

Department of Environmental Protection

Jeb Bush
Governor

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

David B. Struhs
Secretary

July 27, 1999

CERTIFIED MAIL – RETURN RECEIPT REQUESTED

Mr. R. Douglas Neeley, Chief
Air Radiation Technology Branch
US EPA Region IV
61 Forsyth Street
Atlanta, Georgia 30303

Re: Source Definition and Technology Review
Sea Ray Boats – Brevard County

Dear Mr. Neeley:

Enclosed for your review and comment is a permit application submitted by Sea Ray Boats, Inc. to manufacture fiberglass boats at a project located approximately 1 mile from one of its existing fiberglass boat facilities. The project emission estimate submitted by Sea Ray to the Department is 211 tons per year (TPY) of volatile organic emissions (VOC), including 149 TPY of hazardous air pollutants (HAPs) of which 125 TPY are styrene. Based on this estimate, the project by itself will constitute a Major Title V Source and a Major HAPs Source. According to the application, emissions of all other pollutants are less than the applicable thresholds for a new Major Facility and the Significant Emissions Rates with respect to the rules for the Prevention of Significant Deterioration of Air Quality (PSD).

Because the project is a major source of HAPs, we must make a case-by-case determination of maximum available control technology (MACT). EPA is developing a MACT Standard for this process, but has not yet proposed a MACT. Enclosed is a copy of the company's MACT proposal taken from the application.

We must still determine whether the project will constitute a separate facility or comprise part of the existing one. According to the Title V permit (excerpts enclosed) issued to Sea Ray, allowable emissions of VOC from the existing facility are 426 TPY. VOC emissions from the project are greater than the significant emission rate of 40 TPY. If we conclude that the project will comprise part of the existing facility, then PSD will apply and a BACT determination will be required. Therefore please review the MACT proposal as a tentative BACT proposal. Alternatively, if the project constitutes a separate facility, PSD will not apply, and BACT will not be required, assuming that emissions from it will not exceed the 250 TPY major source threshold.

Because time is of the essence, we request comments as early as possible regarding PSD applicability. We will make a final determination in accordance with our approved State Implementation Plan. However, your input is important because the language in our definitions is largely taken from the source definitions in the Code of Federal Regulations at 40CFR51.24 and 40CFR70.2.

Following are some key facts on which Sea Ray and the Department agree.

- The existing facility and proposed project manufacture, or will manufacture fiberglass boats.
- The activity belongs to the 2-digit SIC Major Group 37, Transportation Equipment. The 4-digit Industry Number is 3732, Boat Building and Repairing.
- The proposed project lies about 1.2 miles from the existing facility and may be accessed from the facility via a State barge canal or a common public road, neither of which is owned or operated by Sea Ray.

"Protect, Conserve and Manage Florida's Environment and Natural Resources"

Mr. R. Douglas Neeley
July 27, 1999

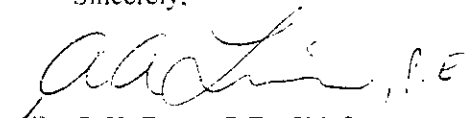
- Sea Ray owns none of the land between the existing facility and the project. Some of the other land includes a non-zoned creek. The Canaveral Port Authority owns some of the remaining land.
- Allowable emissions from the existing facility per the Title V permit are 426 TPY of VOC.
- The key part (other than emission thresholds) of the Major Source definition in 40CFR70.2 is:
"Major source means any stationary source (or group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control)) belonging to a single major industrial grouping and that is described in paragraphs (1), (2), or (3) of this definition. For the purposes of defining "major source," a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same Major Group (i.e. all have the same two-digit code) as described in the Standard Industrial Classification Manual, 1987."
- There is a discussion on the definition of Source in the preamble to PSD Rules at FR Vol. 45, No. 154, August 7, 1980, page 52695 (enclosed).
- EPA has made formal determinations for non-contiguous sources. Enclosed are those we downloaded from the various EPA bulletin boards.
- The facility and proposed project are not "activities along a long-line operation, such as a pipeline or electrical power line."

Enclosed is a letter dated July 14 from Sea Ray explaining why the company considers the project to be a separate facility from the existing one. Also enclosed are recent photographs of the existing facility and the proposed project site. The photos are keyed to a picture of the certain aerial photographs taken in 1997 and located at local zoning offices.

You may obtain additional information about Sea Ray at their website at www.searay.com. The applicant reviewed this letter prior to transmittal, but would probably have written it differently, stressed different facts, or provided different materials. The applicant asked us if they can contact you. We do not object at all if the purpose is to inquire on the status of your review or to set up a meeting. They will provide any additional information through us. Similarly, we will keep them apprised of any contacts we have with you. If a meeting is scheduled, we will participate via teleconference. We can participate in person, but prefer to do so only if we have other business in the area.

We expect to interact with you as usual on matters related to the application and proposed technology. We would appreciate your assistance in obtaining any information (including applications and control technology assessments) related to styrene sources and fiberglass boat manufacturing facilities. Please call Al Linero at 850/921-9523 if you have any questions regarding this matter.

Sincerely,


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

CHF/al

Enclosures

Cc: Len Kozlov, DEP CD
Dennis Wilson, Sea Ray
Pete Cantelou, P.E.

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2. Article Addressed to: Doug Nealey, Sect. Chief Air, Radiation Tech Branch US EPA - Region IV 61 Grosyth St. Atlanta, GA 30303		4a. Article Number Z 333 618 115	
5. Received By: (Print Name) JOYCE EVANS		4b. Service Type <input type="checkbox"/> Registered <input checked="" type="checkbox"/> Certified <input type="checkbox"/> Express Mail <input type="checkbox"/> Insured <input type="checkbox"/> Return Receipt for Merchandise <input type="checkbox"/> COD	
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		Sea Ray Tech Review	

PS Form 3800, April 1995

July 16, 1999

Ms. Cindy Phillips, P.E., Air Toxics Unit
Department of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: DEP File No. 0090182-001-AC
Sea Ray Boats, Inc.
Cape Canaveral Plant
Merritt Island, FL

RECEIVED
JUL 19 1999
BUREAU OF AIR REGULATION

Dear Ms. Phillips:

Enclosed for your review is a copy of Volume 2 which is modified to include Sea Ray Boats' proposal for Maximum Achievable Contract Technology (MACT) as requested by Mr. A.A. Linero in his letter of June 28, 1999.

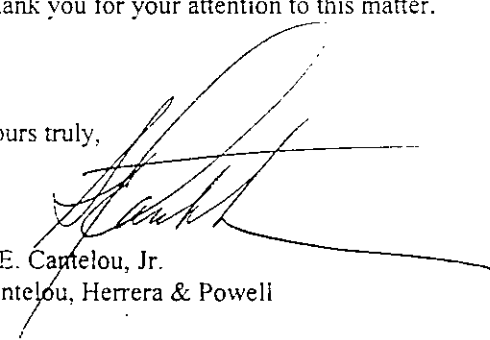
This volume as revised is intended to replace Volume 2 of 3 contained in the original submittal received by DEP on the eight of May 1999 and referenced above.

A supplemental letter is being sent to you under separate cover that will describe the methodology used by Sea Ray in preparing this MACT proposed.

Please call me if you have any questions in these regards.

Thank you for your attention to this matter.

Yours truly,



G.E. Cantelou, Jr.
Cantelou, Herrera & Powell

c.c. Len Koslov

Sea Ray Boats, Inc.

Cape Canaveral Plant
1200 Sea Ray Drive
Merritt Island, FL 32953

SUPPLEMENT TO
APPLICATION FOR AIR PERMIT - LONG FORM

April 1999

Volume 2 of 3
Application for Air Permit - Long Form

Revised July 16, 1999

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4. MACT PROPOSAL

Revised July 16, 1999

1. INTRODUCTION

This supplement represents a discussion of the proposed Sea Ray Boats, Inc. complex (Cape Canaveral Plant) to be located on Merritt Island in Brevard County, Florida.

Volumes 1, 2, and 3 (a) & (b) contain the completed construction application on DEP Form No. 62-210-900(1) as required by the State of Florida Department of Environmental Protection, Division of Air Resources Management.

Sea Ray Boats, Inc. proposes to construct improvements and begin the manufacture of boats. This production will create the emission of air pollutants. The quantity of air pollutants emitted into the atmosphere is projected to be approximately 211 tons per year.

The purpose of this document is to present background information and data regarding these proposed improvements.

a. FACILITY DESCRIPTION

Sea Ray Boats, Inc. manufacturing complex is proposed to be located on Merritt Island, 0.54 miles west of the intersection of Banana River Drive and Sea Ray Drive and adjacent to the Barge Canal in Brevard County.

The principal activity conducted by Sea Ray Boats, Inc., at this location, will be the production of high quality, fiberglass pleasure boats.

The manufacturing process at this facility will generate volatile organic compound (VOC) emissions to the atmosphere. The primary emission will be that of styrene, it occurs during the application of gelcoat and polyester resin in the lamination of the product. There are other compounds, which comprise the total emissions, but they are minor compared to styrene. All compounds used in the manufacturing process will be discussed and presented later in the materials list and emissions summary in Chapter 3, Sections e and f.

b. FACILITY IMPROVEMENTS

Market demand for Sea Ray's product has given rise for the need to increase production and this site has been selected as the location to provide additional space for the new operations.

1. Construction

The proposed improvements are shown graphically in Exhibit B. The construction of this facility is planned to occur in three phases. First, the proposed construction in Phase 1 will be that of 3 buildings, the lamination/assembly building, the fabrication building, and the accessory structures, and 291 asphalt-parking spaces. The proposed construction for Phase 2 will be an additional building and required parking spaces.

The lamination/assembly building is designed as a 72,000 square feet facility, with the addition of 4,800 square feet of

factory engineering offices, a lunchroom, and restrooms for the plant employees. There will also be the addition of an approximately 12,000 square foot overhang of for the final finish of boats after water testing. The 72,000 square feet of main factory area will contain 21,000 square feet of gelcoat and lamination area, with ventilation as required by OSHA, 36,000 square feet of assembly space, and approximately 15,000 square feet for parts inspection and hole cutting. Furthermore, the facility will be equipped with ventilation, dust collection, and lifting equipment in all areas required.

The fabrication building is designed as a 43,000 square foot facility, with the addition of 5,000 square feet of administrative offices and employee restrooms. The main portion of the building contains a 5,400 square foot lamination woodshop, a 1,200 square foot upholstery shop, a 1,000 square foot lectra room, and a 900 square foot hose, insulation, and wirepull room. It also contains 14,400 square feet of warehouse area with loading docks and 20,100 square feet dedicated to fabrication operations.

The accessory structures to be constructed are a guardhouse, a resin and materials storage building, and a marine fueling station.

2. MANUFACTURING PROCESS

a. Process Description (General)

This section will discuss the fiberglass reinforced plastic boat building techniques to be employed by Sea Ray at the complex on Merritt Island.

This facility is classified within SIC Code 3732, *Boat Building and Repair*, and primarily utilizes the process called "contact open molding" in the manufacture of its product. There are air emissions released from the raw materials used, polyester resin, gel coats, paints, carpet glue, wood glue, and various solvents. These products are component to other processes that carry their own individual Source Classification Codes (SCC). The flow diagrams that represent these various classifications are shown in Sections b and c of this chapter. However, for the purpose of this study, only the SCC Code 31401501 (Misc. Ind., Transportation Equipment General, Boat Manufacturing, General Manufacture of Fiberglass Pleasure Boats) will be used.

In literature prepared by the Radian Corporation, a thorough discussion of the boat manufacturing process for fiberglass boats was presented. The following is an adaptation of that work:

The "contact open molding" method consists of applying layers of impregnated fiberglass reinforcement (laminated) on an open female or male mold. The laminate is built up to the required thickness and is then allowed to cure. After the cure is completed, the part is removed and the

mold is reused. A male mold is convex leaving a smooth inner surface and a female mold is concave leaving a smooth outer surface on the product. Since smooth outer surfaces are normally desired, female molds are most commonly used in fiberglass boat production.

The primary type of resin used in fiberglass boat production is polyester resin. Polyester resins used by Sea Ray typically consist of styrene monomer and polyester solids. Before applying the resin, the necessary catalyst and accelerator are added to initiate curing. During curing, the styrene monomer polymerizes forming a thermo-setting plastic. This is an exothermic process, and because styrene monomer reacts more rapidly at elevated temperatures, the reaction is autocatalytic.

The production process steps used by Sea Ray in the manufacturing of fiberglass boats are shown in Section b of this chapter. The different parts of the boat (deck, hull, and small parts) are fabricated in the lamination area. The first step in the production process is coating the mold with a releasing agent such as wax. A gel coat is usually applied on the mold with a spray gun in a ventilated spray booth. The gel coat is a pigmented polyester resin, which forms the outer smooth surface of the molded part. After spraying, the gel coat hardens or cures with a smooth surface against the mold and a tacky outer surface, which enhances later bonding of the first layer of laminate.

After the gel coat cures, the first layer of resin and fiberglass laminate is applied using the lamination method described below. The lamination procedure is repeated until the desired thickness is achieved. Structural reinforcements such as wood, plastic, and metal are also added during lamination. Lamination is a batch process with time between laminates dependent on cure time of the resin. After the final lamination has cured, the excess is trimmed from the part and the part is removed from the mold.

After the parts are removed from the mold, they are then taken to the grinding area where they are sanded, inspected and repaired if required. Once removed from the inspection area parts are delivered to the assembly area where carpet and accessories are installed to produce the finished product.

In this Sea Ray facility resin will be applied with a flow coater or other non-atomizing techniques. A brush or other device is usually employed to even out the resin. After a thin coat of resin has been applied to the gel coat or previous layer of laminate, fiberglass chop or other reinforcement is placed over the wet resin. The primary fiberglass reinforcements used are woven roving, cloth, and mat. Squeegees or metal rollers are then employed to force the resin up through the reinforcement and remove any entrapped air (wet out). The resin is allowed to gel and the lamination process is repeated until the desired thickness of fiberglass laminate is obtained.

Catalyst injection flow coaters will be used at Sea Ray, they mix accelerated resin and the catalyst to the proper proportion inside the gun spray handle and then force the mixture through a single nozzle with multiple orifices.

A chopper gun has been developed and will be used to simultaneously apply non-atomized resin and chopped strands of glass reinforcement. Brushes and rollers are then used to spread the mixture and remove entrapped air. This process is repeated until the desired thickness is obtained.

The advantage of using woven roving or cloth laminate over chopped fiberglass is that a product with a higher strength to weight ratio is produced. However, the fabrication process takes longer when the woven roving or cloth laminate is used. A common practice of Sea Ray is to combine these two techniques. With this combination, parts of a boat that need to be strongest are fabricated using woven roving or cloth laminate while parts that do not need as much strength, such as small parts, are fabricated using chopped fiberglass. This results in a relatively lightweight boat that is produced in the minimum amount of time.

b. Boat Manufacturing Process Flow Diagram

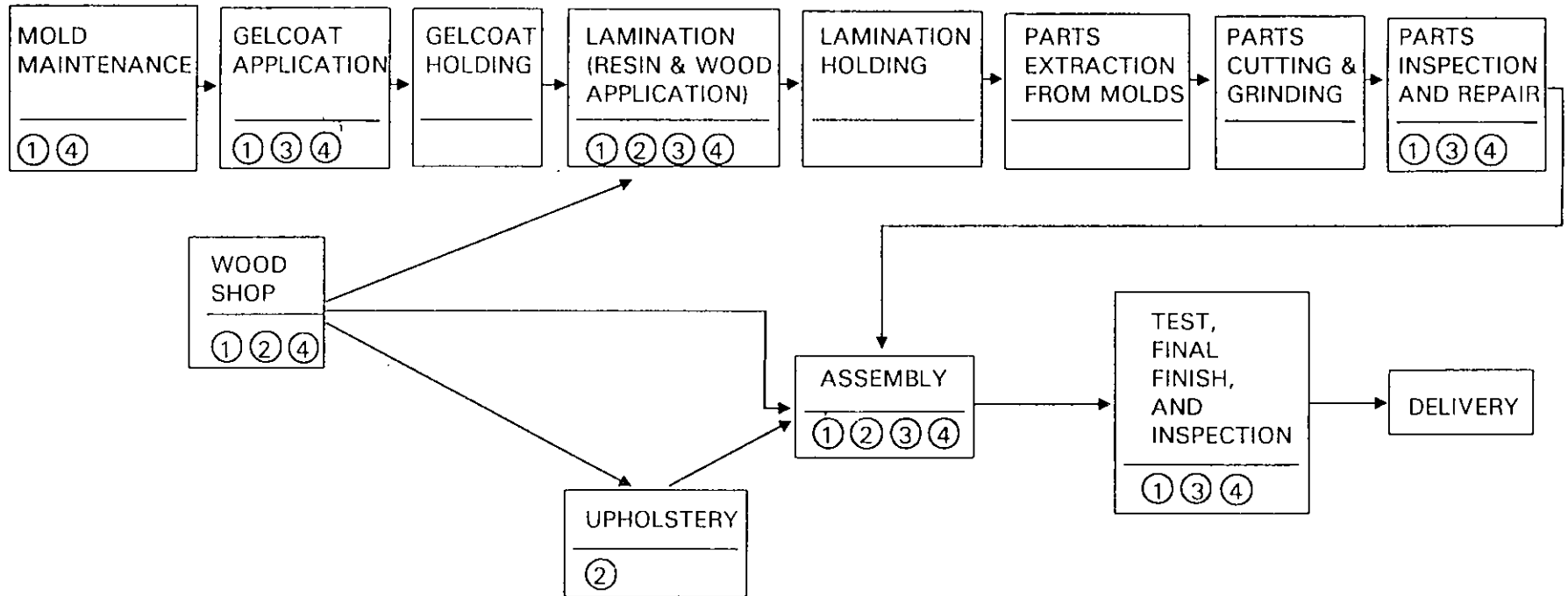
The flow diagram contained on the following page defines the process steps taken by Sea Ray as the boats are manufactured.

The numbers shown beneath the process description on the diagram indicate the individual activities that are a component to that process. These individual activities are further classified with their own Source Classification Codes (SCC). Section c, within this chapter, contains the charts that illustrate these activities.

SEA RAY BOATS, INC.

BOAT MANUFACTURING FLOW DIAGRAM

(Indicating Various Processes Involved)



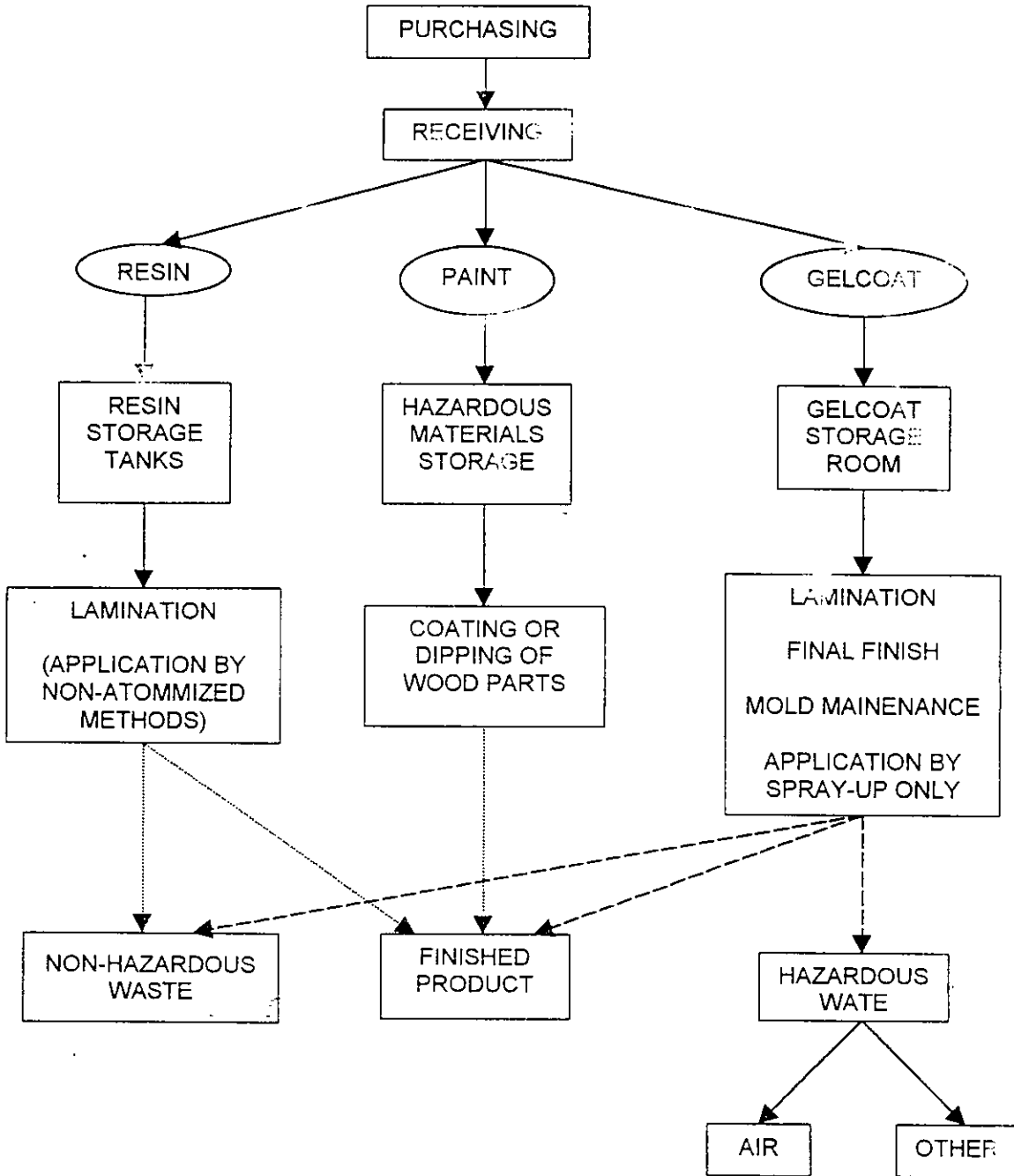
- NOTE:
- ① Surface Coating
 - ② Adhesives
 - ③ Thinners
 - ④ Cleaners, Lubricants, Waxes

