

STATEMENT OF BASIS

For the issuance of Draft Air Permit # 0035-AOP-R19 AFIN: 34-00033

1. PERMITTING AUTHORITY:

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

2. APPLICANT:

Arkansas Steel Associates, LLC
2803 Van Dyke Road
Newport, Arkansas 72112

3. PERMIT WRITER:

Shawn Hutchings

4. NAICS DESCRIPTION AND CODE:

NAICS Description: Iron and Steel Mills and Ferroalloy Manufacturing
NAICS Code: 331110

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
7/16/2020	Renewal	Only Emission factor changes

6. REVIEWER’S NOTES:

Arkansas Steel Associates, LLC (hereinafter “Arkansas Steel or “ASA”) located at 2803 Van Dyke Road in Newport, Arkansas owns and operates a steel mill. This permit is the Title V renewal for the facility. In this permit source SN-13 was removed. Emission rates changed due to emission factor changes. Testing was added to verify Fluoride emissions from SN-05. Permitted emission rates increased 0.6 tpy of NOx, 0.1 tpy of CO, 1 tpy of Fluorides, 0.2 tpy of Lead, and 0.06 tpy of Mercury.

The facility asked to raise a number of BACT limits for no stated reason. Those limits were not changed. The Department cannot do so without PSD review.

The facility requested fluoride emissions for existing sources be added to the permit. Questioning the original request lead to the facility lowering their original estimate to a lower number based on testing at a different steel mill. There was no supporting documentation of the test or the two facilities are similar. The facility requested testing to verify the new emission factor. The facility was unable to confirm in what form the fluorides requested are emitted. The reviewer assumed they were HF and chargeable toward the facility annual fee.

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 issues with the facility.

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. There were no modifications.

9. SOURCE AND POLLUTANT SPECIFIC REGULATORY APPLICABILITY:

Source	Pollutant	Regulation (NSPS, NESHAP or PSD)
01	PM, Opacity HAPs	NSPS AA MACT YYYYYY
02	Opacity	NSPS AA
14, 15, 16, 17, 18, 21 and 22	HAPs	MACT ZZZZ
17 and 18	NO _x , VOC, CO	NSPS JJJJ
20	HAPs	MACT CCCCCC
21 and 22	NO _x , VOC, and CO	NSPS IIII

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
None				

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 Regulation 18 requirement.)

If yes, are applicable requirements included and specifically identified in the permit? N
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.

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	PM	Opacity/fan amps daily/per shift
03	PM	Below precontrol major source.

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:

Based on Division of Environmental Quality procedures for review of non-criteria pollutants, emissions of non-criteria pollutants are below thresholds of concern.

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/N

If exempt, explain: _____

Pollutant	Threshold value	Modeled Concentration (ppb)	Pass?
H ₂ S	20 parts per million (5-minute average*)		
	80 parts per billion (8-hour average) residential area		
	100 parts per billion (8-hour average) nonresidential area		

*To determine the 5-minute average use the following equation

$$C_p = C_m (t_m/t_p)^{0.2} \text{ where}$$

C_p = 5-minute average concentration

C_m = 1-hour average concentration

t_m = 60 minutes

t_p = 5 minutes

15. CALCULATIONS:

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
01	PSD limits and testing	Varied	baghouse		
01b	AP-42 natural gas	Varied			
03	PSD limits	Varied	baghouse		
04	AP-42 Natural gas and PSD limits	Varied			
05	AP-42 natural gas	Varied			
08 09	AP-42 Roadway emissions	Formula			
10 and 11	AP-42 12.5	Formula			
14-19	AP-42 or Rice Standards	varied	None		

SN	Emission Factor Source (AP-42, testing, etc.)	Emission Factor (lb/ton, lb/hr, etc.)	Control Equipment	Control Equipment Efficiency	Comments
20	Tanks Program	Formula	None		
21 and 22	AP-42 and NSPS Limits	Varied	None		

16. TESTING REQUIREMENTS:

The permit requires testing of the following sources.

SN	Pollutants	Test Method	Test Interval	Justification
01	PM VOC CO NO _x SO ₂ Pb	5 and 5d 25A 10 7E 6C 12	Annually	PM is NSPS requirement. All are to show compliance with BACT limits.
03	PM CO	5 10	Annually Annually	BACT compliance
03	Fluorides	As approved.	One Time	Limit/Factor Verification

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)
01	Fan amps etc. NSPS AA requirements	Ammeter, pressure gauge,	Per shift	Y

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)
01	Fan amperes and damper position	Gauge	Per shift	Y

SN	Recorded Item	Permit Limit	Frequency	Report (Y/N)
	or magnahelix readings			

19. OPACITY:

SN	Opacity	Justification for limit	Compliance Mechanism
01	3%	NSPS Subpart AA	Daily Observation
02	6% while refining 20% while charging 40% while tapping	NSPS Subpart AA	One observation per week. During each period.
03	5%	Department Guidance	Weekly observation.
04	5%	Natural Gas Combustion	

20. DELETED CONDITIONS:

Former SC	Justification for removal
SN-13 Conditions	Source was removed

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) 1100 gallon diesel storage tank	A-3			0.0008					
(1) 120 gallon diesel storage tank	A-3			0.0004					
(1) 220 gallon used oil tank	A-3			0.0004					

(1) 580-gallon diesel storage tank	A-3			0.0004				
Total	A-3			0.002				
(8) Cooling Towers	4.2							
Parts washers that use a low vapor pressure organic solvent				0.9				
Materials handling	.15							
Portable Hopper	.01							
15,000 gallon used oil tank				0.0004				
Total	A-13	4.36		0.9				
Pressure Washer Heater	A-1	0.04	0.09	0.003	0.07	0.26		0.004

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 #
0035-AOP-R18

APPENDIX A – EMISSION CHANGES AND FEE CALCULATION

Fee Calculation for Major Source

Revised 03-11-16

Arkansas Steel Associates, LLC
 Permit #: 0035-AOP-R19
 AFIN: 34-00033

\$/ton factor	23.93	Annual Chargeable Emissions (tpy)	592.76
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)	-0.04
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 condensable 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		79.8	79.8	0	-2.84E-14	79.8
PM ₁₀		64.8	64.8	0		
PM _{2.5}				0		
SO ₂		162.5	162.5	0	0	162.5
VOC		100.2	98.5	-1.7	-1.7	98.5
CO		1799	1799.1	0.1		
NO _x		250.3	250.9	0.6	0.6	250.9
Lead	<input type="checkbox"/>	1.52	1.72	0.2		

