

# ADEQ OPERATING AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation #26:

Permit #: 35-AOP-R4

IS ISSUED TO:

Arkansas Steel Associate, LLC  
2803 Van Dyke Road  
Newport, AR 72112  
Jackson County  
CSN: 34-0033

THIS PERMIT AUTHORIZES THE ABOVE REFERENCED PERMITTEE TO INSTALL, OPERATE, AND MAINTAIN THE EQUIPMENT AND EMISSION UNITS DESCRIBED IN THE PERMIT APPLICATION AND ON THE FOLLOWING PAGES. THIS PERMIT IS VALID BETWEEN:

September 24, 1998

and

September 23, 2003

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

\_\_\_\_\_  
Keith A. Michaels

\_\_\_\_\_  
Date Amended

**SECTION I: FACILITY INFORMATION**

PERMITTEE: Arkansas Steel Associates, LLC  
CSN: 34-0033  
PERMIT NUMBER: 35-AOP-R4

FACILITY ADDRESS: 2803 Van Dyke Road  
Newport, AR 72112

COUNTY: Jackson

CONTACT POSITION: Billy E. Ferguson  
TELEPHONE NUMBER: (870) 523-3693

REVIEWING ENGINEER: Shawn Hutchings

UTM North-South (X): 3946.346  
UTM East-West (Y): 659.085  
Zone 15

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**SECTION II: INTRODUCTION**

Arkansas Steel Associates, LLC located at 2803 Van Dyke Road in Newport, Arkansas owns and operates a steel mill. This modification to Arkansas Steel’s permit is to change the rated heat input capacity for the ladle preheaters, SN-05, to allow both of the tundish preheaters, SN-07, to operate simultaneously, and to add a new tundish dryer, SN-12a. The new tundish dryer and allowing both preheaters to operate simultaneously were not large enough to trigger PSD review and did not debottleneck or increase capacity at the facility. The ladle preheater has undergone PSD review for some pollutants. The source was given PSD limits at its actual capacity.

**Regulations**

This facility is subject to the following regulations: Regulation 18, *Arkansas Air Pollution Control Code*; Regulation 19, *Regulations of the Arkansas Plan of Implementation for Air Pollution Control*; Regulation 26, *Regulations of the Arkansas Operating Air Permit Program*; 40 CFR 52.21, *Prevention of Significant Deterioration*; and New Source Performance Standards, 40 CFR Part 60, Subpart AA-*Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and on or Before August 17, 1983*.

The following table is a summary of emissions from the facility. Specific conditions and emissions for each source can be found starting on the page cross referenced in the table. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
Total Allowable Emissions		PM	26.8	117.3	
		PM <sub>10</sub>	20.8	84.4	
		SO <sub>2</sub>	45.7	167.9	
		VOC	170.1	105.5	
		CO	513.1	1957.2	
		NO <sub>x</sub>	72.3	257.0	
		Pb	0.8	2.4	
		Xylene	10.8	0.2	

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
SN-01	EAF Baghouse	PM	11.3	49.2	21
		PM <sub>10</sub>	11.3	49.2	
		SO <sub>2</sub>	41.0	152.0	
		VOC	25	92.0	
		CO	420.0	1600.0	
		NO <sub>x</sub>	50.0	181.5	
		Pb	0.4	1.5	
SN-02	Meltshop Fugitives	PM	7.0	25.5	26
		PM <sub>10</sub>	4.1	14.8	
		SO <sub>2</sub>	4.1	15.2	
		VOC	2.5	9.2	
		CO	44.0	168.0	
		NO <sub>x</sub>	5.0	18.2	
		Pb	0.3	0.8	
SN-03	Ladle Metallurgy Station	PM	1.0	4.5	29
		PM <sub>10</sub>	0.8	3.4	
		CO	42.0	160.0	
SN-04	Reheat Furnace	PM	1.0	4.2	32
		PM <sub>10</sub>	1.0	4.2	
		SO <sub>2</sub>	0.1	0.2	
		VOC	0.4	1.7	
		CO	4.3	18.0	
		NO <sub>x</sub>	14.0	43.0	
SN-05	Ladle Preheaters (3 units)	PM	0.2	0.7	35
		PM <sub>10</sub>	0.2	0.7	
		SO <sub>2</sub>	0.1	0.1	
		VOC	0.1	0.4	
		CO	1.4	5.9	
		NO <sub>x</sub>	1.6	7.0	

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
SN-06	Ladle Dryer	PM	0.1	0.2	36
		PM <sub>10</sub>	0.1	0.2	
		SO <sub>2</sub>	0.1	0.1	
		VOC	0.1	0.1	
		CO	0.1	0.3	
		NO <sub>x</sub>	0.3	1.3	
SN-07	Tundish Preheaters	PM	0.1	0.3	38
		PM <sub>10</sub>	0.1	0.3	
		SO <sub>2</sub>	0.1	0.1	
		VOC	0.1	0.2	
		CO	0.7	2.8	
		NO <sub>x</sub>	0.8	3.4	
SN-08	Unpaved Roads	PM	N/A	14.0	40
		PM <sub>10</sub>	N/A	5.0	
SN-09	Paved Roads	PM	N/A	9.7	41
		PM <sub>10</sub>	N/A	1.9	
SN-10	Slag Processing	PM	5.7	8.3	42
		PM <sub>10</sub>	2.9	4.1	
SN-11	Baghouse Dust Handling	PM	0.2	0.5	44
		PM <sub>10</sub>	0.1	0.4	
		Pb	0.1	0.1	
SN-12	Tundish Dryer	PM	0.1	0.1	46
		PM <sub>10</sub>	0.1	0.1	
		SO <sub>2</sub>	0.1	0.1	
		VOC	0.1	0.1	
		CO	0.3	1.1	
		NO <sub>x</sub>	0.3	1.3	

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
SN-12a	Tundish Dryer	PM	0.1	0.1	46
		PM <sub>10</sub>	0.1	0.1	
		SO <sub>2</sub>	0.1	0.1	
		VOC	0.1	0.1	
		CO	0.3	1.1	
		NO <sub>x</sub>	0.3	1.3	
SN-13	Tie Plate Dipping Process	VOC	141.7	1.7	48
		Xylene	10.8	0.2	

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### **SECTION III: PERMIT HISTORY**

The facility began operations in 1971, and Arkansas Steel Associates, LLC (ASA) purchased the facility in 1989 from Razorback Steel Corporation. The mill had two electric arc furnaces with a holding capacity of 35 tons each. The furnaces were equipped with side draft hoods for evacuating the emissions during melting and refining.

In December of 1993, emission testing was done on the EAF baghouse, melt shop roof monitor, caster, and the reheat furnace, for the purpose of establishing an emission baseline.

#### **Permit 35-AR-3**

On 6/2/94, Permit #35-AR-3 was issued for the installation of a used 50 ton electric arc furnace, and utilizing the existing arc furnaces as a ladle metallurgy station. The installation of the new EAF increased the mill's production capacity and affected the potential emissions from most sources at the mill. One source not affected by this project was the reheat furnace. Although a ladle metallurgy station (LMS) was proposed in the application for 35-AR-3, that source was never constructed. When permit 35-AR-3 was issued in 1994, it was believed that the modernization project did not constitute a "major modification" as defined in 40 CFR 52.21. Emissions were estimated based on standard EPA estimation methods and field testing, and the proposed emission increases were less than the major modification thresholds in 40 CFR 52.21(b)(23)(i).

The new electric arc furnace was purchased from the Armco facility at Baltimore Works second hand at a capital cost of less than 50% of the capital cost of a new electric arc furnace. The reconstruction cost was estimated at \$5,095,498, while the cost of a new furnace was estimated at \$14,275,998. Despite this cost analysis, the arc furnace was constructed at the Armco facility during the applicable period of 40 CFR Subpart AA--Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983. It is the Department's contention that this is construction of an affected facility and therefore subject to the above referenced regulation.

#### **Permit 35-AOP-R0**

After the new EAF was installed and began operating, the facility was tested for PM, CO, and NO<sub>x</sub> emissions. Results of testing on January 5 and 6, 1995, indicated that actual emissions of CO and NO<sub>x</sub> were substantially greater than original estimates. ASA then was required to submit a PSD application. This application triggered the baseline date for NO<sub>2</sub> and SO<sub>2</sub>. The minor source baseline date (NO<sub>2</sub> and SO<sub>2</sub>) is 5/10/96 for Jackson County. Permit 35-AOP-R0

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was issued on 9/24/98. This permit was the first Title V Operating Air Permit and the first PSD permit issued for this facility. This permit also included an EPA approved alternative monitoring plan for the EAF baghouse. This alternative monitoring plan included daily opacity observations on the melt shop emissions as a substitute for electric arc furnace pressure monitoring. This alternative monitoring plan was approved by this Department and the EPA Region VI.

