak 1577 Stafford Avenue, Merritt Island, FL 32952, 407-454-9012 (11/26/99)

Sir:

Please consider placing strict EAP contraints on Sea Ray Boats of Merritt Island's new expansion. If the new plant doesn't have stringent polution controls (scurbers in their smoke stacks) it will not only effect the health of the people in RiverWalk and Island Crossing Housing Development which is a mile south of the new facility, but there's is a wild life sanctuary (Ulamay) which will be effected.

Thank you for your time and consideration.

Sincerely,

Louis & Rose , RiverWalk and Island Crossings, 1190 Potomac Dr., Merritt Island, Fl 32952 (11/27/99)**Lenhart**

I like express my concern about plant. Before plant start operation I like to place stringent pollution controls or permisson denied. My family is living just opposite side Bee Line in where plant is situated.

Erkki Nisula, 1200 Potomac Dr., Merritt Island, FL 32952 (11/27/99)

Florida Department of Environmental Protection

Mr. Linero,

The attention of your office is needed to STOP the expansion of Sea Ray Boats manufacturing facility on Merritt Island. Sea Ray is a major (Title V) source of hazardous emission. Sea Ray requires an air construction permit from the Florida Department of Environmental Protection (DEP) to build the additional manufacturing facility on Merritt Island. This permit should not be issued. I urge you to use your office to deny this permit.

Sea Ray's existing Merritt Island facility (1 mile away from the proposed facility) releases over 250 tons per year of Volatile Organic Compounds (VOC) and Hazardous Air Pollutants (HAP). The main danger comes from styrene. The expansion would add an additional 125 tons of styrene to the surrounding communities of Merritt Island.

The expected volume of HAP and VOC output from the new facility has triggered DEP action. However, the DEP lacks the authority to deny the permit. Instead, they have proposed a plan to use Best Available Control Technology (BACT) to reduce emissions if it proves cost effective. In spite of the proposed reductions, the air permit should be denied because:

1. Health: Styrene, a VOC, known neurotoxin, and a suspected carcinogen will be emitted at 125 tons per year. The proposed plant will be built in the middle of existing residential communities. Homes are literally across the street.

Within one mile are an estimated 1000 homes, an elementary school, a community athletic park, and a nature preserve.

2. Quality of Life: The EPA describes styrene as having a "penetrating odor." The noxious odor from the existing plant can be detected up to 3 miles away. The most optimistic studies conducted for the new facility show many more residents of Merritt Island will face the same noxious odor.

3. Tourism: Tourism is a major contributor to the surrounding communities. In addition to the penetrating odor, the new facility will be characterized by eleven 55-foot emission stacks on the main route from Orlando to Cocoa Beach and the cruise ships of Port Canaveral.

4. Malicious Compliance: Based on correspondence between Sea Ray and the DEP, Sea Ray appears to be reluctant to implement the BACT. Failure to implement will only worsen the health situation.

Please stop Sea Ray from expanding its operation until it proves that the safety and quality of life for Florida residents is just as important as profit for Sea Ray. Sea Ray needs to stop polluting the environment at its existing plant before it can become a welcomed contributor to the community of which it is already a member.

This represents the feeling of 300 homes Called Villa De Palmas. I am president of this homeowners association and keep receiving calls Asking Doesn't anyone care?

Herman Skambraks President VDP Homeowners association. (located 1100 feet south of the existing Sea Ray plant). (11/29/99)

I live in the Island Crossings subdivision and my home is probably within a 1/4 to 1/2 mile radius of the Sea Ray boat fabrication facility expansion, and I am greatly distressed by its proposed function.

