ADEQ OPERATING AIR PERMIT

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

Permit #: 693-AOP-R3

IS ISSUED TO:

Quanex Corporation-MacSteel Division
5225 Planters Road
Fort Smith, AR 72916-9549
Sebastian County
CSN: 66-0274

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:

February 18, 1998 and February 17, 2003

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Keith A. Michaels — Modification Date

SECTION I: FACILITY INFORMATION

PERMITTEE:	Quanex Corporation-MacSteel Division
CSN:	66-0274
PERMIT NUMBER:	693-AOP-R3
FACILITY ADDRESS:	5225 Planters Road Fort Smith, AR 72902
COUNTY:	Sebastian
CONTACT NAME:	Warren Taff, Jr.
TELEPHONE NUMBER:	(501) 646-0223
REVIEWING ENGINEER:	Shawn Hutchings
UTM North-South:	3907.765
UTM East-West :	374.963 Zone 15

SECTION II: INTRODUCTION

Macsteel, a division of Quanex Corporation, operates a scrap steel recycling mill near Fort Smith, in Sebastian County, Arkansas. Macsteel produces approximately 250 grades of steel including alloy, carbon, and resulfurized steels primarily from steel scrap using the electric arc furnace (EAF) process. The two electric arc furnaces (EAFs) at this facility are subject to all applicable regulations under the New Source Performance Standards (NSPS), Subpart AAa.

This permit modification is for the addition of two new buildings to be located on the property immediately south of the existing facility. These buildings will include one new source, Bar Turner Building #3, and one insignificant source, bar straighteners. The new potential to emit for the new source is 5.6 tons per year of VOC.

In general, raw materials, including scrap, fluxes, iron carbide, direct reduced iron, hot briquetted iron, pig iron, and other materials, are brought to the facility by rail or truck. Scrap and flux are charged to EAFs and melted by application of electric current through the mixture. Molten metal is poured into a ladle and transferred by an overhead crane to a ladle refining station. Once the molten steel is transferred to the ladle refining station, additional alloys and reagents are added to adjust the chemistry.

From the ladle refining station, the steel is transferred to the stir station and vacuum arc degasser. At the stir station, the steel is stirred by the introduction of argon gas into the bottom of the ladle. Additional alloys also may be added to adjust the chemistry. The steel is then transferred to the vacuum arc degasser. At the degasser, dissolved gases are removed by subjecting the steel to a vacuum. Heat also may be added to the steel with the use of electric arcs.

After leaving the degasser, the steel is transferred to a caster where it is drained from the ladle into a tundish and then into the molds. At the caster, the steel solidifies to a round bar. The bars are cut to length and transferred to either the “as cast” cooling bed or directly to the reheat furnace. Bars transferred to the “as cast” cooling bed are sold or stored for future processing.

In the reheat furnace, the steel bars are heated to the temperature required for rolling. The bars are then rolled to a smaller diameter. Bars exiting the rolling mill are cut to length and transferred to the “rolled product” cooling bed. The bars are then deburred and bundled for shipment, for further processing in the heat treat furnaces and/or bar turner.

Regulations

Quanex Corporation-MacSteel Division
693-AOP-R3
66-0274

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 AAa-*Standards of Performance for Steel Plants: Electric Arc Furnaces and Argon-Oxygen Decarburixation Vessels Constructed After August 7, 1983.*

A summary of facility-wide emissions is provided in the following table. Specific emission unit information is located by the indicated cross reference pages.

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
Total Allowable Emissions		PM/PM_{10} SO_2 VOC CO NO_x Pb HAPs*	31.8 91.1 21.7 450.2 74.8 0.3 n/a	121.6 333.2 84.6 1672.2 296.0 1.0 11.3	
SN-01	Melt Shop Baghouse 1	PM/PM_{10} SO_2 VOC CO NO_x Pb	27.4 90.3 12.0 421.4 43.9 0.3	100.3 331.6 43.9 1547.4 161.1 1.0	15
SN-12	Melt Shop Baghouse 2				
SN-02	Reheat Furnace	PM/PM_{10} SO_2 VOC CO NO_x	0.7 0.1 0.2 1.6 6.3	2.7 0.2 0.6 6.9 27.6	24
SN-03	Boiler	PM/PM_{10} SO_2 VOC CO NO_x	0.7 0.1 0.2 1.6 6.3	2.7 0.2 0.6 6.9 27.6	26
SN-04	Heat Treat Furnace 1	PM/PM_{10} SO_2 VOC CO NO_x	0.5 0.1 0.1 1.3 5.2	2.2 0.1 0.5 5.7 22.5	28

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
SN-05	Heat Treat Furnace 2	PM/PM_{10} SO_2 VOC CO NO_x	0.6 0.1 0.2 1.4 5.4	2.3 0.2 0.5 5.9 23.6	28
SN-06	Caster	Vented to SN-01/SN-12			15
SN-07	Ladle Metallurgy Furnace	Vented to SN-01/SN-12			15
SN-08	Tundish Preheaters (4)	Vented to SN-01/SN-12			15
SN-09	Ladle Dryout, Refractory Dryers (6), Ladle Preheaters (4)	Vented to SN-01/SN-12			15
SN-10	Deburring Line	PM/PM_{10}	0.2	0.8	30
SN-11	Heat Treat Furnace 3	PM/PM_{10} SO_2 VOC CO NO_x	0.9 0.1 0.2 6.0 5.0	3.9 0.2 0.8 26.2 21.7	28
SN-13	Vacuum Arc Degasser (during degassing mode only, all other times vented to SN-01 and SN-12)	PM/PM_{10} SO_2 CO NO_x	0.5 0.1 16.1 0.1	1.9 0.5 70.3 0.5	32
SN-15	Bar Turner Building	VOC	1.3	5.6	34

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
SN-21	Scrap Bar Cutting	PM/PM_{10} SO_2 VOC CO NO_x	0.2 0.1 0.1 0.3 1.1	0.8 0.1 0.3 1.0 4.8	35
SN-22	Slag Processing	PM/PM_{10}	n/a	4.4	37
SN-23	Hydraulic Fluid Usage	VOC	3.4	14.8	39
SN-24	Painting/Labeling of Steel Bars	VOC HAPs*	1.3 n/a	5.4 3.3	40
SN-25	Bar Turner Building #2	VOC	1.3	5.6	34
SN-26	Car Bottom Furnace	PM/PM_{10} SO_2 VOC CO NO_x	0.1 0.1 0.1 0.5 1.5	0.2 0.1 0.2 1.9 6.6	42
SN-27	Bar Turner Building #3	VOC	1.3	5.6	34

*HAPs include MEK, MIK, Toluene, Xylene

SECTION III: PERMIT HISTORY

The facility was permitted in 1984 (permit 693-A) as a minor air pollutant emission source (maximum emissions of each criteria pollutant being less than 100 tons per year). A stack test of the baghouse exhaust resulted in emissions greater than 100 tons per year for NO_x, PM/PM_{10}, CO, and SO_2. Consequently, the mill was subject to PSD review for these four pollutants. PSD permit 693-AR-2 was issued on October 28, 1993. The minor source baseline date was triggered by the submittal of that PSD application. The minor source baseline date is 1/8/93 for Sebastian County.

On 4/5/94, permit 693-AR-3 was issued so that automated steel bar deburring equipment could be installed. This permit was a minor modification. A collection system, consisting of both a cyclone and a fabric filter, was installed to control emissions from this source. This is a 8,500 cfm system. The manufacturer's estimated emission rate is 0.0025 gr/scfm or 0.18 lb/hr. This permit shows that the equipment has been installed and is in operation.

On 1/27/95, permit 693-AR-4 was issued for the installation of a spark arrestor in the Ladle Metallurgical Furnace duct. An investigation in the cause of failing a recent particulate test of the baghouse revealed that an increased amount of spark carry over from the LMF was damaging the filter media in the baghouse. None of the emission rates were affected by that modification.

