

# ADEQ OPERATING AIR PERMIT

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

Permit #: 1016-AOP-R1

IS ISSUED TO:

Reynolds Metals Company - Gum Springs Plant  
500 East Reynolds Road  
Arkadelphia, AR 71923  
Clark County  
CSN: 10-0004

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:

May 11, 2000

and

May 10, 2005

AND IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

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Keith A. Michaels

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Date Modified

**SECTION I: FACILITY INFORMATION**

PERMITTEE: Reynolds Metals Company - Gum  
Springs Plant

CSN: 10-0004

PERMIT NUMBER: 1016-AOP-R1

FACILITY ADDRESS: 500 East Reynolds Road  
Arkadelphia, AR 71923

COUNTY: Clark

CONTACT POSITION: Lyn Shepherd, Environmental Technical  
Manager

TELEPHONE NUMBER: 870 245-2720

REVIEWING ENGINEER: Thomas Rheaume, P.E.

UTM North-South (X): Zone 15 3769.445

UTM East-West (Y): Zone 15 492.795

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## **SECTION II: INTRODUCTION**

### **SUMMARY**

This is the first modification to the Title V permit for the facility. In this permit, Reynolds Metal Company - Gum Springs Plant plans some minor changes to the facility design. There will be no change in emissions. The changes are:

1. Change source description for SN-27 to “The Dust Collector for Bucket Elevator and Prepared Potliner Screw Conveyor, SN-27, controls emissions from the Prepared Potliner Screw Conveyor, bucket elevator, impact mill discharge conveyor and SPL tripper conveyor.”
2. Change source description for SN-29 to “Fugitive emissions from limestone handling occur in railcar unloading into the receiving pit, truck loading for transfer to the storage building (off-loading of trucks is done in an enclosed structure) and truck unloading directly into inside limestone storage pile.”

### **PROCESS DESCRIPTION**

Reynolds Metals Company (Reynolds) operates a spent potliner thermal treatment process at its facility located in Gum Springs, Arkansas. The facility consists of a potliner pretreatment system and a thermal treatment system. The latter (two waste kilns) operates under interim status as hazardous waste incinerators (40 C.F.R. § 265). A Part B permit application was submitted in August 1993 and updated in December 1997.

Potliner is a carbonaceous material which is used to line the inner surface of large production vessels (i.e., "pots") used in the electrolytic reduction of alumina to aluminum. When worn out or "spent," the potliner is removed and replaced. Due to the presence of cyanide compounds, spent potliner (SPL) is a listed hazardous waste (EPA waste code K088) subject to regulation under the Resource Conservation and Recovery Act (RCRA). SPL also contains fluorides and other contaminants which are regulated by state and federal air pollution control regulations.

The spent potliner treated at the Gum Springs plant is a dry material with aggregate sizes ranging from fine to greater than one foot in diameter. Spent potliner is transported to the treatment facility in 20-cubic yard capacity, water tight containers via rail cars or trucks. Forklifts are used to off-load the closed containers at an outdoor unloading area. The containers are then transferred to a storage area where they remain closed during storage until the potliner can be removed and prepared for treatment.

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The spent potliner pretreatment area is located entirely within an enclosed building at the facility. The pretreatment process begins when the containers are unloaded using a tilting platform onto a conveyor belt system. The unloading station is used to distribute the potliner material uniformly onto the conveyor belt that runs through the picking/sorting area where very large pieces of material and non-potliner are removed manually and magnetically. The material is then passed through a grizzly screen which diverts any remaining large pieces into a tote box for separate removal or treatment.

The spent potliner is first delivered to a screen (SC-02) located prior to the jaw crusher. The larger material coming off this screen passes through the jaw crusher. The smaller material is discharged through the screen and conveyed to another screen (SC-06). The smaller material passing through this screen is conveyed to the crushed potliner storage building, while the larger material coming off screen SC-06 is returned to the material stream exiting the jaw crusher. In summary, the spent potliner meeting the sizing requirements for thermal treatment is removed from the crushing circuit prior to crushing.

After the jaw crusher, the ferrous and non-ferrous tramp metals are removed via cross-belt magnets, an eddy-current aluminum separator, and screens. The spent potliner is then conveyed to a screen (SC-03) just ahead of the impact mill. Material passing through this screen is conveyed to the crushed potliner storage building for storage prior to thermal treatment. The material not passing screen SC-03 passes through the impact mill for size reduction. After the impact mill, the material is conveyed to a screen (SC-05) to remove particles sized for thermal treatment. Any material needing further size reduction is recycled back through the tramp metals removing equipment and screen SC-03.