When building began at the site, I had no idea it was going to be a manufacturing facility. Even if I had, I certainly would not have believed that a site that pumps out tons of hazardous and noxious chemicals would be allowed so close to residential areas. I have two sons, 10 months and 3 years, whose safety is a great concern of mine, as is the health of my wife and myself. When my wife found out about what was going on (from the president of our homeowners association), she was in tears. Besides the direct health issues with the presence of styrene, my wife suffers from migraine headaches that are aggrevated by strong light and smells. Styrene has a very strong and noxious smell. I have personally experienced it on multiple occasions while driving to and from work past the existing Sea Ray facility. The smell alone is enough to cause someone physical discomfort. If this site is permitted to continue, we will probably have to sell our home and move to a safe, non-toxic location. This will cost me at least $10,000 in realtor's fees and moving expenses, which I can't afford right now. This figure does not even consider the potential (I'd say almost guaranteed) loss in value caused by the facilities hazardous operations.

HOW CAN THE STATE OF FLORIDA WEIGH THE EXPENSE TO SEA RAY AGAINST THE HEALTH OF MY FAMILY. I don't see how the two can even be compared. If Sea Ray is doing well enough that they are expanding their operations, then I am very happy for them. If Sea Ray makes a mess, it should have to clean it up, regardless of the expense. If they can't afford it then they shouldn't be allowed to do it. This is just common sense.

Charles Curley, Software Engineer, Dynacs Engineering Co., Engineering Development Contract, Kennedy Space Center, Florida (11/29/99)

In this day and age with all the pollutants in the air, why would DEP approve putting more out there? My family and myself would like to express our displeasure and disappointment in DEP, as a regulating agency for allowing this to happen. Also, when has a company ever come back and said they would like to spend more money to avoid polluting the air? Very rarely, if ever I am sure.

Marianne Huston, 340 Madison Avenue, Cape Canaveral, FL 32920 (11/29/99)

Dear Mr. Linero,

I recently moved to the Riverwalk community, only to learn of the possible pollution problem. I definitely feel that not enough environmental studies and/or research have been done to clear Sea Ray for their factory expansion.

I understand the potential money to be made is a driving factor in pushing this expansion through. Allowing this plant to be built without the strictest of pollution protection controls WILL affect everyone's health. There are many children that live in this neighborhood. how can we do this to them. let alone the entire area. The Space Coast is responsible for a great deal of revenue in FL in terms of tourism. Tourists will not want to be near a health hazard such as what is being proposed by Sea Ray.

This needs to be re-thought and more research needs to be done in order to make this a "win-win" for all parties involved.

Thank you for your time.

Kimberly Mears, 1205 Potomac Drive, Merritt Island, FL 32952 (11/29/99)

Dear Sir:

Please see attached letter file.

Thank You, Dean C. Orr

May 11, 2000

New Source Review Section
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399

Dear Mr. Linero:

Having recently read the article in the Today paper and also smelling the air pollution caused by Sea Ray Boats, I would like to voice our opinion on the move for a new permit for the new plant. We are strongly against the building of a new plant as proposed 1.2 miles east of the current Sea Ray Plant in Merritt Island. We currently live just South of the Merritt Island Plant, and often smell the Resins emitted into the air by Sea Ray Boats. We also often can hear the late night dumps to the air of this resin pollutant. We have a son who is approaching 2 years and a daughter due in April next year. It particularly upsets me to hear that Sea Ray is refusing to install the cleaning equipment to minimize the pollution, given that styrene is a potential carcinogen to human beings and also can be associated with genetic mutations and neurological damage. If Sea Ray wants to put those kind of chemicals into the air then they should seek a different neighborhood, preferably with no residents. We have a very nice environment here in Merritt Island; we would all hate to see it deteriorate. We should never let any company put their profit margins above the health of the local people. As a citizen of Merritt Island, on behalf of my family, I request that this permit be denied. And as a minimum, Sea Ray should be required to install the pollution controls. They should also be required to install the pollution controls on the existing plant in any case.

Thank you,

Sincerely, **Dean C. Orr**, Resident, Villa De Palmas Development, Electrical Engineer, NASA (11/29/99)

Dear Al,

I have lived in Merritt Island at three different locations since 1990.

