STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2173-A AFIN: 36-00426

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
5301 Northshore Drive
North Little Rock, Arkansas 72118-5317

2. APPLICANT:

K2 Marine, Inc.
238 County Road 26006
Knoxville, Arkansas 72845

3. PERMIT WRITER:

Shawn Hutchings

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Boat Building
NAICS Code: 336612

5. SUBMITTALS:

4/8/2008

6. REVIEWER'S NOTES:

K2 Marine manufactures reinforced plastic composite boats using polyerster resin materials and open molding processes. The facility is located at 238 County Road 2606 in Knoxville, AR. This permit is the initial permit for an existing facility.

7. COMPLIANCE STATUS:

The following summarizes the current compliance of the facility including active/pending enforcement actions and recent compliance activities and issues.

The facility is currently under a CAO for operating without a permit.

8. PSD APPLICABILITY:

a. Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N

b. Is the facility categorized as a major source for PSD? N
Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list?

If yes, explain why this permit modification not PSD?

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
None		

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. 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.

Non-Criteria Pollutants:

This permit contains a TLV table for non-criteria pollutants except for styrene and MMA from the resins and gelcoats. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLV) that pass the PAER or PAIL. Therefore, modeling of specific non-criteria pollutants was not performed.

1st Tier Screening (PAER)

Since modeling was performed for a TLV table, that modeling was used to determine concentrations to compare to the PAIL and the emission limit was not compared to the PAER.

2nd Tier Screening (PAIL)

AERMOD air dispersion modeling was performed on the estimated hourly emissions from the following sources, in order to predict ambient concentrations beyond the property boundary. The Presumptively Acceptable Impact Level (PAIL) for each compound has been deemed by the Department to be one one-hundredth of the Threshold Limit Value as listed by the ACGIH.

Pollutant	PAIL ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Styrene	852	45.2	Yes
MMA	2000	4.6	Yes

Other Modeling:

Odor:

Odor modeling for sources emitting styrene.

Pollutant	Threshold value 1-hour average	Modeled Concentration ($\mu g/m^3$)	Pass?
Styrene	1361 $\mu g/m^3$	891	Yes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Maximum Usage and content limits	UEF emissions for styrene and MMA	None	N/A	

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
No testing is required				

14. MONITORING OR CEMS

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)

SN	Parameter or Pollutant to be Monitored	Method (CEM, Pressure Gauge, etc.)	Frequency	Report (Y/N)
No monitoring is required				

15. RECORDKEEPING REQUIREMENTS:

The following are items (such as throughput, fuel usage, VOC content, etc.) that must be tracked and recorded.

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
01	VOC, HAP, and Acetone usage	VOC 25 tons Styrene 9.5 tons MMA 9.5 tons Single HAP 9.5 Total HAP 24.5 tons Acetone 25 tons	Monthly	NO
01	VOC and HAP content limits	Gel Coats Resins 36% VOC 31% Styrene 5% MMA All Others 100% VOC TLV Table	Monthly	NO
01	Acetone usage	25 tons	Monthly	NO

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
No permitted particulate sources no opacity limits specified.			

17. DELETED CONDITIONS:

Former SC	Justification for removal
Initial permit there are no deleted conditions	

18. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Heaters	A-3	0.02	0.001	0.01	0.22	0.27		
Foam Application	A-13			.01			.01	.01
Carpentry	A-13	1.0						

19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

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

Permit #
N/A

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Phillip Murphy, PE

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Minor Source

K2 Marine, Inc.
Permit #: 2173-A
AFIN: 36-00426

$/ton factor	22.07
Minimum Fee $	400
Minimum Initial Fee $	500
Check if Administrative Amendment	☐

	Old Permit	New Permit
Permit Predominant Air Contaminant	0	25
Net Chargable Emission Increase	0	
Permit Modification Fee $	0	
Initial Permit Fee $	551.75	
Annual Chargeable Emissions (tpy)	25	

Pollutant (tpy)	Old Permit	New Permit	Change
PM	0	0	0
PM_{10}	0	0	0
SO_2	0	0	0
VOC	0	25	25
CO	0	0	0
NO_X	0	0	0
Acetone	0	25	25
HAP	0	24.5	24.5
	0	0	0
	0	0	0
	0	0	0

Pollutant (tpy)	Old Permit	New Permit	Change
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
	0	0	0
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