STATEMENT OF BASIS

For the issuance of Draft Air Permit # 2111-AOP-R7 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:

Derrick Brown

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
12/16/2024	Minor Modification	Adds dual-fuel (both propane and natural gas) combustion capability to SN-09 (previously only permitted to burn natural gas).

6. REVIEWER'S NOTES:

Crane Composites, Inc. (Crane) operates a facility located at 8500 CW Post Road, Jonesboro, Arkansas. This minor modification adds dual-fuel combustion capability to Emergency Generator (SN-09), allowing the source to combust both propane and natural gas. This minor modification increases permitted emission rates by 0.1 ton per year of VOC.

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's most recent inspection performed on January 27, 2025 stated there were NO areas of concern.

8. PSD/GHG APPLICABILITY:

a) Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
If yes, were GHG emission increases significant? N/A

b) Is the facility categorized as a major source for PSD? N/A
- *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.

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
Facility	CO/NO_X	40 C.F.R. Part 60, Subpart JJJJ
	VOC/HAP	40 C.F.R. Part 63, Subpart WWWW
	VOC/HAP	40 C.F.R. Part 63, Subpart EEEE

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
N/A				

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? N
(Note - permit shields are not allowed to be added, but existing ones can remain, for minor modification applications or any Rule 18 requirement.)

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

For any requested inapplicable regulation in the permit shield, explain the reason why it is not applicable in the table below.

Source	Inapplicable Regulation	Reason
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 WWWW.

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 × 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
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

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
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	18.37	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 ($\mu g/m^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu g/m^3$)	Pass?
Styrene*	852	68.24259	Yes

*Results are from R5, where a larger value was initially modeled.

c) H_2S Modeling: No H_2S release

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			

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	Panels Mass Balance	Two (2) Lines- Max usage rates Core resin= 100 lb/min = 6,000 lb/hr Gel coat= 18 lb/min = 1,080 lb/hr Total Annual Resin Usage Limit Core resin= 83,044,800 lb/yr Gel coat= 14,948,064 lb/yr Total VOC's emitted from raw materials 0.0219 lb VOC/lb core resin 0.0849 lb VOC/lb gel coat resin VOC's emitted in these proportions 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	15.3 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
09	SC AQMD Default Combustion Emission Factors	139.0 lb NO_x/1000 gal 129.0 lb CO/1000 gal 83.0 lb VOC/1000 gal 5.0 lb PM/1000 gal 0.35 lb/SO_2/1000 gal HAPs (varies)			Factors are for propane combustion

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments

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 WWWW

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 ºF (minimum)	Continuously	
	Inspection of PTE for leaks	N/A	Annual	N

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	Documentation that each transfer rack is not required to be controlled	N/A	N/A	N
	HAP Content	Core Resins 45% VOC 45% Styrene 5% Methyl Methacrylate 1% Vinyl Acetate Gel Coats 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
No conditions deleted.	

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-R6

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-R7
AFIN: 16-00222

$/ton factor	28.14	Annual Chargeable Emissions (tpy)	100
Permit Type	Minor Mod	Permit Fee $	500

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	☐
If Hold Active Permit, Amt of Last Annual Air Permit Invoice $	0
Total Permit Fee Chargeable Emissions (tpy)	0.1
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		1	1	0		
PM_{10}		1	1	0	0	1
$PM_{2.5}$		0	0	0		
SO_2		0.2	0.2	0	0	0.2
VOC		36.2	36.3	0.1	0.1	36.3
CO		8.2	8.2	0		
NO_X		9.5	9.5	0	0	9.5
Styrene	☐	34.33	34.33	0		

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Methyl Methacrylate	☐	2.82	2.82	0		
Vinyl Acetate	☐	0.81	0.81	0		
Xylene	☐	0.09	0.09	0		
Ethylbenzene	☐	0.06	0.06	0		
2-Phenoxethanol	☐	0.04	0.04	0		
Other HAPs	☐	0.18	0.18	0		