1. 1990 to 1992 at Summer Place Apts. This is about 1/4 mile southwest of the Sea Ray plant.
2. 1994 to 1999 in Diana Shores. About 3/4 mile due south of the Sea Ray plant.
3. April 1999 in Sykes Cove. About 1/2 mile dus south of the Sea Ray plant. I currently live here.

If there is a north wind blowing it was, and still is, possible to smell the heavy odor of fiberglass components, i.e. styrene, resins, etc., from any of the locations where I resided. I feel that the new Sea Ray plant would intensify the problem of pollutants in the air in the vicinity in which I live.

The plant that Sea Ray is contemplating building will manufacture boats costing over $1 Million each. Almost all of these boats will be delivered outside of Brevard county. The state estimate of $450,000 to recapture 90% of the pollutants is a veritable bargain to save the local environment. Paid for with a couple of boats.

Other than us humans breathing in the pollutants there are two other federally protected speciaes that need to be considered. The manatees and dolphins that inhabit the waters all around the Sea Ray plant in the barge canal, Sykes Creek, and even in the dock space of the plant. What harm is being done to them? do we need to contact "Save the Manatee Club?"

Brevard County even wanted to grant Sea Ray a tax incentive to build another plant. Bring in all those high paying jobs. Ludicrous. At the first sign of an economy downturn Sea Ray lays off hundreds of workers. Check out 1990 and 1991 employment figures. Sea Ray turned the tax break down...wonder why?

As an avid boater, fisherman, environmentalist, homeowner and taxpayer, I feel that Sea Ray should pay the dues to protect me and the environment.

John Roth, 1995 Sykes Creek Drive, Merritt Island, FL 32953, jroth@yourlink.net (11/29/99)

Mr. Linero,

Sea Ray is considered a major polluter under federal air quality guidelines. As we MUST consider our health and our children's future, we ask that you deny the permit for the expansion until Sea Ray agrees to ensure that more stringent environmental standards can be met at the startup of the new facility.

Sincerely, **Elena Ridgway**, 1222 Potomac Drive, Merritt Island, FL 32952 (11/30/99)

Gentlemen,

This letter is in reference to Sea Ray Boats' application for an Air Construction Permit on Merritt Island. My goal is to ensure that the any new facility does not negatively impact the health, welfare, and quality of life for the existing residents across the street from the new facility.

My wife and two children live directly across the street from the new facility. From what I've learned, I have no confidence that the environment we would be living in will be safe for my family. I've seen some contour

plots showing "average" styrene levels computed for the new plant. I am now more concerned than ever: even at average levels (which, as an engineer, I question the validity of) we would experience detectable levels. On a day when the winds are out of the North (half the year?), the levels will clearly be considerably higher. High enough to pose a health risk (see below).

If the plant comes into existence, we will certainly be smelling Sea Ray's work. It seems to me that calling about an objectionable odor has no impact whatsoever. This is indicated by the fact that the existing Sea Ray plant still, after all these years of people complaining, emits the terrible smell which permeates the neighborhood. I smell it every day on my way to work.

From section 11(b) (see below): "No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor".

Please do not let this new facility pollute our neighborhood. Protect us: DENY this permit.

If you CANNOT deny this permit, at least force the new facility to reduce emissions to undetectable levels (less than 8 ppb). I do not understand how the DEP could do differently. In my mind this means monitoring levels in our neighborhood with the power to shut Sea Ray down if the levels exceed 8 ppb.

If the DEP does not deny the permit and does not force Sea Ray to keep emissions undetectable in our neighborhood, I think the DEP has failed in protection of the "comfortable use and enjoyment of life or property" [Sec. 11(b)].

A very concerned Merritt Island resident,

Tim Widrick and family, widrick@mpinet.net, (321) 459-9980

PS. Below is a letter that Isam Yunis prepared. I include it here because his words are also my words.