### **Summary of PSD Issues Addressed in Permit 35-AOP-R0**

In 1994, ASA requested authorization from this Department to modernize the facility and increase production capacity. At that time, ASA proposed that a used 50 ton electric arc furnace (EAF) be installed and the existing EAF be converted to a ladle metallurgy station (LMS). The proposed modification was authorized June 2, 1994, with permit No. 35-AR-3. The 50 ton EAF was subsequently installed and began operating. The proposed conversion of the old EAF to a LMS had not yet occurred.

The installation of the new EAF increased production capacity and affected the potential emissions from most sources at the mill. Emissions from the EAF and meltshop fugitives were affected by the changes to the operations and production capacity increase. The existing natural gas fired ladle preheaters were modernized, and a third preheater was added. Fugitive emissions from roads increased due to increased traffic. The increased production capacity also increased the potential emissions from slag processing and baghouse dust handling operations.

One source not affected by the 1994 project was the reheat furnace. Potential throughput and emissions from the reheat furnace were not affected, so the reheat furnace was not included in the sources affected by PSD issues addressed in ASA's Title V Operating Air Permit No. 35-AOP-R0.

When the permit application was prepared in 1994, it was believed that the modernization project did not constitute a major modification as defined in 40 CFR 52.21 because the estimated emission increases were less than the significant levels. After permit 35-AR-3 was issued, the testing showed emission rate increases greater than the PSD significant levels; therefore, permit 35-AOP-R0 was a retroactive PSD permitting action.

Arkansas Steel is considered a major stationary source under the prevention of significant (PSD) regulations. Sulfur dioxide (SO<sub>2</sub>), carbon monoxide (CO), nitrogen dioxide (NO<sub>2</sub>), and volatile organic compound (VOC) emission increases associated with the 1994 modifications were 122 tpy, 777.9 tpy, 191.7 tpy, and 44 tpy, respectively. These increases exceeded the PSD significance levels and were subject to PSD review. Emission increases of 44 tpy volatile organic compounds (VOC) associated with the 1994 modification were below 100 tpy; therefore,

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monitoring was not required for ozone. The particulate and lead emissions decreased with the 1994 modification.

The PSD regulations mandate that a case-by-case Best Available Control Technology (BACT) analysis be performed on all sources which were directly associated with the 1994 modernization project. These sources included the electric arc furnace and the miscellaneous natural gas fired equipment. BACT was not required for the roads, slag processing, or baghouse dust handling because they do not emit a pollutant subject to PSD review. The previous reheat furnace was not affected by this project, so it was not subject to PSD review either. The BACT determination is summarized below.

Summary of BACT Determination				
Source	Description	Pollutant	Control Technology	BACT Limit
SN-01	Electric Arc Furnace	VOC	Direct Evacuation System (DEC) with air gap for long residence time.	0.35 lb/ton
		SO <sub>2</sub>	DEC with no add-on controls	0.7 lb/ton
		CO	DEC with air gap for CO combustion	6.0 lb/ton
		NO <sub>x</sub>	DEC with no add-on controls	1.0 lb/ton
SN-05 SN-06 SN-07	Ladle Preheaters Ladle Dryer Tundish Preheater	VOC SO <sub>2</sub> CO NO <sub>x</sub>	Natural Gas Combustion	Good Combustion Practice

SO<sub>2</sub>, CO, and NO<sub>x</sub> impacts from the proposed emission rate increases exceeded the significant impact increments. A full impact analysis was performed to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) for SO<sub>2</sub>, CO, NO<sub>x</sub>, and the PSD increments for SO<sub>2</sub> and NO<sub>x</sub>. Compliance with the NAAQS was based on the modeled impact plus the background concentrations. The background concentrations were supplied by ADPCE. The years used in the modeling were 1986, 1987, 1988, 1990, and 1991. This data was Little Rock

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meteorological data. A summary of the modeling results for SO<sub>2</sub>, CO, and NO<sub>x</sub> is presented in the tables below.

Summary of SO <sub>2</sub> Modeling Results						
Met Data Year	Averaging Period	Modeled Impact ug/m <sup>3</sup>	Background ug/m <sup>3</sup>	NAAQS <sup>1</sup> ug/m <sup>3</sup>	Increment Consumption ug/m <sup>3</sup>	% Available Increment Consumed
1986	Annual	8.4	3.3	11.7	6.5	32.5
	24-hr	84	34	118	70.5	77.5
	3-hr	313	80	393	262	51.2
1987	Annual	8.8	3.3	12.1	6.9	34.5
	24-hr	75	34	109	62.7	68.9
	3-hr	279	80	359	236	46.0
1988	Annual	9.5	3.3	12.8	7.4	37.0
	24-hr	80	34	114	66.9	73.5
	3-hr	272	80	352	227	44.3
1990	Annual	9.7	3.3	13.0	7.5	37.5
	24-hr	81	34	115	68.3	75.0
	3-hr	282	80	362	239	46.7
1991	Annual	9.6	3.3	12.9	7.6	38.0
	24-hr	79	34	113	66.8	73.4
	3-hr	278	80	358	233	45.5
Standard	Annual	--	--	80	20	50
	24-hr	--	--	365	91	80
	3-hr	--	--	1300	512	80

<sup>1</sup>Includes modeled impact plus background concentration.

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Summary of CO Modeling Results				
Met Data Year	Averaging Period	Modeled Impact ug/m <sup>3</sup>	Background ug/m <sup>3</sup>	NAAQS <sup>1</sup> ug/m <sup>3</sup>
1986	8-hr	1,447	4,800	6,247
	1-hr	5,834	6,000	11,834
1987	8-hr	1,386	4,800	6,186
	1-hr	6,294	6,000	12,294
1988	8-hr	1,581	4,800	6,381
	1-hr	5,920	6,000	11,920
1990	8-hr	1,563	4,800	6,363
	1-hr	5,747	6,000	11,747
1991	8-hr	1,327	4,800	6,127
	1-hr	6,010	6,000	12,010
Standard	8-hr	--	--	10,000
	1-hr	--	--	40,000

<sup>1</sup>Includes modeled impact plus background concentration.

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Summary of NO <sub>x</sub> Modeling Results						
Met Data Year	Averaging Period	Modeled Impact ug/m <sup>3</sup>	Background ug/m <sup>3</sup>	NAAQS <sup>1</sup> ug/m <sup>3</sup>	Increment Consumption ug/m <sup>3</sup>	% Available Increment Consumed
1986	Annual	17.1	15.0	32.1	8.6	34.4
1987	Annual	17.6	15.0	32.6	9.1	36.4
1988	Annual	18.3	15.0	33.2	9.8	39.2
1990	Annual	17.9	15.0	32.9	10.0	40.0
1991	Annual	18.4	15.0	33.4	10.1	40.4
Standard	Annual	--	--	100	25	50

<sup>1</sup>Includes modeled impact plus background concentration.

The secondary NAAQS are intended to protect the public welfare from adverse effects of airborne pollutants. This protection extends to agricultural soil. The predicted impacts from the 1994 modification were less than the secondary NAAQS; therefore, no significant adverse impact on soil and vegetation is anticipated due to the 1994 modification. The predicted sulfur dioxide ambient air concentration (118 ug/m<sup>3</sup>) was below the level at which major SO<sub>2</sub> impacts on soybeans have been demonstrated (greater than 260 ug/m<sup>3</sup> for a 24-hour period).

The visibility impact from this facility was addressed using USEPA's VISCREEN model. Results of the Level I analysis for Caney Creek and Upper Buffalo indicate that the visibility impact of the mill is below the threshold level of 0.05 for plume contrast and 2.0 for delta E. Therefore, visibility impacts, due to this modification of the facility, should be negligible.

**Permit 35-AOP-R1**

Permit 35-AOP-R1 was issued on March 15, 1999, for the construction and operation of a new reheat furnace (SN-04). This new reheat furnace is replacing the old reheat furnace. The new reheat furnace has a rated heat input capacity of 68 MMBtu/hr and will combust natural gas. The permittee submitted a PSD netting analysis demonstrating that the furnace replacement does not trigger PSD review. The results of this netting demonstration (as modified) resulted in a net emission increase of 29 tpy of nitrogen oxides, which is below the significant level of 40 tpy. Consequently, this modification is not subject to PSD review. The netting analysis referred to herein was submitted to the Department as an appendix to ASA's Application for Modification

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of Draft Operating Air Permit, 35-AOP-R0, dated March 9, 1998, and modified by subsequent submittal in January, 1999.

Permit 35-AOP-R1 also involved several pollution control projects undertaken on the EAF baghouse system in the melt shop. These changes were a new water cooled duct, a new duct and damper coming off the EAF fourth hole, new air moving fans, a new damper valve for the canopy hood, magnehelic gauges as replacements for the existing manometric pressure sensing devices, and a computerized programmable logic control (PLC) system.