The plant has the capability to remove the recycle material from the system, if necessary. Properly sized solids are sent to the crushed potliner storage building. All conveyor systems throughout the pretreatment process are covered and dust collectors are located at all material transfer points.

Once properly sized, the crushed material is transferred to the crushed potliner storage building via a bucket elevator and a tripper conveyor. The storage building is fully enclosed to control fugitive emissions. Air from the building is pulled through dust collectors and emitted to the atmosphere through a 55-foot stack. Front-end loaders are used to reclaim the material from the piles and load it into a reclaim hopper. Sand and limestone are each transported to the facility via truck or rail and stored in separate piles. These materials are also reclaimed using front-end loaders and distributed into two separate reclaim hoppers. Each material travels by weighing conveyors to the kiln feed bin. The conveyors are controlled by a Programmable Logic Controller (PLC) system, ensuring that each material is fed in the proper proportion according to a preset recipe. The three materials are continuously weighed, and fed to the 400-ton capacity kiln feed

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bin as required. Since this bin holds several hours of feed to the kilns, it is fed intermittently.

The kiln feed mixture is fed via screw conveyor to one of two 250-foot long countercurrent, rotary kilns operating either simultaneously or individually. For treatment and dust control, contact water, landfill leachate and/or landfill storm water runoff is injected via nozzle into the feed end of the kiln. Contact water contains spent potliner and is generated at the plant by cleanup and/or decontamination activities. Landfill runoff is storm water that runs off from the on-site waste landfill. Landfill leachate is collected from the on-site waste landfill leachate collection system.

Combustion air is fed to the kilns after being preheated from the exiting product cooler. The kilns are equipped with seals to prevent fugitive emissions and allow for efficient operation at an internal pressure below atmospheric. The potliner is subjected to a temperature of approximately 1250E F for at least 90 minutes. The combustion gas streams from the kilns are sent through cyclones and multiclones and then combined prior to being sent to the quench tower and fabric filter baghouse for further particulate removal. The quench tower may or may not need to be used to cool kiln gases prior to entering the bag house. If operated, the quench tower is operated in such a way that there is no liquid recirculation or blowdown. Solids from the cyclones and final baghouse are recycled to the kiln. The gas stream is then reheated in an afterburner/heat exchanger system for further destruction of air pollutants and emitted to the atmosphere through a 100 foot stack.

The treated product is discharged from the kiln, cooled in a rotary cooler and sent through a series of conveyors to one of three residue storage silos where samples are drawn from each day's generation, composited and tested at the on-site laboratory. Residues meeting the land disposal requirements will be transported via truck to the on-site waste landfill for disposal. Residue not meeting the land disposal requirements will be sent via recycle conveyors to the crushed potliner storage building and ultimately back to the kiln for re-treatment.

To minimize dust emissions, spent potliner and treated residue conveyors are covered throughout the potliner preparation, storage and treatment process, both prior to and following thermal treatment in the kilns. Fabric filter dust collectors are located at all material transfer points from pretreatment through loadout of residue to the landfill.

The waste feed material has historically been made up of no more than 35 percent crushed potliner. However, with this application, Reynolds is seeking to increase the mixture to 40 percent crushed potliner. The remainder of the material is comprised of limestone and sand. The maximum feed to the kilns will be 30 tons/hour/kiln.

Contact water, landfill leachate and/or landfill runoff is also fed to the kiln at a maximum rate of

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5 gpm. As this water contains less than 10 percent solids, it adds less than 0.05 percent to the total feed to the kiln. Spent potliner is delivered to the site from both Reynolds and non-Reynolds sources throughout North America.

**REGULATIONS**

The facility is subject to Arkansas Air Pollution Control Code (Regulation 18), Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation 19), and Regulations of the Arkansas Operating Air Permit Program (Regulation 26). The facility is also subject to 40 CFR 63, Subpart EEE, National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors.

The facility is not subject to 40 CFR 60, Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants because the spent potliner is not a “nonmetallic mineral” since the majority of the SPL is carbon material.