This permit should be DENIED based on the DEP's own standards. Per Section 11(b) entitled "General Pollutant Emission Limiting Standards": "No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor". Per the EPA fact sheets, styrene has a "noxious penetrating odor" which is discernible at 8 ppb.

Per the Sea Ray dispersion modeling (performed by Golder Associates), the yearly average levels of styrene at the property boundaries will be 9 ppb. However, because of wind direction, we can expect a peak daily average at least 10 times that high. Clearly, this will create the noxious odor for rejection based on Sec. 11(b).

This permit should be DENIED because the plant, as opened, will present a daily health risk to the local community. The EPA threshold for long term exposure in ambient air is 230 ppb. Without the emissions control program in place, we can expect daily levels (based on wind direction) over 500 ppb.

This is clearly a health risk.

The permit should be DENIED because the impact on the local community was not considered by Sea Ray.

If DEP refuses to deny permit, then all controls must be maintained independent of cost. The EPA threshold for long term exposure in ambient air is 230 ppb. Without the emissions control program in place, we can expect daily levels (based on wind direction) over 500 ppb. This is clearly a health risk. This noxious odor will remain in spite of this.

If DEP refuses to deny permit, a monitoring system must be in place. Much anecdotal evidence exists to suggest that the Sea Ray analysis will not succeed in practice. A monitoring system with stop-work measures must be in place to ensure public health and welfare.

Please consider these serious comments in your decision. I consider the issue of the Sea Ray Air Construction Permit a failure in protection of the "comfortable use and enjoyment of life or property" [Sec. 11(b)].

Thank you for your time.

Isam Yunis

Tim & Dee widrick widrick@mpinet.net (11/30/99)

I am writing this e-mail because I was very disturbed when I discovered that the new Sea Ray boat plant on Merritt Island is going to add 125 tons of styrene to the environment and Merritt Island communities. I am expecting my first child and I have experienced the noxious odors from the present facility which is of enough concern to me. Allowing Sea Ray to release more styrene with methods that are most cost effective for the company, although not as safe, would seem to send the message that the DEP is not truly interested in protecting the environment and citizens.

Since the building of the new facility is already substantially underway, I feel that it is useless to argue for not allowing the expansion. My only remaining hope is that the permit would require Sea Ray to use the safest methods and controls possible, regardless of cost to the company.

I hope you will give this matter careful consideration. Thank you.

Sincerely, **Carolyn A. Mizell**, Project Manager, NASA, Carolyn.Mizell-1@kmail.ksc.nasa.gov

Gentlemen,

This letter is in reference to Sea Ray Boats' application for an Air Construction Permit on Merritt Island. Our goal is to ensure that any proposed new facility does not negatively impact the health, welfare, and quality of life for the existing residents who reside across the street at Island Crossings and River Walk (over 300 homes).

This permit should be DENIED based on the DEP's own standards. Per Section 11(b) entitled "General Pollutant Emission Limiting Standards": "No person shall cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor." Per the EPA fact sheets, styrene has a "noxious penetrating odor" which is discernible at 8 ppb. Per the Sea Ray dispersion modeling (performed by Golder Associates), which is based on the DEP recommended MACT and BACT, the yearly average levels of styrene at the property

boundaries will be 9 ppb. Depending on wind direction, we can expect a peak daily average at least 10 times that high. Clearly, this will create the noxious odor for rejection based on Sec. 11(b).

This permit should be DENIED because the plant, as opened without emmision controls, will present a daily health risk to the local community. The EPA threshold for long term exposure in ambient air is 230 ppb. Without the emissions control program in place, our community can expect daily levels (based on wind direction) over 500 ppb. This is clearly a health risk.

This permit should be DENIED because the impact on the local community was not considered by Sea Ray.

If in light of all of these facts the DEP still refuses to deny permit, and accepts the noxious odor:

1. Full emmissions control (at least 85% capture) must be implemented immediately and maintained independent of cost. The EPA threshold for long term exposure in ambient air is 230 ppb. Without the emissions control program in place, we can expect daily levels (based on wind direction) over 500 ppb. This is clearly a health risk.