**35-AOP-R2**

Permit 35-AOP-R2 was issued to Arkansas Steel on June 29, 2000. This permit modification was to add a new tundish dryer, SN-12, to replace their ladle dryer, SN-06, to correctly permit SN-07, the tundish preheaters, as two separate preheaters which cannot, by design, operate simultaneously and to add the tie plate dipping process, SN-13, which was previously permitted as an insignificant activity.

**35-AOP-R3**

Permit 35-AOP-R3 was issued to Arkansas Steel on January 5, 2001. This modification to Arkansas Steel's permit is to include a Ladle Metallurgy Station, SN-03, and a production increase at the facility. Emissions of CO, PM<sub>10</sub>, and lead will increase above the PSD significance level and will require the facility to undergo PSD review for those pollutants. The increase in emissions from all other pollutants is below the PSD significance level.

**Summary of PSD Issues Addressed in Permit 35-AOP-R3**

The Arkansas Steel facility has undergone PSD review under previous permits. Summaries of the PSD issues of these permits are in the Permit History section of this permit. This modification to the Arkansas Steel facility adds the Ladle Metallurgy Station, SN-03, and an increase in production. This modification is significant only for CO, PM<sub>10</sub>, and lead emissions. All other pollutants increases in emissions are below the PSD significance level.

**Ambient Air Impact Analysis**

An applicant for a Prevention of Significant Deterioration (PSD) permit is required to conduct an air quality analysis of the ambient impacts associated with the construction and operation of the proposed new source or modification. The primary purpose of the air quality analysis is to demonstrate that new emissions emitted from a major stationary source, in conjunction with other applicable emissions from existing sources (including secondary emissions from growth

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associated with the new project), will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or PSD increment.

The US EPA requires that PSD modeling be performed in two stages: the significance analysis and the full impact analysis. The significance analysis considers the net emissions change associated with PSD affected emissions units to determine if the increased emissions will have a significant impact upon the surrounding area. If the results of the significance analysis are below the corresponding Modeling Significance Levels, the full impact analysis is not required.

A screening analysis was conducted for the PM<sub>10</sub> and lead emissions related to the PSD modification at the facility. Modeled concentrations for both pollutants emissions were below the significance levels. Therefore, refined modeling was not performed for these pollutants. A summary of the resulting concentrations from the screening analysis are in the following tables. The first table shows the results of the PM<sub>10</sub> screening and the second shows the results of the lead screening.

PM <sub>10</sub> Significant Impact Analysis Results			
Year	Averaging Period	Significance Level (µg/m <sup>3</sup> )	Highest modeled concentration (µg/m <sup>3</sup> )
1991	24-Hour	5	4.58
	Annual	1	0.34
1992	24-Hour	5	4.73
	Annual	1	0.42
1993	24-Hour	5	4.38
	Annual	1	0.36
1994	24-Hour	5	3.22
	Annual	1	0.41
1995	24-Hour	5	3.69
	Annual	1	0.37

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Lead Significant Impact Analysis Results			
Year	Calender Quarter	Significance Level ( $\mu\text{g}/\text{m}^3$ )	Highest modeled concentration ( $\mu\text{g}/\text{m}^3$ )
1991	1	0.6	0.293
	2	0.6	0.360
	3	0.6	0.331
	4	0.6	0.282
1992	1	0.6	0.301
	2	0.6	0.273
	3	0.6	0.324
	4	0.6	0.338
1993	1	0.6	0.306
	2	0.6	0.285
	3	0.6	0.350
	4	0.6	0.318
1994	1	0.6	0.278
	2	0.6	0.247
	3	0.6	0.346
	4	0.6	0.402
1995	1	0.6	0.313
	2	0.6	0.282
	3	0.6	0.347
	4	0.6	0.271

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Results of the screening analysis performed for CO showed that refined modeling must be performed. Refined modeling must show that the emissions from the facility and surrounding existing sources will not cause or contribute to a violation of any applicable National Ambient Air Quality Standard (NAAQS) or PSD increment. There is no PSD increment for CO. Therefore, the modeling performed only ensures there was no violation to the NAAQS. The results of the model show no violation of the NAAQS occurred at any location for either the 1-hour or the 8-hour NAAQS standard. A summary of the NAAQS modeling results are in the table below.

Averaging Time Period	Highest Modeled Concentration with Background	NAAQS Standard	Percent of NAAQS Standard
1-hour	22,321 $\mu\text{g}/\text{m}^3$	40,000 $\mu\text{g}/\text{m}^3$	55.8%
8-hour	5,837 $\mu\text{g}/\text{m}^3$	10,000 $\mu\text{g}/\text{m}^3$	58.4%

### **Additional Impact Review**

An applicant for a Prevention of Significant Deterioration (PSD) permit must prepare additional impact analyses for each pollutant subject to the regulation under the Clean Air Act Amendments. Three areas constitute the Additional Impact Review: a growth analysis, a soils and vegetation analysis, and a visibility analysis.

#### **Growth Analysis**

The Growth Analysis estimates the impact of atmospheric emissions that will be generated by the projected growth from industrial, commercial, and residential growth associated with the project. The only increase in emissions from associated growth results from the increase in workers traveling to and from work. Emissions from this are assumed to be insignificant and would not have a minor impact (if any) to the area.

#### **Soils and Vegetation Analysis**

A PSD applicant must also conduct a soil and vegetation air pollution impact analysis based on an inventory of the soils and vegetation types found in the impact area. For most types of soils and vegetation ambient concentrations of criteria pollutants below the secondary NAAQS will not result in harmful effects.

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The modeling results discussed in the Ambient Air Impact Analysis above show that all pollutant’s ground level concentrations are below the secondary NAAQS levels set forth by the US EPA. Therefore, Arkansas Steel’s emissions are not expected to result in harmful effects to the soils and vegetation in the area.

**Visibility Impact Analysis**

PSD regulations require that emissions from a major source be evaluated for potential impacts on visibility in any nearby Class I area. The closest Class I area to the Arkansas Steel facility is the Hercules Glades Wilderness, at a distance of approximately 93 km. Due to this great distance, the impact on visibility at Hercules Glades is expected to be minimal. A plume visual impact model was selected for further analysis.

Arkansas Steel, in the preparation of their permit application, ran EPA’s VISCREEN model to determine the effect that the facility would have on the visibility in the Hercules Glades Wilderness. The model showed that the screening criteria was not exceeded and that Arkansas Steel should cause no detrimental impact on the visibility in the Hercules Glades Wilderness.

**Best Available Control Technology**

The PSD regulations mandate that a case-by-case Best Available Control Technology (BACT) analysis be performed on all new or modified affected sources at which a net emissions increase will occur. The following table is a summary of the BACT determinations made in this permit for Arkansas Steel. BACT determinations for the facility made in previous permits can be found in the Permit History section of this permit.

BACT Analysis Summary				
Source	Description	Pollutant	Control Technology	Bact Limit
01	EAF Baghouse	PM <sub>10</sub>	Baghouse	0.0052 gr/dscf 3% of baghouse dust 0.6 lb/ton
		lead	Baghouse	
		CO	DEC with air gap for CO combustion	
03	Ladle Metallurgy Station	PM <sub>10</sub>	Baghouse	0.0052 gr/dscf 0.6 lb/ton
		CO	DEC with air gap for CO combustion	

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04 05 06 07 12	Reheat Furnace Ladle Preheaters Ladle Dryer Tundish Preheaters Tundish Dryer	PM <sub>10</sub> CO	Natural Gas Combustion	Good Combustion Practice
08 09	Paved and Unpaved Roads	PM <sub>10</sub>	Water Applications	6.9 tpy
10	Slag Processing	PM <sub>10</sub>	Water Applications	4.1 tpy
11	Baghouse Dust Handling	PM <sub>10</sub> lead	No feasible controls	0.4 tpy

**BACT Requirements for PM<sub>10</sub> and Lead Emissions**

Particulate and lead emissions from SN-01, the electric arc furnace, EAF, are controlled by a baghouse. This is the only type of add on controls found for EAFs on the RACT/BACT/LAER clearinghouse. Since baghouses represent the highest level of particulate control, it is BACT for this source.

The emissions from SN-02, the Meltshop Fugitives, are un-captured emissions from the EAF, SN-01, the LMS, SN-03, and the natural gas combustion sources at the facility. Both the EAF and the LMS are controlled by baghouses. For the other sources, natural gas combustion is used to control particulate emissions. There were no additional controls found on the RACT/BACT/LAER clearinghouse for this type of source. The amount of airflow through the roof monitor, SN-02, make add on controls for this source unfeasible.

Particulate and lead emissions from SN-02, the Ladle Metallurgy Station (LMS), will be controlled by a baghouse. This is the only type of add on controls found for a LMS on the RACT/BACT/LAER clearinghouse. Since baghouses represent the highest level of particulate control, it is BACT for this source.

Sources SN-04, 05, 06, 07, and 12 are all combustion sources. BACT for these sources was found to be natural gas combustion to control particulate emissions.

Arkansas Steel currently employs water sprays to reduce fugitive emission from their slag processing operation, SN-10. This type of control is consistent with those found on the RACT/BACT/LAER clearinghouse and is BACT for this source.