Permit 693-AOP-R0 was issued on February 18, 1998, and allowed the installation and operation of a second baghouse to control emissions from the melt shop, increasing steel production from 74 to 86 tons per hour, incorporating minor emission sources previously not permitted (heat treat #3 and bar turner #2), and revising emission factors based on continuous emission monitoring data and changes to AP-42 for natural gas combustion. This permit was the second PSD permit and the first Title V permit for this facility. A summary of the PSD review for permit 693-AOP-R0 is presented below.

Summary of PSD review for air permit 693-AOP-R0

The following describes the PSD review required for issuance of Permit 693-AOP-R0. These issues are presented here for information purposes only, and are not part of this modification.

Macsteel is considered a major stationary source under the prevention of significant (PSD) regulations. Permit 693-AOP-R0 included sulfur dioxide (SO_2), carbon monoxide (CO), nitrogen dioxide (NO_2), particulate matter (PM/PM_{10}), and lead (Pb) emission increases of 185.3 tpy, 308.7 tpy, 47.6 tpy, 75.7 tpy, 0.68 tpy, respectively. These increases exceeded the PSD significance levels and were subject to PSD review. Emission increases of 23.3 tpy volatile

organic compounds (VOC) were below the significance level, therefore, VOC emissions were not subject to PSD review.

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 enhancing the mill's steel production and heat treat furnace #3. The BACT determination is summarized below.

Summary of BACT Determination			
Source	Description	Pollutant	Control Technology
SN-01 SN-12	Electric Arc Furnaces (2 baghouses)	PM/PM_{10}	Fabric Filter
		SO_2	Use of high quality scrap
		CO	Side draft hood system
		NO_x	Oxyfuel natural gas burners
		Pb	Fabric Filter
SN-14	Caster	PM/PM_{10}	Routed to baghouse
SN-11	Heat Treat Furnace #3	PM/PM_{10}	Combustion of natural gas
		SO_2	Combustion of natural gas
		CO	Good combustion practices
		NO_x	Ultra low-NO_x burners
SN-22	Slag processing and storage piles	PM/PM_{10}	Water spray on transfer points and slag dumping area
SN-07	Ladle Metallurgy Furnace (LMF)	PM/PM_{10}	Routed to Fabric Filters (SN-01 and SN-12)

The modeled impacts for the proposed CO emission increases are below the 500 ug/m^3 8-hour standard and the 2000 ug/m^3 1-hour standard, thus, no further modeling is required for CO. Additionally, the results are below the 575 ug/m^3 8-hour monitoring deminimis concentration, therefore, ambient pre-construction monitoring for CO is not required. The meteorological data used in the modeling for CO was from October 4, 1991 through October 3, 1992 for year 1 and

June 12, 1993 through June 11, 1994 for year 2. This data was on-site meteorological data. The modeled impacts for CO from the proposed changes are summarized in the following table.

Summary of CO Modeling Results		
Meteorological Data Year	8 Hour Result ug/m^3	1 Hour Result ug/m^3
91-92	489.1	1841.1
93-94	459.2	1674.0
Significant Impact Increment	500	2000

The modeled lead (Pb) impacts from the proposed Pb emission rate increases were below the monitoring deminimis value, therefore additional modeling was not performed for lead. The results of this modeling are presented in the table below.

Summary of Pb Modeling Results	
Meteorological Data Year	Highest Quarterly Results ug/m^3
91-92	0.009
93-94	0.009
Monitoring DeMinimis Value	0.1

SO_2, PM_{10}, and NO_x impacts from the proposed emission rate increases exceed the significant impact increments. SO_2 and PM_{10} exceed the monitoring deminimis values, but NO_x did not. Therefore, preconstruction monitoring was required for SO_2 and PM_{10}. The SO_2 monitoring was performed from 6/93 to 6/94, and the PM_{10} monitoring was performed from 1/95 to 1/96. A full impact analysis was performed to demonstrate compliance with the National Ambient Air Quality Standards (NAAQS) and the PSD increments. Compliance with the NAAQS is based on the modeled impact plus the background concentrations measured during preconstruction monitoring. A summary of the modeling results for SO_2, PM_{10}, and NO_x are presented in the tables below.

Quanex Corporation-MacSteel Division
693-AOP-R3
66-0274

Summary of SO_2 Modeling Results							
Met Data Year	Averaging Period	Ambient Monitoring ug/m^3	Modeled Impact ug/m^3	Background ug/m^3	NAAQS [1] ug/m^3	Increment Consumption ug/m^3	% Available Increment Consumed
91/92	Annual	2.4	3.4	5.2	8.6	3.0	15
	24-hr	39.1	39.1	21.0	60.1	39.1	43
	3-hr	239.1	239.1	55.0	294.1	239.1	46.7
93/94	Annual	2.5	3.4	5.2	8.6	3.0	15
	24-hr	40.8	41.1	21.0	62.1	40.8	44.8
	3-hr	185.8	185.8	55.0	240.8	185.8	36.2
Standard	Annual	--	--	--	80	20	50
	24-hr	13	--	--	365	91	80
	3-hr	--	--	--	1300	512	80

[1]Includes modeled impact plus background concentration.

Summary of NO_x Modeling Results							
Met Data Year	Averaging Period	Ambient Monitoring ug/m^3	Modeled Impact ug/m^3	Background ug/m^3	NAAQS [1] ug/m^3	Increment Consumption ug/m^3	% Available Increment Consumed
91/92	Annual	12.2	12.6	18.8	31.4	12.2	48.8
93/94	Annual	12.4	13.0	18.8	31.8	12.4	49.6
Standard	Annual	14.0	--	--	100.0	25.0	50

[1]Includes modeled impact plus background concentration.

Quanex Corporation-MacSteel Division
693-AOP-R3
66-0274

Summary of PM_{10} Modeling Results							
Met Data Year	Averaging Period	Ambient Monitoring ug/m^3	Modeled Impact ug/m^3	Background ug/m^3	NAAQS [1] ug/m^3	Increment Consumption ug/m^3	% Available Increment Consumed
91/92	Annual	2.9	5.5	26	31.5	2.9	17
	24-hr	21	30.6	56	86.6	21	70
93/94	Annual	3	5.4	26	31.4	3	17.6
	24-hr	16.7	23.5	56	79.5	16.7	55.6
Standard	Annual	--	--	--	50	17	50
	24-hr	10	--	--	150	30	80

[1]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 and vegetation. The predicted impacts from this modification are less than the secondary NAAQS, therefore, no significant adverse impact on soil and vegetation is anticipated due to this modification.

A soil and vegetation inventory was compiled. This inventory showed that no data was found to indicate negative impacts on soils in the impact area of this facility from the emissions of particulate, nitrogen oxides, or sulfur dioxide.

This inventory also addressed the impact on sensitive vegetation species. This analysis indicated that if dry deposition of particulate matter did occur, the impact would only occur in an extremely limited, nonagricultural area very near the facility and therefore is not considered to be significant.

The effects of sulfur dioxide emissions on sensitive vegetation was also addressed. The data from *The Effects of Sulfur Oxides in the Atmosphere on Vegetation*, published by the USEPA, states that sensitive vegetation can be injured by a 4 hour concentration of from 262 to 2,620 micrograms per cubic meter. The vegetation inventory showed that soybeans and wheat are the only vegetation in the impact area that are sensitive to elevated ambient concentrations of sulfur dioxide. The major crop in the impact area is soybeans while wheat is grown in only small quantities. The projected total ambient concentration resulting from the proposed increase in

sulfur dioxide emissions with other major sources and background was determined through modeling to be 294.1 micrograms per cubic meter for a 3-hour average. This 3-hour average was converted to a 4-hour average of 247.5 micrograms per cubic meter. This concentration is less than that which would cause injury to even the most sensitive vegetation species.