2. A monitoring system must be implemented immediately and maintained independent of cost. Much anecdotal evidence exists to suggest that the Sea Ray analysis will not succeed in practice. A monitoring system with stop-work measures must be in place to ensure public health and welfare.

Please consider these serious comments in your decision. We consider the issue of the Sea Ray Air Construction Permit a failure in protection of the "comfortable use and enjoyment of life or property" [Sec. 11(b)].

Thank you for your time. **Isam Yunis, Rachael** Yunis yunis@aol.com (11/30/99)

Dear Mr. Linero:

Please do not approve the plans for Sea Ray's plant expansion. The current plant puts out levels of toxins in the air that are intolerable now. I have been a resident of Merritt Island for 15 years and have lived and presently work within a mile of the plant. When I lived in Villa de Palmes the fumes would get so bad around 4:00 am that I would have to close my windows. It caused me to have difficulty breathing. I experienced congestion following some of these occassions. It got so bad, one night I drove to the plant to determine if they were venting more in early morning hours or whether it was the inversion layer. There was an obvious plume not normally seen during the day. I believe that the plant was avoiding detection of this activity.

I believe if this development is allowed the most stringent controls on discharge should be applied immediately, not allowed over an extended period of time ruining our health and air quality. The estimated cost is low, comparable to ONE of the expensive vessels they will sell. They can not claim financial hardship or they would not be expanding and buying up other manufacturing plants in the area (Whaler). The cost of a couple compromised residents health care would also be a similar expenditure. The citizens of Merritt Island do not want this expansion and resulting pollution.

Thank you for your attention to this matter.

Sharon Tyson, 407-453-2198, 169 Platt Ave., Merritt Island, Fl 32952 (11/30/99)

Dear Mr. Reynolds,.

I know that the official time for Sea Ray comments has passed, but I am compelled to write you on the people aspect, not the numbers of ppb nor the fact sheets of styrene...

I'd like to take five minutes of your time and tell you how I got involved and what I'm hearing from the community. Some of it is hearsay and some of it is fact and I will clearly mark each type.

Fact: On Sunday October 10, 1999 I read in the Florida Today paper that Sea Ray boats was applying for a tax break. It also contained the information that Sea Ray is biggest styrene polluter in Brevard county. Having worked in the research field for many years, I became concerned and started researching styrene. My husband and I talked with several neighbors and it was clear that we were all concerned for the safety of our families and the value of our homes.

Fact: On Nov. 17, 1999 my picture was published in the Florida Today and I was quoted saying that I was concerned with the situation and that I was researching the facts. It also stated that I have a degree (MS) in genetics and wrote for the American Medical Association. (I also have a MA in BioMedical Ethics).

Fact: Our home was flooded with phone calls from people wanting to know more about the subject. Many calls came from the Villa de Palma housing division which is located across the street from existing Sea Ray plant. They wanted to support us since they smell the existing plant on a daily basis and are tired of Sea Ray telling the press that they do not effect the surrounding community.

Hearsay: I received two calls from two separate people telling me that there was an incident of leukemia in 1988. According to this "rumor" several children were diagnosed with cancer and the EPA came out to investigate. The only "smoking gun" was Sea Ray. The incident was silenced and nothing came of it. This "rumor" was started by a former employee of Commissioner Randi O'Brien.

Fact: I searched the EPA's web sites and the CDC's web site for further information. I found none. I made some phone calls and found nothing. Finally, I talked with a gentleman at the health department and he confirmed that three children were diagnosed with ES tumor in 1988 in the 32952 zip code area. I am not an epidemiologist so I don't claim to know if that means anything. I do know that the health department has enlisted the help of two Tallahassee epidemiologists to examine the numbers. I intend to contact them and find out what all of this means.

