STATEMENT OF BASIS

For the issuance of Air Permit # 0189-AOP-R10 AFIN: 55-00017

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Resolute Glenwood LLC
229 South Spur 8
Glenwood, Arkansas 71943

3. PERMIT WRITER:

Kyle Crane

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Sawmills
NAICS Code: 321113

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
12/14/2020	Renewal	Updating emissions on SN-05 and SN-17

6. REVIEWER'S NOTES:

Resolute Glenwood LLC owns and operates a lumber sawmill located in Glenwood, Pike County, Arkansas (formerly Caddo River LLC). This renewal updates emissions on Planer Mill Shavings Bin Cyclone/Baghouse (SN-05) and Haul Roads (SN-17), combined operating emissions from the DPK Abort Stacks (SN-18 and SN-19) with DPK #3 and #4 (SN-04 and SN-04A) emissions, added two diesel tanks, nine oil tanks, thirty one oil drums, and four oil totes to the Insignificant Activities list under Group A-3, and added the debarker, bucking saw, chippers, and saw mill to the Insignificant Activities list under Group A-13. Annual permitted emissions increase by 8.4 tons per year (tpy) of

PM and 5.2 tpy of PM_{10} with this renewal. HAP and other emissions are set at 6.04 tpy of formaldehyde, 0.39 tpy of acrolein, 0.27 tpy of chlorine, 6.99E-03 tpy of arsenic, 3.50E-04 tpy of beryllium, 0.53 tpy of manganese, 37.4 tpy of total HAP, and 0.08 tpy of acetone with this renewal.
Emissions were estimated through material balances, EPA AP-42, NCDENR, and Georgia EPD emission factors, manufacturer's data, and other EPA guidance documents. Air dispersion modeling was performed with Lakes Environmental AERMOD View v9.8.3 using AERMOD v19191.

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 was last inspected on January 23, 2020 and was found to be in compliance. EPA ECHO shows "No Information" for Clean Air Act compliance.

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

b) Is the facility categorized as a major source for PSD? Y
- *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.
This permit renewal does not include emissions increases above the significance level for any pollutants.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
04 & 04A	VOC	40 C.F.R. § 52.21 (PSD)
	HAPs	40 C.F.R. § 63, Subpart DDDD*

* Initial notification only.

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
SN-05	January 29, 2018	August 7, 2019	August 12, 2019	-

11. PERMIT SHIELD – TITLE V PERMITS ONLY:

Did the facility request a permit shield in this application? Y
(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? Y
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
SN-04 and SN-04a	40 C.F.R. §63 Subpart DDDDD	The kilns at the facility are direct-fired, as the combustion gases from the fuel will directily contact the lumber during the drying process. Therefore, neither of the lumber kilns are considered to be process heaters, and Boiler MACT is not applicable to the units.
	40 C.F.R. §60 Subpart Dc	The direct-fired lumber kilns will operate with a natural gas burner. The burner does not generate steam, because the combustion gases from the fuel will directly contact the lumber during the drying process. Therefore, Subpart Dc is not applicable to the kiln burners.
Tanks in the Group A-3 Insignificant Activities List	40 C.F.R. §60 Subpart K	The capacity of the tanks are all less than 75 cubic meters (19,813 gal).
	40 C.F.R. §60 Subpart Ka	
	40 C.F.R. §60 Subpart Kb	
SN-05	40 C.F.R. §64 CAM	Pre-control emissions are under 100 tpy (45.1 tpy of PM_{10})

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

Source	Pollutant Controlled	Cite Exemption or CAM Plan Monitoring and Frequency
N/A		

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 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 × TLV	Proposed lb/hr	Pass?
Methanol	262.086	28.829	5.04	Yes
Formaldehyde	0.123	0.014	1.90	No
Acrolein	0.229	0.025	0.184	No
Chlorine	0.290	0.032	0.0711	No
Lead	0.050	0.0055	0.00434	Yes
Pentachlorophenol	0.5	0.055	0.00000459	Yes

Pollutant	TLV (mg/m^3)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Antimony	0.5	0.055	0.000764	Yes
Arsenic	0.01	0.0011	0.00199	No
Beryllium	0.00005	0.0000055	0.0000993	No
Cadmium	0.01	0.0011	0.000373	Yes
Chromium	0.5	0.055	0.00190	Yes
Chromium Hexavalent	0.5	0.055	0.000317	Yes
Cobalt	0.02	0.0022	0.000645	Yes
Manganese	0.1	0.011	0.144	No
Mercury	0.01	0.0011	0.000316	Yes
Phosphorus	0.1	0.011	0.00252	Yes
Selenium	0.2	0.022	0.000259	Yes

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?
Formaldehyde	15*	6.41949	Yes
Acrolein	2.293	0.46457	Yes
Chlorine	2.900	0.21157	Yes
Arsenic	0.1	0.00591	Yes
Beryllium	0.0005	0.00029	Yes
Manganese	1.0	0.4285	Yes

*ADEQ Alternate PAIL

c) H_2S Modeling:

A.C.A. §8-3-103 requires hydrogen sulfide emissions to meet specific ambient standards. Many sources are exempt from this regulation, refer to the Arkansas Code for details.