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Arkansas Steel also currently applies water to their roads to reduce fugitive emissions caused by traffic on SN-8 and 9. This type of control will provide dust suppression equal to the level of control found on the RACT/BACT/LAER clearinghouse for this type of source and is BACT for this source.

#### **BACT Requirements for CO Emissions**

The only type of controls for carbon monoxide emissions found for electric arc furnace and the ladle metallurgy station on the RACT/BACT/LAER clearinghouse was a direct evacuation chamber DEC system. This is the current method of control for the EAF at Arkansas Steel and is what will be installed on the LMS. The DEC system represents BACT for these sources.

Sources SN-04, 05, 06, 07, and 12 are all combustion sources. BACT for these sources was found to be natural gas combustion combined with good combustion practice to control carbon monoxide emissions.

#### **35-AOP-R3 Administrative Amendment**

An Administrative Amendment to 35-AOP-R3 was issued on March 9, 2001. This amendment corrected a number of typographical errors in the permit.

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**SECTION IV: EMISSION UNIT INFORMATION**

Amended

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**SN-01**  
**EAF Baghouse**

The electric arc furnace (EAF) that Arkansas Steel Associates operates has a rated capacity of 50 tons and has a tap-to-tap time of approximately 40 to 55 minutes. The EAF typically requires three phases of operation: scrap charging, meltdown and refining, and tapping. The EAF is subject to NSPS Subpart AA.

During charging, the roof of the EAF is opened and the furnace is charged with recycled scrap material. The charge is dropped into the furnace from a large crane bucket. Most of the resulting plume is captured in a deep storage canopy hood. Gases evacuated from the deep storage canopy hood are directed to the EAF baghouse, which has a flow rate capacity of 300,000 ACFM. The presence of the canopy hood significantly increases overall particulate capture and thus lowers particulate matter fugitive emissions.

During melting and refining, the furnace remains covered. The direct evacuation system (DEC) pulls exhaust gases at approximately 3000°F from the "fourth hole" located at the top of the furnace. Because of the high temperature, a water-cooled duct is utilized. Combustion air is added to the duct at the "air gap" in order to combust carbon monoxide and volatile organic compounds coming from the furnace. Because of the residence time and high temperature, this is especially effective in destroying CO and VOC emissions. The DEC also increases particulate control by providing close capture of process emissions.

Exhaust gas from the DEC then enters a spark box. The spark box allows large particles to drop and provides additional residence time for CO combustion. The hot furnace gas is then mixed with approximately 100,000 ACFM of dilution air from the canopy hood. The dilution air lowers the overall temperature of the gas to about 250 degrees F before it enters the EAF baghouse. The baghouse is a positive pressure shaker-type baghouse with 16 compartments. Each compartment has its own exhaust stack.

After the meltdown and refining stages are completed, the steel melted in the EAF is tapped into a refractory lined ladle. It is then cast into billets in the casting area of the facility. Though refining can take place in the EAF, the majority of refining takes place at the ladle metallurgy station, SN-03.

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**Specific Conditions**

1. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at SN-01. Compliance with this condition shall be demonstrated by complying with the steel production limits specified in this permit and the testing in Specific Conditions 3 and 6.

Pollutant	lb/hr	tpy
PM <sub>10</sub> SO <sub>2</sub>	11.3	49.2
VOC	41.0	152.0
CO	25.0	92.0
NO <sub>x</sub>	420.0	1600.0
Pb	50.0	181.5
	0.4	1.5

2. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by the steel production limits specified in this permit and Specific Condition 3.

Pollutant	lb/hr	tpy
PM	11.3	49.2

3. Pursuant to §19.702 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, and 40 CFR 60.275(e), the permittee shall measure the particulate emissions from the EAF baghouse, SN-01, using method 5, on or before June 1, 2001, and every twelve months thereafter. The sampling time and sample volume for each run shall be at least 4 hours and 4.50 dscm (160 dscf). Each test shall consist of three runs. The permittee shall test 4 of the 16 stacks. The 4 stacks are to be chosen at random, by the Department, and the emissions from these tests will be extrapolated to arrive at an emissions level for the entire baghouse system by taking the average emission rate from the four stacks tested and multiplying by 16. The permittee shall notify the Department, in writing, at least 15 days prior to performing the tests.

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4. Pursuant to 40 CFR 60.272(a)(1) and §19.304, the particulate concentration in the exhaust of SN-01 shall not exceed 0.0052 gr/dscf. Compliance with this condition shall be demonstrated by method 5 testing as described in Specific Condition 3.
5. Pursuant to §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not emit carbon monoxide emissions from SN-01 in excess of 6.0 pounds of CO per ton of steel produced, 0.35 pounds of VOC per ton of steel produced, 0.58 pounds of SO<sub>2</sub> per ton of steel produced or 0.5 pound of NO<sub>x</sub> per ton of steel produced. The particulate concentration in the exhaust of SN-01 shall not exceed 0.0052 gr/dscf. The lead content of the baghouse dust shall not exceed 3.0% by weight. Compliance with this condition will be shown by Specific Conditions 3, 6, and 13.
6. Pursuant to §19.702 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall measure the VOC, CO, NO<sub>x</sub>, and SO<sub>2</sub> emissions from SN-01 using method 25A, 10, 7E, and 6C, respectively, on or before June 1, 2001, and every twelve months thereafter. The permittee shall notify the Department, in writing, at least 15 days prior to performing the tests.
7. Pursuant to 40 CFR 60.272(a)(2), and §18.501 of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not emit any gasses from SN-01 which have an opacity greater than 3%, as measured by Method 9. Visible emission observations shall be conducted on SN-01 at least once per day by a certified visible emission observer when the furnaces are operating in the melting and refining period and records of these observations shall be kept on site and available for inspection. It shall be noted on the observation form that the readings were taken during the melting and refining period. These observations shall be performed for at least three 6-minute periods. These observations are only required on one of the sixteen baghouse stacks provided the observations are made for the stack of highest opacity that directly relates to the cause (or locations) of visible emissions observed during a single incident. These observations shall not be required when ASA personnel are receiving training .
8. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall submit a written report of exceedances of the EAF baghouse opacity to the Department semi-annually. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (July 30 and January 30). For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average baghouse opacity is equal to 3% or greater

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during melting and refining periods. The permittee shall also comply with the reporting requirements in General Provision 7 of this permit.

9. Pursuant to 40 CFR 60.8(c), the opacity limit specified in Specific Condition 7 shall not apply during periods of startup, shutdown, and malfunction.
10. Pursuant to 40 CFR 60.274(e), the permittee shall perform monthly operational status inspections of the equipment that is important to the total capture system (i.e., pressure sensors, dampers, and damper switches). This inspection shall include observations of the physical appearance of the equipment (e.g., presence of holes in ductwork or hoods, flow constrictions caused by dents or accumulated dust in ductwork, and fan erosion).
11. Pursuant to 40 CFR 60.274(i), the permittee shall, during any emission or opacity testing on SN-01, monitor and record the following information for all heats covered by the tests:
  - a. Charge weights and materials, and tap weights and materials.
  - b. Heat times, including start and stop times, and a log of process operation, including periods of no operation during testing.
  - c. Control device operation log.
  - d. Continuous monitor or Reference Method 9 data.
12. Pursuant to 40 CFR 60.274(b) and 60.276(a), the permittee shall check and record on a once-per-shift basis the baghouse fan motor amperes and either damper positions or magnehelic pressure gauge readings. The permittee may check and record magnehelic pressure gauge readings on the baghouse ductwork instead of damper positions as an indicator of correct damper positions. Operation of baghouse fan motor amperes values exceeding  $\pm 15$  percent of the value established during the last Method 5 test may be considered unacceptable operation and maintenance of the total capture system. Operation at such values shall be reported to the Department semiannually. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (July 30 and January 30). The permittee shall also comply with the reporting requirements in General Provision 7 of this permit.
13. Pursuant to §19.702 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall demonstrate compliance with the lead emission limits by either 1) measure the lead concentration in the baghouse dust and calculate lead emissions by multiplying the measured particulate emissions by the lead concentration percentage in the baghouse dust, or 2) perform stack

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testing using Reference Method 12. These demonstrations shall be conducted on an annual basis with the next demonstration being performed by June 1, 2001.

14. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 40 CFR Part 70.6, §19.901 and §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed 70 tons per hour of steel production. Compliance with this condition shall be determined by calculating the tonnage of steel tapped from the furnace over each day, then dividing the daily total amount of tapped steel by the number of operating hours. The permittee may use the density of steel (490 lb/ft<sup>3</sup>) in conjunction with the volume of steel produced to calculate the tonnage of steel produced each day.
15. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, 40 CFR Part 70.6, §19.901 and §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed 526,000 tons per year of steel production based on a rolling 12-month total. Compliance with this condition shall be demonstrated on a monthly basis by totaling the steel production for the previous 12 months.
16. Pursuant to §19.705 and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall maintain daily records of the tonnage of steel produced. The permittee shall also maintain monthly records of the tonnage of steel produced each month and the consecutive 12 month total of steel produced. These records should be updated by the 20<sup>th</sup> day of the month following the month the records represent and shall be submitted in accordance with General Condition 7.