Hearsay/Fact: Some community members forwarded emails which came from Commissioner O'Brien's office in which he states that "It's a known fact that Sea Ray occasionally cheats and releases pollution in the off hours when no one is watching." We are trying to track down the original email to see if there is any validity to this.

What does this all mean? I don't know. All I do know is that my husband and I decided to build our home here because we felt it was the ideal location. We moved into our new home in February. I have two small boys (2ys and 1yr). I am very concerned about my family. I don't want to be the advocate. I would much rather take my sons to the park and run and play. I don't however want to smell styrene. I don't want to wake up each morning and wonder if I'm literally killing my children by living here.

What I would like from you is for you to seriously take a moment to consider the people who live, and play, and sleep...here each day. There are rules and regulations, but there are also some things which should be held higher than the regulations and that is the human aspect of life. If you must grant the air permit to Sea Ray, at least do so aware of the fact that many people will be affected. Many children could potentially be harmed. Hundreds of home dwellers will wake up each morning and there will be something "just not quite right" in their lives.

Sea Ray does not deserve the right to pollute our air. Sea Ray is interested in profit. The cost the people will have to pay for their profit is astronomical.

Sincerely, **Rachael Yunis** yunis1965@aol.com (12/1/99)

Dear Mr. Linero,

I am writing as a very concerned resident of Merritt Island, Florida. This is in reference to the building of the new Sea Ray Plant within 5 miles of my home. The plant is being built on the eastern end of the island and with the prevailing winds coming from the southeast, many residents will be in the direct path of the poisonous clouds of Styrene, including my home. If you cannot guarantee that the plant could collect 100 percent of these hazardous chemicals, then please do not approve this plant.

As for Sea Rays claim that the controls are to expensive. Have them talk to others that must comply with DEP regulations. For example, take the area local hospital. Wuesthoff Hospital in Rockledge would love to use it's incinerators to dispose of it's waste, but because this might be an environmental hazard, the hospital (at a great cost) must no longer uses it's incinerators. Futhermore, expense is no excuse for being allowed to pollute. I beg you please, do not endanger the health of me and my family. Do not allow Sea Ray to emit any Styrene into the air. Please send me any literature on this subject that will convince me that this plant should be built.

Thank you for listening. Sheila Soileau. You can reach me at jsoileau@iu.net or 3320 Horse Trail Court Merritt Island, Florida 32953 Phone: 321 - 452 – 7235 (12/1/99)

Dear Sir:

I apologize for being late on getting these comments to you but for the last 2-1/2 months my father has been ill and finally past away on Thanksgiving morning. We had the funeral on December 4th and now I can get around to addressing the next important items on my agenda.

As a homeowner on North Merritt Island and as a member of the North Merritt Island Special Advisory Board, I see the expansiopn of Sea Ray Boats, without the environmental protection in place at the start of operation, a very bad move for the homeowners of Merritt Island, the tourists, who come through here, and the workers at the plant itself. I understand that business must expand and that there are items such as costs that must be weighed into the equations, but I also see that the environment must be protected for the residents. I have a six-year old child who attends school on Merritt Island. She will be breathing this carcinogenic material whenever she is outside. I have a family who will be breathing it everytime we travel from North Merritt Island down to the Mall or grocery store or other places.

I ask you to do some real heart searching as to how far this business should be let go be fore installing the necessary protection devices to capture this material. It should be ther at start up.

Thank you for your consideration into this matter.

Ronald Penn, 1750 Dee Drive, Merritt Island, Florida 32953-6523

Ronald "Ron" Penn, koalacon@digital.net (12/07/99)

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.