None of the vegetation in the impact area was identified as sensitive to elevated ambient concentrations of nitrogen dioxide. After comparing the predicted ambient air concentrations with soils and vegetation in the impact area, only soybeans and wheat proved to be potentially sensitive. A more careful examination of the two revealed that no adverse effects were expected at the low concentrations of pollutants predicted by the modeling analysis. The predicted sulfur dioxide ambient air concentration is lower that the level at which major sulfur dioxide impacts on sensitive species of vegetation have been demonstrated (greater that a 4 hour concentration of 262 micrograms per cubic meter).

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 was below the threshold level of 0.05 for plume contrast and 2.0 for delta E. Therefore, visibility impacts due to that modification of the facility (693-AOP-R0) were negligible.

Permit 693-AOP-R1 was issued on December 11, 1998, and consisted of adding a car bottom furnace (heat input of 5 MMBtu/hr), changing the hydraulic fluid used from ethylene glycol to diethylene glycol, including an alternative status inspection procedure for the melt shop baghouses, and adding sources to the insignificant source list.

Permit 693-AOP-R2 included removing the hourly steel production limit of 86 tons per hour since Macsteel is required to operate continuous emission monitors on the two EAF baghouses, and calculating new emission limits for affected sources using an hourly production rate of 92 tph. The annual steel production limit remained unchanged. The increase of steel production to 92 tph resulted in a facility wide increase of 0.1 tpy of PM/PM_{10}, 0.3 tpy of SO_2, 0.3 tpy of NO_X, 4.6 tpy of CO, 4.5 tpy of VOC, and 0.3 tpy of HAPs.

SECTION IV: EMISSION UNIT INFORMATION

Quanex Corporation-MacSteel Division
693-AOP-R3
66-0274

SN-01 and SN-12
Melt Shop Baghouses

Process Description

Scrap iron and steel and scrap substitutes are received by rail and truck. After unloading, the scrap is either stored in stockpiles or loaded into furnace charging buckets. The scrap, lime, alloys, and coke/coal are charged into one of two electric arc furnaces (EAFs). Lime and carbon (fluxes) are handled and stored in bulk form. Charging and melting cycles are staggered between the furnaces. There are no limitations which would preclude tapping both furnaces at the same time or charging one furnace while tapping the other. The combined capacity of the two EAFs is 92 tons of steel per hour and the operating hours are limited to 7,344 hours per year per furnace. The two EAFs are subject to NSPS-AAa.

The two EAFs operate in a batch mode. During normal operation, cold scrap metal, scrap substitutes, coke/coal, and lime are charged into the brick-lined EAFs (15 feet in diameter) powered by transformers and auxiliary natural gas-fired oxy fuel burners. The charging and melting cycles are staggered between the furnaces. After charging the furnace(s), the lid or roof of the EAF(s) is swung into position and a large electrical potential is applied to the carbon electrodes. The combination of the heat from the arcing process, chemical energy from oxygen lances, and the heat from the auxiliary burners melt the scrap into molten steel. As the scrap begins to melt, the temperature of the exhaust gas from the EAF(s) increases appreciably. When the melting is complete and oxygen lancing is performed, the temperature of the molten steel can approach 3,000EF. This operational cycle is repeated approximately every 90 minutes.

The capture system for exhaust gases from the EAFs is comprised of furnace side draft hoods and an overhead roof exhaust system via a canopy hood. The side draft hood on each furnace encompasses the electrodes and other furnace roof penetrations. Side draft hoods were installed as original equipment in 1984 to allow the furnaces to operate under positive pressure which prevents reoxidation of the steel during the refining process. These hoods are the primary emission capture mechanism during furnace roof-on operations. During roof-off operations (charging and tapping) and cooling of the captured gases from the side-draft hoods, emission control is accomplished by regulating the gas flow rate through the roof canopies which enables the system to control the exit gas temperature to the baghouse inlets.

After the steel is melted, it is refined at the ladle refining station through the addition of alloys and reagents, along with heat. Emissions from the refining process are collected by a side-draft hood and ducted through a spark arrestor and into the melt shop baghouse (SN-01). Fugitive emissions from the refining process are collected by melt shop baghouses (SN-01 and SN-12).

Refined steel is conveyed to a stir station where argon gas is added to the bottom of the ladle. At this stage, additional alloys can be added. The steel is then conveyed to a vacuum arc degasser (SN-13) where dissolved gases are removed through application of a vacuum. Emissions from the stir station and vacuum arc degasser (door open) are collected with hoods and ducted to the baghouses. Emissions from the vacuum arc degasser are collected by the steam injector when the door is closed.

After the temperature and composition of the molten steel is adjusted at the vacuum degasser, the molten steel is transferred to the continuous caster. The molten steel is poured from the ladle into a tundish, which funnels the molten steel into a mold. The steel solidifies as it passes through the water-cooled mold, providing immediate cooling of the outer skin. At this point, the center of the steel is still molten. The caster produces round bars. Emissions from the continuous caster are captured by the canopy hood and ducted to the melt shop baghouses (SN-01, SN-12). This hood is estimated to capture 100% of emissions generated at the caster. Exhaust from the caster cooling zones and caster hot saws is released to the atmosphere through a vent. To estimate PM emissions from this vent, a stack test was conducted. The results of the test indicated a maximum emission rate, adjusted for 92 ton/hr production, of 0.16 lb/hr. Thus, the caster cooling zone and hot saw exhaust vent are considered insignificant sources.

Molten metal is tapped from the EAFs into a ladle and transported to the ladle metallurgy furnace (LMF). The LMF station is used primarily to adjust the composition and temperature of the steel. The processes conducted at the LMF station include the injection/addition of alloys, fluxes, and non-ferrous metals. Emissions from the LMF station can be either gaseous or in particulate form. Particulate emissions are generally attributed to dust associated with fluxes, slag, and various additives. Gaseous emissions are generally associated with the oxidation of metals. Emissions from the LMF are captured by the side-draft hood and ducted to the EAF baghouse (SN-01). Fugitive emissions from the LMF is collected by melt shop baghouses (SN-01 and SN-12).

Macsteel utilizes four natural gas-fired tundish preheaters, each with a maximum heat input capacity of 1.2 MMBtu/hr. These units are used to raise the temperature of the tundishes prior to transfer of molten steel from the ladles. Low-NOx burners are used in the preheaters to minimize emissions of nitrogen oxides. The tundish preheaters emit natural gas combustion by-products which are captured by the roof canopy system and ducted to the EAF baghouses (SN-01 and SN-12).

Ladle preheaters. Macsteel incorporates three natural gas-fired ladle preheaters, two with a maximum heat input of 9 MMBtu/hr and one with a maximum heat input capacity of 5.5 MMBtu/hr. These units are used to raise the temperature of the ladles prior to transfer of

molten steel from the ladles. Low-NOx burners are used in the preheaters to minimize emissions of nitrogen oxides. Emissions from these preheaters are vented to the melt shop baghouses and are addressed in the section discussing emission points SN-01 and SN-12.

Ladle Dryout, Refractory Dryers. Macsteel utilizes numerous ladles and tundishes. Each ladle or tundish requires a certain amount of refractory brick. After time, the refractory lining in the ladles and tundishes needs to be replaced. The removal of the refractory lining is accomplished using jack hammers. This operation is associated with the emission of small amounts of particulate in the building. As such refractory removal is considered an insignificant activity. After removal of the old refractory lining, new refractory is applied and cured. The mill incorporates one (1) natural gas-fired ladle dryout with a maximum heat input capacity of 1.2 MMBtu/hr and six (6) natural gas-fired refractory dryers each with maximum heat input capacity of 1.2 MMBtu/hr.

Emissions from the Caster, Ladle Metallurgy Furnace (LMF), Tundish Preheaters, Ladle Dryout, Refractory Dryers, and Ladle Preheaters, are vented to the EAF baghouses (SN-01 and SN-12).