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

EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
Total Allowable Emissions		PM	10.72	46.86	N/A
		PM <sub>10</sub>	10.72	46.86	
		SO <sub>2</sub>	0.60	2.00	
		VOC	29.20	32.37	
		CO	23.09	101.13	
		NO <sub>x</sub>	52.00	205.00	
		Pb	0.004	0.021	
		HCl	2.000	8.760	

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
		Sb	0.900	3.001	
		As	0.190	0.831	
		Be	0.002	0.011	
		Cd	0.019	0.080	
		Cr	0.711	3.105	
		PAH*	0.681	2.983	
		F	1.480	6.480	
		Ammonia	15.260	66.650	
01	Receiving Area Dust Collector 020-DC-01	PM	0.21	0.9	21
		PM <sub>10</sub>	0.21	0.9	
		Pb	2.00e-05	8.60e-05	
		Sb	1.00e-05	4.40e-05	
		As	1.50e-05	6.50e-05	
		Be	2.40e-05	1.00e-04	
		Cd	5.80e-06	2.50e-05	
		Cr	8.30e-05	3.60e-04	
		Ammonia	0.2	0.7	
		PAH*	5.60e-05	2.40e-04	
02	Jaw Crusher Area Dust Collector 020-DC-03	PM	0.10	0.4	21
		PM <sub>10</sub>	0.10	0.4	
		Pb	9.40e-06	4.10e-05	
		Sb	4.80e-06	2.10e-05	
		As	7.10e-06	3.10e-05	

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Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
		Be	1.10e-05	4.90e-05	
		Cd	2.80e-06	1.20e-05	
		Cr	4.00e-05	1.70e-04	
		Ammonia	0.48	2.12	
		PAH*	2.60e-05	1.20e-04	
03	Mill Recycle Conveyor Transfer #2 Collector 020-DC-06	Source Deleted			
04	Mill Recycle Conveyor Transfer #1 Collector 020-DC-05	Source Deleted			
05	Mill Area Dust Collector 020-DC-04	PM	0.2	0.9	21
		PM <sub>10</sub>	0.2	0.9	
		Pb	1.90e-05	8.20e-05	
		Sb	9.60e-06	4.20e-05	
		As	1.40e-05	6.20e-05	
		Be	2.30e-05	9.90e-05	
		Cd	5.50e-06	2.40e-05	
		Cr	7.90e-05	3.50e-04	
		Ammonia	2.94	12.87	
		PAH*	5.30e-05	2.30e-04	



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Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
06	Potliner Building Dust Collector 050-DC-07	PM	0.57	2.5	25
		PM <sub>10</sub>	0.57	2.5	
		Pb	5.30e-05	2.30e-04	
		Sb	2.70e-05	1.20e-04	
		As	4.00e-05	1.80e-04	
		Be	6.40e-05	2.80e-04	
		Cd	1.60e-05	6.90e-05	
		Cr	2.30e-04	9.90e-04	
		Ammonia	2.41	10.56	
		PAH*	1.50e-04	6.60e-04	
07	Limestone Reclaim Dust Collector 050-DC-08	PM	0.26	1.1	25
		PM <sub>10</sub>	0.26	1.1	
		Ammonia	0.08	0.34	
08	Sand Reclaim Dust Collector 050-DC-09	PM	0.26	1.1	25
		PM <sub>10</sub>	0.26	1.1	
		Pb	2.40e-05	1.10e-04	
		Sb	1.20e-05	5.40e-05	
		As	1.80e-05	8.00e-05	
		Be	2.90e-05	1.30e-04	
		Cd	7.20e-06	3.10e-05	
		Cr	1.00e-04	4.50e-04	
		Ammonia	0.12	0.51	

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
09	Kiln Feed Bin Dust Collector 050-DC-12	PM	0.39	1.7	25
		PM <sub>10</sub>	0.39	1.7	
		Pb	3.60e-05	1.60e-04	
		Sb	1.90e-05	8.20e-05	
		As	2.70e-05	1.20e-04	
		Be	4.40e-05	1.90e-04	
		Cd	1.10e-05	4.70e-05	
		Cr	1.50e-04	6.70e-04	
		Ammonia	1.26	5.54	
		PAH*	1.00e-04	4.50e-04	
10	Kiln #1 Feed Dust Collector 150-DC-13	PM	0.034	0.15	25
		PM <sub>10</sub>	0.034	0.15	
		Pb	3.20e-06	1.40e-05	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	
		Ammonia	0.68	2.98	
		PAH*	9.00e-06	3.90e-05	
11	Kiln #2 Feed Dust Collector 150-DC-14	PM	0.034	0.15	25
		PM <sub>10</sub>	0.034	0.15	
		Pb	3.20e-06	1.40e-05	