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**SN-02**  
**Meltshop Fugitive Emissions**

**Source Description**

On November 15, 1993, Arkansas Steel measured and tabulated ventilation patterns from the melt shop. The roof monitor is a horizontal vent on top of the melt shop. The roof monitor is 75 feet long. It was determined at this testing that the volume of air exiting the roof monitor was approximately 10% of the total CFM. This flow rate was used in determining the fugitive particulate, CO, and VOC emissions from the roof monitor. The meltshop is subject to the opacity standards under NSPS-AA. An alternative monitoring plan has been approved by EPA for this facility, which allows daily opacity readings on the meltshop during melting and refining as an alternative to monitoring the pressure in the free space inside the electric arc furnace.

**Specific Conditions**

17. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall not exceed the following emission rates at SN-02. Compliance with this condition shall be demonstrated by complying with the steel production limits set forth in this permit.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	4.1	14.8
SO <sub>2</sub>	4.1	15.2
VOC	2.5	9.2
CO	44.0	168.0
NO <sub>x</sub>	5.0	18.2
Pb	0.3	0.8

18. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by complying with the steel production limits set forth in this permit.

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Pollutant	lb/hr	tpy
PM	7.0	25.5

19. Pursuant to 40 CFR 60.272(a)(3), 60.274(d), and §18.501 of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not emit any gases from the melt shop during melting and refining phases which have an opacity of 6% or greater. At least once per day when the furnace is operating in the meltdown and refining period, an observer certified in accordance with EPA Method 9 shall conduct visible emissions observations to determine the shop opacity. These observations shall be taken in accordance with EPA Method 9 for at least three 6-minute periods. Melting and refining phases shall mean the time period commencing at the termination of the initial charging period and ending at the initiation of the tapping period, excluding any intermediate charging periods. The opacity shall be recorded for any point(s) where visible emissions are observed. Where it is possible to determine that a number of visible emission sites relate to only one incident of the visible emissions, only one set of three 6-minute observations will be required. In this case, EPA Method 9 observations must be made for the site of highest opacity that directly relates to the cause (or location) of visible emissions observed during a single incident. These opacity observations shall be recorded on a visible emission observations form. The information presented in Figures 9-1 and 9-2 to EPA Method 9 shall be recorded. Compliance with this condition shall be demonstrated by Specific Condition 22. These observations shall not be required when ASA personnel are receiving training .
  
20. Pursuant to 40 CFR 60.272(a)(3)(i), and §18.501 of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not emit any gases from the melt shop during charging periods which have an opacity of 20% or greater. At least once per week when the furnace is in the charging period, an observer certified in accordance with EPA Method 9 shall conduct visible emissions observations to determine the shop opacity. These observations shall be taken in accordance with EPA Method 9 for at least one 6-minute period. Charging period shall mean the time period commencing at the moment the EAF starts to open and ending either three minutes after the EAF roof is returned to its closed position or six minutes after commencement of opening the roof, whichever is longer. Compliance with this condition shall be demonstrated by Specific Condition 22. These observations shall not be required when ASA personnel are receiving training .
  
21. Pursuant to 40 CFR 60.272(a)(3)(ii), and §18.501 of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the

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permittee shall not emit any gases from the melt shop during tapping periods which have an opacity of 40% or greater. At least once per week when the furnace is in the tapping period, an observer certified in accordance with EPA Method 9 shall conduct visible emissions observations to determine the shop opacity. These observations shall be taken in accordance with EPA Method 9 for at least one 6-minute period. Tapping period shall mean the time period commencing at the moment the EAF begins to tilt to pour and ending either three minutes after the EAF returns to an upright position or six minutes after commencing to tilt, whichever is longer. Compliance with this condition shall be demonstrated by Specific Condition 22. These observations shall not be required when ASA personnel are receiving training .

22. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall keep records of all opacity readings taken on the meltshop. The period when the opacity readings are performed shall be clearly marked on the opacity form. The period shall be marked either melting and refining, charging, or tapping.
23. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall submit a written report of exceedances of the shop opacity to the Department semi-annually. All reports shall be postmarked by the 30<sup>th</sup> day following the end of each calendar half (July 30 and January 30). For the purposes of these reports, exceedances are defined as all 6-minute periods during which the average shop opacity is equal to 6% or greater during melting and refining periods, 20% or greater during charging periods, and 40% or greater during tapping periods. These reports shall clearly indicate which period the exceedance occurred in. The permittee shall also comply with the reporting requirements in General Provision 7 of this permit.
24. Pursuant to 40 CFR 60.8(c), the opacity limits specified in Specific Conditions 19, 20, and 21 shall not apply during periods of startup, shutdown, and malfunction.

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**SN-03  
Ladle Metallurgy Station**

**Source Description**

Before proceeding to the caster, the partially processed steel must typically undergo refining. This refining takes place in the Ladle Metallurgy Station (LMS), SN-03. At the LMS, the ladle is paused and another triad of carbon electrodes with a special roof for the ladle are set in place over the ladle and the partially processed molten steel. At this point, further alloying and refining of the steel to the desired metallurgical chemistry takes place. Emissions from this source are controlled by a baghouse.

In some instances, when further refining is not necessary, the molten steel may proceed directly to the caster without a pause at the LMS.

**Specific Conditions**

25. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall not exceed the following emission rates at SN-03. These rates were calculated based on continuous operation at rated capacity. Compliance with this condition shall be demonstrated by complying with the steel production limits set forth in this permit and Specific Condition 31.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	0.8	3.4
CO	42.0	160.0

26. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by complying with the steel production limits set forth in this permit and Specific Condition 31.

Pollutant	lb/hr	tpy
PM	1.0	4.5

27. Pursuant to §19.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not emit any gases from SN-03, the Ladle Metallurgy Station, which

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exhibit an opacity of 5% or greater. Compliance with this condition will be shown by Specific Condition 29.

28. Pursuant to §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not emit carbon monoxide emissions from SN-03 in excess of 0.6 pounds of CO per ton of steel produced nor shall the particulate concentration in the exhaust of SN-03 exceed 0.0052 gr/dscf. Compliance with this condition will be shown by Specific Condition 31.
29. Pursuant to §19.705, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall conduct weekly observations of the opacity from SN-03. These weekly observations shall be conducted in accordance with EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the excess visible emissions, implement corrective action, and document that the visible emissions did not exceed the permitted opacity following the corrective action. These observations shall not be required when ASA personnel are receiving training .
30. Pursuant to §19.705 and 40 CFR Part 52, Subpart E, the permittee shall maintain records which demonstrate compliance with Specific Condition 29. These records shall contain the following items.
  1. The date and time of the observation;
  2. if visible emissions above the permitted limit were detected;
  3. if visible emissions above the permitted limits, list the cause of the exceedance of the opacity limits, the corrective action taken, and if the visible emissions are below the permitted limit after the corrective actions was taken; and
  4. the person conducting the opacity observations.

These records shall be updated weekly, kept on site, and made available to Department personnel upon request.

31. Pursuant to §19.901 et seq and 40 CFR Part 52, Subpart E, the permittee shall measure the particulate and CO emissions from the LMS baghouse, SN-03, using EPA Reference Method 5 and 10 respectively. This test shall be conducted within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up, and every 12 months thereafter. The permittee shall notify the Department, in writing, at least 15 days prior to performing the tests.

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**SN-04  
Reheat Furnace**

**Source Description**

After leaving the caster, the steel billets are processed through a natural gas fired reheat furnace. With the exception of startup, shutdown, and malfunction conditions, the rated heat input capacity of the reheat furnace is 67.97 MMBtu/hr. The reheat furnace is manufactured by Danieli Centro Combustion. Startup is expected in mid 1999. All combustion products are routed to a single stack. This source is not subject to NSPS-Dc because it is not used to heat steam, water, or any other heat transfer medium as defined in NSPS-Dc. The permitted NOx emissions from this new furnace is 43 tpy. The creditable NOx emissions decrease from retiring the old reheat furnace is 14 tpy. This resulted in a net emissions increase of 29 tpy, which is below the PSD significance level for NOx.

**Specific Conditions**

32. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall not exceed the following emission rates at SN-04. The hourly emission rates are based on the rated heat input capacity of the new Reheat Furnace 67.97 MMBtu/hr in conjunction with the vendor published emission factors. Compliance with this condition shall be demonstrated by Specific Conditions 36 and 37.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	1.0	4.2
CO	4.3	18.0

33. Pursuant to §19.501 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall not exceed the following emission rates at SN-04. The hourly emission rates are based on the rated heat input capacity of the new Reheat Furnace 67.97 MMBtu/hr in conjunction with the vendor published emission factors. Compliance with this condition shall be demonstrated by Specific Conditions 36 and 37.

