

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1779-AOP-R11 AFIN: 28-00251

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Greenbrier Central, LLC
901 Jones Road
Paragould, Arkansas 72450

3. PERMIT WRITER:

Shai Sabaroche

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Railroad Rolling Stock Manufacturing
NAICS Code: 336510

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
4/16/2026	Renewal	Updated emissions from equipment specifications; Corrected rounding inconsistencies

6. REVIEWER'S NOTES:

Greenbrier Central, LLC owns and operates railcar fabrication and assembly plant in Paragould, AR. With this renewal,

- The process description is revised to define the facility as a railcar fabrication and assembly plant.

- Redesigned ductwork for the North Bay Tracks 1, 2, and 3 is incorporated, noting the changes were made for health, safety, and quality with no impact on emissions.
- The names of sources SN-01 through SN-08 and SN-12 through SN-16 are updated to specifically identify Dust Collection Systems #1–7, Blast operations, and General Building Ventilation for Tracks 1, 2, and 3.
- The single stack for SN-06 (Track 1 and 2 Interior/Exterior Prime North Bay) is split into three separate stacks designated as SN-06a, b, and c.
- The single stack for SN-15 (Track 3 Interior/Exterior Topcoat North Bay) is split into three separate stacks designated as SN-15a, b, and c.
- Emission limits for SN-02 and SN-03 are revised based on updated equipment specifications, and limits for SN-01, SN-04, SN-05, and SN-13 are adjusted for rounding consistency.
- Monthly HAP and VOC deadlines are adjusted from the 15th to the 30th of each month.
- The Insignificant Activities list is updated to include five heaters (A-1), two MEK tanks (A-13), and three parts washers (A-13).
- Welding is reclassified on the Insignificant Activities list from an A-13 source to an A-7 source.
- A header is added to demarcate Specific Conditions #13 through 34 as those owed to 40 C.F.R. Part 63, Subpart M.
- Citations are updated as needed.

Permitted annual emissions increased by 0.2 tpy of PM/PM₁₀.

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 June 23, 2025. No compliance violations were identified. <https://echo.epa.gov/detailed-facility-report?fid=110000452527>

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? 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.

There were no physical changes to the facility or its method of operation producing a PSD significant emissions difference.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
06a,b,c, 07, 08, 14, 15a,b,c, 16	HAPs	40 C.F.R Part 63, Subpart MMMM
01, 02, 03, 04, 05, 12, 13, 18	PM ₁₀	40 C.F.R. Part 64 Compliance Assurance Monitoring

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 8 CAR pt. 40 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? 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
01, 02, 03, 04 05, 12, 13, 18	PM ₁₀	Fabric filter control. Daily visible emissions observations. If visible emissions greater than 5% observed, facility will perform corrective actions.

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/m³), 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?
2-Methylnaphthalene	2.908E-01	3.199E-02	2.400E-06	Y
Acetone	5.939E+02	6.533E+01	2.000E+01	Y
Arsenic	1.000E-02	1.100E-03	2.000E-05	Y
Benzene	6.389E-02	7.028E-03	2.319E-02	N
Beryllium	5.000E-05	5.500E-06	1.200E-06	Y
Cadmium	2.000E-03	2.200E-04	1.100E-04	Y
Chromium	5.000E-01	5.500E-02	7.661E-03	Y
Cobalt	5.000E-03	5.500E-04	8.400E-06	Y
Epichlorohydrin	3.784E-01	4.163E-02	3.958E-03	Y
Ethylbenzene	8.684E+01	9.552E+00	7.621E+00	Y
Formaldehyde	1.228E-01	1.351E-02	7.500E-03	Y
Lead	5.000E-02	5.500E-03	5.000E-05	Y
Manganese	2.000E-02	2.200E-03	4.121E-02	N
Mercury	1.000E-02	1.100E-03	2.600E-05	Y

Pollutant	TLV (mg/m ³)	PAER (lb/hr) = 0.11 × TLV	Proposed lb/hr	Pass?
Methyl Isobutyl Ketone	8.193E+01	9.012E+00	6.518E+00	Y
Naphthalene	5.243E+01	5.767E+00	2.605E+00	Y
Nickel	1.000E-01	1.100E-02	6.433E-03	Y
Selenium	2.000E-01	2.200E-02	2.400E-06	Y
Xylene	8.684E+01	9.552E+00	3.345E+01	N
Other HAPs from Painting Operations	2.180E+01*	2.398E+00	8.000E+01	N

*TLV chosen as lowest that passes PAIL

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?
Manganese	2.0000E-01	4.5888E+00	N
Benzene	6.3894E-01	1.8384E-01	Y
Xylene	8.6838E+02	2.5425E+02	Y
Other HAPs from Painting Operations	2.18000E+02*	2.17997E+02	Y

*PAIL value chosen to determine lowest TLV that would pass in these conditions

3rd Tier Screening (Human Exposure Model – Risk Assessment)

Manganese tertiary screening was performed to further evaluate the potential human health concern identified during the second-tier screening analysis. U.S. EPA's Human Exposure Model (HEM5) was used in conjunction with AERMOD air dispersion modeling to assess potential human exposure associated with Benzene emissions from the facility. The analysis evaluated both 8-hr exposure in populated areas through comparison with applicable health-based benchmarks and the maximum offsite risk associated with lifetime (~70 years) exposure to sustained emissions at the modeled levels. This chronic exposure was evaluated using hazard indices for various bodily systems. The results of this analysis are summarized below.