c. Process Flow Diagrams

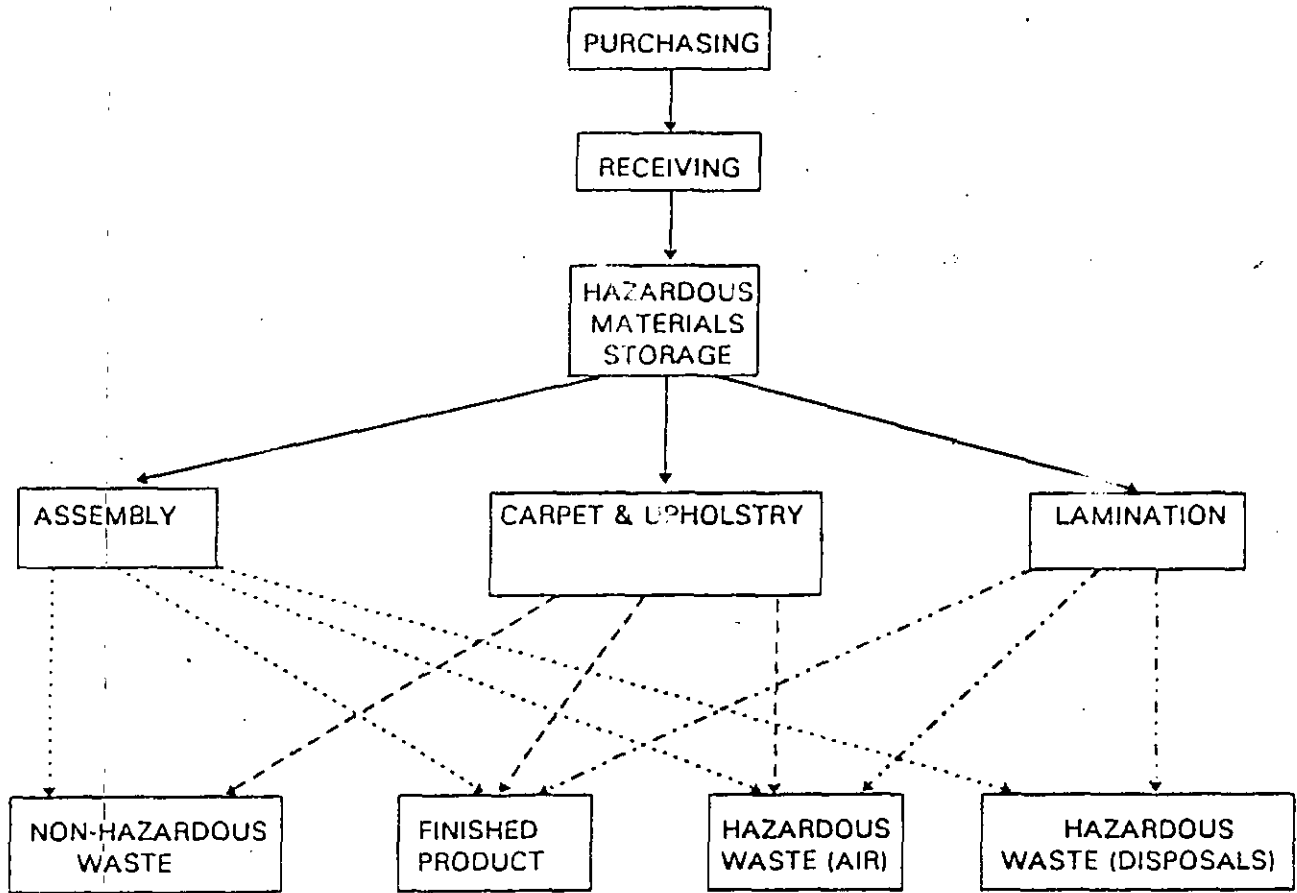
The diagrams contained within this section illustrate the relationship of use of a particular material to the department in which the process occurs. Refer to the preceding section to determine the association of the individual activity to the general manufacturing process.

SURFACE COATING
PROCESS FLOW DIAGRAM

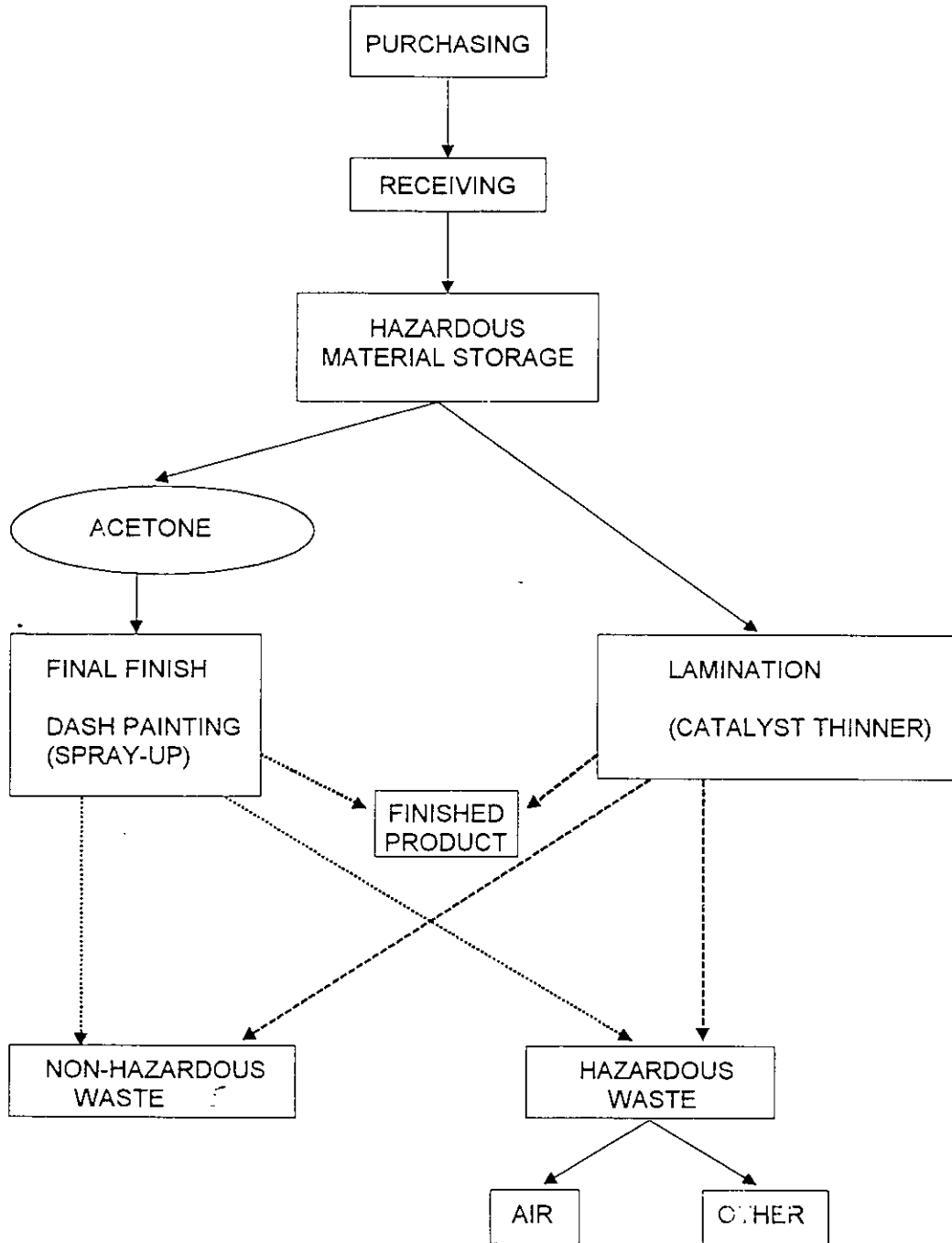
(This process is similar for gelcoat, paint, and resin)



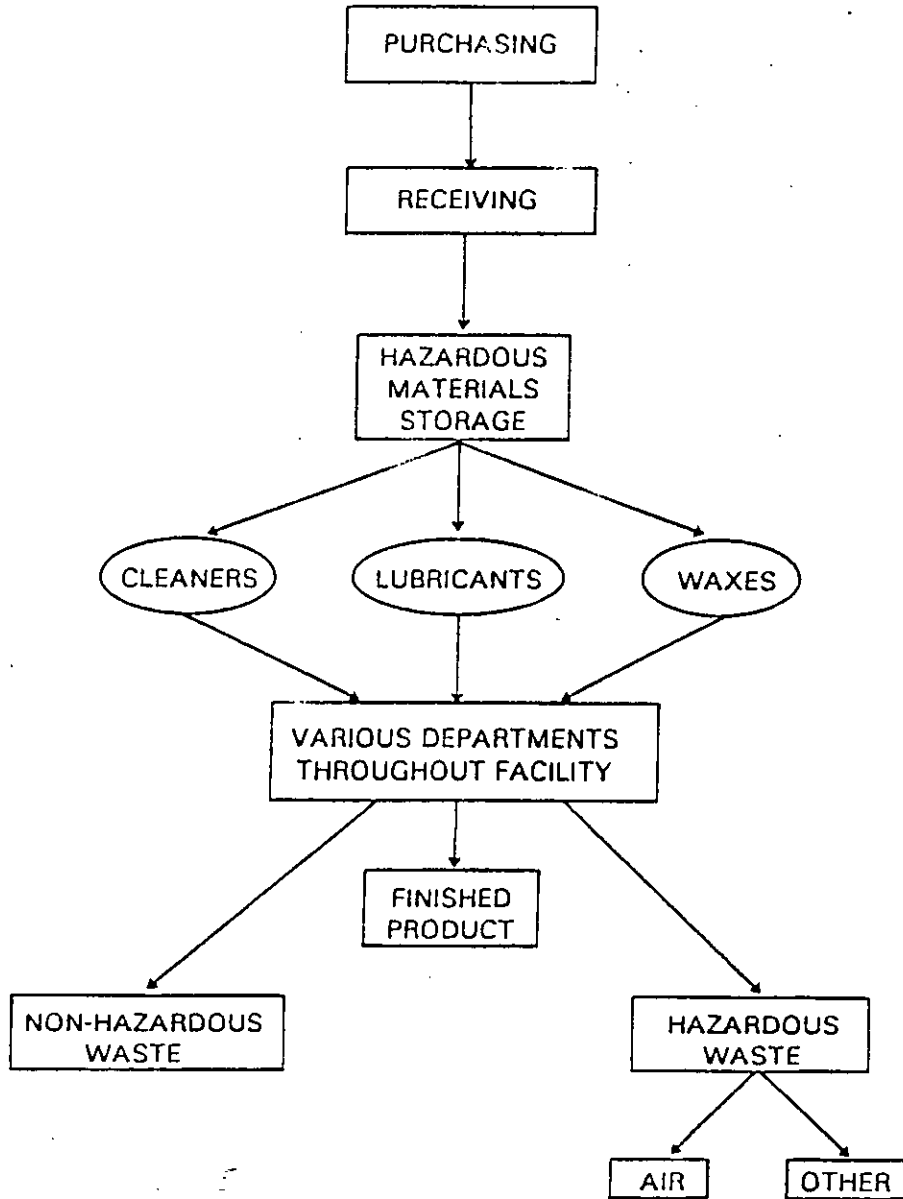
ADHESIVE OPERATION
PROCESS FLOW DIAGRAM



**THINNERS
PROCESS FLOW DIAGRAM**



CLEANERS, LUBRICANTS, WAXES
PROCESS FLOW DIAGRAM



3. AIR EMISSIONS DESCRIPTION

a. Introduction

The manufacture of boats within this proposed new Sea Ray facility produces air contaminants. These contaminants are exhausted to the atmosphere via plant ventilation systems or through minor fugitive emissions.

The following sections will indicate the location and basis for determining the estimated emissions from points identified as belonging to the facilities air emission source. Quantities of emissions applicable to the source are summarized in Table One.

Table One. Emissions Listed by Chemical and/or Category

Chemical	CAS #	FL ID	Projected (lbs)	Projected (tons)
TOTAL VOC		VOC	422,188.17	211
TOTAL HAPs		HAP	297,433.50	149
Styrene	100-42-5	H163	249,035.02	125

b. Mold Maintenance Area

The Mold Maintenance Area is located in the lamination building, See Exhibit C. The molds are repaired, cleaned, waxed, and readied for production in this area. Emissions from this location result during repair as damaged surfaces receive spot applications of tooling resin and gel; during cleaning, volatile solvents evaporate when the surface of the mold is wiped; and during waxing, solvents within the wax evaporate as it dries. Minor quantities of particulate emissions are generated during the spray application of resin and tooling gel. They are also generated during the polishing process after the wax has dried.

The molds are then moved into production to be used in the fabrication of decks, hulls and small parts.

The total amount of raw materials projected to be consumed in the repair and maintenance of molds are used to calculate the estimated emissions, as shown in the summary. See Section f, within this chapter.

c. Fiberglass Parts Production

1. Lamination

At this proposed Sea Ray complex, fiberglass parts are fabricated in the lamination area. See Exhibit C, which indicates the lamination area within the plant.

At the location described in the exhibit, gel coat is applied in a spray booth or other space designated for that activity. The gel

coat is sprayed into freshly prepared molds, which are brought into production from the mold maintenance area.

Once the gel coat has cured, resin and/or resin with chopped fiberglass is applied by non-atomizing methods, then other reinforcements of woven fiberglass and wood are applied with resin in successive applications. This is called the lamination process and it creates the structural skeleton and form of the boat.

Emissions from the processes described above occur when the material (resin and gel coat) is applied to the mold. As the material is applied, the Volatile Organic Compound (VOC), styrene, evaporates.

Additionally, emissions are created as the styrene monomer evaporates from the surface of the applied material before polymerization completely occurs. Minor particulate emissions are also created when the materials are sprayed (gelcoat overspray), however, efficient filters are placed and maintained at exhaust locations as a method of control.

The total amount of resin and gel coat consumed in the fiberglass parts production process is used to calculate the estimated quantities of emissions as shown in the summary. See Section f, within this chapter.

2. **Grinding**

Once the lamination process has been completed, and the plastic part has "cured" and removed from the mold, excess gel coat and laminate is trimmed. This trimming operation is normally accomplished by cutting the material with an abrasive wheel. This process is called "grinding". Grinding of the boat parts occurs in an enclosed booth.

Particulate emissions are generated as the material is sanded or "ground" by the abrasive wheel. The booth in which this operation takes place is specifically designed to collect these particulates, also to filter and recirculate the air within the building. The system through which the air from the booth passes is calculated to be 99.7% + efficient for 0.5 micron particles and is touted by the manufacturer to produce an exhaust stream higher in quality than ambient (with respect to particulates).

Therefore, with this method of control, particulate emissions from grinding are considered negligible.

3. **Parts Inspection**

Repairs to all defects detected are made in the parts inspection area. Parts are inspected, patched, sanded and gelcoat and/or putty are used to repair defects. Hole cutting is also performed in parts inspection before the boat goes to the assembly area.

d. Boat Assembly Operations

There are many activities that take place as a boat is being assembled from its component parts. However, there are a few processes that create emissions of VOCs that cannot be classified as insignificant.

1. Carpet and Upholstery

The boat with fiberglass structural parts assembled receives carpet and upholstered articles. Sea Ray manufactures its own seating and other fabric covered parts. These items are usually prepared in the upholstery shop and consist of foam material applied to a wood frame then covered with vinyl or other fabrics.

Emissions associated with this process emanate from the use of glue to adhere the carpet, foam, and fabric. After the application of glue, the solvent evaporates into the building air as the glue dries and is exhausted to the outside via the plant ventilation system.

2. Cleanup

Cleanup is involved in almost every area of the facility and includes cleaning and flushing of application equipment, cleaning of rollers, and cleanup of personnel.

3. Final Finish

During final finish the carpet is installed in the boats. The boat is then water tested, cleaned, and prepared for delivery. In some instances bottom paint may be applied before delivery.

e. **Throughput Materials and Projected Usage**

This section contains an itemization of each raw material along with the quantity projected to be consumed on an annual basis for this facility, Table Two.

The first three columns shown on the following table represent Sea Ray's inventory control numbers. The Description column indicates the product used. Usage and UOM columns indicate the quantity of the raw material planned to be used in one year.

Table 1.01. List of Materials
List of Proposed Materials and Projected Usage

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM
10	120	100073	Orange Tooling					54.00	lbs
10	120	101154	Bilge Grey Gc					184,765.00	lbs
10	190	101410	Polygard 33-441					2,438.00	lbs
10	120	101436	Black Tooling					162.00	lbs
15	60	101485	Paint, Latex Black (Delta Labs)	1,246.00	gal	10.1	#/gl	12,584.60	lbs
15	70	101923	Paint, Plasti-Dip (Red)	1.00	gal	6.91	#/gl	6.91	lbs
15	50	102475	Moist Resist Lacquer	18.00	gal	7.4	#/gl	133.20	lbs
15	10	102491	Additive, Retardant Butyl Cellulose	20.40	gal	7.48	#/gl	152.59	lbs
15	100	102525	Sanding Sealer	161.00	gal	7.1	#/gl	1,143.10	lbs
10	110	102574	Flexbond Putty	984.00	gal	9.17	#/gl	9,023.28	lbs
25	120	102665	Silicon, Lubricant (Wd-40)	5.00	gal	6.68	#/gl	33.40	lbs
25	110	156984	Sealant, Silicone	7,897.00	ea	10.3	oz	5,083.69	lbs
25	110	156992	Sealant, Silicone	235.00	ea	10.3	oz	153.21	lbs
25	110	157008	Sealant, Silicone	15,437.00	ea	10.3	oz	9,937.57	lbs
195	35	164939	Compound, Edge Wax Fin-Kare	13.00	ea (gal)	6.65	#/gl	86.45	lbs
10	30	166488	Contact Disc Cement	148.00	ea	5	oz	46.25	lbs
195	35	179341	Compound Sealer Glaze	11.00	gal	8.75	#/gl	48.13	lbs
195	35	179358	Compound, Mold Release TR Hi-Tem	310.00	can	14	oz	271.25	lbs
15	80	181255	Paint, Spray 1 : (Black)	3,692.00	can	11	oz	2,538.25	lbs
15	50	181429	Paint, Lacquer Hi-Gloss For Vitracore	74.00	gal	7.31	#/gl	540.94	lbs
10	30	191510	3M Fast Foam Adhesive	11,900.00	ea	17.25	oz	12,838.31	lbs
10	30	191569	Adhesive, Threadlocker	89.00	ea	1.69	oz	9.40	lbs
10	30	191585	Adhesive, Threadlocker Primer Only	2.00	can	6	oz	0.75	lbs
10	30	191718	Adhesive, Pvc Cement	203.00	qt	7.99	#/gl	405.49	lbs
195	65	191734	Silicone Spray Lubricant	2,668.00	can	24	oz	4,002.00	lbs
175	15	191742	Cleaner, Glass Spartan	125.00	bti	20	oz	156.25	lbs
15	50	191858	Fast Dry Lacquer	240.00	can	12	oz	180.00	lbs
15	80	191866	Paint, Spray Black Hi-Temp	8.00	can	12	oz	6.00	lbs
15	80	191882	Paint, Spray Red	49.00	can	12	oz	36.75	lbs
15	80	191924	Spray Paint Hard Hat	821.00	can	15	oz	769.69	lbs
15	80	191932	Paint, Spray Pt (White)	184.00	can	11	oz	126.50	lbs
195	35	192864	Super Polyglaze	86.00	cn (2 qt)	7.92	#/gl	340.56	lbs
195	35	192872	Imperial Hand Glaze	16.00	cn (qt)	7.92	#/gl	31.68	lbs
175	15	192898	Bilge Cleaner	2.00	ea	16	oz	2.00	lbs
175	15	192922	Cleaner, Vinyl Formula Lr	5.00	can	14	oz	4.38	lbs
195	35	194274	Cpd Polishing Lackryl	72.00	gal	11.68	#/gl	840.96	lbs
195	35	194282	Compound, Polishing Dixtler	20.00	gal	10.81	#/gl	216.20	lbs
25	30	194308	Dykem Co	11.00	gal	7.18	#/gl	78.98	lbs
25	30	194415	Denatured Alcohol	685.00	gal	6.7	#/gl	4,589.50	lbs
25	110	209106	Sealant, Silicone	43.00	ea	3	8.72	8.79	lbs
10	30	209783	Adhesive, Contact Spray Stuck-Up	20,120.00	ea	13	oz	16,347.50	lbs
175	15	225417	Cleaner, Industrial Citrus Base	1,312.00	can	18.5	oz	1,517.00	lbs
175	15	230557	Cleaner, Spot Remover	14.00	can	16	oz	14.00	lbs
25	110	257600	Sealant, Pipe (PVC) w/Teflon	10.00	ea (50 ml)	9.51	#/gl	0.25	lbs
25	110	257907	Sealant, Urethane White Sikaflex	362.00	ea	10.5	oz	237.56	lbs
25	30	270009	Chemical, Mineral Spirits	161.00	gal	6.43	#/gl	1,035.23	lbs
195	60	277681	Seam Fill Antique White	130.00	ea	1	oz	8.13	lbs
10	140	308205	Clear Mekp-9H					14,822.00	lbs
10	140	308213	Red Mekp9-H					39,302.00	lbs
10	30	321190	Lokweid Contact Adh	3,894.00	gal	6.86	#/gl	26,712.84	lbs
25	110	352443	Sealant, Silicone	1,093.00	ea	3	8.7	222.87	lbs
195	35	353482	Compound, Polishing Finesse II II	293.00	qt	8.345	#/gl	611.27	lbs