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Pollutant	lb/hr	tpy
SO <sub>2</sub>	0.1	0.2
VOC	0.4	1.7
NO <sub>x</sub>	14.0	43.0

34. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by Specific Conditions 36 and 37.

Pollutant	lb/hr	tpy
PM	1.0	4.2

35. Pursuant to §18.501 of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed 5% opacity from SN-04. Compliance with this condition shall be demonstrated by Specific Conditions 36.
36. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6, the permittee shall combust only pipeline quality natural gas at SN-04.
37. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6, and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not combust more than 596 million cubic feet of natural gas during any consecutive 12 month period at the reheat furnace.
38. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall maintain records of the amount of natural gas combusted at the reheat furnace during each consecutive 12 month period. Each 12 month total shall be updated on a monthly basis. These records should be updated by the 20<sup>th</sup> day of the month following the month the records represent and shall be submitted in accordance with General Condition 7.

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**SN-05  
Ladle Preheaters**

**Source Description**

There are three ladle preheaters which are fired with natural gas. The rated heat input capacity is 5.4 MMBtu/hr each. These preheaters produce combustion emissions that vent inside the Melt Shop building.

**Specific Conditions**

39. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed the following emission rates at SN-05. These rates were calculated based on continuous operation at rated capacity. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-05.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	0.2	0.7
SO <sub>2</sub>	0.1	0.1
VOC	0.1	0.4
CO	1.4	5.9
NO <sub>x</sub>	1.6	7.0

40. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-05.

Pollutant	lb/hr	tpy
PM	0.2	0.7

41. Pursuant to §19.705 of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6, the permittee shall fire only pipeline quality natural gas at SN-05.

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**SN-06  
Ladle Dryer**

**Source Description**

Arkansas Steel operates a ladle dryer which is natural gas fired. The rated heat input capacity is 3.26 MMBtu/hr. The combustion emissions vent inside the melt shop.

**Specific Conditions**

42. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed the following emission rates at SN-06. These rates were calculated based on continuous operation at rated capacity. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-06.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	0.1	0.2
CO	0.1	0.3

43. Pursuant to §19.501 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall not exceed the following emission rates at SN-06. These rates were calculated based on continuous operation at rated capacity. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-06.

Pollutant	lb/hr	tpy
SO <sub>2</sub>	0.1	0.1
VOC	0.1	0.1
NO <sub>x</sub>	0.3	1.3

44. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-06.

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Pollutant	lb/hr	tpy
PM	0.1	0.2

45. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6, the permittee shall fire only pipeline quality natural gas at SN-06.

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**SN-07  
Tundish Preheaters**

**Source Description**

Arkansas Steel operates two tundish preheaters which are natural gas fired. One has a rated heat input capacity of 4.47 MMBtu/hr; the other has a rated heat input capacity of 3.3 MMBtu/hr. These rated heat input capacities are based on information available from the manufactures of the burners used in the tundish preheaters. The combustion emissions are vented inside the melt shop.

**Specific Conditions**

46. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed the following emission rates at SN-07. These rates are based on continuous operation at rated capacity. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-07.

Pollutant	lb/hr	tpy
PM <sub>10</sub> SO <sub>2</sub>	0.1	0.3
VOC	0.1	0.1
CO	0.1	0.2
NO <sub>x</sub>	0.7	2.8
	0.8	3.4

47. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-07.

Pollutant	lb/hr	tpy
PM	0.1	0.3

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48. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6, the permittee shall fire only pipeline quality natural gas at SN-07.

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**SN-08  
Unpaved Roads**

**Source Description**

All calculations are based on AP-42, 5th Edition, Section 13.2, "Fugitive Dust Sources".

**Specific Conditions**

49. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed the following emission rates at SN-08. Compliance with this condition shall be demonstrated by complying with the annual steel production limit of this permit.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	n/a	5.0

50. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by complying with the annual steel production limit of this permit.

Pollutant	lb/hr	tpy
PM	n/a	14.0

51. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall water all unpaved roads as necessary to prevent fugitive emissions from leaving the property boundary.

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**SN-09  
Paved Roads**

**Source Description**

All calculations are based on AP-42, 5th Edition, Section 13.2, "Fugitive Dust Sources".

**Specific Conditions**

52. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed the following emission rates at SN-09. Compliance with this condition shall be demonstrated by complying with the annual steel production limit of this permit.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	n/a	1.9

53. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by complying with the annual steel production limit of this permit.

Pollutant	lb/hr	tpy
PM	n/a	9.7

54. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall water all paved roads as necessary to prevent fugitive emissions from leaving the property boundary.

**SN-10  
Slag Processing**

**Source Description**

Slag produced during the steel making process is handled at the mill and generates particulate emissions. Slag processing includes the loading and unloading of slag piles and also the crushing, conveying and screening of the material. Emissions are calculated based on AP-42 factors. Emissions from unpaved roads within the slag area are accounted for in SN-08. The slag represents approximately 11% of the total steel production. All the calculations are based on the tons per year of slag handled and the equations found in the above mentioned references.

55. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed the following emission rates at SN-10. The hourly limits are based on maximum rated capacity. Compliance with the ton per year limits shall be demonstrated by complying with the annual slag processing limit.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	2.9	4.1

56. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with the ton per year limits shall be demonstrated by complying with the annual slag processing limit.

Pollutant	lb/hr	tpy
PM	5.7	8.3

57. Pursuant to §19.503 of the Arkansas State Plan of Implementation for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the opacity from slag processing shall not exceed 20%, as measured by Reference Method 9. Slag processing shall include slag dumping (loading/unloading piles) and slag handling (conveying, screening). Compliance will be demonstrated by using water sprays as necessary.
58. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall use water sprays as necessary to comply with the opacity limit for SN-10.

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59. Pursuant to §19.705 of the Arkansas State Plan of Implementation for Air Pollution Control (Regulation 19), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6, the permittee shall not process more than 57,860 tons of slag per year based on a rolling 12 month total.
60. Pursuant to §19.705 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall keep records on the amount of slag processed each month and each 12 month period. These records shall be kept on site and be made available to Department personnel upon request.

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**SN-11**  
**Baghouse Dust Handling**

**Source Description**

Arkansas Steel collects baghouse dust in hoppers beneath each of the baghouse modules. Intermittently, the hoppers are emptied by screw conveyors that collect the dust and dump it deep into a stationary, covered, hopper-bottom railcar or other suitable container. The rotary air locks and screw conveyor are sealed to minimize emissions. The railcar is almost fully enclosed in a metal housing to minimize emissions from wind disturbing the transfer of dust. This source is subject to New Source Performance Standards-Subpart AA.

**Specific Conditions**

61. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table at SN-11. These emission rates are based on the dust collected in the baghouse which is dependent on the steel production rate. Compliance with this condition shall be demonstrated by complying with the annual steel production limit.

Pollutant	lb/hr	tpy
PM <sub>10</sub>	0.1	0.4
Pb	0.1	0.1

62. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by complying with the annual steel production limit.

Pollutant	lb/hr	tpy
PM	0.2	0.5

63. Pursuant to 40 CFR 60.272(b), and §18.501 of the Arkansas Air Pollution Control Code (Regulation 18) and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the

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permittee shall not emit any gases from the dust handling equipment servicing the EAF baghouse which have an opacity of 10% or greater, as measured by Method 9.

64. Pursuant to 19.705 of Regulation 19 and 40 CFR 52, Subpart E, the permittee shall conduct daily observations of the opacity from the dust handling equipment, and keep a record of these observations. For the purposes of this condition, the dust handling equipment shall include any equipment used to handle particulate matter collected by the baghouse and located at or near the baghouse. If visible emissions are detected, then the permittee shall conduct a 6-minute opacity reading in accordance with EPA Reference Method 9. The results of these observations shall be kept on site and made available for inspection upon request. These observations shall not be required when ASA personnel are receiving training .

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**SN-12 and SN-12a  
 Tundish Dryers**

**Source Description**

Arkansas Steel operates two tundish dryers which are fired by natural gas. Each dryer has a rated heat input capacity of 2.8 MMBtu/hr. The combustion emissions are vented inside the Melt Shop.

**Specific Conditions**

65. Pursuant to §19.501 et seq and §19.901 et seq of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-12.

Source	Pollutant	lb/hr	tpy
SN-12	PM <sub>10</sub>	0.1	0.1
	CO	0.3	1.1

66. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-12 and 12a.

Source	Pollutant	lb/hr	tpy
SN-12	SO <sub>2</sub>	0.1	0.1
	VOC	0.1	0.1
	NO <sub>x</sub>	0.3	1.3
SN-12a	PM <sub>10</sub>	0.1	0.1
	SO <sub>2</sub>	0.1	0.1
	VOC	0.1	0.1
	CO	0.3	1.1
	NO <sub>x</sub>	0.3	1.3

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67. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition shall be demonstrated by firing only pipeline quality natural gas at SN-12 and 12a.

