

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1779-AOP-R4 AFIN: 28-00251

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

American Railcar Industries, Inc.
901 Jones Road
Paragould, Arkansas 72450

3. PERMIT WRITER:

Shawn Hutchings

4. PROCESS DESCRIPTION AND NAICS CODE:

NAICS Description: Railroad Rolling Stock Manufacturing
NAICS Code: 336510

5. SUBMITTALS:

12/17/2008

6. REVIEWER'S NOTES:

American Railcar Industries, Inc. (ARI) owns and operates a railcar welding and fabrication plant in Paragould, AR. This permit is the Title V renewal for the facility. In this modification the facility is adding a Plasma Burn Table Dust Collector, SN-18, and increasing HDI and MDI usage at its painting sources.

7. COMPLIANCE STATUS:

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

There are no known enforcement actions against the facility.

8. PSD APPLICABILITY:

- a. Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
- b. Is the facility categorized as a major source for PSD? N
Single pollutant ≥ 100 tpy and on the list of 28 or single pollutant ≥ 250 tpy and not on list?

If yes, explain why this permit modification is not PSD?

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
06, 07, 08, 14, 15, 16	HAPs	40 CFR Part 63, Subpart MMMM

10. EMISSION CHANGES AND FEE CALCULATION:

See emission change and fee calculation spreadsheet in Appendix A.

11. MODELING:

Criteria Pollutants

Examination of the source type, location, plot plan, land use, emission parameters, and other available information indicate that modeling is not warranted at this time.

Pollutant	Emission Rate (lb/hr)	NAAQS Standard (µg/m ³)	Averaging Time	Highest Concentration (µg/m ³)	% of NAAQS
PM ₁₀	4.4	150	24-Hour	95.5	64%

Non-Criteria Pollutants:

This permit contains a TLV table for painting non-criteria pollutants except for HDI and MDI. Modeling was used to determine the permitted emission rates for ranges of non-criteria pollutants (grouped by TLV) that pass the PAER or PAIL. Therefore, modeling of specific painting non-criteria pollutants was not performed. Non-criteria pollutant emissions from welding were evaluated as normal.

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 × TLV	Proposed lb/hr	Pass?
HDI	0.0314	.00346	0.21	No
MDI	0.0512	0.00563	0.21	No
Manganese	0.2	0.022	0.5	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 (µg/m ³) = 1/100 of Threshold Limit Value	Modeled Concentration (µg/m ³)	Pass?
HDI	0.314	0.25	Yes
MDI	0.512	0.25	Yes
Manganese	2.0	0.2	Yes

12. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
06, 07, 08, 14, 15, and 16	Paint Usage	none			
01, 02, 03, 04, 05, 12, 13, and 18	Grain Loading	0.002 gr/dscf	Baghouse		
09 and 17	AP-42 Section 1.4	Varied	None		
10 and 11	American National Standard, <i>Guide for Estimating Welding</i>	Varied according to wire and welding type See	none		

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
	<i>Emissions for EPA and Ventilation Permit Reporting</i>	application			

13. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

The permit requires no testing.

14. MONITORING OR CEMS

The permittee must monitor the following parameters with CEMS or other monitoring equipment (temperature, pressure differential, etc.)

The permit requires no monitoring or CEMS

15. 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)
10 and 11	Welding wire usage	1,961,298 pounds / 12-mo	Monthly	Y
06, 07, 08, 14, 15, 16	VOC and HAP usage	TPY limits of permit HAP: TLV Table HDI MDI or 5 lb/day	Monthly	Y
06, 07, 08, 14, 15, 16	HAP Records	See Specific Condition 20 and 21	Monthly	Y

16. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01, 02, 03, 04, 05, 12, 13, and 18	5%	Department Guidance	Weekly Observation
09 and 17	5%	Department Guidance	Natural Gas Only

17. DELETED CONDITIONS:

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No conditions were deleted.

18. GROUP A INSIGNIFICANT ACTIVITIES

Source Name	Group A Category	Emissions (tpy)						
		PM/PM ₁₀	SO ₂	VOC	CO	NO _x	HAPs	
							Single	Total
Gasoline Tanks	A-13			0.2				
Diesel Tanks	A-3			0.1				

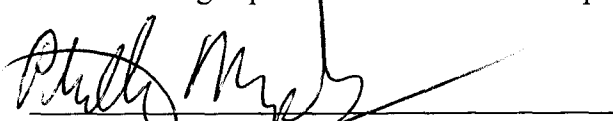
19. VOIDED, SUPERSEDED, OR SUBSUMED PERMITS:

List all active permits voided/superseded/subsumed by the issuance of this permit.

Permit #
1779-AOP-R3

20. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.


Phillip Murphy, P.E.

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 12-15-10

American Railcar Industries, Inc.
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\$/ton factor	22.07	Annual Chargeable Emissions (tpy)	295
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	<input type="checkbox"/>
If Hold Active Permit, Amt of Last Annual Air Permit Invoice \$	0
Total Permit Fee Chargeable Emissions (tpy)	-147.7
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	<input checked="" type="checkbox"/>	27.2	16	-11.2	-11.2	16
PM ₁₀	<input type="checkbox"/>	27.2	16	-11.2		
SO ₂	<input checked="" type="checkbox"/>	0.8	0.8	0	0	0.8
VOC	<input checked="" type="checkbox"/>	385.6	249.1	-136.5	-136.5	249.1
CO	<input type="checkbox"/>	24.8	24.8	0		
NO _x	<input checked="" type="checkbox"/>	29.1	29.1	0	0	29.1
HAP	<input type="checkbox"/>	341.7	247.2	-94.5		
HDI (freemonomer)	<input type="checkbox"/>	0.3	0.92	0.62		
MDI	<input type="checkbox"/>	0	0.92	0.92		
Manganese	<input type="checkbox"/>	1	0.05	-0.95		
Chromium	<input type="checkbox"/>	0.08	0	-0.08		
Nickel	<input type="checkbox"/>	0.04	0	-0.04		