

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 1779-AOP-R1 AFIN: 28-00251

1. PERMITTING AUTHORITY:

Arkansas Department of Environmental Quality
8001 National Drive
Little Rock, Arkansas 72219-8913

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 Car Manufacturer
NAICS Code: 336570

5. SUBMITTALS:

October 18, 2002

6. REVIEWER'S NOTES:

American Railcar Industries, Inc. owns and operates a railcar welding and fabrication plant in Paragould, AR. This permit is the Title V renewal for the facility. The only changes to the permit are the updating of combustion emissions to reflect current AP-42 emission factors, and in the original application dust collector sizes for SN-02 and 03 were inadvertently switched with sources SN-04 and 05. This permit will correct the error and assign the emissions to the proper source.

ARI submitted a minor modification to their permit which includes the installation of a new railcar assembly track. The addition of the new track causes their existing tracks to no longer be considered insignificant. Tracks 1 and 2 are added as source 10. The new track, Track 3, will be added as source SN-11.

7. COMPLAINT 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. APPLICABLE REGULATIONS:

PSD Applicability

Did the facility undergo PSD review in this permit (i.e., BACT, Modeling, etc.)? N
 Has the facility undergone PSD review in the past? N
 Is the facility categorized as a major source for PSD? N
 ≥ 100 tpy and on the list of 28? N
 ≥ 250 tpy all other? N

PSD Netting

Was netting performed to avoid PSD review in this permit? N

Source and Pollutant Specific Regulatory Applicability

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
6, 7, 8	HAPs	40 CFR Part 63, Subpart RRR Surface Coating of Miscellaneous Metal Parts

9. EMISSION CHANGES:

The following table summarizes plantwide emission changes associated with this permitting action.

Plantwide Permitted Emissions (tpy)			
Pollutant	Permit # 1779-AOP-R0	Permit #1779-AOP-R1	Change
PM	9.6	20.5	10.9
PM ₁₀	9.6	20.5	10.9
SO ₂	0.1	0.7	+0.6
VOC	229.4	229.5	+0.1
CO	2.8	11.8	+9.0
NO _x	13.5	13.7	+0.2
HAP	228.6	228.6	0

HDI	0.3	0.3	0
Manganese	0	0.75	0.75
Chromium	0	0.1	0.1
Nickel	0	0.03	0.03

10. MODELING:

Criteria Pollutants

Pollutant	Emission Rate (lb/hr)	NAAQS Standard ($\mu\text{g}/\text{m}^3$)	Averaging Time	Highest Concentration ($\mu\text{g}/\text{m}^3$)	% of NAAQS
PM10	2.3	50	Annual	5.75	11.5
		150	24-Hour	78.2	52.1
SO ₂	0.2	80	Annual	0.5	0.6
		1300	3-Hour	260	20
		365	24-Hour	73	20
CO	2.7	10,000	8-Hour	135	1.4
		40,000	1-Hour	256	0.7
NO _x	3.1	100	Annual	7.7	7.7

Non-Criteria Pollutants:

While the permit does not have a TLV table, the maximum TLV allowed assuming all the VOC content of the coating was HAP was determined for a permit limit.

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) = $0.11 \times \text{TLV}$	Proposed lb/hr	Pass?
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HAP	Limit is 26.0	2.6	276.4	No
HDI	0.034	.0034	0.06	No
Manganese	0.2	.02	0.75	No
Chromium	0.01	.001	0.1	No
Nickel	1.5	.15	0.03	Yes

2nd Tier Screening (PAIL)

ISCST3 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 ($\mu\text{g}/\text{m}^3$) = 1/100 of Threshold Limit Value	Modeled Concentration ($\mu\text{g}/\text{m}^3$)	Pass?
HAP	260	256	Yes
HDI	0.34	0.12	Yes
Manganese	2	0.7	Yes
Chromium	.1	0.09	Yes

11. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01-05	Grain loading	0.02 gr/scf	Fabric Filter	Not used	
06, 07, and 08	VOC and HAP usage	Mass balance	None	N/A	
09	AP-42 for natural gas combustion	Varied	None	N/A	
10 and 11	American Welding Society Factors	Varied	None	N/A	

12. TESTING REQUIREMENTS:

The permit requires no testing.

13. MONITORING OR CEMS

The permit requires no monitoring or CEMs.

14. RECORD KEEPING 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)
6, 7, 8	HAP emissions HDI emissions VOC emissions	228.6 tpy 0.3 tpy 229.5 tpy	Monthly Daily Monthly	Y
10 and 11	Welding Wire Usage			

15. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
1-5	5%	Department guidance	Weekly observation
9	5%	Department Guidance	Natural Gas Combustion

16. DELETED CONDITIONS:

Former SC	Justification for removal
16 and 17	These conditions were natural gas limits and records for SN-09. The source is permitted at capacity and the limit is not necessary. A list of all the equipment which makes up the source was added to the source description. This would help insure no new equipment is installed. The natural gas limit is not necessary.

17. VOIDED, SUPERCEDED, OR SUBSUMED PERMITS:

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

Permit #

1779-AOP-R0

18. CONCURRENCE BY:

The following supervisor concurs with the permitting decision.

Thomas Rheaume, P.E.