

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2111-AOP-R5 AFIN: 16-00222

1. PERMITTING AUTHORITY:

Division 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
2/26/2021	Renewal/Modification	Mixing and Storage Tanks (SN-08) have been revised: <ul style="list-style-type: none">Tank #6 (12,000 gallon) has been added.Tank #7 has been repurposed as a storage tank for Gel-Coat.

6. REVIEWER'S NOTES:

- In addition to changes listed the permit, insignificant activities were revised, regulatory citations were updated, and formatting changes were made.
- 40 C.F.R. Part 63, Subparts JJJJ and ZZZZ were included in the Applicable Regulations table of the permit shield.

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, Crane Composites, Inc. (the facility) requested consideration under DEQ's Environmental Self-Disclosure Incentive Policy for an unpermitted 63 hp natural gas-fired emergency generator. The generator is subject to 40 C.F.R. Subpart JJJJ—*Standards of Performance for Stationary Spark Ignition Internal Combustion Engines*. As part of a Consent Administrative Order (LIS No. 20-122), the facility agreed to pay the sum of five hundred seventy-six dollars (\$576.00) to the Division in full settlement for instances of noncompliance. The engine was included as SN-09 in the facility's Title V permit on March 5, 2020 with the issuance of Permit No. 211-AOP-R4. The settlement amount has been received by the Division, and the matter was closed.

The last inspection was conducted February 27, 2020. No areas of concern were identified. A review of ECHO revealed no additional CAA violations in the last twelve quarters.

A 12,000 gallon core resin tank (Tank 6) was installed and operated prior to submitting a permit application. The application submitted February 26, 2021 requested to add the tank as a permitted source. As part of this revision, Tank 6 was included in the Mixing and Storage Tanks (SN-08).

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 C.F.R. 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 C.F.R. Part 63, Subpart WWWW
	VOC/HAP	40 C.F.R. Part 63, Subpart EEEE

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
	Protection of Stratospheric Ozone	40 C.F.R. Part 82

10. UNCONSTRUCTED SOURCES:

Unconstructed Source	Permit Approval Date	Extension Requested Date	Extension Approval Date	If Greater than 18 Months without Approval, List Reason for Continued Inclusion in Permit
None.				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? Yes.

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

If yes, are applicable requirements included and specifically identified in the permit? Yes.
If not, explain why. N/A.

12. COMPLIANCE ASSURANCE MONITORING (CAM) – TITLE V PERMITS ONLY:

List sources potentially subject to CAM because they use a control device to achieve compliance and have pre-control emissions of at least 100 percent of the major source level. List the pollutant of concern and a brief summary of the CAM plan (temperature monitoring, CEMs, opacity monitoring, etc.) and frequency requirements of § 64.

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
SN-01	VOC	Per 40 C.F.R. 64.2(b)(1)(i), CAM requirements do not apply to emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of the Act. SN-01 is subject to 40 C.F.R. Part 63, Subpart WWW.

13. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

14. 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 DEQ Air Permit Screening Modeling Instructions.

b) Non-Criteria Pollutants:

The non-criteria pollutants listed below were evaluated. Based on Division of Environmental Quality 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 Division of Environmental Quality 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?
Acenaphthene	0.2	0.022	3.71E-08	Yes
Acenaphthylene	0.2	0.022	3.71E-08	Yes
Anthracene	0.2	0.022	4.94E-08	Yes
Arsenic Compounds	0.01	0.0011	4.12E-06	Yes
Benz(a)anthracene	0.2	0.022	3.71E-08	Yes
Benzo(a)pyrene	0.2	0.022	2.47E-08	Yes
Benzo(b)fluoranthene	0.2	0.022	3.71E-08	Yes
Benzo(g,h,i)perylene	0.2	0.022	2.47E-08	Yes
Benzo(k)fluoranthene	0.2	0.022	3.71E-08	Yes
Beryllium Compounds	0.00005	0.0000055	2.47E-07	Yes
Cadmium Compounds	0.01	0.0011	2.26E-05	Yes
Chromium Compounds	0.01	0.0011	2.88E-05	Yes
Chrysene	0.2	0.022	3.71E-08	Yes