Table Two. List of Materials
List of Proposed Materials and Projected Usage

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM
10	120	437145	Webbing Solution	128.00	gal	.	#/gl	896.00	lbs
15	120	440230	T-70 Lacquer Thinner	408.00	gal	6.72	#/gl	2,741.76	lbs
175	15	440727	Cleaner, All Purpose	36.00	can	19	oz	42.75	lbs
10	120	556944	Antique White Gel					37,055.00	lbs
10	110	581975	Polyester Putty	602.00	gal	13.27	#/gl	21,258.54	lbs
15	30	592790	Bottomkote Black	149.00	gal	14.8	#/gl	2,205.20	lbs
15	30	592816	Paint, Bottom Red	2.00	gal	16.3	#/gl	32.60	lbs
15	120	592899	Bottom Paint Thinner	49.00	gal	7.3	#/gl	350.40	lbs
25	100	604025	Solvent, Vinyl-Lux Primer Wash	12.00	gal	7.5	#/gl	90.00	lbs
15	30	612077	Epoxy Btm Coat w/Hardener 2000	18.00	gal	12.9	#/gl	232.20	lbs
15	30	612085	Epoxy, Btm Coat w/Hardener 1000/10	19.00	gal	8.1	#/gl	153.90	lbs
15	30	612085	Epoxy, Btm Coat w/Hardener 1000/10	19.00	gal	8.1	#/gl	153.90	lbs
10	190	619981	Alpha Altek 80602F					3,552,295.00	lbs
175	15	645952	Cleaner, TFX	14.00	gal	8.21	#/gl	114.94	lbs
175	15	662437	Cleaner, Super Blue Resin	2,112.00	gal	8.8	#/gl	18,585.60	lbs
25	100	662445	Solvent, Super Flush S-280	6,006.00	gal	8.88	#/gl	53,333.28	lbs
10	190	666057	Hydropell A35					210,060.00	lbs
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs
10	120	677732	Arctic White Gel Coat					3,374.00	lbs
10	120	680751	Biige Grey Gel Coat					58,297.00	lbs
10	60	699553	Gel Patch, Slow Patchaid					169.00	lbs
195	35	715581	Cpd Polishing Lackryl 5 gal	101.00	pl (5 gl)	11.68	#/gl	5,895.40	lbs
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs
10	120	721126	Gelcoat, Zephyr Armorcote					18,773.00	lbs
10	120	721548	Airless Tooling Gel Coat					1,296.00	lbs
10	110	723080	Hvy Wt Bonding Putty					74,204.00	lbs
25	160	761346	Poly vinyl Alcohol	74.00	gal	7.63	#/gl	564.62	lbs
10	110	761643	Hvy Wt Bond Putty Low					90,540.00	lbs
15	120	789719	Thinner, Dykem Blue	191.00	gal	6.88	#/gl	1,314.08	lbs
25	100	790477	Isopropyl Acetate					24,480.00	lbs
195	65	810820	Lubricant, Protecto-Flex	1,282.00	ea	15	oz	1,201.88	lbs
25	110	813220	Sealant, Silicone Lt Gray Starbrite RT	5.00	ea (10.3 fl oz)	8.66	#/gl	3.49	lbs
15	20	825745	Paint, Acrylic Black Fast Drying	144.00	gal	8.345	#/gl	1,201.68	lbs
25	100	846824	Thermaclean, Wipe-Brite					3,165.00	lbs
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs
10	30	853142	Adhesive, Glue Instabond	527.00	ea	1.75	oz	57.64	lbs
10	30	853159	Adhesive, Primer 45	335.00	ea	1	oz	20.94	lbs
15	30	858885	Paint, Bottom Black (Aqua-Clean)	716.00	gal	19.9	#/gl	14,248.40	lbs
15	70	858885	Paint, Primer Sandless	238.00	gal	7.8	#/gl	1,856.40	lbs
15	120	858901	Thinner, Btm Paint Brushing Dewaxer	64.00	gal	7.1	#/gl	454.40	lbs
10	120	893420	Gelcoat, Black Backcoat					1,380.00	lbs
10	120	894762	Gelcoat, Sandstone					1,920.00	lbs
10	120	894790	Gelcoat, Bone Backcoat					2,580.00	lbs
10	110	896886	Gunk, Hvy Wt Bonding Putty Lg					59,654.00	lbs
175	15	900381	Cleaner, Dishsoap	8.00	gal	6.6	#/gl	68.80	lbs
25	110	911859	Sealant, Silicone Clear (Corian)	170.00	ea	1.5	oz	15.94	lbs
25	110	918706	Sealant, Joint Compound Bone/Bisque	302.00	ea	1.5	oz	28.31	lbs
15	80	945980	Primer, Beataseal #43518	55.00	30 cc btl	6.9	#/gl	3.01	lbs
15	80	945998	Primer, Beataseal #43520	84.00	30 cc btl	8.2	#/gl	5.46	lbs
15	80	946004	Primer, Beataseal #43532	85.00	30 cc btl	8.5	#/gl	5.73	lbs
10	30	946012	Adhesive, Beatseal #58702	223.00	10.5 oz	9.93	#/gl	181.65	lbs
10	120	946327	Gelcoat, Black					648.00	lbs

Table Two. List of Materials
List of Proposed Materials and Projected Usage

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM
15	60	983130	Paint, Latex Cream Touch-Up Bl w/Br	36.00	ea	0.6	oz	1.35	lbs
10	120	987792	Gelcoat, Aurora (Granicoat)					15,780.00	lbs
10	120	992677	Gelcoat, Burnt Amber (Granicoat)					900.00	lbs
10	120	992685	Gelcoat, Oceanic (Granicoat)					300.00	lbs
10	120	1003250	Gelcoat, Tan Backcoat					300.00	lbs
175	15	1004217	Cleaner, PVC Klean-N-Prime	26.00	ea	0.88	oz	1.43	lbs
25	110	1019231	Sealant, Pipe (PST)	26.00	ea (10 ml)	9.18	#/gl	0.63	lbs
25	110	1081694	Sealant, Silicone Cream Starbrite RTV	133.00	b (10.3 fl oz)	8.68	#/gl	92.90	lbs
15	60	1084912	Paint, Spray Royal Blue "Great Day"	43.00	ea	11.5	oz	30.91	lbs
15	110	1084920	Stain, Maple Wiping	4.00	gal	6.76	#/gl	27.04	lbs
25	110	1096072	Sealant, Silicone Zephyr RTV	484.00	b (10.3 fl oz)	8.68	#/gl	338.06	lbs
25	30	1104843	Alcohol, Denatured	872.00	gal	6.72	#/gl	5,859.84	lbs
195	35	1105485	Wax, Gruber Care X-Wax Soft	26.00	bx (2.5 gal)	7.93	#/gl	515.45	lbs
10	35	1129691	Coating, Strippable Wht	156.00	gal	7.68	#/gl	1,213.44	lbs
25	100	1151588	Safety Clean Solvent	330.00	gal	6.65	#/gl	2,104.50	lbs
10	30	1209303	Adhesive, Spray Whisper	714.00	gal	9.89	#/gl	7,061.46	lbs
10	190	1226638	Resin, Hydropell A-35					23,220.00	lbs
10	110	1235316	Gunk, Lt Wt Bonding Putty LV					51,843.00	lbs
10	110	1235324	Gunk, Lt Wt Bonding Putty LG					46,000.00	lbs
			Total					5,254,018.16	lbs
								2,627.01	tons

f. Summary of Emissions

The summary contained herein represents the manufacturing facility's projected emissions based on the annual usage of each material listed in the previous section. See Section e, within this chapter. These materials have been selected to comply with the Proposed MACT that is contained in Section 4 of this document.

Material Safety Data Sheets for the specific item listed in the Description column were reviewed. These Material Safety Data Sheets are contained in Volume 3 (a) & Volume 3 (b) and represent the products used by the facility in their respective processes. After inspection of each of these sheets, the material is divided into its volatile organic chemical constituents. The organic compounds, so determined, are listed under the column shown Chemical, then further classified as Volatile Organic Compounds (VOC), Hazardous Air Pollutants (HAP), or other and are enumerated under the columns VOC, HAP, RFS (Regulated Flammable Substance), and Ace (acetone). The emission attributable to each chemical in a specific material is calculated to determine its annual contribution and those values are listed in the column, Emissions.

This value is derived by multiplying the annual usage of the material by the percentage of the chemical contributing to the emission, with the resultant being multiplied again by its emission factor. The emission factors used in these calculations, Table Three, are obtained using the *Interim Styrene Emission Factors for Boat Manufacturing* provided by the

Florida Department of Environmental Protection and information contained within the Material Safety Data Sheet for the product under consideration. The proposed emissions calculations are then sorted by chemical, Exhibit D, so the annual usage of each chemical can be determined.

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RFP	Ac	% Chem	Chemical (lbs)	Emiss 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	Blige Grey Gc					184,765.00	lbs	Styrene	100-42-5	x	x			34.4%	63,562.86	16.5%	10,487.87	5.24
10	190	101410	Polygard 33-441					2,438.00	lbs	Hexachloroethane	67-72-1	x	x			4.1%	100.69	11%	11.08	0.01
10	190	101410	Polygard 33-441					2,438.00	lbs	Styrene	100-42-5	x	x			37.2%	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	Other:VOC	110-54-3	x	x			37.5%	17.34	100%	17.34	0.01
10	30	166488	Contact Disc Cement	148.00	ea	5	oz	46.25	lbs	Other:VOC		x				27.5%	12.72	100%	12.72	0.01
195	35	179341	Compound Sealer Glaze	11.00	gal	8.75	#/gl	48.13	lbs	Formaldehyde	50-00-0	x	x			0.5%	0.24	100%	0.24	0.00
195	35	179341	Compound Sealer Glaze	11.00	gal	8.75	#/gl	48.13	lbs	Other:VOC		x				33.0%	15.88	100%	15.88	0.01
195	35	179358	Compound, Mold Release TR Hi-Te	310.00	can	14	oz	271.25	lbs	Other:VOC		x				70.0%	189.88	100%	189.88	0.09
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Butane	106-97-8	x	x			11.7%	295.96	100%	295.96	0.15
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	isobutane	75-28-5	x	x			11.7%	295.96	100%	295.96	0.15
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Other:VOC		x				8.1%	206.61	100%	206.61	0.10
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Propane	74-98-6	x	x			11.7%	295.96	100%	295.96	0.15
15	80	181255	Paint, Spray Pt (Black)	3,692.00	can	11	oz	2,538.25	lbs	Toluene	108-88-3	x	x			25.0%	634.56	100%	634.56	0.32
15	80	181255	Paint, Spray Pt (Black)	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		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	AFC	% 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%	3,201.60	100%	3,201.60	1.60
175	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
175	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		10.0%	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	108-85-6	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	340.53	lbs	Other.VOC		x				65.0%	221.36	100%	221.36	0.11
195	35	192872	Imperial Hand Glaze	16.00	cn (qt)	7.92	#/gl	31.68	lbs	Other.VOC		x				14.3%	4.53	100%	4.53	0.00
175	15	192898	Bilge Cleaner	2.00	ea	16	oz	2.00	lbs	Other.VOC		x				1.0%	0.02	100%	0.02	0.00
175	15	192922	Cleaner, Vinyl Formula Lr	5.00	can	14	oz	4.38	lbs	Other.VOC		x				95.0%	4.16	100%	4.16	0.00
195	35	194274	Cpd Polishing Lackryl	72.00	gal	11.68	#/gl	840.96	lbs	Other.VOC		x				2.4%	20.18	100%	20.18	0.01
195	35	194282	Compound, Polishing Dxtler	20.00	gal	10.81	#/gl	216.20	lbs	Other.VOC		x				33.3%	72.06	100%	72.06	0.04
25	30	194308	Dykem Co	11.00	gal	7.18	#/gl	78.98	lbs	Other.VOC		x				89.4%	70.61	100%	70.61	0.04
25	30	194415	Denatured Alcohol	685.00	gal	6.7	#/gl	4,589.50	lbs	Methyl Alcohol	67-56-1	x		x		50.0%	2,294.75	100%	2,294.75	1.15

Table Three. Proposed Emissions Calculations

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RFPS	Ac	% Chem	Chemical (lbs)	Emiss 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%	1,035.23	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 II II	293.00	qt	8.345	#/gl	611.27	lbs	Ethylbenzene	100-41-4	x	x			0.1%	0.61	100%	0.61	0.00
195	35	353482	Compound, Polishing Finesse II II	293.00	qt	8.345	#/gl	611.27	lbs	Other:VOC		x				22.8%	139.37	100%	139.37	0.07
195	35	353482	Compound, Polishing Finesse II II	293.00	qt	8.345	#/gl	611.27	lbs	Xylene	1330-20-7	x	x			0.1%	0.61	100%	0.61	0.00
10	120	437145	Webbing Solution	128.00	gal	7	#/gl	896.00	lbs	Acetone	67-64-1					85.0%	761.60	100%	761.60	0.38
15	120	440230	T-70 Lacquer Thinner	408.00	gal	6.72	#/gl	2,741.76	lbs	Acetone	67-64-1					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	81-62-6	x	x			3.0%	1,111.65	48%	533.59	0.27
10	120	556944	Antique White Gel					37,055.00	lbs	Other:VOC	100-42-5	x	x			35.0%	12,969.25	48%	6,225.24	3.11
10	110	581975	Polyester Putty	1,602.00	gal	13.27	#/gl	21,258.54	lbs	Styrene	100-42-5	x	x			15.0%	3,188.78	11.0%	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	HAPs	RA	Ac	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
15	30	592790	Bottomkote Black	149.00	gal	14.8	#/gl	2,205.20	lbs	Xylene	1330-20-7	x	x			5.0%	110.26	100%	110.26	0.06
15	30	592816	Paint, Bottom Red	2.00	gal	16.3	#/gl	32.60	lbs	Other.VOC		x				17.0%	5.54	100%	5.54	0.00
15	30	592816	Paint, Bottom Red	2.00	gal	16.3	#/gl	32.60	lbs	Xylene	1330-20-7	x	x			5.0%	1.63	100%	1.63	0.00
15	120	592899	Bottom Paint Thinner	48.00	gal	7.3	#/gl	350.40	lbs	Xylene	1330-20-7	x	x			100.0%	350.40	100%	350.40	0.18
25	100	604025	Solvent, Vinyl-Lux Primer Wash	12.00	gal	7.5	#/gl	90.00	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			13.0%	11.70	100%	11.70	0.01
25	100	604025	Solvent, Vinyl-Lux Primer Wash	12.00	gal	7.5	#/gl	90.00	lbs	Other.VOC		x				69.0%	62.10	100%	62.10	0.03
15	30	612077	Epoxy Btm Coat w/Hardener 2000	18.00	gal	12.9	#/gl	232.20	lbs	Methylene Chloride	75-09-2	x				10.7%	24.78	100%	24.78	0.01
15	30	612077	Epoxy Btm Coat w/Hardener 2001	18.00	gal	7.3	#/gl	131.40	lbs	Other.VOC		x				48.3%	63.52	100%	63.52	0.03
15	30	612077	Epoxy Btm Coat w/Hardener 2001	18.00	gal	7.3	#/gl	131.40	lbs	Xylene	1330-20-7	x	x			38.0%	49.93	100%	49.93	0.02
15	30	612077	Epoxy Btm Coat w/Hardener 2000	18.00	gal	12.9	#/gl	232.20	lbs	Xylene	1330-20-7	x	x			7.7%	17.81	100%	17.81	0.01
15	30	612085	Epoxy, Btm Coat w/Hardener 1000/1	19.00	gal	8.1	#/gl	153.90	lbs	Other.VOC		x				35.5%	54.63	100%	54.63	0.03
15	30	612085	Epoxy, Btm Coat w/Hardener 1000/1	19.00	gal	8.1	#/gl	153.90	lbs	Phenol	108-95-2	x	x			12.5%	19.24	100%	19.24	0.01
10	190	619981	Alpha Aitek 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					210,000.00	lbs	Styrene	100-42-5	x	x			35.0%	73,521.00	11%	8,087.31	4.04
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Other.VOC		x				43.5%	31.95	100%	31.95	0.02
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Propylene Glycol Monomethyl Ether	108-65-6	x	x			7.2%	5.29	100%	5.29	0.00
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Toluene	108-88-3	x	x			3.7%	2.72	100%	2.72	0.00
15	90	667337	Paint, Imron Sea Ray White	8.00	gal	9.18	#/gl	73.44	lbs	Xylene	3330-20-7	x	x			1.4%	1.03	100%	1.03	0.00
15	10	667451	Additive, Activator Imron	12.00	qt	8.01	#/gl	24.03	lbs	Other.VOC		x				67.8%	16.29	100%	16.29	0.01
10	120	677732	Arctic White Gel Coat					483,374.00	lbs	Methyl Methacrylate	80-62-6	x	x			4.0%	19,334.96	48%	9,280.78	4.64
10	120	677732	Arctic White Gel Coat					483,374.00	lbs	Styrene	100-42-5	x	x			28.5%	137,848.60	48%	66,167.33	33.08
10	120	680751	Bilge Grey Gel Coat					55,290.00	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 gal)	11.68	#/gl	5,898.40	lbs	Other.VOC		x				2.4%	141.56	100%	141.56	0.07
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Acetone	67-64-1			x		27.0%	10.13	100%	10.13	0.01
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Butane	106-97-8	x		x		6.0%	2.25	100%	2.25	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Other.VOC		x				15.9%	5.96	100%	5.96	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Propane	74-98-6	x		x		14.0%	5.25	100%	5.25	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Toluene	108-88-3	x	x			10.0%	3.75	100%	3.75	0.00
15	80	716936	Paint, Spray White High Glass "Hard	40.00	can	15	oz	37.50	lbs	Xylene	1330-20-7	x	x			3.0%	1.13	100%	1.13	0.00
10	120	721126	Gelcoat, Zephyr 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

CC	SC	MRP #	DESCRIPTION	USAGE	UOM	WT/GAL	UOM	USAGE	UOM	Chemical	CAS #	VOC	HAP	RFPS	ASe	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
15	120	789719	Thinner, Dykem Blue	191.00	gal	6.88	#/gl	1,314.08	lbs	Methyl isobutyl Ketone	108-10-1	x	x			3.0%	39.42	100%	39.42	0.02
15	120	789719	Thinner, Dykem Blue	191.00	gal	6.88	#/gl	1,314.08	lbs	Other:VOC		x				97.0%	1,274.66	100%	1,274.66	0.64
25	100	790477	Isopropyl Acetate					24,480.00	lbs	Other:VOC		x				100.0%	24,480.00	100%	24,480.00	12.24
195	65	810820	Lubricant, Protecto-Flex	1,282.00	ea	15	oz	1,201.88	lbs	Other:VOC		x				50.0%	600.94	100%	600.94	0.30
25	110	813220	Sealant, Silicone Lt Gray Starbrite R	5.00	(10.3 fl o	8.68	#/gl	3.49	lbs	Other:VOC		x				5.0%	0.17	100%	0.17	0.00
15	20	825745	Paint, Acrylic Black Fast Drying	144.00	gal	8.345	#/gl	1,201.68	lbs	Other:VOC		x				6.1%	73.30	100%	73.30	0.04
25	100	846824	Thermaclean, Wipe-Brite					3,168.00	lbs	Dipropylene Glycol Methyl Ether	34590-94-8	x	x			7.5%	237.60	100%	237.60	0.12
25	100	846824	Thermaclean, Wipe-Brite					3,168.00	lbs	Dipropylene Glycol Monobutyl Ether	29911-28-2	x	x			3.0%	95.04	100%	95.04	0.05
25	100	846824	Thermaclean, Wipe-Brite					3,168.00	lbs	Other:VOC		x				78.2%	2,477.38	100%	2,477.38	1.24
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Acetone	67-64-1				x	27.5%	1.83	100%	1.83	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Other:VOC		x				7.5%	0.50	100%	0.50	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Other:VOC		x				17.5%	1.17	100%	1.17	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Propylene Glycol Monomethyl Ether Acetate	108-65-6	x	x			7.5%	0.50	100%	0.50	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Toluene	108-88-3	x	x			22.5%	1.50	100%	1.50	0.00
15	120	848242	Thinner, Lacquer PPG-DLT/16	1.00	gal	6.67	#/gl	6.67	lbs	Xylene	1330-20-7	x	x			17.5%	1.17	100%	1.17	0.00
10	30	863142	Adhesive, Glue Instabond	527.00	ea	1.75	oz	57.64	lbs	Other:VOC		x				86.0%	49.57	100%	49.57	0.02
10	30	863159	Adhesive, Primer 48	335.00	ea	1	oz	20.94	lbs	Hydroquinone	123-31-6	x	x			0.1%	0.02	100%	0.02	0.00
10	30	863159	Adhesive, Primer 48	335.00	ea	1	oz	20.94	lbs	Other:VOC		x				99.8%	20.90	100%	20.90	0.01
15	30	868885	Paint, Bottom Black (Aqua-Clean)	716.00	gal	19.9	#/gl	14,248.40	lbs	2-Butoxyethanol	111-76-2	x	x			2.9%	406.08	100%	406.08	0.20
15	30	868885	Paint, Bottom Black (Aqua-Clean)	716.00	gal	19.9	#/gl	14,248.40	lbs	Ethylene Glycol	107-21-1	x	x			2.9%	406.08	100%	406.08	0.20
15	70	868885	Paint, Primer Sandless	238.00	gal	7.8	#/gl	1,856.40	lbs	Methyl Isobutyl Ketone	108-10-1	x	x			50.0%	928.20	100%	928.20	0.46
15	70	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 Dewaxer	64.00	gal	7.1	#/gl	454.40	lbs	Other VOC		x				100.0%	454.40	100%	454.40	0.23
10	120	893420	Gelcoat, Black Backcoat					1,380.00	lbs	Styrene	100-42-5	x	x			32.0%	441.60	48%	211.97	0.11
10	120	894782	Gelcoat, Sandstone					1,920.00	lbs	Methyl Methacrylate	80-62-6	x	x			4.0%	76.80	48%	36.86	0.02
10	120	894782	Gelcoat, Sandstone					1,920.00	lbs	Styrene	100-42-5	x	x			24.0%	460.80	48%	221.18	0.11
10	120	894790	Gelcoat, Bone Backcoat					2,580.00	lbs	Styrene	100-42-5	x	x			32.0%	825.60	48%	396.29	0.20
10	110	896886	Gunk, 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, Beataseal #43518	55.00	30 cc btl	6.9	#/gl	3.01	lbs	Methyl Alcohol	67-56-1	x	x			47.5%	1.43	100%	1.43	0.00
15	80	945980	Primer, Beataseal #43518	55.00	30 cc btl	6.9	#/gl	3.01	lbs	Toluene	108-88-3	x	x			52.5%	1.58	100%	1.58	0.00
15	80	945980	Primer, Beataseal #43520	84.00	30 cc btl	8.2	#/gl	5.46	lbs	Methyl Ethyl Ketone	78-93-3	x	x			40.0%	2.18	100%	2.18	0.00
15	80	945998	Primer, Beataseal #43520	84.00	30 cc btl	8.2	#/gl	5.46	lbs	Other:VOC						8.7%	0.47	100%	0.47	0.00
15	80	945998	Primer, Beataseal #43520	84.00	30 cc btl	8.2	#/gl	5.46	lbs	Toluene	108-88-3	x	x			10.0%	0.55	100%	0.55	0.00
15	80	946004	Primer, Beataseal #43532	85.00	30 cc btl	8.5	#/gl	5.73	lbs	Acetone	67-64-1				x	15.0%	0.86	100%	0.86	0.00
15	80	946004	Primer, Beataseal #43532	85.00	30 cc btl	8.5	#/gl	5.73	lbs	MDI	101-68-8	x	x			3.9%	0.22	na	negl	0.00
15	80	946004	Primer, Beataseal #43532	85.00	30 cc btl	8.5	#/gl	5.73	lbs	Methyl Ethyl Ketone	78-93-3	x	x			45.0%	2.58	100%	2.58	0.00
10	30	946012	Adhesive, Beataseal #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, Beataseal #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	HAPs	RFS	% Chem	Chemical (lbs)	Emis Fctr	Emissions #/Yr	Emissions Tons/Yr
10	70	946327	Gelcoat, Black					648.00	lbs	Styrene	100-42-5	x	x		37.7%	244.42	51%	124.65	0.06
15	60	983130	Paint, Latex Cream Touch-Up Blt w/	36.00	ea	0.6	oz	1.35	lbs	Other.VOC		x			27.0%	0.37	100%	0.37	0.00
15	60	983130	Paint, Latex Cream Touch-Up Blt 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			77.3%	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	100	1226638	Resin, Hypdrell 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

4. MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT) PROPOSAL

The purpose of this application is to request a permit for the construction of a fiberglass boat manufacturing facility, The Cape Canaveral Plant. This facility is unique to any operation currently maintained by Sea Ray in that this facility is designed for the construction of vessels over 65 feet in length. The emissions associated with the annual production at this facility are estimated to be 211 tons per year VOCs, of which 149 tons are HAPs. Styrene is the major component of the HAPs emissions and is calculated to be 125 tons.