The dust collection equipment for the two EAFs, LMF, caster, stir station, vacuum arc degasser, and other melt shop emission sources consists of two multi-compartment, positive pressure baghouses (SN-01 and SN-12). Each module contains multiple filter bags, with all necessary reverse-air bag cleaning mechanisms, flow control, and material transfer and removal equipment. The design of the baghouses allows for on-line maintenance and cleaning. The air-moving mechanism for the systems consists of multiple blowers. SN-01 has a single exhaust stack, while SN-12 has a roof monitor vent along the length of the roof.

Specific Conditions

1. Pursuant to §19.5 and §19.9 of the Regulations 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.

SN-#	Pollutant	lb/hr	tpy
SN-01	PM/PM_{10}	27.4	100.3
	SO_2	90.3	331.6
SN-12	CO	421.4	1547.4
	NO_x	43.9	161.1
	Pb	0.3	1.0

2. Pursuant to §19.5 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the combined emissions from SN-01 and SN-12 shall not exceed the values in the following table as measured by EPA Reference Method 25A.

SN-#	Pollutant	lb/hr	tpy
SN-01	VOC	12.0	43.9
SN-12			

3. Pursuant to §19.9 and §19.7 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 60.275a(e), the permittee shall measure the particulate emissions from the melt shop baghouse SN-01 using method 5, and the melt shop baghouse SN-12 using method 5D, on or before April 26, 1998, and every six 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 test runs on both baghouses shall be conducted simultaneously, unless inclement weather interferes. To demonstrate compliance with the particulate limit (0.0018 gr/dscf and 27.4 lb/hr), the concentration of particulate matter shall be determined using the following equation:

$$CST = \frac{C_1 Q_1 \% C_2 Q_2}{Q_1 \% Q_2}$$

where: CST= average concentration of particulate matter
C_1 = concentration of PM from SN-01 (gr/dscf)
C_2 = concentration of PM from SN-12 (gr/dscf)
Q_1 = flow rate of stack gas from SN-01 (dscf/hr)
Q_2 = flow rate of stack gas from SN-12 (dscf/hr)

The permittee shall notify the Department, in writing, at least 15 days prior to performing the tests. If the permittee has demonstrated consistent compliance with the PM/PM_{10} emission limits, the permittee shall be required to measure the particulate emissions from SN-01 and SN-12 on an annual basis. Consistent compliance shall be demonstrated if the last three successive stack tests are within emission limits.

4. Pursuant to §19.5 and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the average concentration of particulate matter from SN-01 and SN-12 calculated using equation in specific condition 3 (CST) shall not exceed 0.0018 gr/dscf.

5. Pursuant to §19.7 of the Regulations 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 emissions from the melt shop baghouse SN-01 using method 25A, and the melt shop baghouse SN-12 using method 25A, on or before April 26, 1998, and every six months thereafter. The test runs on both baghouses shall be done simultaneously. The permittee shall notify the Department, in writing, at least 15 days prior to performing the tests. If the permittee has demonstrated consistent compliance with the VOC emission limit, the permittee shall be required to measure the VOC emissions from SN-01 and SN-12 on an annual basis. Consistent compliance shall be demonstrated if the last three successive stack tests are within emission limits.

6. Pursuant to 40 CFR 60.272a(a)(2), and §18.5 of the Arkansas Air Pollution Control Code and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not emit any gases from SN-01 or SN-12 which have an average opacity of 3% or greater, as measured by method 9. Visible emission observations shall be conducted on SN-12 at least once-per-day by a certified visible emission observer when at least one of the furnaces is operating in the melting and refining period, unless inclement weather prevents. 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.

7. Pursuant to 40 CFR 60.272a(a)(3), and §18.5 of the Arkansas Air Pollution Control Code, and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not emit any gases from the melt shop due solely to the operations of the EAFs which have an opacity of 6% or greater, as measured by method 9 during the semiannual particulate testing. The permittee shall be responsible for these observations and shall keep records showing compliance with this condition. These observations shall be performed for at least three 6-minute periods.

8. Pursuant to 40 CFR 60.272a(b), and §18.5 of the Arkansas Air Pollution Control Code, and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall not emit any gases from the dust handling systems servicing the EAF baghouses which have an opacity of 10% or greater. The permittee shall conduct weekly observations of the opacity from the dust handling system, and keep a record of these observations. If visible emissions are detected, then the permittee shall conduct three 6-minute opacity readings on the equipment where visible emissions were observed in accordance with EPA Reference Method 9. The results of these observations shall be kept on site and made available for inspection upon request. For the purposes of this condition, the dust handling system shall consist of the baghouse dust hoppers, the dust-conveying equipment, any central dust storage equipment, the dust-treating equipment (e.g., pug mill, pelletizer), dust transfer equipment (from storage to truck), and any secondary control devices used with the dust transfer equipment.

9. Pursuant to 40 CFR 60.273a(a), the permittee shall install, calibrate, maintain, and operate a continuous monitoring system for the measurement of the opacity of emissions discharged into the atmosphere from SN-01. The opacity shall not exceed 3% based on a 6-minute average.

10. Pursuant to 40 CFR 60.274a(d), and 40 CFR 60.276a(c) the permittee shall perform monthly operational status inspections of the equipment that is important to the total capture system. This inspection shall include observations of the physical appearance of the exterior of the capture system for the presence of holes or leaks, on a monthly basis. The permittee shall also continuously monitor the flow rates to the two EAF baghouses using existing flow monitors which were installed on the baghouses. The permittee shall use these flow rates to continuously determine if fan erosion, dust accumulation on the interior of the ducts, or damper positions are unacceptable. For the purposes of this condition, unacceptable operation shall be defined as flow rates less than the baseline flow rate determined during the semiannual particulate testing. Operation at flow rates during any period less than the most recently determined baseline flow rate may be considered unacceptable operation and maintenance of the capture system. Operation at such values shall be reported to the Department semiannually.

11. Pursuant to 40 CFR 60.274a(h), the permittee shall, during any emission testing on the baghouses, 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 and Reference Method 9 data.

12. Pursuant to 40 CFR 60.274a(b), the permittee shall install, calibrate, and maintain a monitoring device that continuously records the volumetric flow rate through both baghouses (SN-01 and SN-12). The flow monitors may be installed in any appropriate location such that reproducible flow rate monitoring will result. The flow rate monitoring devices shall have an accuracy of ±10% over its normal operating range and shall be calibrated according to the manufacturer's instructions.

13. Pursuant to §19.7 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, and A.C.A §8-4-203 as referenced by §8-4-203 and §8-4-311, the permittee shall install, calibrate, and maintain a continuous emission monitoring system (CEMS) for each baghouse (SN-01 and SN-12). The CEMS shall measure and record the concentrations of CO, NO_x, and SO_2 leaving each baghouse, simultaneously. Both systems shall be operated in accordance with the *Arkansas Continuous Emission Monitoring Systems Policy*.

14. Pursuant to §19.5 and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the combined CO, NO_x, and SO_2 emissions from SN-01 and SN-12 shall not exceed the values listed in specific condition 1. The averaging time for compliance purposes shall be 3-hour rolling averages, such that a new 3-hour average is computed every hour. Compliance with the tons/year emission rates shall be determined on a monthly basis based on a rolling 12-month total of the CEMS data. The permittee shall submit reports in accordance with General Provision 7.

15. Pursuant to §19.7 of the Regulations 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 testing using Reference Method 12, simultaneously on both baghouses. These demonstrations shall be conducted on an annual basis with the first demonstration being performed by April 26, 1998.

16. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall control volatile organic compound emissions through the use of an extensive scrap management program to eliminate steel scrap with high residual oil content. The permittee shall not use heavily oiled scrap such as used engine blocks and machine shop borings. The permittee may use in-house turnings and turnings from regional customers provided the turnings are from operations using water based soluble oils.

17. Pursuant to A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 70.6, and §19.9 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not exceed 631,584 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.

18. Pursuant to §19.7 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall maintain records on site of the tonnage of steel produced during each month to verify compliance with Specific Condition 17. The permittee shall submit reports in accordance with General Provision 7.

