

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2111-AOP-R4 AFIN: 16-00222

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

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

3. PERMIT WRITER:

John Mazurkiewicz

4. NAICS DESCRIPTION AND CODE:

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

5. ALL SUBMITTALS:

The following is a list of ALL permit applications included in this permit revision.

Date of Application	Type of Application (New, Renewal, Modification, Deminimis/Minor Mod, or Administrative Amendment)	Short Description of Any Changes That Would Be Considered New or Modified Emissions
8/28/2019	Modification	Added an Emergency Generator (SN-09)

6. REVIEWER'S NOTES:

The Title VI Provisions and General Provisions have been updated.

Appendix D: 40 C.F.R. Part 63 Subpart ZZZZ and Appendix E: 40 C.F.R. Part 60 Subpart JJJJ have been added to the permit. Appendix C 40 C.F.R. Part 51 Subpart M has been removed

7. COMPLIANCE STATUS:

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

In a letter dated August 23, 2019 and subsequent permit application, Crane Composites, Inc. informed the Division that the Emergency Generator (SN-09) was installed and operated without obtaining a permit. At the time of this permitting action, a Consent Administrative Order addressing the source is pending. This modification permits the operation of SN-09 and will bring the facility back into compliance.

The last inspection was conducted April 10, 2018. No areas of concern were identified. A review of ECHO revealed no CAA violation in the last twelve quarters.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? No. If yes, were GHG emission increases significant? N/A.

b) Is the facility categorized as a major source for PSD? No.

- *Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list*

If yes for 8(b), explain why this permit modification is not PSD. N/A.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
SN-01	VOC/HAP	40 CFR Part 63, Subpart SS
SN-09	HAP	40 C.F.R. Part 63 Subpart ZZZZ
	CO/NO _x	40 C.F.R. Part 60 Subpart JJJJ
Facility	VOC/HAP	40 CFR Part 63, Subpart WWW
	Protection of Stratospheric Ozone	40 CFR Part 82
	VOC/HAP	40 CFR 63, Subpart EEEE

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? No.

(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Regulation 18 requirement.)

11. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

12. AMBIENT AIR EVALUATIONS:

The following are results for ambient air evaluations or modeling.

a) NAAQS

A NAAQS evaluation is not required under the Arkansas State Implementation Plan, National Ambient Air Quality Standards, Infrastructure SIPs and NAAQS SIP per Ark. Code Ann. § 8-4-318, dated March 2017 and the ADEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Department procedures for review of non-criteria pollutants, emissions of all other non-criteria pollutants are below thresholds of concern.

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 has deemed the 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) = $0.11 \times \text{TLV}$	Proposed lb/hr*	Pass?
Styrene	85.2	9.37	20.88	N
Xylene	434.1	47.7	0.03	Y
Ethylbenzene	434.1	47.7	0.02	Y
Methyl Methacrylate	204.7	22.5	5.41	Y
Vinyl Acetate	35.2	3.8	3.20	Y
Acenaphthene	0.2	0.022	3.78E-08	Y
Acenaphthylene	0.2	0.022	3.78E-08	Y
Anthracene	0.2	0.022	5.04E-08	Y
Benz(a)anthracene	0.2	0.022	3.78E-08	Y
Benzo(a)pyrene	0.2	0.022	2.52E-08	Y
Benzo(b)fluoranthene	0.2	0.022	3.78E-08	Y
Benzo(g,h,i)perylene	0.2	0.022	2.52E-08	Y
Benzo(k)fluoranthene	0.2	0.022	3.78E-08	Y

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr*	Pass?
Chrysene	0.2	0.022	3.78E-08	Y
Dibenzo(a,h)anthracene	0.2	0.022	2.52E-08	Y
7,12-Dimethylbenz(a)anthracene	0.2	0.022	3.36E-07	Y
Fluoranthene	0.2	0.022	6.30E-08	Y
Fluorene	0.2	0.022	5.88E-08	Y
Formaldehyde	0.3	0.033	1.58E-03	Y
Indeno(1,2,3-c,d)pyrene	0.2	0.022	3.78E-08	Y
Lead	0.05	0.0055	1.05E-05	Y
3-Methylchloranthrene	0.2	0.022	3.78E-08	Y
2-Methylnaphthalene	0.2	0.022	5.04E-07	Y
Phenanthrene	0.2	0.022	3.57E-07	Y
Polycyclic Organic Matter (POM)	0.2	0.022	1.85E-06	Y
Pyrene	0.2	0.022	1.05E-07	Y
Arsenic Compounds (inorganic including arsine)	0.01	0.0011	4.20E-06	Y
Beryllium Compounds	0.00005	5.5E-06	2.52E-07	Y
Cadmium Compounds	0.002	0.00022	2.31E-05	Y
Chromium Compounds (Trivalent, Total)	0.01	0.0011	2.94E-05	Y
Cobalt Compounds	0.02	0.0022	1.76E-06	Y
Manganese Compounds	0.2	0.022	7.98E-06	Y
Mercury Compounds	0.025	0.00275	5.46E-06	Y
Selenium Compounds	0.2	0.022	5.04E-07	Y

*Proposed lb/hr emission rates do not include emissions from the Emergency Generator.