The Cape Canaveral Plant proposed by Sea Ray in this application is classified as a Major Title V Source of air pollution because its emissions of styrene (a regulated hazardous air pollutant, HAP) will exceed 10 tons per year. The facility is also considered major with respect to the Florida Administrative Code Rules that require Control Technology Determinations for Major Sources in accordance with Section 112 (g) of the Clean Air Act.

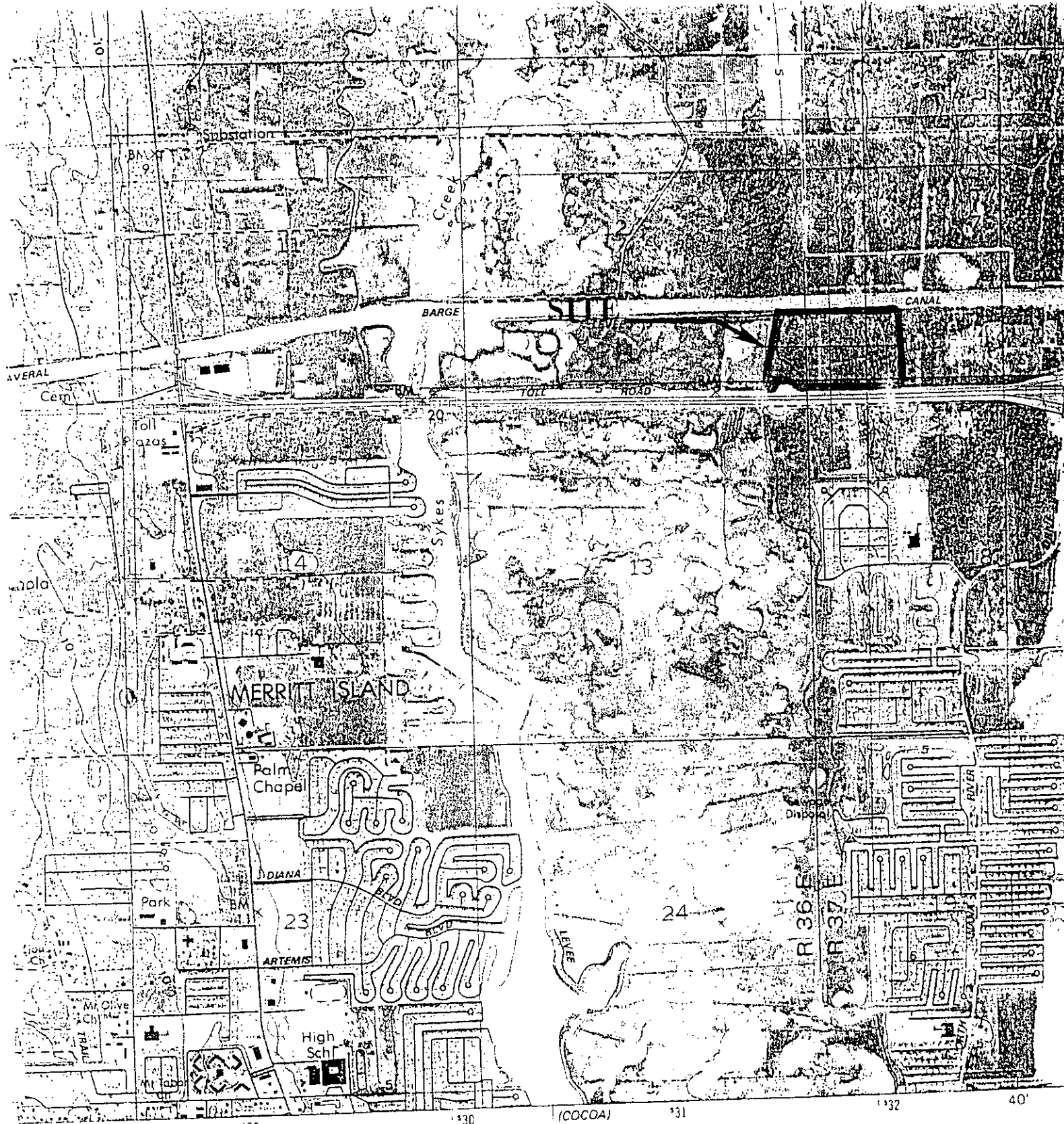
According to Section 112 (g) of the Clean Air Act, and pursuant to 40 CFR 63.43 (d) 1, Sea Ray Boats, Inc. is required to propose to the permitting agency a level of emissions control for this new source of HAPs that will be no less stringent than the level of control achieved by the best controlled similar source in the source category. The company has completed its study of the control technologies employed by the best controlled similar non-PWC boat

manufacturing facilities, as listed by the USEPA in a Summary of Findings from the Boat Manufacturing Presumptive MACT Process, Madeleine Strum.

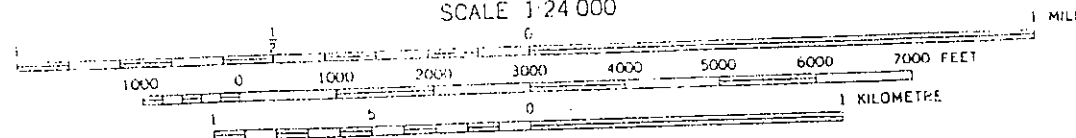
The control of styrene emissions at this facility resulting from the study is proposed to be accomplished by:

- i. the use of production resins that contain an average 35% styrene content, with compliance determined as a 12 month rolling average,
- ii. the use of non-atomizing application equipment for production resins,
- iii. the use of pigmented gel coats that contain an average 34% styrene content, with compliance determined as a 12 month rolling average,
- iv. the use of base gel coats that contain an average 34% styrene content, with compliance determined as a 12 month rolling average,
- v. the tooling resins and tooling gel coats that are used for repair of molds should be exempt from the rule,
- vi. the use of mold sealing, releasing, stripping, and repair materials should be exempt from this rule,
- vii. wood coating processes should be exempt from this rule,
- viii. the use of resin and gel coat cleaning solvents should be exempt from this rule,
- ix. the use of carpet and fabric adhesives should be exempt from this rule.

With the implementation of the proposed MACT, Sea Ray projects a reduction of styrene emissions from the use of production resins of 39.84% as compared to a similar facility using 40% resin and spray application techniques, or a reduction of 31.25% as compared to a similar facility using 35% resin and spray application techniques.



(COCOA)
4840 1 SW
SCALE 1:24 000



CONTOUR INTERVAL 5 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929
 DEPTH CURVES AND SOUNDINGS IN FEET.—DATUM IS MEAN LOW WATER
 NO APPRECIABLE PERIODIC TIDES IN THIS AREA

MAGNETIC NORTH
OF SHEET

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
 FOR SALE BY U. S. GEOLOGICAL SURVEY, RESTON, VIRGINIA 22092
 A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

Exhibit A

Emission Stack Geometry and Flow Characteristics - Sea Ray Boats, Inc. - Cape Canaveral Plant

Stack Number	Stack (UTM Coords.) Easting (meters)	Stack (UTM Coords.) Northing (meters)	Discharge Type Code	Stack Height ¹ (ft)	Stack Exit Diameter (ft)	Gas Flow Rate, ACFM ²	Velocity ³ (fps)	Gas Exit Temperature ⁴ (°F)	Water Vapor Content ⁵ (%)
101-01	1122.8848	1752.7061	V	55.0	3.5	20,000	8.67	Ambient, 68	Ambient
101-02	1135.0768	1752.7061	V	55.0	3.5	40,000	17.33	Ambient, 68	Ambient
101-03	1147.2688	1752.7061	V	55.0	3.5	40,000	17.33	Ambient, 68	Ambient
101-04	1122.8848	1734.4181	V	55.0	3.5	40,000	17.33	Ambient, 68	Ambient
101-05	1135.0768	1734.4181	V	55.0	3.5	40,000	17.33	Ambient, 68	Ambient
101-06	1147.2688	1734.4181	V	55.0	3.5	40,000	17.33	Ambient, 68	Ambient
101-07	1083.2608	1752.7061	V	55.0	3.5	40,000	17.33	Ambient, 68	Ambient
101-08	1186.8928	1734.4181	V	55.0	3.5	30,000	13.00	Ambient, 68	Ambient
101-09	1089.3568	1719.3823	V	55.0	3.5	15,000	6.50	Ambient, 68	Ambient
101-10	1133.5528	1719.3823	V	55.0	3.5	15,000	6.50	Ambient, 68	Ambient
101-11	1177.7488	1719.3823	V	55.0	3.5	15,000	6.50	Ambient, 68	Ambient

***Notes**

1. Stack height was determined from a ground elevation of 0 ft

2. Gas Flow Rate, ACFM
The flow rates were determined from manufacturers information.

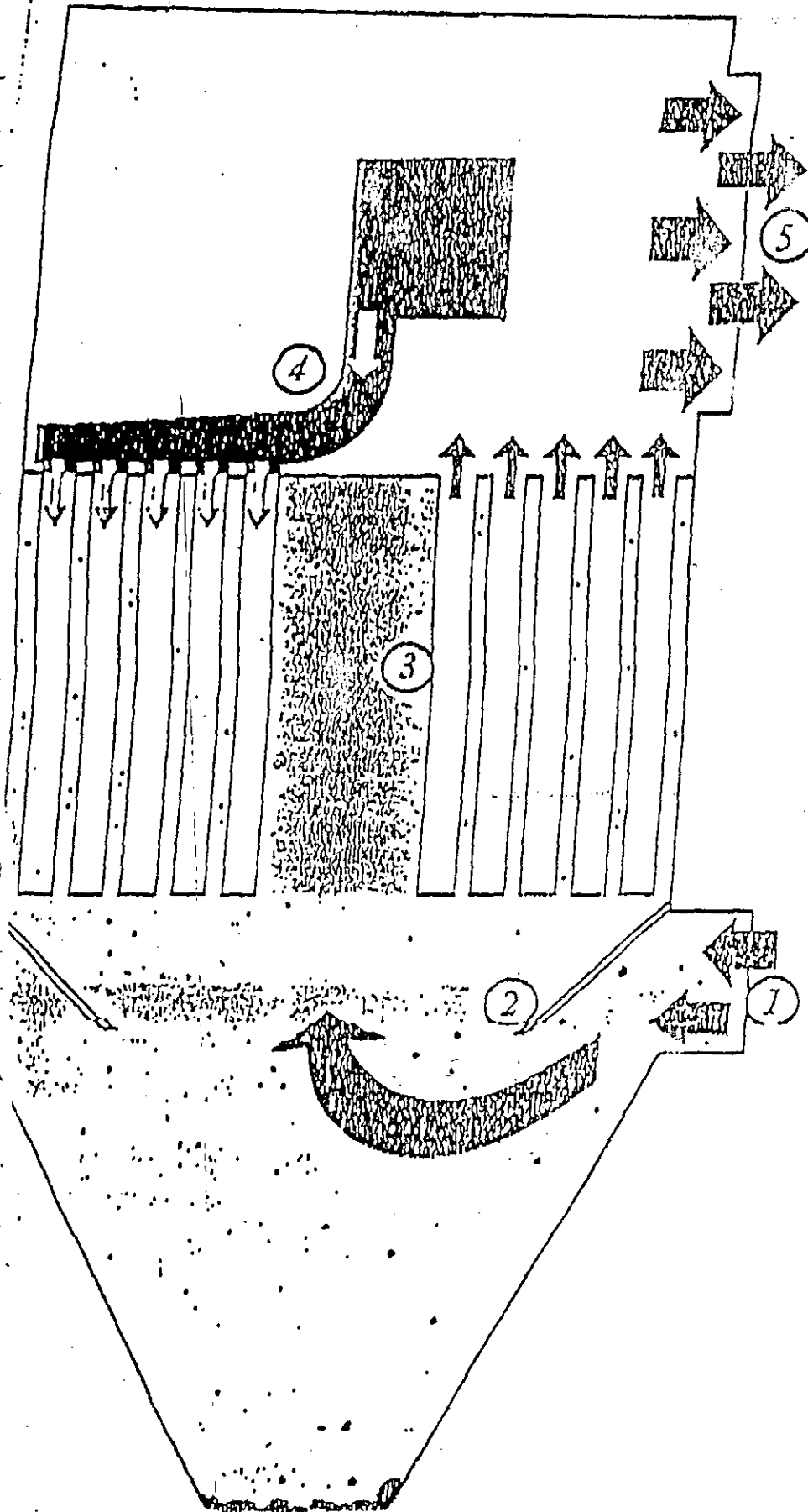
3. The velocity was calculated from the flow rate

- 4, 5. Since the fans will be exhausting air from buildings, Ambient temperatures and water contents would be present

The Pneumatil Reverse Air Filter



How the filter works



1. Contaminated air enters the Reverse Air Filter through a tangential air inlet. Its large size minimizes entrance pressure loss and reduces power requirements.
2. The combination of the tangential inlet and deep particle deflector results in the cyclonic downward deflection of larger particles to the hopper. This allows heavier loadings, less abrasion to the filter bags, higher collection efficiencies and less energy to remove the remaining particles from the air stream.
3. The filter bags remove dust particles from the air stream. Clean air passes upward through the filter bags and into the walk-in clean air plenum.
4. The reverse-air cleaning fan returns part of the clean air in the walk-in plenum to the rotating air manifold. As the manifold rotates once every minute, air is drawn down by the manifold and returns clean air. Dislodged dust is collected in the conical hopper. Reverse air cleaning of the filter bags maintains constant porosity and low pressure drop across the filter, resulting in an extremely high dust collection efficiency.
5. The clean, dust-free air is exhausted through the large air outlet to be either vented to the atmosphere or recycled to the plant. Because of the short contact time required for the air to pass through the Reverse Air Filter, no additional energy is required to either heat or cool the air stream.

The Pneumafil Reverse Air Filter

How it compares . . .

. . . in energy savings

A true evaluation of a dust control system should consider energy consumption as it applies to the complete filter system — and not merely to any one component. This is why all Pneumafil dust filters are designed to function as an integral part of the total system in combination with its other exceptional capabilities for reducing overall operating costs.

For example, our reverse air filters are cleaned by either an economical 7½, 10, or 15 hp motor and costs very little to operate. But more important, each bag is cleaned once every 60 seconds by utilizing the efficient reversed flow of "processed" air. This complete and systematic cleaning dramatically reduces the pressure drop across the media as well as the load demands on the complete fan system. The result is energy savings! Conversely, a system that employs a random air pump cleaning sequence may only require the same amount of horsepower in driving the air pump — however, this type of system *does not* clean the bags every 60 seconds. The air discharge is regulated by whenever and wherever the pressure build up activates the air jets. Because of this random firing, some bags could remain uncleaned indefinitely. This means higher pressure drops across the media, increased demands on the total fan system and ultimately higher energy costs.

Our low tangential air entry utilizes less overall energy than filters with a high air inlet. The low tangential entry allows heavy dust particles to "drop out" into the filter hopper. This initial sorting out of larger dust particles results in greater energy savings and less wear and tear on filter bags. Each contributing to lower operating costs.

Additional energy savings are obtained by recycling plant air previously heated or cooled. With the short contact time of air passing through the filter, the cleaned air is not affected by outside temperatures — and no additional energy is expended to heat or cool make-up air.

*. . . with filter
maintenance*

All bag inspection and removal operations we in simplify maintenance procedures and maintenance costs down.

With a Pneumafil dust filter, bag inspection can be accomplished without entering the walk-in, clean air viewing port and lighted plenum allows the operator to visually inspect the bag cleaning system from outside the filter.

Our walk-in plenum permits top bag removal from the clean air side. This operation simply requires two screws before removing and inserting a new bag. Five clips on the bag cage eliminates misplacement, dropping into the hopper section.

Pneumafil bags are designed and constructed to provide maximum efficiency and a consistent high level of performance. Bags are made of 16 oz. polyester felt with special nylon scrim reinforcement and a 2" canvas web at the bottom to protect against abrasion. All bags are washed or dry cleaned.

. . . in special features

Tube Sheet

Our filter tube sheet is sectionalized, bolted in place. In case of damage can be easily removed through the plenum door. Filters that employ welded-in tube sheets require a major dismantling operation. Cutting and welding are required to remove damaged plates, in addition to replacing the entire mechanical section. This can result in considerable downtime and expense.

Wear against the tube sheet is virtually non-existent. Our cleaning arm is equipped with a nylon base to eliminate friction of metal to metal contact. A flexible connection permits the arm to ride over obstructions on the tube sheet.

The Pneumafil reverse air bag cleaning operation is accomplished by effectively using a simple reverse flow of air. There are no valves, dampers or compressors to maintain. And with the absence of compressed air, there is less risk of explosion because no additional oxygen is being introduced.

Hopper Design

Our hopper design eliminates the need for any additional and expensive auger discharge. Any bridging of collected dust is prevented by the use of a conical hopper with a 60° slope. Each hopper is equipped with a large, bolted access door and flanged outlets.

... in general construction and painting

The filter is constructed of hot rolled, pickled and oiled mild steel. Our unique standing seam design provides considerable reinforcement and rigidity to the overall structural integrity, making the filter ideally suited for any environment. All filters are constructed to withstand ± 20 in. water gauge.

Each filter is equipped with relief panels in accordance with NFPA standards. The doors are secured with safety chains of uneven lengths to reduce the possibility of the door becoming a projectile. Another example of how Pneumafil pays attention to details.

Every unit is epoxy primed (2.0-2.5 mils) inside and outside and finished outside with polyester epoxy paint (2.0-3.5 mils). Pneumafil offers many standard colors to choose from. Special colors are available to meet customer specifications. Unlike units that have only a single coat of paint, Pneumafil's painting method means additional savings in maintenance costs over the life of the filter. Our paint surface preparation meets the SSPC-SP6 standard and passed a 500 hour salt spray test.

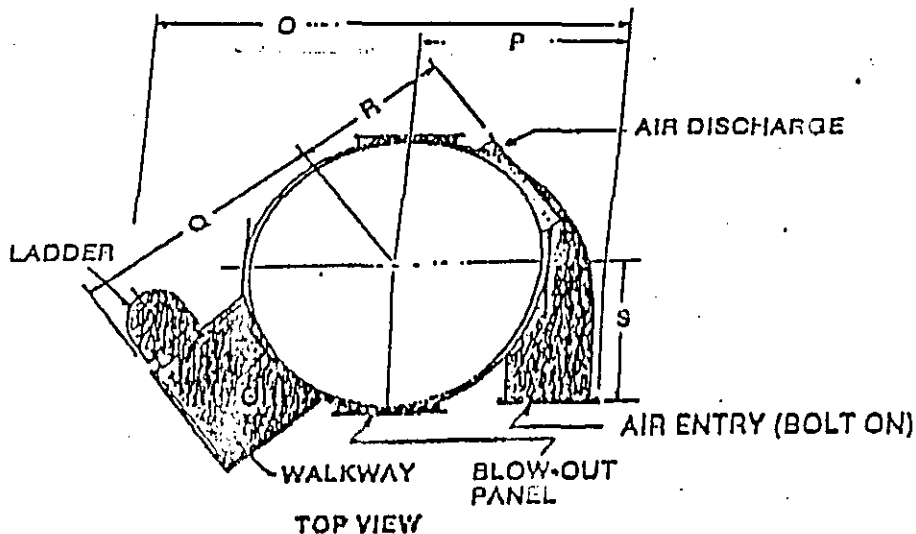
... with options

1. Support structure
2. Three types of maintenance platforms with OSHA approved access ladder
3. Customer color preference
4. Non-sparking air entry wear plates
5. 70° hopper
6. Sprinkler heads
7. Explosion proof motor for Class II-G and F applications
8. Additional bracing for higher pressures
9. Factory insulation
0. High level and high temperature sensors
1. Rotary air locks
2. Modified to customer specifications
3. Special media available

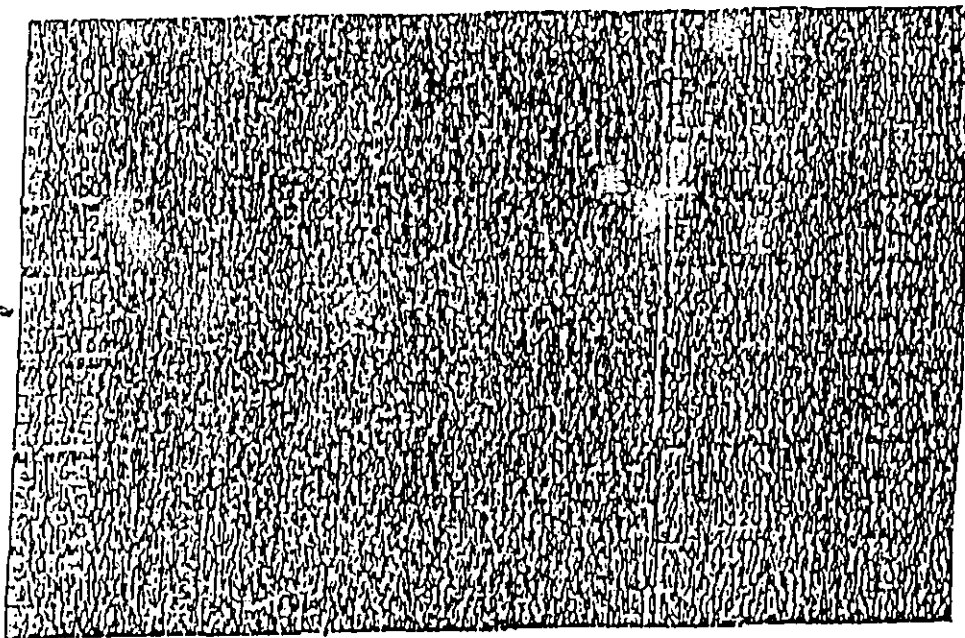
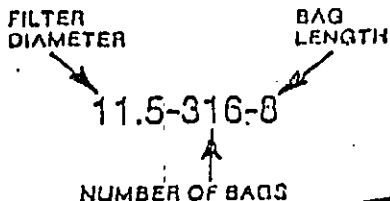
Specifications

Notes

1. Standard height from hopper to grade is 4'6". Optional heights are available upon request. Dimensions D, C, D and H change accordingly.
2. Entry section may be rotated 360° except where it would interfere with ladder.
3. Discharge section and ladder may be rotated together 360° in approximately 6° increments except where they would interfere with the entry elbow.
4. Counterclockwise shown, clockwise opposite.
5. Structural supports are designed for 25 P.S.I. when loading and 50 P.C.F. dust loading unless otherwise specified.
6. Filters are available as bin vents.
7. All units have a 360° mounting ring.
8. 4.5' and 5.5' units are not walk-in filters.