Source	Pollutant	lb/hr	tpy
SN-12	PM	0.1	0.1
SN-12a	PM	0.1	0.1

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**SN-13  
Tie Plate Dipping Process**

**Source Description**

Tie plates for certain customers of Arkansas Steel are dipped into a coating solution. The coating solution is applied to retard corrosion of the finished product, the tie plates, during overseas transport. The coating solution is an asphalt-based liquid with Stoddard solvent (mineral spirits) as the vehicle. Alternatively, the coating solution may be a very low aromatic containing mineral oil with Stoddard solvent as a diluent. During the Tie Plate Dipping Process, additional Stoddard solvent is added as diluent on a 1:1 ratio with the undiluted coating solution. The Tie Plate Dipping Process typically is run no more often than once per year, 8 hours per day, over a 10 day period. The Tie Plate Dipping Process is carried out in a portion of the Rolling Mill south of the shipping offices.

Hourly emissions from this source assume all the allowable annual emissions are released in one day. Emissions also take into account the storage of the coatings since the emissions are based on the assumption that all VOC and HAPs in the purchases coatings are released to the atmosphere.

**Specific Conditions**

68. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by Specific Condition 70.

Pollutant	lb/hr	tpy
VOC	141.7	1.7

69. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by Specific Condition 72.

Pollutant	lb/hr	tpy
Xylene	10.8	0.2

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70. Pursuant to §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52 Subpart E, the permittee shall not receive more than 500 gallons of Stoddard solvent for use in the Tie Plate Dipping Process, SN-13, in any consecutive 12 month period. Compliance with this condition will be demonstrated by Specific Condition 71.
71. Pursuant to §19.705 and 40 CFR Part 52 Subpart E, the permittee shall maintain monthly records of all Stoddard solvent purchased for use in the Tie Plate Dipping Process, SN-13. These records shall show the total purchased each month and the 12 month rolling total. These records should be updated by the 15<sup>th</sup> day of the month following the month the records represent and shall be submitted in accordance with General Condition 7.
72. Pursuant to §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not use a Stoddard solvent in the Tie Plate Dipping Process, SN-13, with a xylene content greater than 0.5 pounds per gallon. The permittee may substitute another HAP for xylene provided that the TLV of the new HAP is greater than the TLV for xylene and the pound per gallon content is not greater than 0.5 pounds per gallon. The xylene content limit is the total of all xylene isomers including the o, m, and p isomers listed as contained in their current solvent. Compliance with this condition will be demonstrated by Specific Condition 73.
73. Pursuant to §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall maintain records of the xylene content of the Stoddard solvent as demonstrated by manufacturers MSDS or equivalent. These records shall include any calculation showing conversions from weight percent to pounds per gallon. If the permittee is substituting a HAP in the place of xylene the permittee must also maintain records showing the pound per gallon content for the new HAP and the TLV for both the new HAP and xylene. These records should be updated by the 20<sup>th</sup> day of the month following the month the records represent and shall be submitted in accordance with General Condition 7.

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## **SECTION V: COMPLIANCE PLAN AND SCHEDULE**

Arkansas Steel Associates is in compliance with the applicable regulations cited in the permit application. Arkansas Steel Associates will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

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## **SECTION VI: PLANTWIDE CONDITIONS**

1. Pursuant to §19.704 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Director shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.
2. Pursuant to §19.410(B) of Regulation 19, 40 CFR Part 52, Subpart E, the Director may cancel all or part of this permit if the construction or modification authorized herein is not begun within 18 months from the date of the permit issuance or if the work involved in the construction or modification is suspended for a total of 18 months or more.
3. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, any equipment that is to be tested, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, shall be tested with the following time frames: (1) Equipment to be constructed or modified shall be tested within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source or (2) equipment already operating shall be tested according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Compliance test results shall be submitted to the Department within thirty (30) days after the completed testing.
4. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the permittee shall provide:
  1. Sampling ports adequate for applicable test methods
  2. Safe sampling platforms
  3. Safe access to sampling platforms
  4. Utilities for sampling and testing equipment
5. Pursuant to §19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C. A. §8-4-304 and §8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.

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6. Pursuant to Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit subsumes and incorporates all previously issued air permits for this facility.

**Acid Rain (Title IV)**

7. Pursuant to §26.701 of Regulation #26 and 40 CFR 70.6(a)(4), the permittee is prohibited from causing any emissions which exceed any allowances that the source lawfully holds under Title IV of the Act or the regulations promulgated thereunder. No permit revision is required for increases in emissions that are authorized by allowances acquired pursuant to the acid rain program, provided that such increases do not require a permit revision under any other applicable requirement. This permit establishes no limit on the number of allowances held by the permittee. The source may not, however, use allowances as a defense to noncompliance with any other applicable requirement of this permit or the Act. Any such allowance shall be accounted for according to the procedures established in regulations promulgated under Title IV of the Act.

**Permit Shield Provisions**

8. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in item A of this condition:
- A. The following have been specifically identified as applicable requirements based upon information submitted by the permittee in an application dated October 3, 2000.

Source No.	Regulation	Description
Facility	Arkansas Regulation 19	Regulations of the Arkansas State Implementation Plan for Air Pollution Control
Facility	Arkansas Regulation 26	Regulations of the Arkansas Operating Air Permit Program
1,2,11	40 CFR, Part 60, Subpart AA	Standards of Performance for Steel Plants: Electric Arc Furnaces Constructed After October 21, 1974, and On or Before August 17, 1983
1,2,11	40 CFR, Part 60, Subpart A	New Source Performance Standards General Provisions
1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, and 12a	40 CFR 52.21	Prevention of Significant Deterioration

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B. The following requirements have been specifically identified as not applicable, based upon information submitted by the permittee in an application dated October 3, 2000, or as subsequently furnished to the Department by the permittee.

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
New Source Performance Standards for Small Industrial Commercial-Institutional Steam Generating Units	40 CFR, Part 60, Subpart Dc	SN-04	Because this source is not used to heat steam, water, or any other heat transfer medium as defined in NSPS-Dc. Therefore it does not meet the definition of "steam generating unit".
		SN-05 SN-06 SN-07 SN-12	Less than 10 MMBtu/hr and because this source is not used to heat steam, water, or any other heat transfer medium as defined in NSPS-Dc. Therefore, it does not meet the definition of "steam generating unit".
Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburization Vessels Constructed After August 17, 1983.	40 CFR, Part 60, Subpart AAa	SN-01 SN-02 SN-03 SN-04 SN-05 SN-06 SN-07 SN-11 SN-12	Electric Arc Furnace Constructed before August 17, 1983

C. Nothing shall alter or affect the following:

Provisions of Section 303 of the Clean Air Act;

The liability of an owner or operator for any violation of applicable requirements prior to or at the time of permit issuance;

The applicable requirements of the acid rain program, consistent with section 408(a) of the Clean Air Act; or

The ability of the EPA to obtain information under Section 114 of the Clean Air Act.

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**Title VI Provisions**

9. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart E:
  1. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.
  2. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  3. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.
  4. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
  
10. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  3. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC-like appliance” as defined at §82.152.)
  5. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.
  6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
  
11. If the permittee manufactures, transforms, destroys, imports, or exports a class I or class II substance, the permittee is subject to all requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

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12. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

The term “motor vehicle” as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term “MVAC” as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or the system used on passenger buses using HCFC-22 refrigerant.

13. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program.

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**SECTION VII: INSIGNIFICANT ACTIVITIES**

Pursuant to §26.304 of Regulation 26, the following sources are insignificant activities. Insignificant and trivial activities will be allowable after approval and federal register notice publication of a final list as part of the operating air permit program. Any activity for which a state or federal applicable requirement applies is not insignificant even if this activity meets the criteria of §304 of Regulation 26 or is listed below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated May 10, 1996.

Description	Category
(1) 560 gallon gasoline storage tank	A-13
(1) 1100 gallon diesel storage tank	A-3
(1) 2300 gallon diesel storage tank	A-3
(1) 480 gallon above ground gasoline storage tank	A-13
(1) 120 gallon diesel storage tank	A-3
(1) 220 gallon used oil tank	A-3
(1) 580-gallon diesel storage tank	A-3
Parts washers that use a low vapor pressure organic solvent	A-13
15,000 gallon used oil tank that is above ground and surrounded by a berm.	A-13
Materials handling operations at the site including those associated with raw material, product moving and scrap handling.	A-13
(7) Cooling towers	A-13

Pursuant to §26.304 of Regulation 26, the emission units, operations, or activities contained in Regulation 19, Appendix A, Group B, have been determined by the Department to be insignificant activities. Activities included in this list are allowable under this permit and need not be specifically identified.