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Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	
		Ammonia	0.68	2.98	
		PAH*	9.00e-06	3.90e-05	
12	Kiln #1 Discharge Dust Collector 150-DC-15	PM	0.056	0.25	39
		PM <sub>10</sub>	0.056	0.25	
		Pb	1.10e-09	4.90e-09	
		Sb	3.40e-09	1.50e-08	
		As	4.00e-06	1.80e-05	
		Be	1.40e-09	6.10e-09	
		Cd	3.10e-09	1.30e-08	
		Cr	4.10e-08	1.80e-07	
		Ammonia	0.16	0.68	
13	Kiln #2 Discharge Dust Collector 150-DC-16	PM	0.056	0.25	39
		PM <sub>10</sub>	0.056	0.25	
		Pb	1.10e-09	4.90e-09	
		Sb	3.40e-09	1.50e-08	
		As	4.00e-06	1.80e-05	
		Be	1.40e-09	6.10e-09	
		Cd	3.10e-09	1.30e-08	

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			lb/hr	tpy	
		Cr	4.10e-08	1.80e-07	
		Ammonia	0.16	0.68	
14	Silo Distribution Dust Collector 150-DC-18	PM	0.193	0.85	41
		PM <sub>10</sub>	0.193	0.85	
		Pb	3.90e-09	1.70e-08	
		Sb	1.20e-08	5.10e-08	
		As	1.40e-05	6.00e-05	
		Be	4.80e-09	2.10e-08	
		Cd	1.10e-08	4.60e-08	
		Cr	1.40e-07	6.20e-07	
		Ammonia	0.06	0.26	
15	Product Silo #7 Dust Collector 150-DC-19	PM	0.064	0.28	41
		PM <sub>10</sub>	0.064	0.28	
		Pb	1.30e-09	5.60e-09	
		Sb	3.80e-09	1.70e-08	
		As	4.60e-06	2.00e-05	
		Be	1.60e-09	7.00e-09	
		Cd	3.50e-09	1.50e-08	
		Cr	4.70e-08	2.10e-07	
		Ammonia	0.02	0.09	
16	Product Loadout Dust Collector 150-DC-20	PM	0.107	0.47	41
		PM <sub>10</sub>	0.107	0.47	
		Pb	2.10e-09	9.40e-09	

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Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
		Sb	6.40e-09	2.80e-08	
		As	7.70e-06	3.40e-05	
		Be	2.70e-09	1.20e-08	
		Cd	5.90e-09	2.60e-08	
		Cr	7.90e-08	3.40e-07	
		Ammonia	0.03	0.14	
17	Limestone Bin Dust Collector 300-DC-22	PM	0.051	0.23	29
		PM <sub>10</sub>	0.051	0.23	
		Ammonia	0.02	0.07	
18	Kiln Waste Dust Collector 150-DC-21	PM	0.064	0.28	31
		PM <sub>10</sub>	0.064	0.28	
		Pb	6.00e-06	2.60e-05	
		Sb	3.10e-06	1.30e-05	
		As	4.50e-06	2.00e-05	
		Be	7.20e-06	3.20e-05	
		Cd	1.80e-06	7.70e-06	
		Cr	2.50e-05	1.10e-04	
		Ammonia	0.02	0.09	
		PAH*	1.70e-05	7.40e-05	
19	Off-Gas Stack 150-SX-01	PM	6.83	30.0	31
		PM <sub>10</sub>	6.83	30.0	
		SO <sub>2</sub>	0.6	2.0	
		VOC	7.30	31.97	

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			lb/hr	tpy	
		CO	23.09	101.13	
		NO <sub>x</sub>	52.0	205.0	
		Pb	0.004	0.02	
		HCl	2.0	8.76	
		Sb	0.9	3.0	
		As	0.19	0.83	
		Be	0.0018	0.01	
		Cd	0.019	0.08	
		Cr	0.710	3.1	
		PAH*	0.68	2.98	
		F	1.48	6.48	
20	Off-Spec Transfer Dust Collector 150-DC-26	PM	0.034	0.15	44
		PM <sub>10</sub>	0.034	0.15	
		Pb	3.20e-06	1.40e-05	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	
		Ammonia	0.01	0.05	
		PAH*	9.00e-06	3.90e-05	
21	Off-Spec Transfer Dust Collector 150-DC-27	PM	0.034	0.15	44
		PM <sub>10</sub>	0.034	0.15	