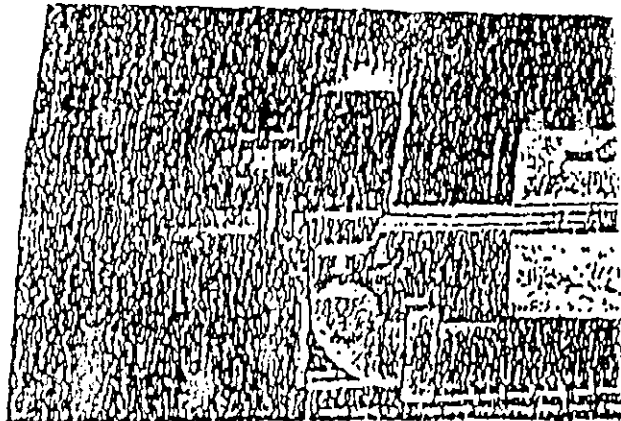
Filter Nomenclature



Note:
Initial specifications can call for less than the maximum number of bags; however, filter dimensions remain unchanged. Additional bags may be added as filtering demands increase.

Filter Diameter	Number of Bags	Bag Length	Filter Unit	Complete Structure
11.5	316	8	2042	8037
11.5	316	8	3120	4220
11.5	316	8	6050	7604
11.5	316	8	0730	0733
11.5	316	8	6050	7604
11.5	316	8	0730	0733
11.5	316	8	7002	10217
11.5	316	8	0100	11760
11.5	316	8	10300	3203
11.5	316	8	11260	15150
11.5	316	8	13100	7606
11.5	316	8	14026	19005
11.5	316	8	12621	16421
11.5	316	8	14300	110004
11.5	316	8	19277	21347
11.5	316	8	10811	80080
11.5	316	8	10333	23780

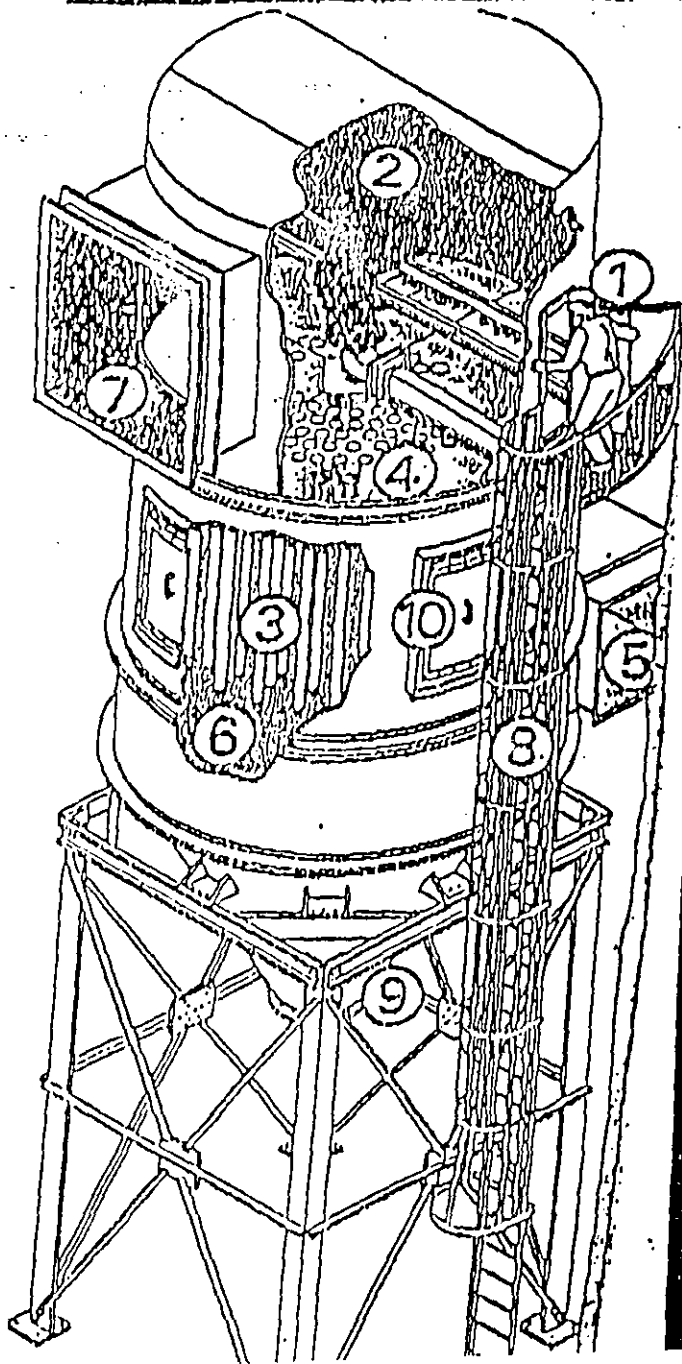
Pneumafil's unique construction features

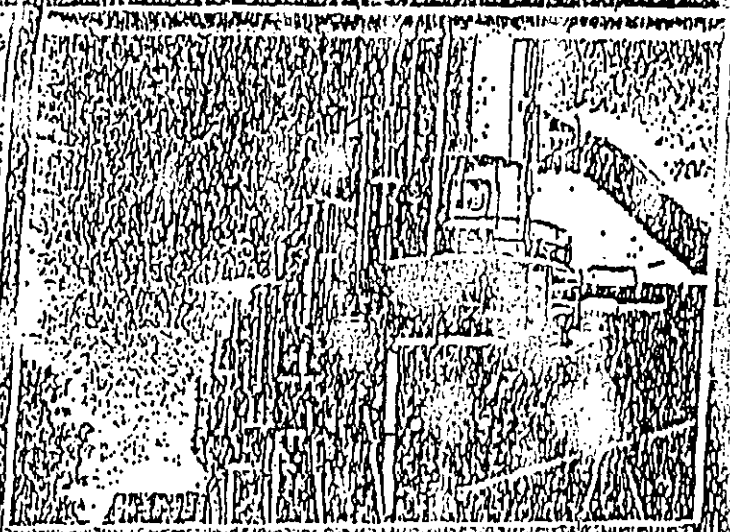
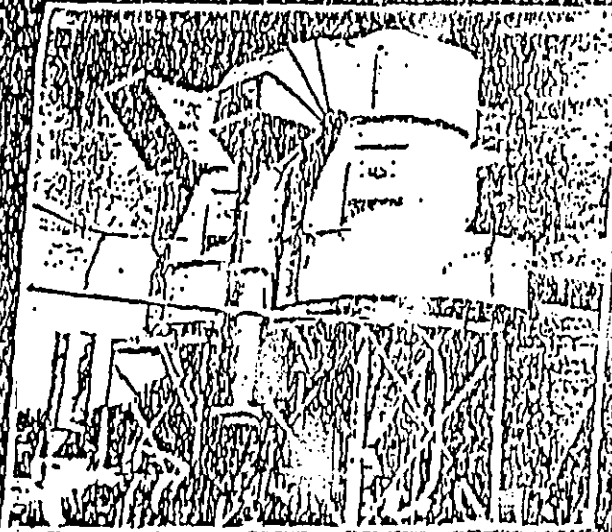


There are distinctive design features about a Pneumafil Reverse Air Filter that sets it apart from other filters. Those features translate to direct benefits making a strong case for selecting Pneumafil.

Pneumafil is dedicated to manufacturing a superior product for their customers by using the very best materials, exercising the highest standards in workmanship and employing the latest in applied technology. This dedication is reflected in our attention to details, simplicity of construction and economical cost of operation.

1. Walk-in clean air compartment for inspection maintenance and filter bag changing.
2. Reverse air bag cleaning mechanism with rotating air manifold arm; simple design for trouble-free operation.
3. Fabric filter bags — 16 oz. polyester felt, nylon scrim reinforcement with 2" canvas wear strips on bottom for long life and abrasion resistance.
4. Bolt-in sectional tube sheet for easy replacement.
5. Large, low tangential air inlet for lower pressure drop and cyclonic cleaning action.
6. Built-in particle deflector for abrasion protection of filter bags; thus longer bag life and lower maintenance.
7. Large clean air outlet for lower pressure drop resulting in energy savings.
8. Support steel, ladder and access platform conforms to all applicable building codes.
9. 60° conical hopper for dust collection.
10. Relief panels for safety.
11. Hot rolled, pickled and oiled mild steel with a unique surface preparation for superior corrosive resistant finish, insuring longer filter life and substantial maintenance savings. (Meets SSPC-SP6 standard)
12. Epoxy primed interior and exterior (2.0-2.5 mils), polyester epoxy painted exterior (2.0-3.5 mils). Total paint finish of 4.0-5.5 mils passed 500 hour salt spray test.
13. Components factory assembled and tested.
14. All filters meet EPA and OSHA regulations.
15. Filters constructed to withstand $\pm 20"$ W.C.
16. Standing seams for increased strength.





- | | |
|------------------------|-----------------------|
| AMAX Coal Co. | General Mills |
| Archer Daniels Midland | Georgia Pacific |
| Dreyfus Industries | International Paper |
| Burlington Furniture | Kingsford Charcoal |
| Carolina Power & Light | Northern States Power |
| Cargill | Pillsbury Company |
| Continental Grain | St. Regis Paper |
| General Electric | |

INTEGRITY

IMPROVED SAFETY
PLANT EFFICIENCY
AUTOMATIC MONITORING CONTROL

JBI SAFE AIR MODULE

TO CONTROL DUST AND IN-PLANT AIR POLLUTANTS

MEETS O.S.H.A. STANDARDS



DESIGNED TO REMOVE HAZARDOUS FOREIGN MATERIAL FROM VARIOUS MANUFACTURING SOURCES

- ▶ Wood Sanding
- ▶ Metal Grinding
- ▶ Composite Grinding

▶ DESIGN PERFORMANCE

The JBI Safe Air Module is designed to control in-plant air pollutants and to remove fine hazardous foreign materials from various manufacturing sources that include; wood sanding, metal grinding and composite grinding.

▶ IMPROVED SAFETY

The JBI Safe Air Module provides improved safety and a healthier, cleaner working environment. Meets O.S.H.A. clean air standards.

▶ AUTOMATIC CLEANING

A high velocity of air is automatically injected into each filter on a sequential basis to clean the filters and ensure maximum air flow and long filter life.

▶ AUTOMATIC MONITORING

An automatic monitoring control system is standard with each JBI system. The state-of-the-art control panel features a Photohelic™ pressure gauge that monitors pressure drop and initiates the automatic cleaning process.

▶ MODULAR CONSTRUCTION

Heavy duty 12 gauge steel modular construction. The JBI Safe Air Module is shipped completely assembled for easy and accurate installation. Factory painted.

▶ RECIRCULATES CLEAN AIR

The JBI Safe Air Module eliminates the need for expensive air make-up systems and outside ducting.

▶ SUPERIOR CLEANING

Engineered to provide maximum air cleaning efficiency by removing up to 99% + of air pollutants.

▶ HIGH EFFICIENCY FILTERS

Model JBI-4-SG and JBI-7-SG feature JBI Safe Air Cartridges recommended for non fibrous applications; sanding and grinding with a filtration efficiency up to 99% +.

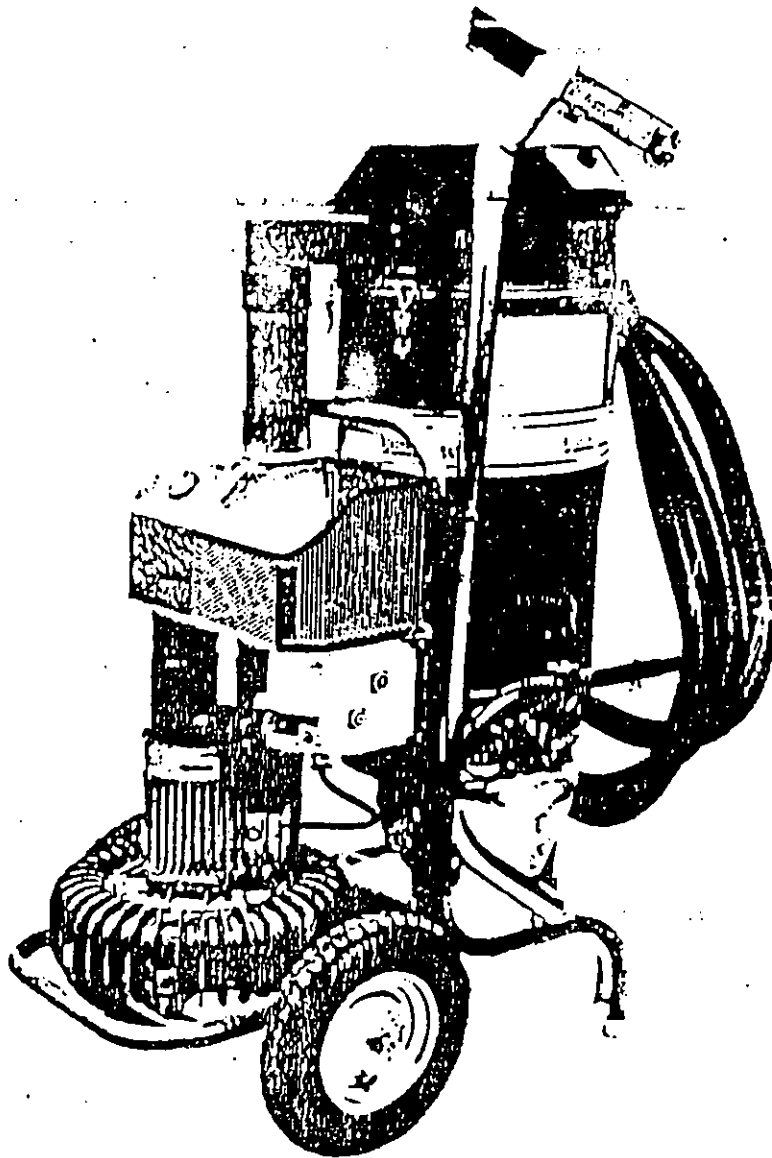
Model JBI-4-CO and JBI-7-CO feature JBI Safe Air Cartridges recommended for fibrous applications; fiberglass, laminates and other composites with a proven filtration efficiency of 99% +.

JBI SAFE AIR MODULES													
Application	Model	Performance Data								Specifications			
		Units	Feet	CFM	CFM	CFM	CFM	CFM	CFM	Filter Area	Filter Depth	Filter Weight	
Non Fibrous	JBI-4-SG	3	9	2034	5120	160	140	4'	8'	4'	4.8	2.5:1	1050
Fibrous	JBI-7-SG	7 1/2	15	3390	8960	160	140	7'	8'	4'	8.4	2.6:1	1900
Fibrous	JBI-4-CO	3	9	2034	5120	160	140	4'	8'	4'	4.8	5:1	1050
	JBI-7-CO	7 1/2	15	3390	8900	180	140	7'	8'	4'	8.4	5.4:1	1900

Electrical Requirements: Blower 208-230/460 V 60 HZ Three Phase, Control Power 120V 60 HZ Single Phase.
 Electric control panels are available to meet customer's voltage specifications.
 All JBI Safe Air Modules are shipped complete and fully assembled with fan, motor, cartridges and control panel.

Dustcontrol

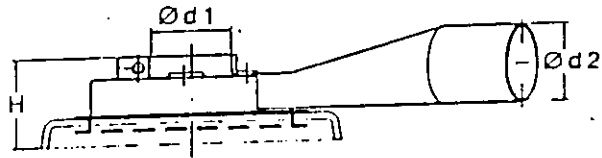
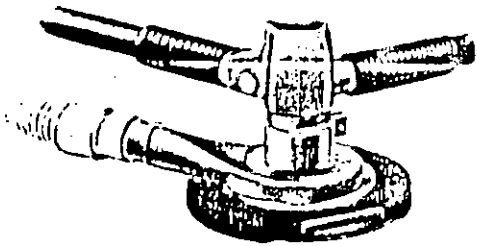
DC 5500 5 kW (5,5kW, 7,5kW)



**INSTRUKTION
USER INSTRUCTION
BETRIEBSANLEITUNG**



36 Suction casings



Sanding disc

SUCTION CASING 1", 1,5", 2", 3"

Manufacturer	Model	Part no	d ₁	d ₂
Dalco	10-12 KL	6260	26	25
DYNABRADE	50008	6738	34	32
DYNABRADE	50235	6739	35	32

SUCTION CASING 4" F

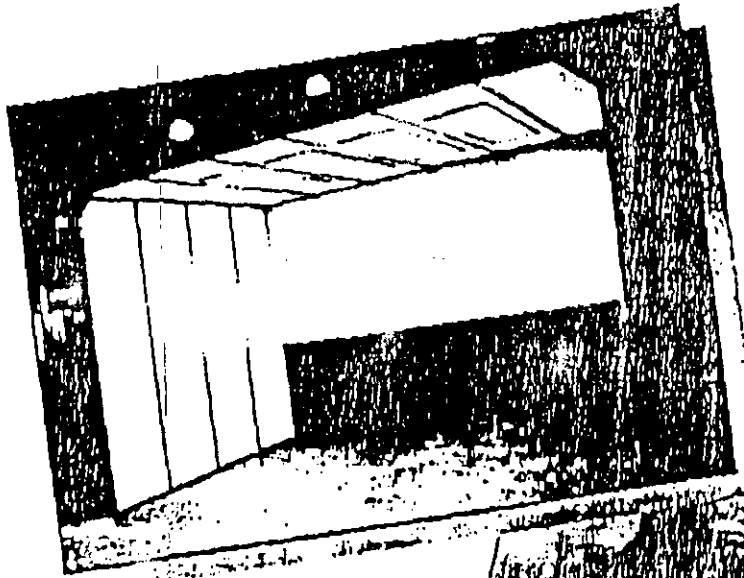
Atlas Copco	G 2408	6224	-	32
BOSCH	GWS 9-125 C	6298	43	32
CP	CP-9110	6809	-	32
Desoutter	F 740-P	6243	41	32
DYNABRADE	50324	6740	46	32
HITACHI	PDP-100 C	6435	40	32
INGERSOLL-RAND	TA120	6810	-	32
INGERSOLL-RAND	TXA 135	6814	-	32
Krupp	R 3201-1263	6467	50	32
MalKita	9503 BH	6720	40	32
Metabo	EWE.9125-S	6467	50	32

SUCTION CASING 4,5" F

ARO	8447-B5	6285	-	32
Atlas Copco	G 2408-115	6225	-	32
Black & Decker	DN 10/SAG 500/SAG 550/SAG 850	6274	54,5	32
Black & Decker	2750	6790	38	32
Bosch	GWS 7-115	6800	-	32
CP	UT 8871	6511	52	32
Fein	Msf 642	6502	36	32
Fein	Msf 842	6503	36	32
Flex	L 1109	6342	46	32
Hitachi	G 13SB	6440	50	32
			40	32

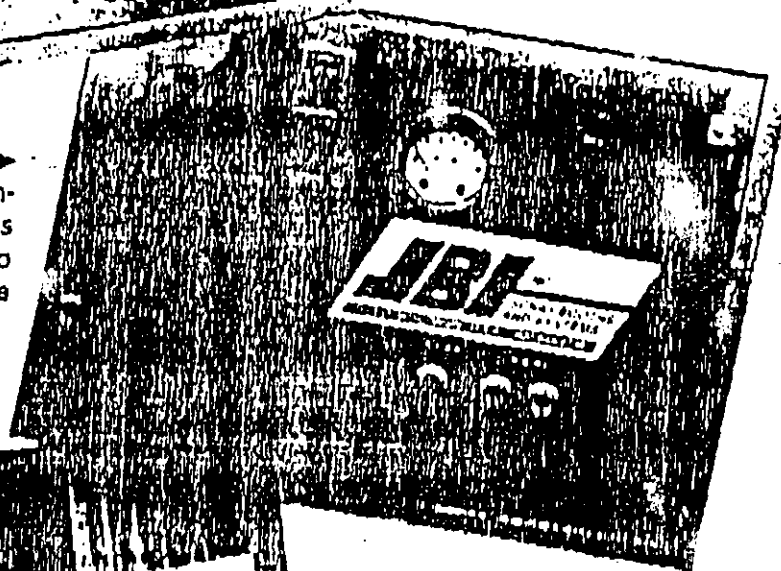
JBI SAFE AIR SYSTEMS

A DUST COLLECTION AND CLEAN AIR
RECIRCULATING SYSTEM

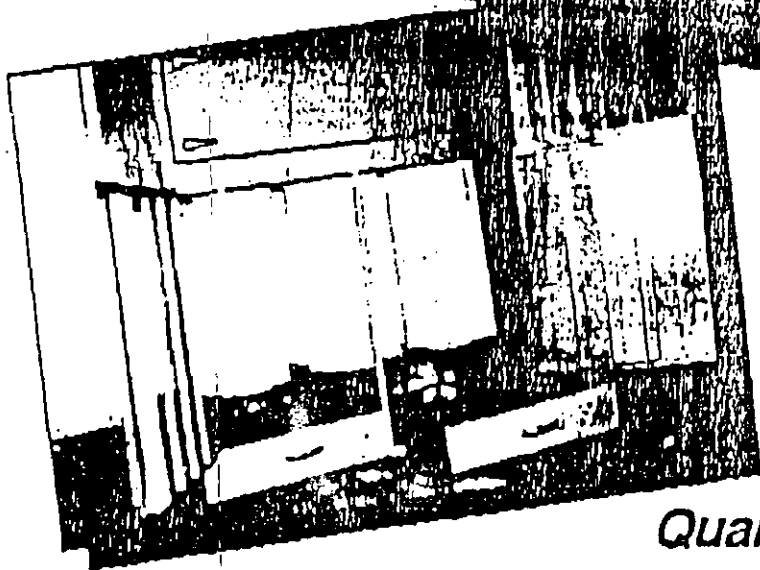


◀ JBI Safe Air Systems improve safety and provide a cleaner, healthier working environment.