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### SECTION VIII: GENERAL PROVISIONS

1. Pursuant to 40 CFR 70.6(b)(2), any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute.
2. Pursuant to 40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective August 10, 2000, this permit shall be valid for a period of five (5) years beginning on the date this permit becomes effective and ending five (5) years later.
3. Pursuant to §26.406 of Regulation #26, it is the duty of the permittee to submit a complete application for permit renewal at least six (6) months prior to the date of permit expiration. Permit expiration terminates the permittee's right to operate unless a complete renewal application was submitted at least six (6) months prior to permit expiration, in which case the existing permit shall remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due.
4. Pursuant to 40 CFR 70.6(a)(1)(ii) and §26.701(A)(2) of Regulation #26, where an applicable requirement of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq* (Act) is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions are incorporated into the permit and shall be enforceable by the Director or Administrator.
5. Pursuant to 40 CFR 70.6(a)(3)(ii)(A) and §26.701(C)(2) of Regulation #26, records of monitoring information required by this permit shall include the following:
  1. The date, place as defined in this permit, and time of sampling or measurements;
  2. The date(s) analyses were performed;
  3. The company or entity that performed the analyses;

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4. The analytical techniques or methods used;
  5. The results of such analyses; and
  6. The operating conditions existing at the time of sampling or measurement.
6. Pursuant to 40 CFR 70.6(a)(3)(ii)(B) and §26.701(C)(2)(b) of Regulation #26, records of all required monitoring data and support information shall be retained for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit.
7. Pursuant to 40 CFR 70.6(a)(3)(iii)(A) and §26.701(C)(3)(a) of Regulation #26, the permittee shall submit reports of all required monitoring every 6 months. If no other reporting period has been established, the reporting period shall end on the last day of the anniversary month of this permit. The report shall be due within 30 days of the end of the reporting period. Even though the reports are due every six months, each report shall contain a full year of data. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as defined in §26.2 of Regulation #26 and must be sent to the address below.

Arkansas Department of Environmental Quality  
Air Division  
ATTN: Compliance Inspector Supervisor  
Post Office Box 8913  
Little Rock, AR 72219

8. Pursuant to 40 CFR 70.6(a)(3)(iii)(B), §26.701(C)(3)(b) of Regulation #26, and §19.601 and 19.602 of Regulation #19, all deviations from permit requirements, including those attributable to upset conditions as defined in the permit shall be reported to the Department. An initial report shall be made to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:
1. The facility name and location,
  2. The process unit or emission source which is deviating from the permit limit,
  3. The permit limit, including the identification of pollutants, from which deviation occurs,
  4. The date and time the deviation started,
  5. The duration of the deviation,

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6. The average emissions during the deviation,
7. The probable cause of such deviations,
8. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
9. The name of the person submitting the report.

A full report shall be made in writing to the Department within five (5) business days of discovery of the occurrence and shall include, in addition to the information required by initial report, a schedule of actions to be taken to eliminate future occurrences and/or to minimize the amount by which the permits limits are exceeded and to reduce the length of time for which said limits are exceeded. If the permittee wishes, they may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence and such report will serve as both the initial report and full report.

9. Pursuant to 40 CFR 70.6(a)(5) and §26.701(E) of Regulation #26, and A.C.A. §8-4-203, as referenced by §8-4-304 and §8-4-311, if any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable.
10. Pursuant to 40 CFR 70.6(a)(6)(i) and §26.701(F)(1) of Regulation #26, the permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation #26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Any permit noncompliance with a state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
11. Pursuant to 40 CFR 70.6(a)(6)(ii) and §26.701(F)(2) of Regulation #26, it shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
12. Pursuant to 40 CFR 70.6(a)(6)(iii) and §26.701(F)(3) of Regulation #26, this permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

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13. Pursuant to 40 CFR 70.6(a)(6)(iv) and §26.701(F)(4) of Regulation #26, this permit does not convey any property rights of any sort, or any exclusive privilege.
14. Pursuant to 40 CFR 70.6(a)(6)(v) and §26.701(F)(5) of Regulation #26, the permittee shall furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee shall also furnish to the Director copies of records required to be kept by the permit. For information claimed to be confidential, the permittee may be required to furnish such records directly to the Administrator along with a claim of confidentiality.
15. Pursuant to 40 CFR 70.6(a)(7) and §26.701(G) of Regulation #26, the permittee shall pay all permit fees in accordance with the procedures established in Regulation #9.
16. Pursuant to 40 CFR 70.6(a)(8) and §26.701(H) of Regulation #26, no permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for elsewhere in this permit.
17. Pursuant to 40 CFR 70.6(a)(9)(i) and §26.701(I)(1) of Regulation #26, if the permittee is allowed to operate under different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the scenario under which the facility or source is operating.
18. Pursuant to 40 CFR 70.6(b) and §26.702(A) and (B) of Regulation #26, all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, are enforceable by the Administrator and citizens under the Act unless the Department has specifically designated as not being federally enforceable under the Act any terms and conditions included in the permit that are not required under the Act or under any of its applicable requirements.

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19. Pursuant to 40 CFR 70.6(c)(1) and §26.703(A) of Regulation #26, any document (including reports) required by this permit shall contain a certification by a responsible official as defined in §26.2 of Regulation #26.
20. Pursuant to 40 CFR 70.6(c)(2) and §26.703(B) of Regulation #26, the permittee shall allow an authorized representative of the Department, upon presentation of credentials, to perform the following:
  1. Enter upon the permittee's premises where the permitted source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
  2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
  4. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements.
21. Pursuant to 40 CFR 70.6(c)(5) and §26.703(E)(3) of Regulation #26, the permittee shall submit a compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. This compliance certification shall be submitted annually and shall be submitted to the Administrator as well as to the Department. All compliance certifications required by this permit shall include the following:
  1. The identification of each term or condition of the permit that is the basis of the certification;
  2. The compliance status;
  3. Whether compliance was continuous or intermittent;
  4. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
  5. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and 504(b) of the Act.
22. Pursuant to §26.704(C) of Regulation #26, nothing in this permit shall alter or affect the following:

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1. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
  2. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
  3. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
  4. The ability of EPA to obtain information from a source pursuant to §114 of the Act.
23. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit authorizes only those pollutant emitting activities addressed herein.

# INVOICE REQUEST FORM

PDS- \_\_\_\_\_

Date August 29, 2002

<input checked="" type="checkbox"/>	Air
<input type="checkbox"/>	NPDES
<input type="checkbox"/>	Stormwater
<input type="checkbox"/>	State Permits Branch
<input type="checkbox"/>	Solid Waste

CSN 34-0033

Facility Name Arkansas Steel Associates

Invoice Mailing Address 2803 Van Dyke Road

Newport, AR 72112

<input type="checkbox"/>	Initial
<input type="checkbox"/>	Modification
<input type="checkbox"/>	Annual

Permit Number 35-AOP-R4

Permit Description Title 5

Permit Fee Code A

Amount Due\$ \_\_\_\_\_

Engineer Shawn Hutchings

Paid? No Yes Check # \_\_\_\_\_

Comments: **Air Permit Fee Calculation**

Amended

## Public Notice

Pursuant to the Arkansas Operating Air Permit Program (Regulation #26) Section 602, the Air Division of the Arkansas Department of Environmental Quality gives the following notice:

Arkansas Steel Associates, CSN-34-0033, located at 2803 Van Dyke Road in Newport, Arkansas owns and operates a steel mill. This modification to Arkansas Steel's permit is to change the rated heat input capacity for the ladle preheaters, SN-05, to allow both of the tundish preheaters, SN-07, to operate simultaneously, and to add a new tundish dryer SN-12a.

The application has been reviewed by the staff of the Department and has received the Department's tentative approval subject to the terms of this notice.

Citizens wishing to examine the permit application and staff findings and recommendations may do so by contacting Doug Szenher, Public Affairs Supervisor. Citizens desiring technical information concerning the application or permit should contact Shawn Hutchings, Engineer. Both Doug Szenher and Shawn Hutchings can be reached at the Department's central office, 8001 National Drive, Little Rock, Arkansas 72209, telephone: (501) 682-0744.

The draft permit and permit application are available for copying at the above address. A copy of the draft permit has also been placed at the White County Public Library, Spring Park, Searcy, 72143. This information may be reviewed during normal business hours.

Interested or affected persons may also submit written comments or request a hearing on the proposal, or the proposed modification, to the Department at the above address - Attention: Doug Szenher. In order to be considered, the comments must be submitted within thirty (30) days of publication of this notice. Although the Department is not proposing to conduct a public hearing, one will be scheduled if significant comments on the permit provisions are received. If a hearing is scheduled, adequate public notice will be given in the newspaper of largest circulation in the county in which the facility in question is, or will be, located.

The Director shall make a final decision to issue or deny this application or to impose special conditions in accordance with Section 2.1 of the Arkansas Pollution Control and Ecology Commission's Administrative Procedures (Regulation #8) and Regulation #26.

Dated this

Richard A. Weiss  
Interim Director

Amended