STATEMENT OF BASIS

for the issuance of Draft Air Permit # 1624-AOP-R1

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
8001 National Drive
Post Office Box 8913
Little Rock, Arkansas 72219-8913

2. APPLICANT:

Bass Cat Boats
Highway 126 Industrial Park
Mountain Home, Arkansas 72653

3. PERMIT WRITER: Charles Hurt

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Boat Building
NAICS Code: 336612

5. SUBMITTALS: March 6, 2003 and April 1, 2003

6. REVIEWER'S NOTES:

Bass Cat Boats operates a fiberglass boat manufacturing facility at Highway 126 Industrial Park, Mountain Home, Arkansas 72653. This is the first Title V renewal issued to Bass Cat. The facility re-evaluated its method of determining emissions from coating processes and requested increasing acetone and gel coat usage to 15,000 gal/yr and 276,000 lb/yr, respectively. Also, a minor modification was incorporated to include the use of a Threshold Limit Value (TLV) table to demonstrate compliance with permit requirements.

7. COMPLIANCE STATUS:

There are currently no enforcement issues or actions against the facility at this time.

8. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, et cetera?	N		
Has this facility undergone PSD review in the past?	N	Permit#	N/A
Is this facility categorized as a major source for PSD?	N		

$ 100 tpy and on the list of 28 (100 tpy)? N

$ 250 tpy all other N

PSD Netting

Was netting performed to avoid PSD review in this permit? N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
Facility*	HAPs	NESHAP Subpart VVVV

* Bass Cat must submit, no later than six months prior to the effective date, a permit application which brings the facility into full compliance with the subpart.

9. EMISSION CHANGES:

The following table summarizes plant wide emission changes associated with this permitting action.

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	**Air Permit 1624-AOP-R0**	**Air Permit 1624-AOP-R1**	**Change**
PM/PM_{10}	0.3	0.3	0
VOC	168.6	114.1	-54.5
Styrene	78.70	56.68	-22.02
Toluene*	5.50	--	N/A
Acetone	34.60	55.18	20.58
Tetrafluoroethane	9.00	9.00	0
Pentafluoropropane	0.00	9.00	9.00
MMA	0.00	3.60	3.60
MDI	0.00	<0.01	<0.01
Combined HAPs**	5.50	21.50	16.00

* Toluene has been added to the Combined HAP total.

** All other HAPs found in coatings but does not include Styrene, MMA, or MDI.

10. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

11. Non-Criteria Pollutants

This permit contains a TLV table for non-criteria pollutants. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLVs) that pass the *PAIL*.

Maximum Single HAP Concentration* lb HAP / gal	**Minimum TLV mg / m^3**
7.50	Greater than 50.20
7.50	50.20
6.00	40.16
5.00	33.47
4.00	26.77
3.00	20.08
2.00	13.39
1.00	6.69
0.75	5.02
0.50	3.35
0.25	1.67
0.20	1.34
0.10	0.67

***** HDI, MDI, MMA, and Styrene are exempt from this table.

1st Tier Screening (PAER)

Estimated hourly emissions from the following sources were compared to the Presumptively Acceptable Emission Rate (PAER) for each compound. The Department deemed PAER to be the product, in lb/hr, of 0.11 and the Threshold Limit Value (mg/m^3), as listed by the American Conference of Governmental Industrial Hygienists **(ACGIH).**

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11*TLV	Proposed lb/hr	Pass?
MMA	409.5297	45.0483	3.60	Y
MDI	0.0512	0.0056	0.0005	Y
Styrene*	85.2025	9.3723	76.79	N

* ISCST3 air dispersion modeling indicates an emission rate of 76.79 lb/hr does not pass the 24 hour PAIL nor does it pass the one hour odor limit, 1361 micrograms per cubic meters.

The 76.79 lb/hr emission rate is based on 24 hour throughput using the worst case coating. However, the permit limits the number of boats to four boats per day. Since the amount of styrene is directly related to the number of boats a less conservative but still valid emission rate can be derived. The following table lists the information used to derive an alternative emission rate.

Material Usage Per Boat				
Material	**Amount (lb/boat)**	**Styrene Content in Coating wt%**	**Wt% of Styrene expected to Volatize**	**Total Styrene Emissions lb/boat**
Resin	880.00	48.50	11.00	47.00
Pigmented Gel Coat	206.25	37.66	30.50	23.70
Clear Gel Coat	68.75	48.48	33.00	11.00
Totals	1155.00			81.70

Since the facility is limited to four boats per day, the hourly emission limit based on a 24 hour period is 13.61 lb/hr. ISCST3 air dispersion modeling passes PAIL with a predicted maximum offsite concentration of 639.1 micrograms per cubic meter.

Odor modeling was performed and the ISCST3 air dispersion modeling predicted a maximum offsite 1-hour concentration of 1571 micrograms per cubic meter. The model predicts an exceedance of 15%, but it is recommended that this not be an issue due to the following:

1. The facility is limited to 4 boats per day, and the material usage estimate per boat is conservative.

2. The facility is located in an industrial park.

3. At distances greater than 200 meters from the facility, the concentration of styrene is below the odor 1-hour limit.

4. The local air inspector reports there have been no complaints for odors against the facility.

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, Testing, etc)	Emission Factor and units (lbs/ton, lbs/hr, etc)	Control Equipment Type (if any)	Control Equipment Efficiency	Comments (Emission factor controlled/uncontrolled, etc)
01, 02, 03, 06, 07	AP-42 CH 4.4	See Comment	None	N/A	This is the AP-42 for Polyester Resin products. The emission factors vary according to the specific process. Emission rates are based on maximum equipment capacity.
04	AP-42 CH 13.2.6	13 lb PM_{10} /lb Abrasive	None	N/A	

13. TESTING REQUIREMENTS:

This permit does not require stack testing.

14. MONITORING OR CEMS

This permit does not require CEMS or other monitoring devices

15. RECORD KEEPING REQUIREMENTS

The following are items (such as throughput, fuel usage, VOC content of coating, etc) that must be tracked and recorded, frequency of recording and whether records are needed to be included in any annual, semiannual or other reports.

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
PW	Acetone	15,000 gallon/yr	Monthly	Y
PW	Resin	1,272,000 lb/yr	Monthly	Y
PW	Gelcoat	360,000 lb/yr	Monthly	Y
PW	Solvents	96,000 lb/yr	Monthly	Y
PW	Paints/Primers	4,000 gallon/yr	Monthly	Y
PW	Sand	36,000 lb/yr	Monthly	Y

SN	Recorded Item	Limit (as established in permit)	Frequency*	Report (Y/N)**
PW	Foam Compounds	120,000 lb/yr	Monthly	Y
PW	VOC content of coatings	7.50 lb/gal	When a new compound is used.	N
PW	Boat Production	4.0 boats/day	Daily	N
PW	Styrene Content of coatings and foam	60% by weight	When a new compound is used.	N
PW	MMA content of coatings and foam	0.1% by weight	When a new compound is used.	N
PW	Tetrafluoroethane	15% by weight	When a new compound is used	N
PW	Pentafluoropropane	15% by weight	When a new compound is used	N

* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)
** Indicates whether the item needs to be included in reports

16. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
04	5	Regulation No. 18 §18.501	Weekly Observations

17. DELETED CONDITIONS:

No condition from the previous permit was deleted.

18. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

List all active permits voided/superseded/subsumed by issuance of this permit for this facility.

Permit #
1624-AOP-R0

19. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

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Phillip Murphy, P.E.
Engineering Supervisor, Air Division