19. Pursuant to §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall combust only pipeline quality natural gas in the tundish preheaters, ladle dryout, ladle preheaters, and refractory dryers.

SN-02
Reheat Furnace

Source Description

The rolling process is initiated at the reheat furnace and proceeds into the rolling mill. The reheat furnace has a maximum heat input capacity of 45 MMBtu/hr which is supplied by natural gas combustion. Waste gas is pulled through a recuperator and exhausted to a stack. In the furnace, the steel bars are heated to a uniform rolling temperature. The furnace incorporates low-NO_x burners to minimize emissions of NO_x. Good combustion practices are utilized to minimize emissions of CO. The furnace has one exhaust stack, identified as SN-02. This source is not subject to NSPS-Dc because the reheat furnace does not fit the definition of a steam generating unit as defined in the subpart.

Specific Conditions

20. Pursuant to §19.5 and §19.9 of the Regulations 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-02. Compliance with this condition shall be demonstrated by complying with specific condition 23.

Pollutant	lb/hr	tpy
PM/PM_{10}	0.7	2.7
SO_2	0.1	0.2
CO	1.6	6.9
NO_x	6.3	27.6

21. Pursuant to §19.5 of the Regulations 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-02. Compliance with this condition shall be demonstrated by complying with specific condition 23.

Pollutant	lb/hr	tpy
VOC	0.2	0.6

22. Pursuant to §18.5 of the Regulations of the Arkansas Air Pollution Control Code (Regulation 18), and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the opacity from SN-02 shall not exceed 5% as measured by Reference Method 9. Compliance with this condition shall be demonstrated by complying with specific condition 23.

23. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall combust only pipeline quality natural gas at SN-02.

SN-03
Boiler

Source Description

Macsteel utilizes a boiler to provide process steam and heat to the mill. The boiler has a maximum heat input capacity of 45 MMBtu/hr which is supplied by natural gas combustion. The boiler has one exhaust stack, identified as SN-03. This source is not subject to NSPS-Dc since it was constructed before June 9, 1989.

Specific Conditions

24. Pursuant to §19.5 and §19.9 of the Regulations 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-03. Compliance with this condition shall be demonstrated by complying with specific condition 27.

Pollutant	lb/hr	tpy
PM/PM_{10}	0.7	2.7
SO_2	0.1	0.2
CO	1.6	6.9
NO_x	6.3	27.6

25. Pursuant to §19.5 of the Regulations 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-03. Compliance with this condition shall be demonstrated by complying with specific condition 27.

Pollutant	lb/hr	tpy
VOC	0.2	0.6

26. Pursuant to §18.5 of the Regulations of the Arkansas Air Pollution Control Code (Regulation 18), and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the opacity at

SN-03 shall not exceed 5% as measured by Reference Method 9. Compliance with this condition shall be demonstrated by complying with specific condition 27.

27. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the permittee shall combust only pipeline quality natural gas at SN-03.

SN-04, SN-05, SN-11
Heat Treat Furnaces

Source Description

Macsteel incorporates three natural gas fired heat treat furnaces with maximum heat input capacities of 36.6, 38.4, and 65 MMBtu/hr, respectively, to relieve structural tension from the steel bars and for chemistry adjustments. Each heat treat furnace has an individual stack; identified as SN-04, SN-05, and SN-11. Heat treat furnaces 1-3 are not subject to NSPS-Dc because these furnaces do not meet the definition of a steam generating unit as defined in this subpart.

Specific Conditions

28. Pursuant to §19.5 and §19.9 of the Regulations 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. Compliance with this condition shall be demonstrated by complying with specific condition 31.

SN-#	Pollutant	lb/hr	tpy
SN-04	PM/PM_{10}	0.5	2.2
	SO_2	0.1	0.1
	CO	1.3	5.7
	NO_x	5.2	22.5
SN-05	PM/PM_{10}	0.6	2.3
	SO_2	0.1	0.2
	CO	1.4	5.9
	NO_x	5.4	23.6
SN-11	PM/PM_{10}	0.9	3.9
	SO_2	0.1	0.2
	CO	6.0	26.2
	NO_x	5.0	21.7

29. Pursuant to §19.5 of the Regulations 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. Compliance with this condition shall be demonstrated by complying with specific condition 31.

SN-#	Pollutant	lb/hr	tpy
SN-04	VOC	0.1	0.5
SN-05	VOC	0.2	0.5
SN-11	VOC	0.2	0.8

30. Pursuant to §18.5 of the Regulations of the Arkansas Air Pollution Control Code (Regulation 18), and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the opacity at SN-04, SN-05, and SN-11 shall not exceed 5% as measured by Reference Method 9. Compliance with this condition shall be demonstrated by complying with specific condition 31.

31. Pursuant to §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall combust only pipeline quality natural gas at SN-04, SN-05, SN-11.

SN-10
Automated Deburring Line

Source Description

After the bars are cut, an automated deburring line is used to remove burrs from the end of bars and to blunt sharp edges. PM emissions associated with this operation are vented to a cyclone and then to a negative-pressure baghouse.

Specific Conditions

32. Pursuant to §19.5 of the Regulations 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-10. Compliance with this condition shall be demonstrated by complying with specific condition 34.

Pollutant	lb/hr	tpy
PM/PM_{10}	0.2	0.8

33. Pursuant to §18.5 of the Regulations of the Arkansas Air Pollution Control Code (Regulation 18), the opacity at SN-10 shall not exceed 5%, as measured by Reference Method 9. Compliance with this condition shall be demonstrated by complying with specific condition 34.

34. Pursuant to §19.3 and §19.7 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (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 permittee shall either, observe the pressure drop across the baghouse at SN-10 on a weekly basis, and maintain the pressure drop between 4 and 14 inches of water at all times during operation; or conduct weekly observations of the opacity from SN-10 and keep a record of these observations. 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.

35. Pursuant to §19.7 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19), 40 CFR Part 52, Subpart E, the permittee shall keep records of the pressure drop reading recorded each week for the baghouse at SN-10. These records shall be kept on site and be made available to Department personnel upon request.

SN-13
Vacuum Arc Degasser-Steam Injector Condenser

Source Description

After steel is refined in the LMF, it is transferred to a stir station and then to a vacuum arc degasser. At the degasser, dissolved gases are removed from the steel through the application of a vacuum. In the degasser, heat may also be added with electric arcs. Emissions from the degasser are collected by a hood and ducted to the EAF baghouses when the door is open (arcing mode). Exhaust from a steam injector condenser (SN-13) occurs when the door is closed (degassing and arcing under partial pressure modes). Emissions from the steam injector condenser were estimated using stack tests. The emission rates, based upon the tests, and adjusted for maximum operation, are presented in the table below.

Specific Conditions

36. Pursuant to §19.5 and §19.9 of the Regulations 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-13. These emission rates are based on past stack test results and scaled up for current production limits. Compliance with these emission limits will be shown by steel production.

Pollutant	lb/hr	tpy
PM/PM_{10}	0.5	1.9
SO_2	0.1	0.5
CO	16.1	70.3
NO_x	0.1	0.5

37. Pursuant to §18.5 of the Regulations of the Arkansas Air Pollution Control Code (Regulation 18), and §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19) and 40 CFR Part 52, Subpart E, the opacity at SN-13 shall not exceed 20%, as measured by Reference Method 9. Compliance with this condition shall be demonstrated by complying with specific condition 38.

38. Pursuant to §19.7 of the Arkansas State Implementation Plan for Air Pollution Control (Regulation 19) and 40 CFR Part 52 Subpart E, the permittee shall conduct weekly

observations of the opacity from SN-13, and keep a record of these observations. 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.