▶ A solid state control panel, standard with all JBI systems, features a Photohelic™ pressure gauge to monitor pressure drop and initiate the cleaning process.



▶ JBI Safe Air Modules feature vertical baffles to eliminate blow back. Two large capacity drawers for dust collection and easy access.



Quality Performance

by *Design*

JBI INCORPORATED

P.O. BOX 38 • 801 NORWAY ROAD • OSSEO, WI 54758
715-597-3168 • TOLL FREE 1-800-848-8738 • FAX 715-597-2193

JBI CARTRIDGE FILTERS

JBI high efficiency cartridge filters are available for two alternative applications.

The JBI non-fibrous filter model MPF 122-030 is recommended for non-fibrous applications: Sanding and grinding. These filters feature a pleat design that holds the pleats open and even for improved long term air performance and service life. The JBI non-fibrous filter has a 99.8% filtration efficiency for .5 micron particles. The filter area per cartridge is 226 sq. ft.

The JBI fibrous filter model MPF 122-045 is recommended for fibrous applications: Fiberglass, laminates and other composites. These filters have wide pleat spacing and the absence of an outer liner to permit a thorough pulse cleaning. The JBI fibrous filter has a 99.7% filtration efficiency for .5 micron particles. The filter area per cartridge is 110 sq. ft.

JBI cartridge filters are supported by expanded metal retainers constructed of 1/8" galvanized wire. The 90% open configuration promotes cleaning during the pulse cycle. All components are made with G60 galvanized corrosion resistant material.

JBI SAFE AIR REPLACEMENT CARTRIDGE FILTERS									
Application	Model	DIMENSIONS			Filtration Efficiency	Filter Area per Cartridge	Permeability	Dry Mullen Blast	Shipping Weight
		OD	Height	ID					
Non Fibrous	MPF 122-030	12 1/2"	26"	8 1/2"	99.8% to .5 Micron	226 sq.ft.	25 CPM/sq.ft. @ 1/2" W.C.	40 PSIG	18 lb.
Fibrous	MPF 122-045	12 1/2"	26"	8 1/2"	99.7% to .5 Micron	110 sq.ft.	18 CPM/sq.ft. @ 1/2" W.C.	40 PSIG	14 lb.

4. MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY (MACT) PROPOSAL

The purpose of this application is to request a permit for the construction of a fiberglass boat manufacturing facility, The Cape Canaveral Plant. This facility is unique to any operation currently maintained by Sea Ray in that this facility is designed for the construction of vessels over 65 feet in length. The emissions associated with the annual production at this facility are estimated to be 211 tons per year VOCs, of which 149 tons are HAPs. Styrene is the major component of the HAPs emissions and is calculated to be 125 tons.

The Cape Canaveral Plant proposed by Sea Ray in this application is classified as a Major Title V Source of air pollution because its emissions of styrene (a regulated hazardous air pollutant, HAP) will exceed 10 tons per year. The facility is also considered major with respect to the Florida Administrative Code Rules that require Control Technology Determinations for Major Sources in accordance with Section 112 (g) of the Clean Air Act.

According to Section 112 (g) of the Clean Air Act, and pursuant to 40 CFR 63.43 (d) 1, Sea Ray Boats, Inc. is required to propose to the permitting agency a level of emissions control for this new source of HAPs that will be no less stringent than the level of control achieved by the best controlled similar source in the source category. The company has completed its study of the control technologies employed by the best controlled similar non-PWC boat

manufacturing facilities, as listed by the USEPA in a Summary of Findings from the Boat Manufacturing Presumptive MACT Process, Madeleine Strum.

The control of styrene emissions at this facility resulting from the study is proposed to be accomplished by:

- i. the use of production resins that contain an average 35% styrene content, with compliance determined as a 12 month rolling average,
- ii. the use of non-atomizing application equipment for production resins,
- iii. the use of pigmented gel coats that contain an average 34% styrene content, with compliance determined as a 12 month rolling average,
- iv. the use of base gel coats that contain an average 34% styrene content, with compliance determined as a 12 month rolling average,
- v. the tooling resins and tooling gel coats that are used for repair of molds should be exempt from the rule,
- vi. the use of mold sealing, releasing, stripping, and repair materials should be exempt from this rule,
- vii. wood coating processes should be exempt from this rule,
- viii. the use of resin and gel coat cleaning solvents should be exempt from this rule,
- ix. the use of carpet and fabric adhesives should be exempt from this rule.

With the implementation of the proposed MACT, Sea Ray projects a reduction of styrene emissions from the use of production resins of 39.84% as compared to a similar facility using 40% resin and spray application techniques, or a reduction of 31.25% as compared to a similar facility using 35% resin and spray application techniques.

Section I. Facility Information.

Subsection A. Facility Description.

The permittee may operate the fiberglass boat production facility. The facility consists of the Merritt Island Plant, the Product and Development Engineering Plant (P.D.E.), and the Sykes Creek Plant. The following buildings and the number of stacks are located within the facility.

<u>Facility Description</u>	<u>Stacks</u>	<u>Sea Ray Division</u>
1. Office & Manufacturing Building		Merritt Island Plant
2. Manufacturing Building	7 stacks	Merritt Island Plant
3. Manufacturing Building	11 stacks	Merritt Island Plant
4. Sand Blast Building		Merritt Island Plant
5. Traffic Building		Merritt Island Plant
6. Traffic Maintenance Building		Merritt Island Plant
7. Resin Storage & Containment		Merritt Island Plant
8. Lamination Building	5 stacks	Merritt Island Plant
9. Materials Storage Building		Merritt Island Plant
10. Marina Facility		Merritt Island Plant
11. P.D.E. Offices and Fabrication	3 stacks	P.D.E.
12. Compressor, Testing & Transformer		P.D.E.
13. Materials Storage Building		P.D.E.
14. Lamination Building	6 stacks	Sykes Creek
15. Fabrication, Warehouse & Offices	4 stacks	Sykes Creek
16. Bottom Paint Building	2 stacks	Sykes Creek
17. Assembly Building & Offices	3 stacks	Sykes Creek
18. Security Building		Sykes Creek
19. Fuel Tanks and Containment		Sykes Creek
20. Resin Storage Building	2 stacks	Sykes Creek
21. Marina Facility		Sykes Creek

The permittee may change the number and/or location of the stacks during the operation of the facility. However the permittee shall notify the Department within sixty (60) days of completion of construction and identify any variation in the number and/or location of stacks.

The fiberglass boat production consists of these processes.

- mold maintenance
- gelcoat application
- gelcoat holding
- lamination (resin and wood application)
- lamination holding
- parts extraction from molds
- parts cutting and grinding
- parts inspection and repair
- wood shop
- upholstery
- assembly
- test, final finish, inspection, and delivery

The pollution control devices for the Merritt Island Plant Wood Shop consists of a Pneumafil Reverse Air Filter baghouse.

The pollution control devices for the P.D.E. Plant Small Parts/Wood Shop consists of a Torit Dust Collector, model 30-15.

The pollution control devices for the Sykes Creek Plant Wood Shop consists of a Joe Hills Custom System, a dust collection and clean air recirculating system.

The pollution control device for the grinding operations at each of the plants, consists of a portable Dustcontrol dust collector, model DC5500 or a JBI Incorporated, or equal, permanent dust control device.

The facility is located at 100, 200, and 350 Sea Ray Drive, Merritt Island, Brevard County, Florida.

Based on the initial Title V permit application received June 14, 1996, this facility is a major source of hazardous air pollutants (HAPs).

Subsection B. Summary of Emissions Unit ID No(s). and Brief Description(s).

E.U. ID No./Brief Description

004 Merritt Island/Sykes Creek/Product and Development Plants

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents.

The documents listed below are not a part of this permit, however, are specifically related to this permitting action.

These documents are provided to the permittee for information purposes only:

Appendix A-1, Abbreviations, Acronyms, Citations, and Identification Numbers

Appendix H-1, Permit History/ID Number Changes

These documents are on file with permitting authority:

Initial Title V Permit Application received June 14, 1996.

Section II. Facility-wide Conditions.

The following conditions apply facility-wide:

1. APPENDIX TV-1, TITLE V CONDITIONS (version dated 12/2/97), is a part of this permit. APPENDIX TV-1, TITLE V CONDITIONS, is distributed to the permittee only. Other persons requesting copies of these conditions shall be provided one copy when requested or otherwise appropriate.

2. **Not Federally Enforceable.** General Pollutant Emission Limiting Standards. Objectionable Odor Prohibited. The permittee shall not cause, suffer, allow, or permit the discharge of air pollutants which cause or contribute to an objectionable odor.
[Rule 62-296.320(2), F.A.C.]

3. General Particulate Emission Limiting Standards. General Visible Emissions Standard. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity, the density of which is equal to or greater than that designated as Number 1 on the Ringelmann Chart (20 percent opacity). EPA Method 9 is the method of compliance pursuant to Rule 62-297, F.A.C.
[Rule 62-296.320(4)(b)1. & 4., F.A.C.]

4. Prevention of Accidental Releases (Section 112(r) of CAA). If required by 40 CFR 68, the permittee shall submit to the implementing agency:
a. a risk management plan (RMP) when, and if, such requirement becomes applicable; and
b. certification forms and/or RMPs according to the promulgated rule schedule.
[40 CFR 68]

5. Insignificant Emissions Units and/or Activities. Appendix I-1, List of Insignificant Emissions Units and/or Activities, is a part of this permit.
[Rules 62-213.440(1), 62-213.430(6), and 62-4.040(1)(b), F.A.C.]

6. General Pollutant Emission Limiting Standards. Volatile Organic Compounds (VOC) Emissions or Organic Solvents (OS) Emissions. The permittee shall allow no person to store, pump, handle, process, load, unload or use in any process or installation, volatile organic compounds (VOC) or organic solvents (OS) without applying known and existing vapor emission control devices or systems deemed necessary and ordered by the Department. To comply, procedures to minimize pollutant emissions shall include the following:

- a) tightly cover or close all VOC containers when they are not in use,
- b) tightly cover, where possible, all open troughs, basins, baths, tanks, etc. when they are not in use,
- c) maintain all piping, valves, fittings, etc. in good operating condition,
- d) prevent excessive air turbulence across exposed VOC's,
- e) immediately confine and clean up VOC spills and make sure certain wastes are placed in closed containers for reuse, recycling or proper disposal.

[Rule 62-296.320(1)(a), F.A.C.]

7. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility may include the following on an as-needed basis:

- a) Use of high efficiency spray guns
- b) Maintain filter in good working order

[Rule 62-296.320(4)(c)2., F.A.C.]

8. **Not Federally Enforceable.** When appropriate, any recordings, monitoring, or reporting requirements that are time-specific shall be in accordance with the effective date of the permit, which defines day one.

[Rule 62-213.440, F.A.C.]

9. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Central District Office:

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

10. Any reports, data, notifications, certifications, and requests required to be sent to the United States Environmental Protection Agency, Region 4, should be sent to:

United States Environmental Protection Agency
Region 4
Air, Pesticides & Toxics Management Division
Operating Permits Section
61 Forsyth Street
Atlanta, Georgia 30303
Telephone: 404/562-9099
Fax: 404/562-9095

Section III. Emissions Unit(s) and Conditions.

Subsection A. This section addresses the following emissions unit(s).

E.U. ID No./ Brief Description

004 Merritt Island/Sykes Creek/Product and Development Plants

The following conditions apply to the emissions unit(s) listed above:

Essential Potential to Emit (PTE) Parameters

A1. Capacity. The usage of boat assembly materials is limited to less than 5833 tons per twelve consecutive months.

[Rule 62-210.200, (PTE), F.A.C.]

A2. Hours of Operation. The Sykes Creek Division is allowed to operate 4000 hours and Merritt Island and Product and Development are allowed to operate 5000 hours per twelve consecutive months.

[Rule 62-210.200, (PTE), F.A.C. and construction permit 0090093-001-AC]

A3. Emissions Unit Operating Rate Limitation After Testing. See specific condition no. A9.

[Rule 62-297.310(2), F.A.C.]

Emission Limitations and Standards

A4. Visible emission limit is described in Facility wide conditions #3, page 4.

[Rule 62-296.320(4)(b)1., F.A.C.]

A5. The emissions of volatile organic compounds/organic solvents (VOC/OS) as defined in Chapter 62-213, F.A.C., from the sources at the facility shall not be equal or exceed 426 tons per twelve consecutive months.

[Construction permit 0090093-001-AC]

Test Methods and Procedures

A6. Each paint booth shall demonstrate compliance with its visible emission limit in accordance with DEP Method 9 prior to permit expiration date. The test period shall be a minimum of 30 minutes.

[Rules 62-297.401, 62-297.310(4)(a)2., and 62-297.310(7)(a)4.a., F.A.C.]

A7. DEP Method 9. The provisions of EPA Method 9 (40CFR60, Appendix A) are adopted by reference with the following exceptions:

a) EPA Method 9, Section 2.4, Recording Observations. Opacity observations shall be made and recorded by a certified observer at sequential fifteen second intervals during the required period of observation.

b) EPA Method 9, Section 2.5, Data Reduction. For a set of observations to be acceptable, the observer shall have made and recorded, or verified the recording of, at least 90 percent of the possible individual observations during the required observation period. For single-valued opacity standards (e.g. 20 percent opacity), the test result shall be the highest valid six-minute average for the set of observations taken. For multiple-valued opacity standards (e.g. 20 percent opacity, except that an opacity of 40 percent is permissible for not more than two minutes per hour) opacity shall be computed as follows:

1) For the basic part of the standard (i.e., 20 percent opacity) the opacity shall be determined as specified above for a single-valued opacity standard.

2) For the short-term average part of the standard, opacity shall be the highest valid short-term average (i.e., two-minute, three-minute average) for the set of observations taken.

In order to be valid, any required average (i.e., a six-minute or two-minute average) shall be based on all of the valid observations in the sequential subset of observations selected, and the selected subset shall contain at least 90 percent of the observations possible for the required averaging time. Each required average shall be calculated by summing the opacity value of each of the valid observations in the subset, dividing this sum by the number of valid observations in the subset, and rounding the result to the nearest whole number. The number of missing observations in the subset shall be indicated in parenthesis after the subset average value.

[Rule 62-297.401, F.A.C.]

A8. At least 15 days prior to the date on which each formal compliance test is due to begin, the permittee shall provide written notification of the test to the Air Resources compliance section of this office. The notification must include the following information: the date, time and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and telephone number of the person conducting the test.

[Rule 62-297.310(7)(a)9, F.A.C.]

A9. 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)& (2) (b), F.A.C.]

Monitoring of Operations

A10. Determination of Process Variables.

(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.

[Rule 62-297.310(5), F.A.C.]

Recordkeeping and Reporting Requirements

A11. In order to demonstrate compliance with conditions no. A1, A2, and A5, the permittee shall maintain a log at the facility for a period of at least 5 years from the date the data is recorded. The log at a minimum shall contain the following:

Monthly

- a) month
- b) consecutive twelve month total of material usage rates
- c) consecutive twelve month total of VOC emission rate

[Rules 62-4.070(3), and 62-213.440(1)(b)2., F.A.C.]

A12. Supporting documentation, such as Material Safety Data Sheets, purchase orders, etc., shall be kept which includes sufficient information to determine compliance. Documentation of each chemical reclaimed will use a mass balance method to determine usage/emissions (amount used minus amount collected for disposal or recycle). The log and documents shall be kept at the facility for at least 5 years and made available to the Department. The monthly logs shall be completed by the end of the following month.

[Rules 62-4.070(3), and 62-213.440(1)(b)2.b., F.A.C.]

A13. A DEP Form No. 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" including the Emissions Report, shall be completed for each calendar year on or before March 1 of the following year and submitted to the Air Resources compliance section of this office.

[Rule 62-210.370(3), F.A.C.]

A14. Reports of the required test report shall be filed with the Air Resources compliance section of this office as soon as practical but no later than 45 days after the last test is completed.

[Rules 62-297.310(8), F.A.C.]

A15. At least 180 days prior to the expiration date of this operation permit, the permittee shall submit to this office four air permit applications, DEP Form No. 62-210.900(1).

[Rule 62-4.090(1), F.A.C.]

reasonably the purposes of PSD: (2) it must approximate a common sense notion of "plant"; and (3) it must avoid aggregating pollutant-emitting activities that as a group would not fit within the ordinary meaning of "building," "structure," "facility," or "installation."

The comments on the proposed definition of "source" have persuaded EPA that the definition would fail to approximate a common sense notion of "plant," since in a significant number of cases it would group activities that ordinarily would be considered as separate. For instance, a uranium mill and an oil field would ordinarily be regarded as separate entities, yet the proposed definition would treat them as one.

In formulating a new definition of "source," EPA accepted the suggestion of one commenter that the Agency use a standard industrial classification code for distinguishing between sets of activities on the basis of their functional interrelationships. While EPA sought to distinguish between activities on that basis, 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 abstract 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 also have made administration of the definition substantially more difficult, since any attempt to assess those interrelationships would have embroiled the Agency in numerous, fine-grained analyses. A classification code, by contrast, offers objectivity and relative simplicity.

EPA has chosen the classification code in the *Standard Industrial Classification Manual, 1972*, as amended in 1977 ("SIC"), because it is both widely-known and widely-used. EPA has also chosen to use just one set of categories in the manual, those that describe each "Major Group" in the classification system and that bear a two-digit classification number, although the commenter who suggested that EPA use such a code also suggested that the Agency use the categories at the three-digit level. On the one hand, the two-digit categories are narrow enough to separate sets of activities into common sense groupings. In fact, most of the nominally different sets of activities in the examples given above would fall into a different two-digit

category; only the fertilizer factory and the pesticides factory would fall into the same category. On the other hand, the categories are broad enough to minimize the likelihood of artificially dividing a set of activities that does constitute a "plant" into more than one group and the likelihood of disputes over whether a set of activities falls entirely into one category or another.

Each source is to be classified according to its primary activity, which is determined by its principal product or group of products produced or distributed, or services rendered. Thus, one source classification encompasses both primary and support facilities, even when the latter includes units with a different two-digit SIC code. Support facilities are typically those which convey, store, or otherwise assist in the production of the principal product. Where a single unit is used to support two otherwise distinct sets of activities, the unit is to be included within the source which relies most heavily on its support. For example, a boiler might be used to generate process steam for both a commonly controlled and located kraft pulp mill and plywood manufacturing plant. If the yearly boiler output is used primarily by the pulp mill, then the total emissions of the boiler should be attributed to the mill.

In adopting the new definition of "source," EPA rejected the requests of those commenters who thought that the proposed definition would not be inclusive enough. As noted above, they urged that EPA formulate a definition that looked only to proximity and function. But such a definition by looking to function would unnecessarily increase uncertainty and drain the Agency's resources. In addition, such a definition would present groupings, such as the example the commenters gave, that would severely strain the boundaries of even the most elastic of the four terms, "building," "structure," "facility," and "installation."

Many commenters urged EPA to clarify the extent to which the final definition of those terms encompasses the activities along a "long-line" operation, such as a pipeline or electrical power line. For example, some urged EPA to add to the definition the provision that the properties for such operations are neither contiguous nor adjacent. To add such a provision is unnecessary. EPA has stated in the past and now confirms that it does not intend "source" to encompass activities that would be many miles apart along a long-line operation. For instance, EPA would not treat all of the pumping stations

along a wastewater pipeline as one "source."

EPA is unable to say precisely at this point how far apart activities must be in order to be treated separately. The Agency can answer that question only through case-by-case determinations. One commenter asked, however, whether EPA would treat a surface coal mine and an electrical generator separated by 20 miles and linked by a railroad as one "source," if the mine, the generator, and the railroad were all under common control. EPA confirms that it would not. First, the mine and the generator would be too far apart. Second, each would fall into a different two-digit SIC category.

Three commenters focused on whether and to what extent the emissions from each ship that would dock at a proposed marine terminal should be taken into account in determining whether the terminal would be "major" for PSD purposes. One commenter argued in effect that the emissions of each such ship that are quantifiable and occur while the ship is coming to, staying at or going from the terminal should be taken into account. In the view of that commenter, all of those activities would be "integral" to the operation of the terminal. Another commenter asserted that none of the emissions of any such ship should be taken into account, because ships are mobile sources. The remaining commenter contended that only the emissions that (1) come from a ship which is under the proprietary control of the owner or operator of the terminal and (2) occur while the ship is at the dock should be included in an applicability determination. That commenter viewed the ability of the terminal owner or operator to regulate the behavior of a ship as the critical consideration.

The permit requirements of the final Part 52 PSD regulations apply to a collection of pollutant-emitting activities according to the "potential to emit" of just those activities in that collection which constitute a "stationary source." Whether and to what extent the emissions of ships that would dock at a terminal are to be taken into account in determining PSD applicability depends, therefore, on whether and to what extent the term "stationary source" in the final regulations encompasses not only the activities of the terminal itself, but also the activities of the ships while they are coming to, staying at, or going from the terminal.

The final definition of "building, structure, facility, and installation" resolves that question. EPA intends the term "stationary source" under that

<BASE HREF="http://www.epa.gov/region4/air/regulators/part70/bmw.txt">

July 31, 1998

Mr. James A. Joy, III, P.E., Chief
Bureau of Air Quality Control
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Re: BMW Title V Applicability

Dear Mr. Joy:

This letter is in response to Florence Berry's letter dated June 24, 1998, requesting guidance on the applicability of the Title V permitting program to the newer stationary source BMW of North America, Inc. (BMW NA), located across a public highway from the older stationary source BMW Manufacturing (BMW MC).

