

STATEMENT OF BASIS

for the issuance of Draft Air Permit # : 2111-AOP-R0

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Crane Composites, Inc.
8500 CW Post Road
Jonesboro, AR 72401

3. PERMIT WRITER: Charles Hurt

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: All Other Plastics Product Manufacturing
NAICS Code: 326199

5. SUBMITTALS: 12/29/2005

6. REVIEWER'S NOTES:

Crane Composites, Inc. (Crane), formerly Kemlite, operates a facility located at 8500 CW Post Road, Jonesboro, Arkansas 72401. Crane produces reinforced plastic composite panels made with fiberglass reinforcement in a thermoset polymer resin matrix. This is the first permit issued to Crane Composite, Inc. – Jonesboro under the Title V Operating Air Permit Program. Styrene accounts for approximately 95% of VOC emissions. Crane is permitted to emit 1.7 tpy PM/PM₁₀, 0.1 tpy SO₂, 36.1 tpy VOC, 7.5 tpy CO, 9.2 tpy NO_x, and 35.96 tpy HAP.

In order to demonstrate compliance with the emission limits for the manufacturing lines, Crane proposed to track resin usage, maintain negative pressure on the permanent total enclosure and ovens (100 % capture efficiency), and achieve a minimum VOC destruction in the RTO of 95%.

7. COMPLIANCE STATUS:

The facility is in compliance with the provisions of Consent Administrative Order, CAO #04-031, and operating according to the permit application. The CAO was issued because the facility was operating without a permit.

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#

Is this facility categorized as a major source for PSD?
 ≥ 100 tpy and on the list of 28 (100 tpy)? N
 ≥ 250 tpy all other N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation [NSPS, NESHAP (Part 61 & Part 63), or PSD only]
SN-01	VOC/HAP	40 CFR Part 63, Subpart SS
Facility	VOC/HAP	40 CFR Part 63, Subpart WWWW

9. EMISSION CHANGES:

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

Plant Wide Permitted Emissions (ton/yr)			
Pollutant	No Previous Permit	Air Permit 2111-AOP-R1	Change
PM/PM ₁₀	-	1.1	1.7
SO ₂	-	0.1	0.1
VOC	-	36.6	36.6
CO	-	7.5	7.5
NO _x	-	9.2	9.2
HAP	-	35.97	35.97

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.

Other Modeling

Odor

Odor modeling for sources emitting styrene.

Pollutant	Threshold value 1-hour average	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
Styrene	1361 $\mu\text{g}/\text{m}^3$	4.445	Y

Hydrogen Sulfide odor modeling was not performed because the facility does not emit H₂S.

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. Therefore, modeling of specific non-criteria pollutants was not performed.

Impacts out to 4.0 km from the facility were evaluated. The maximum impact is predicted to be 4.5 $\mu\text{g}/\text{m}^3$. Therefore, in order to pass PAIL given the proposed emission rate (0.95 g/s), the TLV of any given pollutant must be greater than 450 $\mu\text{g}/\text{m}^3$ (0.45 mg/m³). The permit limits the minimum TLV to 5 mg/m³.

11. 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	Natural Gas Combustion AP-42	7.6 lb PM/10 ⁶ scf 0.6 lb SO ₂ /10 ⁶ scf 5.5 lb VOC/10 ⁶ scf 84 lb CO/10 ⁶ scf 100 lb NO _x /10 ⁶ scf			
01	Panels Mass Balance	0.0219 lb VOC/lb core resin 0.0849 lb VOC/lb gel coat resin	RTO	95%	100% Capture 95% Destruction
02	Mass Balance	3.0 lb PM/ton	Fabric Filter	99.9%	
07	Mass Balance	3.0 lb PM/ton	Fabric Filter	99.9%	
08	Tanks 4.0	VOC			uncontrolled

12. TESTING REQUIREMENTS:

This permit requires stack testing of the following sources.

SN(s)	Pollutant	Test Method	Test Interval	Justification For Test Requirement
01	VOC	25A	5 yr	Required By MACT

13. MONITORING OR CEMS

The permittee must monitor the following parameters with CEMs or other monitoring equipment (temperature, pressure differential, etc), frequency of recording and the need for records included in any annual, semiannual or other reports.

SN	Parameter or Pollutant to be Monitored	Method of Monitoring (CEM, Pressure Gauge, etc)	Frequency*	Report (Y/N)**
01	Combustion Chamber Temperature	Thermocouple	Continuously	Y

* Indicate frequency of recording required for the parameter (Continuously, hourly, daily, etc.)

** Indicates whether the parameter needs to be included in reports.

14. 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)**
01	Core Resin Throughput	105,120,000 lb/yr	Daily	Y
	Gel Coat Resin Throughput	18,921,600 lb/yr		
	Combustion Chamber Temperature	1500 °F (minimum)	Continuously	Y

* Indicate frequency of recording required for the item (Continuously, hourly, daily, etc.)

** Indicates whether the item needs to be included in reports

15. OPACITY

SN	Opacity %	Justification (NSPS limit, Dept. Guidance, etc)	Compliance Mechanism (daily observation, weekly, control equipment operation, etc)
01	5	Department Guidance	Weekly
02	5	Department Guidance	Monthly
07	5	Department Guidance	Monthly

16. DELETED CONDITIONS:

There is no previous permit. Therefore, no specific conditions were deleted.

17. VOIDED, SUPERSEDED OR SUBSUMED PERMITS

There is no previous permit.

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision:

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