SN-15, SN-25, and SN-27
Bar Turner Buildings

Source Description

Operations including bar turning, bar polishing, and bar buffing are conducted in the bar turning buildings. These operations require the use of soluble oils and mineral oils. VOC emissions associated with Bar Turning Buildings #1 and #2, SN-15 and 25, exhaust through a fan into the heat treat building and then through a roof exhaust fan which exhausts to the atmosphere. VOC from Building #3, SN-27, will exhaust from the roof monitor.

Specific Conditions

39. Pursuant to §19.5 of the Regulations 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-15 and SN-25. Compliance with this condition has already been shown through stack testing. Additionally, the emission rates measured during stack testing were scaled up for maximum production, therefore these rates are reasonably conservative. Therefore, compliance with these emissions rates will be shown through steel production.

Source	Pollutant	lb/hr	tpy
SN-15	VOC	1.3	5.6
SN-25	VOC	1.3	5.6
SN-27	VOC	1.3	5.6

SN-21
Scrap Bar Cutting

Source Description

Scrap steel bars from the caster, rolling mill, finishing line, straighteners, and bar turner are torch-cut into smaller pieces (approximately 3 foot lengths) for recharging in the EAFs. The steel bars are transported to the cutting area via rail cars. The bars will be loaded onto a roller table. The cutting is accomplished using two hand-held natural gas/oxygen torches.

Emissions of criteria pollutants (primarily PM) occur due to the torch cutting. A 30,000 CFM baghouse will be used to control particulate emissions. To estimate emissions of pollutants attributable to the natural gas combustion, the maximum combustion of 60 cubic feet per minute per torch was used in conjunction with AP-42 factors for natural gas combustion. The particulate emissions were calculated using the grain loading capacity of the baghouse in conjunction with the maximum rated flow rate.

Specific Conditions

40. Pursuant to §19.5 of the Regulations 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-21. These emission rates were calculated using the maximum heat input capacity of the torches and assuming continuous operation. The particulate emissions were calculated using an uncontrolled emission factor. However, this source is controlled by a baghouse, therefore the particulate emission rate is conservative and requires no records to demonstrate compliance with the particulate emission limit. Compliance with the products of natural gas combustion emission rates shall be demonstrated by complying with specific condition 44.

Pollutant	lb/hr	tpy
PM/PM_{10}	0.2	0.8
SO_2	0.1	0.1
VOC	0.1	0.3
CO	0.3	1.0
NO_x	1.1	4.8

41. Pursuant to §18.5 of the Regulations of the Arkansas Air Pollution Control Code (Regulation 18), the opacity from SN-21 shall not exceed 5%, as measured by Reference Method 9. Compliance with this condition shall be demonstrated by complying with specific condition 43.

42. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall operate the baghouse according to manufacturer's specifications at all times bar cutting is taking place.

43. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall not exceed a total heat input capacity at SN-21 of 10.8 MMBtu/hr. The permittee shall fire only pipeline quality natural gas at SN-21.

SN-22
Slag Processing

Source Description

Slag generated during the melting and casting operations is poured on the ground in contained areas within the steelworks building under the dust collecting roof canopies. The hot slag is dug out of these areas and deposited in large dump trucks for transportation to the slag processing area. Emissions from the dump truck loading area are controlled by overhead water sprays. Approximately 75 percent of the slag is returned to the scrap storage area as reclaimed steel. The remaining 25 percent is crushed and passed by a magnet to remove steel fines. The remaining material is conveyed to a screening station and sorted by size. At the slag processing area, the slag is first dumped and allowed to cool. During this time, water is continuously sprayed on the slag. When sufficiently cooled, the wet slag is loaded out of the slag pit/cooling area and is placed into a feeder. Next, the slag is screened to remove various metallics and additionally screened for size separation. This screening process is associated with a number of belt-type conveyors. Water sprays are used to minimize PM emissions from all open-air slag processing operations. The sprays have an estimated efficiency of 95 percent. Fugitive dust generated during the "dig out" is contained and collected via building and roof canopies.

To estimate emissions associated with the dumping of slag at the on-site slag processing area, the AP-42 emission factor (Section 12.5, Table 12.5-4) of 0.026 lbs/ton was used in conjunction with the maximum annual slag throughput of 68,350 tpy. To calculate emissions associated with the wind erosion on both slag pits and processed slag piles, the equation presented in "*Control of Open Fugitive Dust Sources*" was used. The silt content represented the default value of 5.3 for the iron and steel industry. To calculate PM emissions associated with the load out of slag from the slag pits to the slag processing feeder, the AP-42 emission factor for material handling was used. In this case, a climatological average wind speed of 8.2 mph was used in conjunction with the maximum annual slag throughput of 68,350 tpy. Finally, to estimate PM emissions associated with the various slag processing activities (i.e., various conveyors and screens), AP-42 factors (Section 12.5.4 for feeder and conveyors and Section 11.19.1 for screening operations) were used. Further, because a water spray is used on each of these unit operations, a 70 percent particulate control efficiency was assumed.

Specific Conditions

44. Pursuant to §19.5 and §19.9 of the Regulations 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-22. Compliance with this condition shall be demonstrated by complying with specific condition 47.

Pollutant	lb/hr	tpy
PM/PM_{10}	N/A	3.8

45. Pursuant to §18.5 of the Arkansas Air Pollution Control Code and §19.9 of the Arkansas State Implementation Plan for Air Pollution Control, and 40 CFR Part 52, Subpart E, the opacity from this source shall not exceed 20%, as measured by Reference Method 9. This source (SN-22) shall include slag dumping, wind erosion of slag pits and processed slag piles, slag loadout to feeder for subsequent processing, slag processing including various conveying and sizing operations, and vehicle/equipment traffic on unpaved roads. Compliance with this condition shall be demonstrated by complying with specific condition 46.

46. Pursuant to §19.9 of the Arkansas State Implementation Plan for Air Pollution Control, and 40 CFR Part 52, Subpart E, the permittee shall use water sprays at this source at all times that slag is being processed.

47. Pursuant to §19.9 of the Regulations of the Arkansas State Implementation Plan for Air Pollution Control, (Regulation 19), and 40 CFR Part 52, Subpart E, the permittee shall not process more than 68,350 tons of slag per year based on a rolling 12 month total.

48. Pursuant to §19.7 of the Regulations 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.

SN-23
Hydraulic Fluid Usage

Source Description

The mill utilizes various hydraulic fluids. One such fluid contains diethylene glycol which is not an air toxic, is used in equipment in the melt shop. The diethylene glycol additive serves to minimize the risk of fires or explosions in this equipment.

Based on the estimated maximum usage of the hydraulic fluid, it is estimated that maximum annual emissions of VOC from hydraulic fluid usage is approximately 14.8 tons per year.

Specific Conditions

49. Pursuant to §19.5 of the Regulations 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-23. Compliance with this condition shall be shown by Specific Condition 51.

Pollutant	lb/hr	tpy
VOC	3.4	14.8

50. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall, on a 4 quarter rolling sum basis, calculate the VOC emissions by taking the amount and VOC content of the fluid used and subtracting the amount and VOC content of the fluid sent for disposal during that same time frame. The amount not accounted for shall be considered emissions. These records shall be kept on site and made available to Department personnel upon request.

SN-24
Miscellaneous Process-Related Painting/Labeling

Source Description

A color coding is painted on each steel bar using aerosol spray paint. The maximum annual paint use at the mill is estimated to be approximately 12,000 lbs. The volatile portions of the paints and carrier solvents can be released to the atmosphere during their application. To estimate these emissions, the VOC and HAP content of the paint and solvents was used in conjunction with the maximum annual throughput of paint and solvent. The paint MSDSs showed that the paint contains a maximum of 89 percent by weight VOC. This, in conjunction with the maximum throughput of 6.0 tons per year, yields an emission rate of 5.4 tons VOC.

The MSDS also indicate that the paints collectively have the potential to contain the following HAPs:

Methyl ethyl ketone	30% by weight
Methyl isobutyl ketone	5% by weight
Toluene	5% by weight
Xylene	15% by weight

Thus, assuming a maximum paint usage of 12,000 lbs, total HAP emissions are 3.3 tons per year.