EPA has determined that these two sources should be considered one facility, and BMW NA is a major source for the purposes of Title V. Section 112 of the 1990 Clean Air Act Amendments (the Act) defines a major source as:

For pollutants other than radionuclides, 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, in the aggregate, 10 tons per year (tpy) or more of any hazardous air pollutant which has been listed pursuant to section 112(b) of the Act, 25 tpy or more of any combination of such hazardous air pollutants, or such lesser quantity as the Administrator may establish by rule.

These two sources are on contiguous property and share two common directors on their respective Board of Directors which qualifies as common control. Since the two sources meet the criteria outlined above, they are considered one facility for Section 112 of the Act. Furthermore, since BMW MC is a major source under Section 112 of the Act, BMW NA is considered to be

part of this major source for Section 112 applicability. The Act contemplated that any major source for Section 112 would also be a major source for Title V permitting. Unfortunately, the definition of a major source under Part 70 [State Operating Permit Programs] is not consistent with the definition given in Section 112, and it states that the group of stationary sources must belong to a single major industrial grouping to be considered as one facility. Although EPA agrees with BMW NA that the two stationary sources are in different major industrial groups, the stationary sources must be considered one facility for Title V permitting since the sources are one facility under Section 112 of the Act.

EPA will be promulgating an automobile Maximum Achievable Control Technology (MACT) standard in the future which will apply to both sources. South Carolina should check the applicability section of this MACT standard when it is promulgated to determine what requirements apply to the two sources. In particular, research and development sources will be exempt from the Automobile Manufacturing MACT, although a Research and Development MACT may be promulgated at a later date.

I hope this information answers all your questions. If you have any questions or need any more information, please contact John Hewson of my staff at (404) 562-9214.

Sincerely,

/s/

R. Douglas Neeley, Chief
Air, Radiation, and Technology Branch

cc: Ms. Florence A. Berry
Environmental Engineering Associate
Engineering Services
South Carolina DHEC
Bureau of Air Quality
2600 Bull Street
Columbia, South Carolina 29201



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION VIII

999 18th STREET - SUITE 500
DENVER, COLORADO 80202-2466

May 21, 1998

Ref: 8P2-A

Lynn Menlove, Manager
New Source Review Section
Utah Division of Air Quality
P.O. Box 144820
Salt Lake City, UT 84114-4820

Re: Response to Request for Guidance in
Defining Adjacent with Respect to Source
Aggregation

Dear Mr. Menlove:

This is in response to your letter of January 15, 1998, to Mike Owens of my staff, requesting guidance and/or specific recommendations in the matter of Utility Trailer Manufacturing Company. For the purpose of determining if two Utility Trailer facilities should or should not be aggregated into a single source under Clean Air Act Title V and New Source Review permitting programs, you asked what is the specific physical distance associated with the definition of "adjacent." The word "adjacent" is part of the definition of "source" in the Utah SIP regulations, at R307-1-1. The SIP definition follows the Federal definition found in 40 CFR 51.166.

In brief, our answer is that the distance associated with "adjacent" must be considered on a case-by-case basis. This is explained in the preamble to the August 7, 1980 PSD rules, which says "EPA is unable to say precisely at this point how far apart activities must be in order to be treated separately. The Agency can answer that question only through case-by-case determinations." After searching the New Source Review Guidance Notebook, and after querying the other Regions and EPA's Office of Air Quality Planning and Standards, we have found no evidence that any EPA office has ever attempted to indicate a specific distance for "adjacent" on anything other than a case-by-case basis. We could not find any previous EPA determination for any case that is precisely like Utility Trailer, i.e., two facilities under common control, with the same primary 2-digit SIC code, located about a mile apart, both producing very similar products, but claimed by the company to be independent production lines.

Utah SIP regulations do not define "adjacent." The definition in the 1995 edition of Webster's New College Dictionary is: 1. Close to; nearby, or 2. Next to; adjoining. We realize this leaves considerable gray area for interpretation; however, since the term "adjacent" appears in the Utah SIP as part of the definition of "source," any evaluation of what is "adjacent" must relate to the guiding principle of a common sense notion of "source." (The phrase "common

sense notion" appears on page 52695 of the August 7, 1980 PSD preamble, with regard to how to define "source.") Hence, a determination of "adjacent" should include an evaluation of whether the distance between two facilities is sufficiently small that it enables them to operate as a single "source." Below are some types of questions that might be posed in this evaluation, as it pertains to Utility Trailer. Not all the answers to these questions need be positive for two facilities to be considered adjacent.

- Was the location of the new facility chosen primarily because of its proximity to the existing facility, to enable the operation of the two facilities to be integrated? In other words, if the two facilities were sited much further apart, would that significantly affect the degree to which they may be dependent on each other?
- Will materials be routinely transferred between the facilities? Supporting evidence for this could include a physical link or transportation link between the facilities, such as a pipeline, railway, special-purpose or public road, channel or conduit.
- Will managers or other workers frequently shuttle back and forth to be involved actively in both facilities? Besides production line staff, this might include maintenance and repair crews, or security or administrative personnel.
- Will the production process itself be split in any way between the facilities, i.e., will one facility produce an intermediate product that requires further processing at the other facility, with associated air pollutant emissions? For example, will components be assembled at one facility but painted at the other?

One illustration of this type of evaluation involved Great Salt Lake Minerals in Utah, which we wrote to you about on August 8, 1997, in response to your inquiry. (See enclosure #1.) We recommended, as EPA guidance, that you treat the two GSLM facilities as a single source (i.e., "adjacent"), despite the fact that they are a considerable distance apart (21.5 miles). We based that advice on the functional inter-relationship of the facilities, evidenced in part by a dedicated channel between them. We wrote that the lengthy distance between the facilities "is not an overriding factor that would prevent them from being considered a single source."

Another illustration is ESCO Corporation in Portland, Oregon, which operates two metal casting foundries (a "Main Plant" and a "Plant 3"), a couple of blocks apart. All castings produced by foundries at both facilities are coated, packaged and shipped at the "Main Plant". EPA Region 10 wrote to the State of Oregon on August 7, 1997 (see enclosure #2), that the guiding principle in evaluating whether the two facilities are "adjacent" is "the common sense notion of a plant. That is, pollutant emitting activities that comprise or support the primary product or activity of a company or operation must be considered part of the same stationary source." EPA determined that the two ESCO facilities must be considered a single major stationary source, since they function together in that manner, even though the Plant 3 foundry operates independently from the Main Plant foundry.

Another illustration is Anheuser-Busch in Fort Collins, Colorado, which operates a brewery and landfarm about six miles apart. A memo from OAQPS to our Regional Office, dated August 27, 1996 (see enclosure #3), stated that with regard to "contiguous or adjacent," the facilities should be treated as one source, due to their functional inter-relationship (landfarm as an integral part of the brewery operations), evidenced in part by a disposal pipeline between them. The fact that they are a considerable distance apart "does not support a PSD determination that the brewery proper and the landfarm constitute separate sources for PSD purposes."

Another illustration is Acme Steel Company, which operates an integrated steel mill consisting of coke ovens and blast furnaces at a site in Chicago, Illinois, along with basic oxygen furnaces, casting and hot strip mill operations at a site in Riverdale, Illinois, about 3.7 miles away. The blast furnace in Chicago produces hot metal that is transported via commercial rail to the BOF shop in Riverdale for further processing into steel. EPA Region 5 wrote to the State of Illinois on March 13, 1998 (see enclosure #4), that "Although the two sites are separated by Lake Calumet, landfills, I-94, and the Little Calumet River, USEPA considers that the close proximity of the sites, along with the interdependency of the operations and their historical operation as one source, as sufficient reasons to group these two facilities as one."

Therefore, in the matter of Utility Trailer, we recommend you evaluate, using questions such as those we posed above, whether the two facilities (one existing and one proposed for construction) will, in fact, operate independently of each other, as the company has claimed. Although Utility Trailer writes that "The present facility is not capable of conversion to the new trailer manufacturing process," they also write that the existing facility is "an inefficient manufacturing process which has made this facility less cost-competitive." This suggests to us the possibility that the existing facility could become a support facility for the new one. The company should be advised that if the two facilities are later discovered by the State and/or EPA to be actually operating as a single major source, and no Title V or PSD permit applications have been submitted where required by regulation, the company could become subject to State or EPA enforcement action or citizen suit.

Finally, please be aware that if the facilities are treated as two separate sources, no emission netting between them can be allowed, to avoid major source NSR permitting at either facility, in the event of future facility modifications.

We hope this letter will be helpful. It has been written only as guidance, as it remains the State's responsibility to make source aggregation determinations under EPA-approved State programs and regulations. This letter has been reviewed by specialists at OAQPS, by our Office of Regional Counsel, and by Office of General Counsel at EPA Headquarters. We apologize for the delay in getting our response to you.

If you have questions, please contact Mike Owens. He is at at (206) 553-6511 until late June, after which he may be reached at (303) 312-6440.

Sincerely,

Richard R. Long
Director
Air Program

Enclosures (4)

cc: Rick Sprott, Utah DAQ
Scott Manzano, Utah DAQ
Jose Garcia, Utah DAQ

February 20, 1998

4APT-ARB

James A. Joy, III, P.E., Chief
Bureau of Air Quality Control
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Dear Mr. Joy:

Thank you for your letter dated August 14, 1997, regarding the written applicability determination for several possible title V facilities in South Carolina. You specifically requested title V applicability determinations for four different situations involving contiguous and adjacent facilities. For each situation described in your request letter, we have included below the specific facility information which was provided by your office, followed by our applicability determination.

Situation #1

There are four facilities located on contiguous and adjacent property. Westvaco Corporation owns and operates three of these facilities. The fourth facility is a cogeneration unit (SIC Code 4931) that is a limited-liability corporation (LLC) formed by Westvaco Corporation and South Carolina Electric and Gas. The three Westvaco facilities are an unbleached kraft pulp and paper mill (SIC Code 2621 and 2611), a chemical manufacturing facility (SIC Code 2861), and a research and development (R&D) facility associated with 2861 and 2821. These combined facilities emit hazardous air pollutants and criteria air pollutants above the threshold. Each individual facility, standing alone (with the exception of the R&D facility), emits criteria pollutants and HAPs above the threshold. SC DHEC believes that these facilities' emissions should be aggregated when considering if it is necessary to obtain a title V permit.

Through regulation, guidance, and individual determinations, the U.S. Environmental Protection Agency (EPA) has established several mechanisms for use by sources and permitting authorities in determining common control as used in the definition of "major source" under Title I and Title V of the Clean Air Act. First, common control can be established through ownership (i.e., same parent company or a subsidiary of the parent company). Second, common control can be established if an entity such as a corporation has decision-making authority over the operations of a second entity through a contractual agreement or a voting interest. If common control is not established by the first two mechanisms, then one should next look at whether there is a contract for service relationship between the two companies or if a support/dependency relationship exists between the two companies in order to determine whether a common control relationship exists.

Clearly, the unbleached kraft pulp and paper mill, the chemical manufacturing facility, and the R&D facility are under common control since they are owned by Westvaco. With regard to the cogeneration facility, EPA Region 4 agrees that it is not part of the same parent company as Westvaco since, generally, a joint venture is not a subsidiary to either party of the joint venture. However, it is the position of EPA Region 4 that the cogeneration facility, via its contractual relationship forming the joint venture, is under common control of Westvaco with the rest of the

EPA Region 4 agrees with South Carolina's assessment that these facilities' emissions should be aggregated when considering if it is necessary to obtain a title V permit. Therefore, based on the definition of a "major source", it is the position of EPA Region

4 that the Westvaco facilities and the cogeneration facility constitute one major stationary source for title V applicability purposes since the four facilities are located on land contiguous and adjacent to one another, Westvaco Corporation has common control of operations in all four facilities, and combined HAP emissions exceed the major source thresholds.

Situation #2

Lowater Incorporated owns a facility that manufactures bleached kraft pulp and paper and thermo-mechanical pulp (SIC Codes 2611, 2621). Georgia-Pacific (GP) owns a hardboard plant which is located inside the Bowater facility. GP purchases raw materials from the Bowater facility including power, wastewater treatment, and wood chips. GP owns the land on which the GP facility is located. Additionally, Peridot Chemicals owns a chemical manufacturing plant (SIC Code 2819) adjacent to other facilities. Fifteen percent of the total chemicals produced by the Peridot facility are supplied to Bowater. The Bowater and GP facilities emit hazardous air pollutants and criteria air pollutants above the thresholds (both individually and combined). SCDHEC believes that the GP and Bowater facilities emissions should be aggregated when considering if it is necessary to obtain a title V permit. SCDHEC believes that GP and Bowater emissions should be considered together in determining title V applicability. SCDHEC believes that the Peridot facility should not be included in the applicability determination.

Based on the information provided, the Peridot Chemicals facility does not appear to have a common control relationship with either Bowater or GP. Bowater and GP appear to have a contract-for-service relationship since Bowater supplies one hundred percent of GP's raw materials for power, wastewater treatment, and wood chips. There are no provisions in title V of the Act for excluding contracted operations in defining major sources. In addition, contract-for-service activities may indicate that sources are under common control. However, in determining if there is a common control relationship between Bowater and GP, one needs to understand more clearly how these "companion"

facilities interact with each other. Although Bowater provides integral services to GP, the GP facility does not appear to be dependent upon the Bowater facility for operation except by convenience, therefore the facilities do not appear to be under common control. However, since both operations are independently major sources, both operations are independently subject to title V requirements.

EPA Region 4 agrees with South Carolina's assessment that the Peridot Chemicals facility should not be included in the applicability determination. However, EPA Region 4 does not agree that the GP and Bowater emissions should be considered together in determining title V applicability. Therefore, based on the definition of a "major source", it is the position of EPA Region 4 that the Peridot Chemical, Bowater, and GP facilities constitute separate sources for purposes of title V applicability since there does not appear to be a common control relationship between them. However, those facilities which are independently major sources are independently subject to the title V requirements.

Situation #3

Willamette Industries owns a bleached kraft pulp and paper mill (SIC Code 2611) and a medium density fiberboard (MDF) (SIC Code 2493) plant on adjacent and contiguous property. ECC International owns a chemical manufacturing facility (SIC Code 2819) which is located on Willamette's property. ECC International leases the land from Willamette. ECC provides one hundred percent of its output to Willamette's bleached kraft paper mill. These facilities all emit hazardous air pollutants and criteria air pollutants. The kraft mill is the only stand-alone "major source." SCDHEC believes that these facilities' emissions should be aggregated when considering if it is necessary to obtain a title V permit.

Additionally, SCDHEC is requesting a Prevention of Significant Deterioration (PSD) determination for the three facilities. All three facilities were initially considered separately for PSD purposes. However, the facilities have supplied additional information regarding their inter-relationships that may make them subject as one source under PSD.

Clearly, the bleached kraft pulp and paper mill and the MDF plant are under common control since they are owned by Willamette.

Based on the information provided, ECC and Willamette appear to have a contract-for-service relationship since ECC provides one hundred percent of its output to the bleached kraft paper mill. As mentioned in situation #2 above, contract-for-service activities may indicate that sources are under common control. However, in determining if there is a common control relationship between ECC and Willamette, one needs to understand more clearly how these "companion" facilities interact with each other. Based on the information provided, ECC provides one hundred percent of its output to Willamette's bleached kraft pulp and paper mill, and Willamette supplies steam, electricity and waste treatment services to ECC. In addition, in the event of the loss of any service, the ECC plant is shut down until service is restored. Since both facilities provide each other with goods or services that are integral to or contribute to the output provided by the separately "owned or operated" activity with which they operate or support, both facilities are determined to be under common control.

EPA Region 4 agrees with South Carolina's assessment that these facilities' emissions should be aggregated when considering if it is necessary to obtain a title V permit. Therefore, based on the definition of a "major source", it is the position of EPA Region 4 that the Willamette facilities and ECC constitute one major stationary source for title V applicability purposes since all three facilities are located on land contiguous and adjacent to one another, are under common control, and combined HAP emissions exceed the major source thresholds.

With regard to the PSD applicability determination, based on the information supplied to date, it is the position of EPA Region 4 that the bleached kraft pulp and paper mill (SIC 2611) and the medium density fiberboard (MDF) plant (SIC 2493) owned by Willamette Industries should be considered separate sources for the purposes of PSD. Aside from the differing major group SIC codes, neither source acts as a "support" facility for the other. Each source is engaged in manufacturing different principal products and neither source's product is utilized by the other. Since Willamette and ECC are considered to be under common control, ECC is considered a "support" facility for the kraft pulp mill despite differing SIC codes. Therefore, the Willamette kraft pulp mill and the ECC facility should constitute one source for PSD applicability purposes.

International Paper owns a bleached kraft mill (SIC Code 2611) and a container plant (SIC Code 2653) on adjacent and contiguous property. These facilities emit hazardous air pollutants and criteria air pollutants. SCDHEC believes that these facilities'

emissions should be aggregated when considering if it is necessary to obtain a title V permit.

Clearly, the kraft mill and container plant are under common control since they are owned by International Paper. EPA Region 4 agrees with South Carolina's assessment that these facilities' emissions should be aggregated when considering if it is necessary to obtain a title V permit. Therefore, based on the definition of a "major source", it is the position of EPA Region 4 that the International Paper bleached kraft mill and container plant constitute one major stationary source for title V applicability purposes since both facilities are located on contiguous or adjacent properties, are under common control, belong to a single major industrial grouping, and combined emissions exceed the major source thresholds.

If we may be of further assistance, please contact me or have your staff contact Yolanda Adams of my staff at (404) 562-9116 regarding title V issues or Gregg Worley of my staff at (404) 562-9141 regarding PSD issues.

Sincerely,

/s/

R. Douglas Neeley
Chief
Air & Radiation
Technology Branch

July 15, 1997

Robert Hodanbosi, Chief
Division of Air Pollution Control
Ohio Environmental Protection Agency
1600 WaterMark Drive
Columbus, Ohio 43215-1034

Dear Mr. Hodanbosi:

The purpose of this letter is to advise your agency on how three facilities in Cleveland, Ohio--LTV Steel, Stein, Inc., and Allega, Inc.--should be classified under the Title V operating permit program. LTV Steel produces slag as a by-product of its steel production. The LTV facility sells its basic oxygen furnace (BOF) slag to Stein, and its blast furnace slag to Allega. Stein and Allega process the slag into aggregates to sell to other companies. The issue presented is whether these three facilities should be considered as separate Title V sources or as one Title V source. Our analysis indicates that they should be considered a single source.

The prevention of significant deterioration regulations in 40 CFR 52.21(b)(5) and (6) and the Title V operating permit regulations in 40 CFR 70.2 define a stationary source as any building, structure, facility, or installation whose pollutant-emitting activities belong to the same industrial grouping, are located on contiguous or adjacent properties, and are under the control of the same person or entity (or entities under common control). According to the March 16, 1979, USEPA memorandum from the Division of Stationary Source Enforcement director titled "Definition of a Source," determinations of what entities are under common control with the applicant are to be made on a fact-specific case-by-case basis. A number of factors could decide common control status.

USEPA is guided by the definition of control used by the Securities Exchange Commission (SEC). For SEC purposes, control means, "[T]he possession, direct or indirect, of the power to direct or cause the direction of the management and policies of a person (or organization or association) whether through the ownership of shares, contract, or otherwise." See 17 CFR 210.1-02(g) (1996). If two sources are under different ownership, but one company has some decision-making ability in the second facility through a contractual agreement or a voting interest, the sources can be considered under common control.

Adjacent sources under different, independent ownership, may be considered under common control due to the nature of their operations. It is our understanding that, by contract: LTV Steel provides 100 percent of its slag product to the Stein and Allega facilities; the Stein and Allega facilities receive all of their slag product from the LTV Steel facility; and Stein and Allega are required by contract to accept 100% of LTV's BOF slag and blast furnace slag, respectively. Accordingly, but for the existence of the LTV Steel facility, there would be no slag processing plants at this location.

Although the three facilities may be independently owned and operated (and the companies operating them may run facilities elsewhere in the nation that do not interact with each other), the

operations of the Stein and Allegra facilities at this particular location appear to be entirely dependent upon agreements or contracts with the LTV Steel facility. Thus the functions of the Stein and Allegra facilities at this location are subject to control by LTV Steel through contract, as LTV would have power to cause the direction of the management decisions and policies of the Stein and Allegra facilities. Therefore, for Title V purposes, LTV Steel, Stein, and Allegra here are considered under common control.

USEPA's position is reflected in Engineering Guide # 58, a policy statement issued by the Ohio Environmental Protection Agency (OEPA). This Engineering Guide serves to clarify the definition of "facility" for new source review and Title V permitting. It states that two independently owned facilities may be under common control if there is a financial interest between them. The examples provided therein illustrate that if the two facilities are co-located and have the same 2-digit SIC code, and if the primary function of one facility is to support the production of the other facility's principal product, then the two facilities should be considered as one source for permitting.

The other factors important in determining whether facilities should be aggregated as a single source are clearly satisfied. LTV Steel, Stein, and Allegra have the same 2-digit SIC code, so they belong to the same industrial grouping. Stein and Allegra operate on property owned and leased by LTV Steel. The three facilities are located on contiguous property. Since the three factors are satisfied, it is USEPA's position that LTV Steel, Stein, and Allegra should be aggregated together as a single source for Title V permitting.

Another independent rationale for aggregating Stein and Allegra with LTV Steel as a single major source is because Stein and Allegra are "support facilities" for LTV. As indicated in the August 7, 1980, Federal Register (45 FR 52695), "one source classification encompasses both primary and support facilities, even when the latter includes units with a different two-digit SIC code. Support facilities are typically those which convey, store, or otherwise assist in the production of the principal product." Stein and Allegra are the sole recipients of LTV Steel's slag. Since the removal of slag is essential to LTV Steel's lawful production process, Stein and Allegra assist in the production of LTV Steel. Therefore, they are support facilities and together constitute a single source.

While the three facilities are to be considered the same source for Title V applicability, individual Title V permits may be issued to them separately, or to different responsible parties. I hope this information is useful. We will consider any further information submitted by OEPA with regard to the issues presented in this matter. If you have any questions, please call Kaushal Gupta, of my staff, at (312) 886-6803.