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 extend 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 Achieveable 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.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET
ATLANTA, GEORGIA 30303-8960

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OCT 25 1999
BUREAU OF AIR REGULATION

4APT-ARB

Mr. C. H. Fancy
Chief, Bureau of Air Regulation
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

SUBJ: Applicability Determination of Sea Ray Boats

Dear Mr. Fancy:

Thank you for the letter dated September 3, 1999, requesting an applicability determination for Sea Ray Boats, located in Brevard County, Florida. Based on a review of 40 CFR 63 Subpart II, National Emission Standard for Hazardous Air Pollutant (NESHAP), for Shipbuilding and Ship Repair and the information provided to the Environmental Protection Agency (EPA) concerning this facility, only military or commercial shipbuilding and repair operations at this facility, which exceed the volume thresholds, are subject to Subpart II .

Section 63.781 of Subpart II applies to shipbuilding and ship repair operations at any facility that is a major source. This Subpart only applies to "ship" operations, as defined in the Subpart, regardless of length, which have a combined annual surface coating use above 1000 liters(L), (264 gallons [gal]), or a single annual coating usage at or above 200 (L), 52.8 (gal). Section 63.782, defines a "ship" as "any marine or fresh water vessel used for military or commercial operations...." The definition of "ship" is specific to vessels used for military or commercial operations. Additionally, Section 63.782 defines "shipbuilding and repair operations" as "any building, repair, repainting, or alteration of ships." Therefore, this regulation applies only to operations associated with the building, repair, repainting, or alteration of "ships" as defined by Subpart II, which meet the associated volume quantities. Any building, repair, repainting, or alteration of any vessel within a facility that does not meet the definition of "ship" is not subject to Subpart II.

To further clarify the applicability of Subpart II to the Sea Ray Boat facility, any shipbuilding or repair operations which involve military or commercial vessels and use a combination of annual coatings above 1000(L), 264 (gal) or a single annual coating usage at or above 200 (L), 52.8 (gal) are subject to Subpart II. Similarly, any operations at Sea Ray Boat facility which do not involve military or commercial vessels, regardless of length or coating usage volumes, are not be subject to Subpart II.

This determination has been coordinated with the EPA's Office of Enforcement and Compliance Assurance, Office of Air Quality Planning and Standards, and Office of General Counsel, and overrides all previous determinations. If you have any questions or concerns, please contact Mr. Leonardo Ceron of the Region 4 staff at (404) 562-9129.

Sincerely,

Paul Stagner

R. Douglas Neeley
Chief
Air, Radiation and Technology Branch
Air, Pesticides, and Toxics
Management Division

United States Department of the Interior

FISH AND WILDLIFE SERVICE
Merritt Island National Wildlife Refuge
P.O. Box 6504
Titusville, Florida 32782

TAKE PRIDE IN AMERICA

November 23, 1999

RECEIVED
NOV 29 1999
BUREAU OF AIR REGULATION

Mr. Al Linero
New Source Review Section
Bureau of Air Regulation
2600 Blair Stone Road
Tallahassee, FL 32399

Dear Mr. Linero:

I am writing to comment on the Sea Ray Boat manufacturing plant proposed along the barge canal in Brevard County. As manager of Merritt Island National Wildlife Refuge I want to address an issue of concern to us. The refuge southern most boundary intersects the north shore of the barge canal. This particular part of the refuge is described as scrubby flat woods and harbors the federally threatened Florida scrub jay. Periodically we conduct prescribe burns to enhance the recovery of this species and to reduce hazardous fuel loads.

The normal protocol is to ignite the fires in this area with a southwest wind to minimize smoke management issues in the surrounding community. I do not expect this smoke to impact their operation. Conversely I do not want their release of styrene and other harmful chemicals to impact the refuge mandate to conduct prescribe burns nor to place my firefighters in any additional hazard.

I request that you evaluate and assess our concerns as you move to issuance of the necessary permits.

Sincerely,

Ron Hight

Ron Hight
Refuge Manager

CC: J. Reynolds, BAR
C. Phillips, BAR
L. Kozlov, CD
EPA
C. Rowe
D. Sphar, Sierra Club
P. Carnelious, SR
A. Morrison, HGS+S