STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0688-AOP-R17 AFIN: 30-00015

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Arauco North America Incorporated 1275 Willamette Road Malvern, Arkansas 72104

3. PERMIT WRITER:

John Mazurkiewicz

4. NAICS DESCRIPTION AND CODE:

NAICS Description:Reconstituted Wood Product ManufacturingNAICS Code:321219

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
8/7/2019	Modification	 Increased hourly CO & NO_X limits and combined annual CO & NO_X limits for SN-01 and SN-26. Increased PM/PM₁₀ limits for SN-01 based on 2017 stack test data. Decreased PM/PM₁₀, CO, and NO_X limits for SN-38. Removed SN-35A and SN-36.

6. **REVIEWER'S NOTES**:

References to PSD and CAM regulations have been removed from the list of applicable regulations in Section II.

Specific Conditions #7 and #8 have been updated to reference testing conducted in October 2017.

7. COMPLIANCE STATUS:

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

The last inspection was conducted on March 26, 2019. No areas of concern were identified. A review of ECHO revealed one (1) CAA violation in the last twelve quarters. On October 19–20, 2017, the CO emission limit was exceeded, and an opacity test was not completed during a reference method stack test at SN-01.

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 \geq 100 tpy and on the list of 28 or single pollutant \geq 250 tpy and not on list

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
	N/A (natural gas-fired sources)	NSPS, Subpart Dc
SN-37 & SN-38	There are no specific emission limits or pollutants identified, but the rule generally regulates HAPs	NESHAP, Subpart DDDDD
Plantwide	HAPs	NESHAP, Subpart DDDD
SN-35B	CO PM NMHC + NO _x	NSPS, Subpart IIII

10. PERMIT SHIELD – TITLE V PERMITS ONLY:

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

Permit #: 0688-AOP-R17 AFIN: 30-00015 Page 3 of 9

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/m³), as listed by the American Conference of Governmental Industrial Hygienists (ACGIH).

Pollutant	TLV (mg/m ³)	$PAER (lb/hr) = 0.11 \times TLV$	Proposed lb/hr	Pass?
Acetaldehyde	45.04	4.95	9.04	No
Acetone	1187	130	0.77	Yes
Cadmium	0.01	1.1E-03	0.04	No
Formaldehyde	1.5	0.165	11.23	No
Hexane	176.2	19.3	9.26	Yes
Methanol	262	28.8	12.09	Yes
MIBK	81.9	9.01	8.89	Yes
Phenol	19.2	2.11	9.81	No

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?
Cadmium	0.1	0.05549	Yes
Acetaldehyde	450.4	2.76823*	Yes
Formaldehyde	15	10.86693	Yes
Phenol	192.0	64.46801*	Yes

*Modeling was not performed with this permitting action. The results above are from modeling for Permit 0688-AOP-R9.

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 & 26	Stack Testing	lb/lb throughput: 2.22E-04 PM/PM ₁₀ 2.07E-05 SO ₂ 8.87E-05 VOC 8.33E-04 CO 6.50E-04 NO _x	RCO	90%	SN-01 short-term maximum capacity of 22.71 ODT/hr SN-26 short-term maximum capacity of 28 ODT/hr
04, 09, 22, 22a, 27, & 28	Testing NCASI	0.001 grain/ft ³ lb/ODT: 0.056 VOC 8.9E-3 Formaldehyde 6.9E-3 Methanol	Baghouse	99.2% and higher	38,500 cfm
12	Testing	0.001 grain/ft^3	Baghouse	99.96%	38,500 cfm

Permit #: 0688-AOP-R17 AFIN: 30-00015 Page 5 of 9

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	NCASI	lb/ODT: Acetone: 4.8E-3 Formaldehyde: 8.9E-3 Methanol: 6.9E- 3 Phenol: 8.6E-3			
13	Testing NCASI	0.001 grain/ft ³ lb/ODT: Acetone: 4.8E-3 Formaldehyde: 8.9E-3 Methanol: 6.9E- 3 Phenol: 8.6E-3	Baghouse	99.96%	93,000 cfm
14	Testing	0.001 grain/ft^3	Baghouse	99.9%	3,000 cfm
16	Testing	0.001 grain/ft ³	Baghouse	99.99%	38,500 cfm
18	Estimated grain loading factor	0.05 gr/dscf 2.2 lb PM/hr	Cyclone		
19	AP42 Section 13.2.4	0.00001 lb/ton PM/PM ₁₀	-		302,623 tons of raw material per year
29	Testing NCASI	0.001 grain/ft ³ lb/ODT: 0.13 VOC 4.4 E-3 Acetaldehyde 4.2E-3 Acetone 3.4E-2 Formaldehyde 1.7E-2 Methanol	Baghouse	99.99%	38,500 cfm
32	Estimated grain loading factor	0.001 grain/ft ³	Baghouse	99.98%	10,500 cfm
34	AP-42	lb/VMT:	Street	None	W = 25.6

Permit #: 0688-AOP-R17 AFIN: 30-00015 Page 6 of 9

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	Section 13.2.1	0.76 PM 0.15 PM ₁₀	Sweeper	applied	sL = 3 VMT = 12,680 annually
35B	NSPS IIII & AP-42 Section 3.3	lb/MMBtu: 0.31 PM/PM ₁₀ 0.29 SO _x 0.36 VOC 0.95 CO 4.41 NO _x	None	N/A	NSPS standard is NMHC + NO _x Facility has chosen to calculate VOC and NO _x individually (less than NSPS total)
37	AP-42 Section 1.4 Vendor Data for NO _x	lb/MMscf: 7.6 PM/PM ₁₀ 0.6 SO _x 5.5 VOC 84 CO lb/MMscf: 36 NO _x	None	N/A	62 MMBtu/hr The facility is using AP-42's CO emission factor, and will test to verify.
38	AP-42 Section 1.4	lb/MMscf 7.6 PM/PM ₁₀ 0.6 SO _X 5.5 VOC 84.0 CO 50.0 NO _X	None	N/A	92 MMBtu/hr 8760 hr/yr

14. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
	PM ₁₀ NO _x CO Opacity	201A or 5, & 202 7E 10 9	No later than February 1, 2013, and once every 5-years thereafter.	Necessary to verify emissions
01	VOC (inlet and outlet)*	25A	Once every 5- years thereafter on the same schedule as the PM ₁₀ , NO _x , CO,	

SN	Pollutants	Test Method	Test Interval	Justification
			and opacity.	
26	PM ₁₀ NO _x CO VOC (inlet and outlet)* Opacity	201A or 5, & 202 7E 10 25A 9	No later than February 1, 2013, and once every 5-years thereafter.	Necessary to verify emissions
37	СО	10	Initial test**	Necessary to verify emissions

* Inlet and outlet VOC testing is only required if the facility ever fails a VOC test.

** Vendor guarantee for CO emissions was listed as three times higher than AP-42. Facility agreed to stack test to demonstrate that CO emissions are lower than the vendor guarantee.

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 & 26	Min. avg. Combustion Temperature 671°F (SN-01) & 744°F (SN-26)	CPMS	Combustion Temp: Recorded – 15 min. Averaged – 3 hr (block)	No
01 & 26	Pressure Differential	CPMS	Pressure Differential: Recorded – 1 hr Averaged – 24 hr	No
	Catalytic Activity	Test	Annually	No

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 & 26	Material Throughput	371,372 tons	Monthly	Yes
	Opacity observations	5 %	Daily	Yes
CAM sources	Equipment inspections, maintenances, and	Weekly inspections	Monthly	Yes

Permit #: 0688-AOP-R17 AFIN: 30-00015 Page 8 of 9

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	repairs			
18	Hours of Operation	4,000 hr per rolling 12 months	Monthly	Yes
19	Green wood chips received	302,623 tons per rolling 12 months	Monthly	Yes
27	Natural Gas Burned	543.2 MMft ³ /yr 790.2 MMft ³ /yr	Monthly	Yes
37 38	Notification/reports pursuant to § 63.7555	N/A	As Needed	No
	Hours of operation	100 hours per calendar year	Monthly	Yes
35B	Maintenance plan and records of conducted maintenance (if necessary per 40 C.F.R. § 60.4211(g)(2))	N/A	As Needed	No

17. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism	
01 & 26	10 %	Dept. Guidance	Weekly Observations	
04, 09, 12, 13, 14, 16, 22, 22a, 27, 28, 29, 32	5 %	40 C.F.R. § 64	Weekly Observations	
18	5 %	Dept. Guidance	Weekly Observations	
37, & 38	5 %	Dept. Guidance	Natural gas only	
34	No visible emissions off-site	Dept. Guidance	Inspections	
35B	20 %	Dept. Guidance	Annual observations	

18. DELETED CONDITIONS:

Former Condition	Justification for removal
SC 13	Sources are not subject to CAM, and the requirements in this condition are not necessary.

Former Condition	Justification for removal
SC 27	The Boiler (SN-36) has been removed from the permit. This condition limited
	the natural gas throughput for this boller, and is no longer necessary.
SC 64-76	The Fire Water Pump (SN-35A) has been removed from the permit. These
	Conditions addressed requirements for this engine, and are no longer necessary.
DWCO	The condition is not necessary to demonstrate compliance with permitted
FWC 9	emission limits.

19. GROUP A INSIGNIFICANT ACTIVITIES:

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

	Crown	Emissions (tpy)						
Source Name	Category	PM/PM	50.	VOC	CO	NO _x	HAPs	
		10	50_{2}	VUC			Single	Total
Diesel Storage Tank (300 gal)	3			0.01			0.01	0.01
Diesel Storage Tank (1,000 gal)	3			0.01			0.01	0.01
Resin Tanks (6 with a total capacity of 10,000)	13			0.01				
Gasoline Storage Tank (1,000 gal)	13			0.03			0.03	0.03
Woodwaste Loadout	13	0.75						
Cooling Towers x 2 (each rated at 1,500 gpm)	13	0.46 (Total)						

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 #
0688-AOP-R16

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Facility Name: Arauco North America Incorporated Permit Number: 0688-AOP-R17 AFIN: 30-00015

\$/ton factor Permit Type	23.93 Modification	Annual Chargeable Emissions (tpy) Permit Fee \$	440.55 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			
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0		
Total Permit Fee Chargeable Emissions (tpy)	-30.9		
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.)

	Check if				Permit Fee	Annual
	Chargeable				Chargeable	Chargeable
Pollutant (tpy)	Emission	Old Permit	New Permit	Change in Emissions	Emissions	Emissions
РМ		96.3	93.6	-2.7	-2.7	93.6
PM ₁₀		92.5	89.8	-2.7		
PM _{2.5}		0	0	0		
SO_2		8.5	8.3	-0.2	-0.2	8.3
VOC		97.9	96.9	-1	-1	96.9
со		296	249.2	-46.8		
NO _X		265.6	238.6	-27	-27	238.6
Lead		0.001	0.001	0		

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Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Acetaldehyde		37.89	37.88	-0.01		
Cadmium		0.05	0.04	-0.01		
Formaldehyde		46.96	46.93	-0.03		
Hexane		38.83	38.54	-0.29		
Methanol		50.64	50.64	0		
Methyl Isobutyl Ketone (MIBK)		37.33	37.33	0		
Phenol		41.16	41.16	0		
Total Other HAPs		0.05	0.03	-0.02		
Acetone	~	3.15	3.15	0	0	3.15