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 (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
Styrene	852	104.7	Y

c) H₂S Modeling: N/A.

13. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Natural Gas Combustion AP-42 Section 1.4	PM=7.6 lb/10 ⁶ scf SO ₂ =0.6 lb/10 ⁶ scf VOC=5.5 lb/10 ⁶ scf CO=84 lb/10 ⁶ scf NO _x =100 lb/10 ⁶ scf			
01	Panels Mass Balance	<u>Two (2) Lines- Max usage rates</u> Core resin= 100 lb/min = 6,000 lb/hr Gel coat= 18 lb/min = 1,080 lb/hr <u>Total Annual Resin Usage Limit</u> Core resin= 83,044,800 lb/yr Gel coat= 14,948,064 lb/yr <u>Total VOC's emitted from raw materials</u> 0.0219 lb VOC/lb core resin 0.0849 lb VOC/lb gel coat resin <u>VOC's emitted in these proportions</u> Wet End= 91% Ovens= 9%	RTO	95%	100% Capture 95% Destruction
02	Mass Balance AP-42 Section 11.13	3.0 lb PM/ton	Fabric Filter	99.9%	
07	Mass Balance AP-42 Section 11.13	3.0 lb PM/ton	Fabric Filter	99.9%	
08	Tanks 4.0	16.2 lb VOC/hr			Uncontrolled
09	AP-42 Table 3.2-3	PM/PM ₁₀ —1.941E-02 lb/MMBtu SO ₂ —5.88E-04 lb/MMBtu VOC—0.03 lb/MMBtu CO—3.72 lb/MMBtu NO _x —2.21 lb/MMBtu			500 hr/yr

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01	VOC	25A	5 yr	Required By 40 CFR Part 63 Subpart WWW

15. 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)
01	Combustion Chamber Temperature	Thermocouple	Continuously	Y
	Inspection of PTE for leaks	N/A	Annual	N

16. 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	Core Resin Throughput	83,044,800 lb/yr	Daily	Y
	Gel Coat Resin Throughput	14,948,064 lb/yr	Daily	
	Combustion Chamber Temperature	1400 °F (minimum)	Continuously	
	Inspection of PTE for leaks	N/A	Annual	N
	Documentation that each transfer rack is not required to be controlled	N/A	N/A	N
	HAP Content	<u>Core Resins</u>	N/A	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
		45% VOC 45% Styrene 5% Methyl Methacrylate 1% Vinyl Acetate <u>Gel Coats</u> 42% VOC 41% Styrene 0.2% Xylene 0.1% Ethylbenzene		
02 & 07	Amount of filler received	2,100 tons per consecutive 12-month period	Monthly	Y
08	Amount of styrene received	504,000 gallons per consecutive 12-month period	Monthly	Y
09	Hours of operation	500 hr/yr	Monthly	Y
	40 C.F.R. Part 60 Subpart JJJJ records	N/A	As required	N

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 07	0%	Department Guidance	Weekly Inspection
09	5%	Department Guidance	Use of Natural Gas Only

18. DELETED CONDITIONS:

Former SC	Justification for removal
	None.

19. GROUP A INSIGNIFICANT ACTIVITIES:

The following is a list of Insignificant Activities including revisions by this permit.

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
BYK 306 Additive Tank – 250 Gal.	A-2			0.01				0.01
BYK 6333 Additive Tank – 250 Gal.	A-2			0.01				0.01
300 Gallon Diesel Storage Tank	A-3			0.01				
One Lab Hood	A-5			0.01				

20. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

The following is a list of all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
2111-AOP-R3

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Crane Composites, Inc.

Permit Number: 2111-AOP-R4

AFIN: 16-00222

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	100
Permit Type	Modification	Permit Fee \$	1000

Minor Modification Fee \$ 500

Minimum Modification Fee \$ 1000

Renewal with Minor Modification \$ 500

Check if Facility Holds an Active Minor Source or Minor Source General Permit

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If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$ 0

Total Permit Fee Chargeable Emissions (tpy) 0.7

Initial Title V Permit Fee Chargeable Emissions (tpy)

HAPs not included in VOC or PM:

Chlorine, Hydrazine, HCl, HF, Methyl Chloroform, Methylene Chloride, Phosphine, Tetrachloroethylene, Titanium Tetrachloride

Air Contaminants:

All air contaminants are chargeable unless they are included in other totals (e.g., H2SO4 in condensible PM, H2S in TRS, etc.)

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
PM		0.7	0.8	0.1		
PM ₁₀		0.7	0.8	0.1	0.1	0.8
PM _{2.5}		0	0	0		
SO ₂		0.1	0.2	0.1	0.1	0.2
VOC		36	36.1	0.1	0.1	36.1
CO		7.6	8.2	0.6		
NO _x		9.1	9.5	0.4	0.4	9.5
Styrene	<input type="checkbox"/>	34.26	34.27	0.01		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Xylene	<input type="checkbox"/>	0.07	0.08	0.01		
Ethylbenzene	<input type="checkbox"/>	0.04	0.05	0.01		
Methyl Methacrylate	<input type="checkbox"/>	2.72	2.72	0		
Vinyl Acetate	<input type="checkbox"/>	0.74	0.74	0		
Other HAPs	<input type="checkbox"/>	0.17	0.18	0.01		