Specific Conditions

51. Pursuant to §19.5 of the Regulations 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-24.

Pollutant	lb/hr	tpy
VOC	N/A	5.4

52. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall not use any paint with a VOC content greater than 89% by weight. Compliance with this condition shall be demonstrated by keeping the MSDS sheet for the paint being used on site and available for inspection by Department personnel upon request.

53. Pursuant to §18.8 of the Arkansas Air Pollution Control Code (Regulation 18), the permittee shall not exceed the emission rates set forth in the following table at SN-23.

Pollutant	lb/hr	tpy
HAPs*	N/A	3.3

*MEK, MIK, Toluene, Xylene

54. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not use any paint or solvent with a total HAP content greater than 55 percent by weight. Compliance with this condition shall be demonstrated by keeping the MSDS sheet for the paint and solvent being used on site and available for inspection by Department personnel upon request.

55. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not use more than 12,000 pounds of paint/solvent per year based on a rolling 12 month total.

56. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall keep records of the amount of paint and solvent used each month. These records shall be kept on site and made available to Department personnel upon request.

SN-26
Car Bottom Furnace

Source Description

MacSteel operates a car bottom furnace. The furnace is needed for specialized heat treating of steel bars. The furnace is fired with natural gas and has a maximum heat input rate of 5 MMBtu/hr. The car bottom furnace will emit natural gas combustion by-products to the air. To estimate emissions of sulfur dioxide, VOC, CO, and PM, the maximum hourly heat input capacity was multiplied by AP-42 factors (March, 1998). An estimate of nitrogen oxides was provided by the vendor. All emission rates are based on maximum capacity and continuous operation.

Specific Conditions

57. Pursuant to §19.5 of the Regulations 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-26. These emission rates are based on maximum physical capacity of the furnace.

Pollutant	lb/hr	tpy
PM/PM_{10}	0.1	0.2
SO_2	0.1	0.1
VOC	0.1	0.2
CO	0.5	1.9
NO_x	1.5	6.6

58. Pursuant to A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6, the permittee shall only fire pipeline quality natural gas at SN-26.

SECTION V: PLANTWIDE CONDITIONS

1. Pursuant to §19.4(o) 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 §19.4(q) of Regulation 19, and 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 §19.7 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, each emission point for which an emission test method is specified in this permit shall be tested in order to determine compliance with the emission limitations contained herein 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. 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. 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

4. Pursuant to A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.

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

6. Pursuant to §18.9 of the Arkansas Air Pollution Control Code (Regulation 18), the permittee shall water all unpaved roads at the facility whenever necessary to prevent fugitive dust from leaving the property boundary. The Department reserves the right to require additional controls if nuisance dust becomes a problem to surrounding areas.

7. Pursuant to 40 CFR 60.270a, the two electric arc furnaces are subject to all applicable requirements of NSPS Subpart AAa, as listed in, but not limited to, the specific conditions under SN-01 and SN-12 of this permit.

Title VI Provisions

8. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart E:

    a. 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.

    b. The placement of the required warning statement must comply with the requirements pursuant to §82.108.

    c. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.

    d. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.

9. 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:

    a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.

    b. 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.

c. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.

d. 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.)

e. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.

f. 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.

10. 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.

11. 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.

12. 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.

SECTION VI: DE MINIMIS EMISSION SOURCES

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 June 7, 1996, and in amendments dated April 21, 1998, and October 11, 2000.

Caster steam exhaust (0.66 tpy PM maximum emission rate)
Lab etch room (0.075 tpy HCl maximum emission rate)
Scale water cooling tower (water vapor emissions only)
Clean water cooling tower #1 (water vapor emissions only)
Clean water cooling tower #2 (water vapor emissions only)
EMS cooling tower (water vapor emissions only)
Lime silos (2) (0.4 tpy maximum PM emission rate)
Gasoline storage tanks (2 @500 gal)
Kerosene storage tank (1 @500 gal)
Waste oil tank (1 @1,500 gal)
Diesel tank (1 @1,500 gal)
Diesel tank (1 @10,000 gal)
Poly-aluminum chloride tank (1 @1,500 gal)
Phosphate treatment tanks (2 @1,500 gal)
Propane tank (1 @1,000 gal)
Rolling mill operations including descaler, pinch roll, ten-stand reducing mill, nose-shear, three-stand sizing blocks, and hot saws (minimal emissions of PM due to water spray)
Ladle/tundish refractory removal/application (insignificant emissions)
Scale pits (insignificant emissions)
Settling ponds (insignificant emissions)
Ladle/tundish dumping (performed in melt shop routed to baghouses)
Miscellaneous fuel combustion units including space heaters, process water heaters, air makeup heaters, tundish nozzle preheaters (all less than 1 MMBtu/hr)
Bar straighteners (minimal emissions due to water application)
Paved roads/parking areas (minimal emissions)
Scrap handling (4.35 tpy)
Lime transfer system (0.1 tpy)
Raw material handling/storage
Baghouse dust transfer/unloading operations (1.4 lb/yr)
Emergency Lighting Diesel Generator (Group C, Item 5)
Emergency Water System Diesel Generator (Group C, Item 5)

Quanex Corporation-MacSteel Division
693-AOP-R3
66-0274

Emergency Diesel Pumps (3)(Group C, Item 5)
Shot Blasters (2) with fabric filters, rated at 600 CFM each (vents inside building)
Safety Kleen Parts Washers (4 total)(Group C, Item 5)
Small Abrasive Saw with cyclone, rated at 1800 CFM. (vents inside building)
Lab Hood (Group A, Item 5)

Pursuant to §26.304 of Regulation 26, the following emission units, operations, or activities 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.

1. Combustion emissions from propulsion of mobile sources and emissions from refueling these sources unless regulated by Title II and required to obtain a permit under Title V of the federal Clean Air Act, as amended. This does not include emissions from any transportable units, such as temporary compressors or boilers. This does not include emissions from loading racks or fueling operations covered under any applicable federal requirements.

2. Air conditioning and heating units used for comfort that do not have applicable requirements under Title VI of the Act.

3. Ventilating units used for human comfort that do not exhaust air pollutants into the ambient air from any manufacturing/industrial or commercial process.

4. Non-commercial food preparation or food preparation at restaurants, cafeterias, or caterers, etc.

5. Consumer use of office equipment and products, not including commercial printers or business primarily involved in photographic reproduction.

6. Janitorial services and consumer use of janitorial products.

7. Internal combustion engines used for landscaping purposes.

8. Laundry activities, except for dry-cleaning and steam boilers.

9. Bathroom/toilet emissions.

10. Emergency (backup) electrical generators at residential locations.

11. Tobacco smoking rooms and areas.

12. Blacksmith forges.

13. Maintenance of grounds or buildings, including: lawn care, weed control, pest control, and water washing activities.

14. Repair, up-keep, maintenance, or construction activities not related to the sources' primary business activity, and not otherwise triggering a permit modification. This may include, but is not limited to such activities as general repairs, cleaning, painting, welding, woodworking, plumbing, re-tarring roofs, installing insulation, paved/paving parking lots, miscellaneous solvent use, application of refractory, or insulation, brazing, soldering, the use of adhesives, grinding, and cutting.[1]

15. Surface-coating equipment during miscellaneous maintenance and construction activities. This activity specifically does not include any facility whose primary business activity is surface-coating or includes surface-coating or products.

16. Portable electrical generators that can be "moved by hand" from one location to another.[2]

17. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning, or machining wood, metal, or plastic.

18. Brazing or soldering equipment related to manufacturing activities that do not result in emission of HAPs.[3]

19. Air compressors and pneumatically operated equipment, including hand tools.

20. Batteries and battery charging stations, except at battery manufacturing plants.

---

[1] Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must get a permit.

[2] "Moved by hand" means that it can be moved by one person without assistance of any motorized or non-motorized vehicle, conveyance, or device.