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Cobalt Compounds	0.02	0.0022	1.73E-06	Yes
Dibenzo(a,h)anthracene	0.2	0.022	2.47E-08	Yes
7,12-Dimethylbenz(a)anthracene	0.2	0.022	3.29E-07	Yes
Fluoranthene	0.2	0.022	6.18E-08	Yes
Fluorene	0.2	0.022	5.76E-08	Yes
Indeno(1,2,3-c,d)pyrene	0.2	0.022	3.71E-08	Yes
Lead	0.05	0.0055	1.03E-05	Yes
Manganese Compounds	0.2	0.022	7.82E-06	Yes
Mercury Compounds	0.025	0.00275	5.35E-06	Yes
3-Methylchloranthrene	0.2	0.022	3.71E-08	Yes
2-Methylnaphthalene	0.2	0.022	4.94E-07	Yes
Phenanthrene	0.2	0.022	3.5E-07	Yes
2-Phenoxyethanol	96.66*	10.63	0.009169	Yes
Pyrene	0.2	0.022	1.03E-07	Yes
Selenium Compounds	0.2	0.022	4.94E-07	Yes
Styrene	85.2	9.372	18.53687	No

* This value is currently used as a surrogate threshold for glycol ethers with no established limit.

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 Division of Environmental Quality 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	68.24259	Yes

c) H₂S Modeling: N/A.

15. 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 ₁₀ =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	14.41 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			500 hr/yr

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		NO _x —2.21 lb/MMBtu			

16. 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 C.F.R. Part 63 Subpart WWW

17. 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

18. 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	N/A	Daily	Y
	Gel Coat Resin Throughput	N/A	Daily	
	Combustion Chamber Temperature	1400 °F (minimum)	Continuously	
	Inspection of PTE for leaks	N/A	Annual	N
	Documentation	N/A	N/A	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	that each transfer rack is not required to be controlled			
	HAP Content	<u>Core Resins</u> 45% VOC 45% Styrene 5% Methyl Methacrylate 1% Vinyl Acetate <u>Gel Coats</u> 42% VOC 41% Styrene 0.2% Xylene 0.1% Ethylbenzene	N/A	Y
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

19. 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

20. DELETED CONDITIONS:

Former SC	Justification for removal
SC #4	This condition did not limit throughput at the production lines.

21. 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
Diesel Storage Tank (300 gallon)	A-3			0.01			0.01	0.01
R&D Lab Hood	A-5			0.01			0.01	0.01
Color Lab Hood	A-5			0.01			0.01	0.01

22. 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-R4

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Crane Composites, Inc.
Permit Number: 2111-AOP-R5
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
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Total Permit Fee Chargeable Emissions (tpy)	0.2
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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		0.8	1	0.2		
PM ₁₀		0.8	1	0.2	0.2	1
PM _{2.5}		0	0	0		
SO ₂		0.2	0.2	0	0	0.2
VOC		36.1	36.1	0	0	36.1
CO		8.2	8.2	0		
NO _x		9.5	9.5	0	0	9.5
Styrene	<input type="checkbox"/>	34.27	34.33	0.06		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Methyl Methacrylate	<input type="checkbox"/>	2.72	2.77	0.05		
Vinyl Acetate	<input type="checkbox"/>	0.74	0.77	0.03		
Xylene	<input type="checkbox"/>	0.08	0.09	0.01		
Ethylbenzene	<input type="checkbox"/>	0.05	0.06	0.01		
2-Phenoxyethanol	<input type="checkbox"/>	0	0.04	0.04		
Other HAPs**	<input type="checkbox"/>	0.18	0.18	0		