Populated-Region Risk Assessment for 8-hr Exposure			
Manganese Modeled Concentration (mg/m ³):		2.581E-04	
Health Benchmark	Benchmark-Stipulated Populated-Region Maximum Concentration (mg/m ³)	Modeled Concentration's Percentage of Benchmark	Pass?
Chronic RefVal	3.000E-04	86.05%	Y

Offsite Risk Breakdown for Lifetime (~70 years) Exposure		
Max Cancer Risk	0	within acceptable regulatory risk range (< 1 in 10,000)
Organ/System	Hazard Indices	Interpretation
Respiratory	0	within acceptable regulatory risk range (< 1)
Liver	0	within acceptable regulatory risk range (< 1)
Neurological	6.813E-01	within acceptable regulatory risk range (< 1)
Developmental	0	within acceptable regulatory risk range (< 1)
Reproductive	0	within acceptable regulatory risk range (< 1)
Kidney	0	within acceptable regulatory risk range (< 1)
Ocular	0	within acceptable regulatory risk range (< 1)
Endocrine	0	within acceptable regulatory risk range (< 1)
Hematological	0	within acceptable regulatory risk range (< 1)
Immunological	0	within acceptable regulatory risk range (< 1)
Skeletal	0	within acceptable regulatory risk range (< 1)
Spleen	0	within acceptable regulatory risk range (< 1)
Thyroid	0	within acceptable regulatory risk range (< 1)
Whole Body	0	within acceptable regulatory risk range (< 1)

c) H₂S 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 H₂S Standards

Y

If exempt, explain: No H₂S emissions.

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
SN-06a,b,c SN-07 SN-08	Manufacturer Information	Est. Max Spray Rates: Exterior Primer – 31.0 gal/hr Exterior Topcoat – 35.0 gal/hr Interior Primer – 23.0 gal/hr Interior Topcoat – 24.0 gal/hr Max Voc Content – 3.5 lb/gal Max HAP Content – 3.06 lb/gal			
SN-14 SN-15a,b,c SN-16	Manufacturer Information	Est. Max Spray Rates: Exterior Primer – 30.0 gal/hr Exterior Topcoat – 18.0 gal/hr Interior Primer – 23.0 gal/hr Interior Topcoat – 26.0 gal/hr Max Voc Content – 3.5 lb/gal Max HAP Content – 3.06 lb/gal			
SN-01, SN-02 SN-03, SN-04 SN-05, SN-12 SN-13, SN-18	Grain Loading	0.002 gr/dscf	Baghouses	99.5	
SN-09	AP-42 Tables 1.4-1, 1.4-2, 1.4-3, and 1.4-4	7.6 lb/MMscf PM/PM ₁₀ 5.5 lb/MMscf VOC 84 lb/MMscf CO 100 lb/MMscf NO _x			Plantwide Heat Input Capacity set at 100 MMBtu/hr

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
N/A				

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)
06a,b,c 07 08 14 15a,b,c 16	VOC and HAP usage	TPY limits of permit HAP: name, amount, and HAP content of each HAP containing material and 12 month rolling total of HAPs emitted.	Monthly	Y
06a,b,c, 07, 08 14, 15a,b,c, 16	HAP Records	See Specific Condition 22 and 23	Monthly	Y
09	List of all equipment and associated fire rates in SN-09	100 MMBtu/hr	On equipment change	Y
09	Records of type of aluminum melted in SN-09	Clean charge aluminum only	Monthly	Y

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 03, 04 05, 12, 13, 18	5%	Department Guidance	Daily Observation
09	5%	Department Guidance	Natural Gas Only

20. DELETED CONDITIONS:

Former SC	Justification for removal
	N/A

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
MAX 16 Heater	A-1	0.1	0.1	0.1	1.0	1.1	0.03	0.03
MAX 10 Heater	A-1	0.1	0.1	0.1	1.0	1.1	0.03	0.03
Aluminum Melt Furnace #1	A-1	0.1	0.1	0.1	0.8	0.9	0.02	0.02
Aluminum Melt Furnace #2	A-1	0.1	0.1	0.1	0.8	0.9	0.02	0.02
Aluminum Melt Furnace #3	A-1	0.1	0.1	0.1	0.8	0.9	0.02	0.02
A-1 Totals		0.5	0.5	0.5	4.4	4.9	0.12	0.12
Two - 1,000 Gallon Diesel Storage Tanks	A-3			0.1			0.01	0.01
Welding Operations	A-7	0.5					0.04	0.04
Two - 300 Gallon Gasoline Storage Tanks	A-13			0.2			0.16	0.16
Two - 3,500 Gallon MEK Tanks	A-13							
Track 3 Steel Parts Washer	A-13			0.1			0.02	0.02
Best Engineering Parts Washer	A-13			0.1				
Magnus Equipment Parts Washer	A-13			0.1				
A-13 Totals				0.5			0.18	0.18

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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 #
1779-AOP-R10

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Facility Name: Greenbrier Central, LLC

Permit Number: 1779-AOP-R10

AFIN: 28-00251

\$/ton factor	28.14	Annual Chargeable Emissions (tpy)	575.6
Permit Type	Renewal No Changes	Permit Fee \$	0

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) 0.2

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		17.3	17.5	0.2		
PM ₁₀		17.3	17.5	0.2	0.2	17.5
PM _{2.5}		0	0	0		
SO ₂		0.3	0.3	0	0	0.3
VOC		492.5	492.5	0	0	492.5
CO		36.8	36.8	0		
NO _x		45.3	45.3	0	0	45.3
Total HAPs	☐	491.1	491.1	0		
Acetone	☒	20	20	0	0	20