[3] Brazing, soldering, and welding equipment, and cutting torches related to manufacturing and construction activities that emit HAP metals are more appropriate for treatment as insignificant activities based on size or production thresholds. Brazing, soldering, and welding equipment, and cutting torches related directly to plant maintenance and upkeep and repair or maintenance shop activities that emit HAP metals are treated as trivial and listed separately in this appendix.

21. Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOCs or HAPs.[4]

22. Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and no volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.

23. Equipment used to mix and package soaps, vegetable oil, grease, animal fat, and non-volatile aqueous salt solutions, provided appropriate lids and covers are used and appropriate odor control is achieved.

24. Drop hammers or presses for forging or metalworking.

25. Equipment used exclusively to slaughter animals, but not including other equipment at slaughter-houses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.

26. Vents from continuous emissions monitors and other analyzers.

27. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.

28. Hand-held applicator equipment for hot melt adhesives with no VOCs in the adhesive.

29. Lasers used only on metals and other materials which do not emit HAPs in the process.

30. Consumer use of paper trimmers/binders.

31. Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.

32. Salt baths using non-volatile salts that do not result in emissions of any air pollutant covered by this regulation.

---

[4] Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids are based on size and limits including storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.

33. Laser trimmers using dust collection to prevent fugitive emissions.

34. Bench-scale laboratory equipment used for physical or chemical analysis not including lab fume hoods or vents.

35. Routine calibration and maintenance of laboratory equipment or other analytical instruments.

36. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.

37. Hydraulic and hydrostatic testing equipment.

38. Environmental chambers not using hazardous air pollutant gases.

39. Shock chambers, humidity chambers, and solar simulators.

40. Fugitive emissions related to movement of passenger vehicles, provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.

41. Process water filtration systems and demineralizers.

42. Demineralized water tanks and demineralizer vents.

43. Boiler water treatment operations, not including cooling towers.

44. Emissions from storage or use of water treatment chemicals, except for hazardous air pollutants or pollutants listed under regulations promulgated pursuant to Section 112(r) of the Act, for use in cooling towers, drinking water systems, and boiler water/feed systems.

45. Oxygen scavenging (de-aeration) of water.

46. Ozone generators.

47. Fire suppression systems.

48. Emergency road flares.

49. Steam vents and safety relief valves.

50. Steam leaks.

51. Steam cleaning operations.

52. Steam and microwave sterilizers.

53. Site assessment work to characterize waste disposal or remediation sites.

54. Miscellaneous additions or upgrades of instrumentation.

55. Emissions from combustion controllers or combustion shutoff devices but not combustion units itself.

56. Use of products for the purpose of maintaining motor vehicles operated by the facility, not including air cleaning units of such vehicles (i.e. antifreeze, fuel additives).

57. Stacks or vents to prevent escape of sanitary sewer gases through the plumbing traps.

58. Emissions from equipment lubricating systems (i.e. oil mist), not including storage tanks, unless otherwise exempt.

59. Residential wood heaters, cookstoves, or fireplaces.

60. Barbecue equipment or outdoor fireplaces used in connection with any residence or recreation.

61. Log wetting areas and log flumes.

62. Periodic use of pressurized air for cleanup.

63. Solid waste dumpsters.

64. Emissions of wet lime from lime mud tanks, lime mud washers, lime mud piles, lime mud filter and filtrate tanks, and lime mud slurry tanks.

65. Natural gas odoring activities unless the Department determines that emissions constitute air pollution.

66. Emissions from engine crankcase vents.

67. Storage tanks used for the temporary containment of materials resulting from an emergency reporting of an unanticipated release.

68. Equipment used exclusively to mill or grind coatings in roll grinding rebuilding, and molding compounds where all materials charged are in paste form.

69. Mixers, blenders, roll mills, or calenders for rubber or plastic for which no materials in powder form are added and in which no organic solvents, diluents, or thinners are used.

70. The storage , handling, and handling equipment for bark and wood residues not subject to fugitive dispersion offsite (this applies to the equipment only).

71. Maintenance dredging of pulp and paper mill surface impoundments and ditches containing cellulosic and cellulosic derived biosolids and inorganic materials such as lime, ash, or sand.

72. Tall oil soap storage, skimming, and loading.

73. Water heaters used strictly for domestic (non-process) purposes.

74. Facility roads and parking areas, unless necessary to control offsite fugitive emissions.

75. Agricultural operations, including onsite grain storage, not including IC engines or grain elevators.

76. The following natural gas and oil exploration production site equipment: separators, dehydration units, natural gas fired compressors, and pumping units. This does not include compressors located on natural gas transmission pipelines.

SECTION VII: GENERAL PROVISIONS

1. Pursuant to 40 C.F.R. 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 C.F.R. 70.6(a)(2) and §26.7 of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), 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 §26.4 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 C.F.R. 70.6(a)(1)(ii) and §26.7 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 C.F.R. 70.6(a)(3)(ii)(A) and §26.7 of Regulation #26, records of monitoring information required by this permit shall include the following:

   a. The date, place as defined in this permit, and time of sampling or measurements;
   b. The date(s) analyses were performed;
   c. The company or entity that performed the analyses;
   d. The analytical techniques or methods used;
   e. The results of such analyses; and
   f. The operating conditions existing at the time of sampling or measurement.

6. Pursuant to 40 C.F.R. 70.6(a)(3)(ii)(B) and §26.7 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 C.F.R. 70.6(a)(3)(iii)(A) and §26.7 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 Pollution Control and Ecology
   Air Division
   ATTN: Compliance Inspector Supervisor
   Post Office Box 8913
   Little Rock, AR 72219

8. Pursuant to 40 C.F.R. 70.6(a)(3)(iii)(B), §26.7 of Regulation #26, and §19.6 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 within 24 hours of discovery of the occurrence. The initial report may be made by telephone and shall include:

    a. The facility name and location,
    b. The process unit or emission source which is deviating from the permit limit,
    c. The permit limit, including the identification of pollutants, from which deviation occurs,
    d. The date and time the deviation started,
    e. The duration of the deviation,
    f. The average emissions during the deviation,
    g. The probable cause of such deviations,
    h. Any corrective actions or preventive measures taken or being take to prevent such deviations in the future, and
    i. 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) within 24 hours of discovery of the occurrence and such report will serve as both the initial report and full report.

9. Pursuant to 40 C.F.R. 70.6(a)(5) and §26.7 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 C.F.R. 70.6(a)(6)(i) and §26.7 of Regulation #26, the permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements 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 C.F.R. 70.6(a)(6)(ii) and §26.7 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 C.F.R. 70.6(a)(6)(iii) and §26.7 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.

13. Pursuant to 40 C.F.R. 70.6(a)(6)(iv) and §26.7 of Regulation #26, this permit does not convey any property rights of any sort, or any exclusive privilege.

14. Pursuant to 40 C.F.R. 70.6(a)(6)(v) and §26.7 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 C.F.R. 70.6(a)(7) and §26.7 of Regulation #26, the permittee shall pay all permit fees in accordance with the procedures established in Regulation #9.

16. Pursuant to 40 C.F.R. 70.6(a)(8) and §26.7 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 C.F.R. 70.6(a)(9)(i) and §26.7 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 C.F.R. 70.6(b) and §26.7 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.

19. Pursuant to 40 C.F.R. 70.6(c)(1) and §26.7 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 C.F.R. 70.6(c)(2) and §26.7 of Regulation #26, the permittee shall allow an authorized representative of the Department, upon presentation of credentials, to perform the following:

    a. 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;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
    d. 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 C.F.R. 70.6(c)(5) and §26.7 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:

    a. The identification of each term or condition of the permit that is the basis of the certification;
    b. The compliance status;
    c. Whether compliance was continuous or intermittent;
    d. 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
    e. 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 §26.7 of Regulation #26, nothing in this permit shall alter or affect the following:

    a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;
    b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;
    c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act; or
    d. 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.