Sincerely yours,

/s/

Cheryl L. Newton, Chief
Permits and Grants Section

cc: Jeanne Mallet, OEPA

<BASE HREF="http://www.epa.gov/region04/air/regulators/part70/fpl3-6.txt">

March 20, 1996

4APT-AEB

Mr. Gerald J. Kissel
Air Permitting Supervisor
Florida Department of Environmental
Protection
Southwest District
3804 Coconut Palm Drive
Tampa, Florida 33619

SUBJECT: Title V Source Definition for Florida Power & Light,
Manatee Power Plant

Dear Mr. Kissel:

Your letter of February 19, 1996, to Jewell A. Harper, requested a determination of whether two facilities owned by Florida Power & Light (FPL), located in Manatee County, Florida, should be considered one "source" as the term is applied under Title V of the Clean Air Act and its implementing regulations found at 40 CFR Part 70. Your letter specified that FPL owns and operates an oil-fired 1600 MW power plant and the oil terminal supplying the plant. The facilities are connected by a fourteen mile pipeline. The oil terminal supplies approximately 99.9% of the throughput to the power plant.

The definition of "major source" in 40 CFR section 70.2 establishes the following:

"Major source" means any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control)) belonging to a single major industrial grouping and that is described in paragraphs (1), (2), or (3) of this definition.

Based upon the information provided, it is our determination that the two FPL facilities may be treated as separate sources under Title V permitting. Although the facilities are under common control, they do not belong to the same industrial grouping. With regard to the adjacency of the oil terminal, previous EPA guidance has indicated that a distance of twenty miles is too far (45 FR 52695). Region 4 will support your Department's decision on the issue of adjacency.

Thank you for the opportunity to assist you in this matter.

If you have any questions about this letter, please contact
Gracy R. Danois of my staff at 404/347-3555, extension 4150.

Sincerely,

/s/

Jewell A. Harper
Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division

cc: John C. Brown, Jr., P.E.

Contiguous or Adjacent Properties as related to Title V

(1/25/96 RO/S/L conference call)

Intro: During previous conference calls we addressed different terms and concepts as they apply to the “major source” definition found in Part 70. In November, we discussed the term “common control” as it applied to multiple owners or operators at any stationary source or group of stationary sources. In doing so, we discussed concepts like the landlord-tenant relationship and listed various screening tools used in making of a decision. Last month, we described methods for drawing site boundaries around possible title V sources and went over several hypothetical scenarios. A basic assumption made in both of these calls was that the sources involved were located on contiguous or adjacent properties. For this call we will discuss the phrase “contiguous or adjacent” and apply it toward title V permit processing. As always, we begin by looking at the definition of a major source under Part 70.2:

*“Major source” means any stationary source (or any group of stationary sources that are located on one or more **contiguous or adjacent** properties, and are under common control of the same person (or persons under common control)) belonging to a single major industrial grouping and that are described in paragraphs (1), (2), or (3) of this definition. For the purposes of defining “major source,” a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on **contiguous or adjacent** properties belong to the same Major Group (i.e., all have the same two-digit code) as described in the Standard Industrial Classification Manual, 1987.“*

Paragraph (1) of the major source definition deals with section 112 sources. There are two relevant points that need to be made regarding this paragraph: First, the term “adjacent” is not used; and second, HAPs are aggregated without regard to the SIC code. The answer to the first point is found in the Part 63 preamble which states that, “EPA has historically interpreted ‘contiguous property’ to mean the same as ‘contiguous or adjacent property’ in the development of numerous regulations to implement the Act. In other words, contiguous includes in its definition, the terms “nearby, neighboring, and adjacent.” Since the “major source” definition in section 112(a) of the Act did not include the term “adjacent” EPA thought it would be confusing to define it differently in Part 63 and Part 70. The second point was discussed in part during the last conference call, what’s important to reemphasize is, that for section 112 purposes, a plant site is defined by its **geography** (whether its on contiguous property) and **control** and not whether there is a relationship between production processes (i.e., SIC grouping).^[1]

Paragraphs (2) & (3) of the definition involve sources that emit regulated air pollutants in attainment areas and nonattainment area pollutants respectively. The term “contiguous or adjacent” for both of these paragraphs is applied in a manner consistent with PSD/NSR applicability determinations. For these sources, each plant site is defined by geography, control, and its 2-digit SIC code. Of course, different SIC groups may be aggregated if they meet the primary activity test or support facility test.^[2]

Guidance: Contiguous or adjacent property determinations are resolved on a case-by-case basis. The phrase has not been defined in literal terms (i.e., number of feet allowed

1. A physical separation of property does not in itself constitute separate sources, for example, the fact that some property at a plant site is divided by a highway or a railroad right-of-way does not create separate and distinct sources (59 FR 12412, 3/16/94);
2. EPA has stated that a distance of 20 miles is too far (45 FR 52895, 8/7/80);
3. EPA made a determination that two GM auto plants, separated from each other by approximately one mile (and connected by a private rail), could be considered one major source (E. Reich to S. Rosenblatt memo, 6/30/81);
4. Region 4 determined that two bulk gasoline terminals located approximately one-half mile from each other should be considered one source primarily based upon geographic **proximity** and secondarily upon shared diesel and water pipelines (J.A. Harper to S. Jenkins letter, 5/18/95);
5. In a determination involving a natural gas processing company and a collocated natural gas transmission company (same owner; contiguous property; different SIC), EPA reiterated its position on defining **distances** by stating that, "EPA is unable to say precisely at this point how far apart activities must be in order to be treated separately. The Agency can answer that question only through case-by-case determinations" (45 FR 52695, 8/7/80; J. Divita to E. Bell, 11/3/86);

There are some other factors you may wish to consider when evaluating sources which are physically separated: like whether there are any unique structures (i.e., private rail line, pipelines, etc.) that "tie" the sources together; or circumvention of NSR requirements in the near term by using interim contracts to establish separate operations on noncontacting parcels of land with the intent to merge later and take advantage of the netting provisions^[3]; or circumvention of permit review through a real estate scheme (e.g., company purchases a large piece of land and sets up an "unrelated" corporation in the middle of the property in order to split their property into multiple, distinct sites).

Please remember that our office is available to assist you in making such determinations.

Endnotes: (hit your browser's back button to return)

[1] Because the objectives of the title V program and the section 112 are different. EPA explained (54 FR 12412) that "[t]he separation of HAP emission sources by SIC code would be an artificial division of sources that, in reality, all contribute to public exposure around a plant site."

[2] Each source is classified by its primary activity, which is determined by the principal product or group of products produced or distributed, or services rendered. Support facilities are typically those which convey, store, or otherwise assist in the production of the principal product.

[3] If the company's motives are unclear, but the permit authority elects to permit as two sources, we would encourage adding a condition to the permit requiring notification if the two sources merge operations. If the merge occurs within a short time frame, say two years, after permit issuance the department may want to investigate such activities as circumvention of the major source permitting requirements and take the appropriate action.

<BASE HREF="http://www.epa.gov/region04/air/regulators/part70/t5site.txt">

May 18, 1995

4APT-AEB

Susan Jenkins
Air Protection Branch
Environmental Protection Division
Georgia Department of Natural Resources
4244 International Parkway
Suite 120
Atlanta, GA 30354

SUBJ: Source Definition for Colonial Terminals, Inc.
Savannah, Georgia

Dear Ms. Jenkins:

Your letter of April 4, 1995, to Brian Beals requested a determination of whether two facilities owned and operated by Colonial Terminals, Inc., located in Savannah, Georgia, should be considered one "source" as that term is applied under Title V of the Clean Air Act (Act) and its implementing regulations found at 40 CFR Part 70. Your letter enclosed supporting documentation submitted to you from Colonial Terminals. Specifically, the two facilities are separated approximately one-half mile apart, have diesel fuel and water pipelines between them, and operate under SIC code 4226.

In the beginning portion of the "major source" definition, the Part 70 regulations state:

"Major source" means any stationary source (or any group of stationary sources that are located on one or more contiguous or adjacent properties, and are under common control of the same person (or persons under common control)) belonging to a single major industrial grouping and that are described in paragraphs (1), (2), or (3) of this definition. For the purposes of defining "major source," a stationary source or group of stationary sources shall be considered part of a single industrial grouping if all of the pollutant emitting activities at such source or group of sources on contiguous or adjacent properties belong to the same Major Group (i.e., all have the same two-digit code) as described in the Standard Industrial Classification Manual, 1987 (40 CFR 70.2).

The two Colonial Terminals facilities without question meet the criteria of common control and same industrial grouping. The

remaining test is one of adjacency. Based on the information provided, we have concluded the two facilities are in close proximity and should be treated as one source under Part 70. Additionally, we have noted that both facilities use the same access road, share diesel fuel and water pipelines, and interestingly, have their storage tank numbers listed sequentially on the air quality permits issued to both facilities.

Thank you for the opportunity to assist you and provide guidance. If you should have any questions about this letter, please contact Mr. Alan Drake of my staff at 404/347-3555 vmx4151.

Sincerely yours,

/s/

Jewell A. Harper, Chief
Air Enforcement Branch
Air, Pesticides and Toxics
Management Division

<!-- Developed by Greg Zurla -->

U.S. Environmental Protection Agency
Region 5 - Air and Radiation Division

Correspondence

March 23, 1995

(AR-18J)

Donald Sutton, Manager
Permit Section
Bureau of Air
Illinois Environmental Protection Agency
P.O. Box 19276
2200 Churchill Road
Springfield, Illinois 62794-9276

Dear Mr. Sutton:

The purpose of this letter is to respond to Illinois Environmental Protection Agency's (IEPA) February 27, 1995, request for reconsideration of the interpretation of stationary source applicability to Color Communications, Inc. located in Chicago, Illinois.

IEPA questioned the use of the preamble of the August 7, 1980, Federal Register to support the United States Environmental Protection Agency's (USEPA) February 2, 1995, determination that the two Color Communication buildings are considered one source. Webster's dictionary defines adjacent as close to or nearby. USEPA considers the one city block distance between buildings to be nearby and therefore adjacent. This has been USEPA's national position for 15 years. To make an exception would violate the federal position.

Until further evidence to prove that the two buildings are not adjacent is furnished, USEPA does not think that it is appropriate to reconsider the February 2, 1995, determination.

As always, we are available to assist you in permitting this source. If you have any questions in regards to this letter, please contact Genevieve Nearmyer at (312) 353-4761.

Sincerely yours,

/s/

Cheryl Newton, Chief

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3.18

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

MEMORANDUM

DATE: June 30, 1981

SUBJECT: PSD Definition of Source

FROM: Director
Division of Stationary Source Enforcement

TO: Steve Rothblatt, Chief
Air Programs Branch, Region V

This is to respond to your memo of June 8, 1981, in which you requested a determination of whether two General Motors facilities, located in Lansing, Michigan, should be considered one "source" as that term is applied under PSD review. Specifically, the two facilities are approximately one mile apart, have a dedicated railroad line between them and are programmed together to produce one line of automobiles.

The PSD regulations define stationary source as any building, structure, facility or installation which emits or may emit any pollutant regulated under the Clean Air Act. The regulations go on to define "building, structure, facility or installation" as:

all of the pollutant-emitting activities which belong to the same industrial grouping, are located on one or more contiguous or adjacent properties, and are under the control of the same person (or persons under common control). Pollutant-emitting activities shall be considered as part of the same industrial grouping if they belong to the same "Major Group" (i.e., which have the same first two digit code) as described in the Standard Industrial Classification Manual, 1972, as amended by the 1977 Supplement (U. S. Government Printing Office stock number 4101-0066 and 003-005- 00176-0, respectively) (40 CFR 52.21 (b) (6)).

The two General Motors facilities without question meet the criteria of common ownership and same industrial grouping. The remaining test is one of adjacency. Based on the unique set-up of these facilities as described above and previous EPA determinations, (see attached) this office agrees that the two facilities can be considered adjacent, and therefore, may be treated as one source for the purpose of PSD review.

Since the two segments of the source are located in a non-attainment area, I would like to emphasize that the use of this determination is contingent upon the adoption of the PSD definition of "source" for non-attainment review.

If you have any questions regarding this determination, please contact Janet Farella of my staff at 755-2564.

Edward E. Reich

cc: Peter Wyckoff (OGC)
Mike Trutna (OAQPS)

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

DATE: JUN 8, 1981

SUBJECT: Defining Two Separate Plants as One Source

FROM: Steve Rothblatt, Chief
Air Programs Branch

TO: Edward E. Reich, Director
Stationary Source Enforcement Division, (E341)

Region V has been asked by the State of Michigan and the General Motors Corporation to make a determination as to whether or not two plants on different sites constitute a single source. The purpose of this memo is to describe the circumstances related to this request and seek your counsel before we respond to the State and GM. We request your recommendation on our tentative position by June 12, 1981 at which time we will be responding to the State.

During the assembly of some vehicles in Lansing, Michigan, auto bodies are made in the Fisher Body plant and then are transported by truck to an Oldsmobile plant one mile away. At the Olds plant the bodies are placed on frames and the fenders and hoods are attached. At the present time the bodies are painted at the first location and the fenders and hoods are painted at the second location. GM is proposing to move the painting operations to one of the locations.

Under the present definition of source in nonattainment areas, GM would have to meet the Part D new source review requirements. However, under the March 12, 1981 proposed definition of source, the curtailment of painting at one place in a source could be used to offset additional painting elsewhere in the source and thus the source would avoid the Federal new source review requirements. The issue of concern for GM is whether or not these two plants which are separated by approximately 4,500 feet can be considered as one source.

Our investigation has revealed that both plants come under the same SIC code. Additionally, the two plants are the only facilities served by a special spur of the C&O Railroad for raw material delivery and in the future the spur will be used to move unpainted parts from one plant to another when the painting is done at one location. Furthermore, at other locations in the State where vehicles are assembled in this two step body/frame fashion, the two plants are under one roof or are connected by a conveyor for transporting the bodies.

It is our opinion that these Lansing plants are functionally equivalent to a source and that U.S. EPA has the flexibility to arrive at that conclusion. The Federal Register of August 7, 1980 on page 52695 states the following when discussing proximity of PSD activities "EPA is unable to say precisely at this point how far apart activities must be in order to be treated separately. The Agency can answer that question only through case-by-case determinations." With the distance between the two plants less than one mile and the plants being connected by a railroad used only for GM, we believe that the plants meet the requirement of being adjacent and therefore can be considered one source.

Such an interpretation appears to be consistent with U.S. EPA's

This position as stated, when supporting the change in "source" definition, is "even outside of these 'construction moratorium' areas under the present regulatory scheme, the

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August 7 definition can act as a disincentive to new investment and modernization by discouraging modifications to existing facilities."

We have concluded that should the March 12, 1981 proposed definition of source become final, the State under the existing SIP though a variance from the Commission will be able to issue a State permit to GM. The State will also require a phased in LAER by 1986. Thus, the environmental costs of this interpretation will be negligible.

Please contact Ronald J. Van Mersbergen at FTS 886-6056 for further information.

cc: E. Smith
M. Grutna



RECEIVED

JUL 16 1999

July 14, 1999

BUREAU OF AIR REGULATION

Mr. John Reynolds
New Source Review Section
Dept. of Environmental Protection
Twin Towers Office Building
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Re: DEP File #0090182-001-AC
Sea Ray Boats, Inc.
Cape Canaveral Plant
Merritt Island, FL

Dear Mr. Reynolds:

On June 28, 1999 a letter was received by our consultant, Mr. G.E. Cantelou, Jr., P.E., from Mr. A.A. Linero, Administrator of New Source Review Section advising that a formal determination will be required for PSD applicability concerning the referenced application. The question arises because of the location of the new plant site proposed by Sea Ray Boats relative to an existing permitted Sea Ray facility approximately one mile away. Specifically, the issue is whether the two plants would be considered "contiguous or adjacent" regardless of the one-mile distance, and therefore constitute single or separate facilities for air permitting.

Subsequently, by telephone, you requested of Mr. Cantelou that we review the supplemental information provided by Mr. Linero, compare the opinions of EPA to the circumstances at Sea Ray and report to you with Sea Ray's position in these regards.

It is Sea Ray's position that the two plants constitute separate facilities for the following reasons:

The Cape Canaveral Plant described in the air permit application (DEP File No. 0090182-001-AC submitted by Sea Ray Boats, Inc.) is located in Merritt Island, Florida approximately one mile from an existing Sea Ray facility. The facility operates under DEP Permit No. 0090093-002-AV. The property between the existing facilities (known as the Sykes Creek Plant and the Cape Canaveral Plant) is not owned, leased or used by Sea Ray.

The decision to construct a new plant was made by Sea Ray management because of increasing market demand for a larger product. The current Sea Ray facilities are not capable of building product in excess of 65'. This new facility will be capable of building products over 65' and it was designed for this purpose. To accommodate this, the proposed buildings at the Cape Canaveral Plant will be twenty percent taller than the largest building currently in use by the company. Another important consideration in regards to choosing this site was its water access and location relative to the inland waterway, Port Canaveral and the Atlantic Ocean, each of which will greatly facilitate delivery of the larger vessels produced here.

Mr. John Reynolds
July 13, 1999
Page 2

The Cape Canaveral Plant is designed and planned to operate as a separate and independent facility and its proximity to another Sea Ray plant does not impact the Cape Canaveral Plant's ability to operate as an independent facility. It will have no common operational function with any other Sea Ray facility. In other words, this plant will not rely on any other Sea Ray facility to support the production of the new products planned for manufacture at this location and in turn will not offer support to the function of any other Sea Ray facility. Nor will the production process itself be split in any way between facilities and no intermediate products requiring further processing at another facility will be produced at this location.

A manager will be assigned to this plant and will be solely responsible for its operation. He will assemble his management team and production line staff, including maintenance crews, plant security and administrative personnel. This plant will have separate financial reporting and a separate P&L statement. The efforts of these employees will be dedicated to this facility. They will not be involved in the operation of another facility.

The new facility will also have its own purchasing function and will have its own warehouse for various production materials. There will not be any routine transferring of materials between this facility and the other Sea Ray facilities.

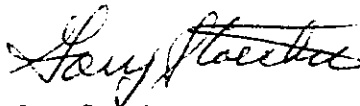
In summary, Sea Ray Boats, Inc. maintains that the Cape Canaveral Plant is designed and planned as a separate and independent operation to manufacture larger model boats beyond our current capability. Furthermore, there is not now, nor are there any future plans by the company to change the fact that there will be no functional inter-relationship between the Cape Canaveral Plant and the existing permitted Merritt Island facility. The two plants should therefore be considered separate facilities for air permitting purposes.

I trust that the information provided herein will suffice for your determination.

Please call me at (423) 522-4181 if I may be of further assistance.

Yours truly,

SEA RAY BOATS



Gary Stoecker
Group Senior Vice President/Manufacturing

cc: A.A. Linero
Len Koslov



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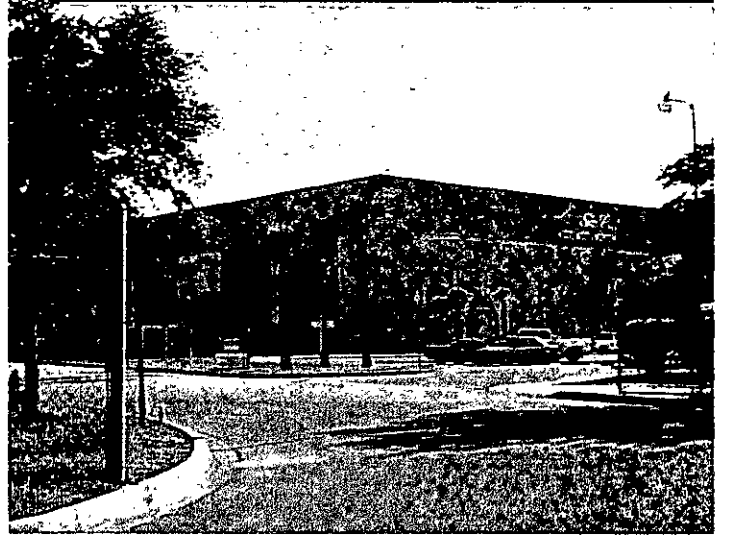
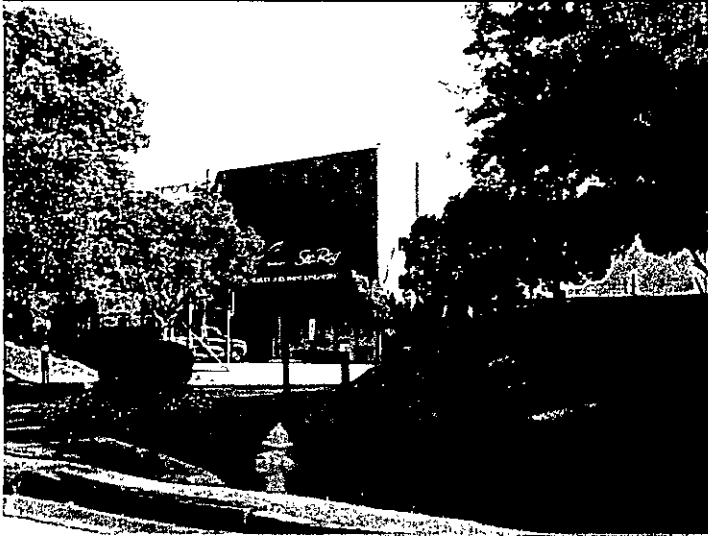
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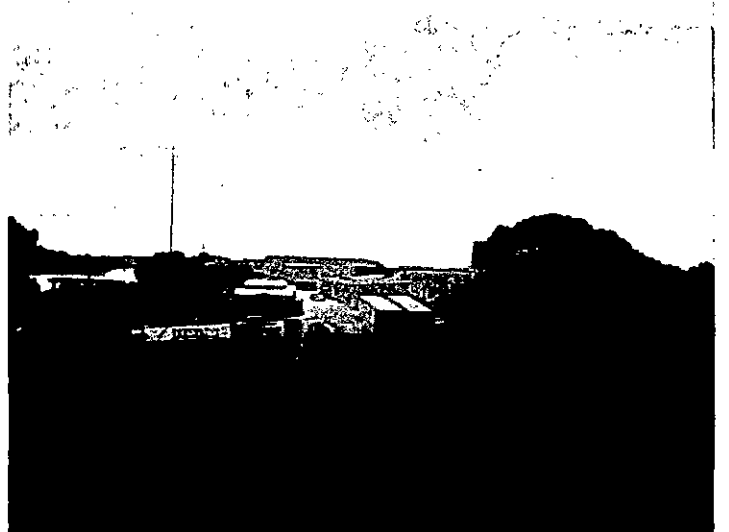
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