Is the facility exempt from the H_2S Standards Y
If exempt, explain: The facility does not emit H_2S

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
04 & 04A	Wood Drying NCASI and NCDENR Wood Kiln Memo	0.14 lb_{PM}/MBF 4.78 lb_{VOC}/MBF	None	N/A	
	EPA memo, "Development of a Provisional Emissions Calculations Tool for Inclusion in the PCWP ICR" dated June 30, 2017	0.18 $lb_{Methanol}$/MBF 0.01 lb_{Phenol}/MBF 0.065 $lb_{Formaldehyde}$/MBF 0.04 $lb_{Acetaldehyde}$/MBF 0.004 $lb_{Acrolein}$/MBF			
	Combustion AP-42 Tables 1.6-3 and 1.6-4	0.03 lb_{SO2}/MMBtu 0.28 lb_{NOX}/MBF 0.255 lb_{CO}/MMBtu	None	N/A	
05	AP-42, 10.4	PM/PM_{10}: 0.03 gr/ft^3	Baghouse	99%	
05A	ADEQ memo	0.0033 $lb_{PM/PM10}$/ton	None	N/A	
17	AP-42, 13.2	sL=8.2 g/m^2 W= 27.5 tons P=105 N=365	None	N/A	*Paved and gravel roads*
18 & 19	AP-42, Section 1.6 (biomass) AP-42, Table 1.3-1 (diesel)	lb/MMBtu: 0.33 PM 0.29 PM_{10} 0.03 SO_2 0.22 NO_x 0.17 CO 0.017 VOC 0.000048 Lead lb/1000 gal: 3.3 PM 1.0 PM_{10} 7.1 SO_2	None	N/A	Each abort stack: 240 hours of startup operation annually 1,200 gallons of diesel annual 2,000 lb of wood per hour

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
		20 NO_x 5 CO 0.252 VOC 0.00151 Lead			

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
04	PM	5 with 202	Initial Test	Department Guidance
	CO	10	Initial Test	

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)
N/A				

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)
04, 04A, 18, & 19	Lumber Dried	185,000,000 board feet per rolling 12-months	Monthly	Y
18	Diesel usage	1,200 gallons per rolling 12-months	Monthly	Y
	Wood usage	2000 lb of wood per hour	Monthly	Y
	Hours of startup operation	240 hours per rolling 12-months	Monthly	Y
19	Diesel usage	1,200 gallons per	Monthly	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
		rolling 12-months		
	Wood usage	2000 lb of wood per hour	Monthly	Y
	Hours of startup operation	240 hours per rolling 12-months	Monthly	Y
05A	Wood residue loadout	50,000 tons per rolling 12-months	Monthly	Y

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
04 & 04A	20%	Reg.19.503	Weekly observations
05	5%	Reg.18.501	Weekly observations
05A	20%	Reg.19.503	Weekly observations
18 & 19	20%	Reg.19.503	Observations during startup

20. DELETED CONDITIONS:

Former SC	Justification for removal
None	

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
(2) Diesel Fuel (Off-Road) Storage Tanks	A-3			0.028				
(9) Oil Storage Tanks	A-3			0.128				
(31) Oil Drums	A-3			0.441				
(4) Oil Totes	A-3			0.014				
A-3 Total				**0.654**				
Chip Bins	A-13	0.015						
Sawdust Bin	A-13	0.042						

Source Name	Group A Category	Emissions (tpy)						
		PM/PM_{10}	SO_2	VOC	CO	NO_x	HAPs	
							Single	Total
Bark Pile	A-13	0.39						
Kiln Fuel Shed	A-13	0.12						
Kiln #3 Fuel Bin	A-13	0.058						
Kiln #4 Fuel Bin	A-13	0.058						
Chip Conveyance	A-13	0.054						
Bark Conveyance	A-13	0.13						
Sawdust Conveyance	A-13	0.011						
Shavings Conveyance	A-13	0.054						
Sawmill	A-13	2.24						
Log Process Debarking	A-13	0.42						
Chippers	A-13	0.15						
Log Bucking	A-13	0.10						
A-13 Total		**3.98**						

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 #
0189-AOP-R9

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Facility Name: Resolute Glenwood LLC
Permit Number: 0189-AOP-R10
AFIN: 55-00017

$/ton factor	23.93	Annual Chargeable Emissions (tpy)	450.6653
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)	-0.17
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		55.6	64	8.4	8.4	64
PM_{10}		19.4	24.6	5.2		
$PM_{2.5}$		0	0	0		
SO_2		8.1	8.1	0	0	8.1
VOC		351.7	351.7	0	0	351.7
CO		80.9	80.9	0		
NO_X		26.5	26.5	0	0	26.5
Lead	☑	0.0153	0.0153	0	0	0.0153

Pollutant (tpy)	Check if Chargeable Emission	Old Permit	New Permit	Change in Emissions	Permit Fee Chargeable Emissions	Annual Chargeable Emissions
Methanol	☐	16.65	16.65	0		
Total Chargeable NCAPs	☑	8.92	0	-8.92	-8.92	0
Total Other NCAPs	☐	28.03	0	-28.03		
Formaldehyde	☐	0	6.04	6.04		
Acrolein	☐	0	0.39	0.39		
Chlorine	☑	0	0.27	0.27	0.27	0.27
Arsenic	☐	0	0.00699	0.00699		
Beryllium	☐	0	0.00035	0.00035		
Manganese	☐	0	0.53	0.53		
Total HAP	☐	0	37.4	37.4		
Acetone	☑	0	0.08	0.08	0.08	0.08