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			lb/hr	tpy	
		Pb	3.20e-06	1.40e-05	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	
		Ammonia	0.01	0.05	
		PAH*	9.00e-06	3.90e-05	
22	Off-Spec Transfer Dust Collector 150-DC-28	PM	0.034	0.15	44
		PM <sub>10</sub>	0.034	0.15	
		Pb	3.20e-06	1.40e-05	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	
		Ammonia	0.01	0.05	
		PAH*	9.00e-06	3.90e-05	
23	Product Transfer Dust Collector 150-DC-30	PM	0.034	0.15	47
		PM <sub>10</sub>	0.034	0.15	
		Pb	3.20e-06	1.40e-05	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	

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			lb/hr	tpy	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	
		Ammonia	0.01	0.05	
		PAH*	9.00e-06	3.90e-05	
24	Product Transfer Dust Collector 150-DC-31	PM	0.034	0.15	47
		PM <sub>10</sub>	0.034	0.15	
		Pb	3.20e-06	1.40e-05	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	
		Ammonia	0.01	0.05	
		PAH*	9.00e-06	3.90e-05	
25	Product Transfer Dust Collector 150-DC-32	PM	0.034	0.15	47
		PM <sub>10</sub>	0.034	0.15	
		Pb	3.20e-06	1.40e-05	
		Sb	1.60e-06	7.10e-06	
		As	2.40e-06	1.00e-05	
		Be	3.80e-06	1.70e-05	
		Cd	9.40e-07	4.10e-06	
		Cr	1.30e-05	5.90e-05	



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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
		Ammonia	0.01	0.05	
		PAH*	9.00e-06	3.90e-05	
26	Dust Collector for Secondary Screen Area 020-DC-33	PM	0.51	2.25	21
		PM <sub>10</sub>	0.51	2.25	
		Pb	4.80e-05	2.10e-04	
		Sb	2.40e-05	1.10e-04	
		As	3.60e-05	1.60e-04	
		Be	5.70e-05	2.50e-04	
		Cd	1.40e-05	6.20e-05	
		Cr	2.00e-04	8.80e-04	
		Ammonia	2.94	12.87	
		PAH*	1.40e-04	5.90e-04	
27	Dust Collector for Bucket Elevator and Screen 6 020-DC-34	PM	0.21	0.90	21
		PM <sub>10</sub>	0.21	0.90	
		Pb	2.00e-05	8.60e-05	
		Sb	1.00e-05	4.40e-05	
		As	1.50e-05	6.50e-05	
		Be	2.40e-05	1.00e-04	
		Cd	5.80e-06	2.50e-05	
		Cr	8.30e-05	3.60e-04	
		Ammonia	2.94	12.87	
		PAH*	5.60e-05	2.40e-04	
28	Fuel Tanks	VOC	23.4	1.0	50

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EMISSION SUMMARY					
Source No.	Description	Pollutant	Emission Rates		Cross Reference Page
			lb/hr	tpy	
29	Limestone Handling	PM	0.25	1.1	51
		PM <sub>10</sub>	0.25	1.1	
30	Incinerator Residual Management	PM	0.3	1.4	53
		PM <sub>10</sub>	0.3	1.4	

\* PAH - Polycyclic Aromatic Hydrocarbons, also known as Polynuclear Aromatic Hydrocarbons

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

The SPL process was originally permitted in permit 27- AR-4 issued January 25, 1988 for the Reynolds Hurricane Creek facility. The process used existing equipment from another process at the facility.

Air Permit 1016-A was issued on June 21, 1990. This permit was to allow the process to be moved from the Reynolds Hurricane Creek facility to the current location. Total permitted emissions were 7 lbs/hr particulate, 0.2 lbs/hr SO<sub>x</sub>, 4.0 lbs/hr NO<sub>x</sub>, 28 lbs/hr CO, 4.0 lbs/hr VOC as well as rates for Pb, Be, F, CN and HCl.

Air Permit 1016-AR-1 was issued on November 29, 1994. In this permit, the emission limit for PAHs was revised to reflect actual emissions test data. The increase was from 0.004 to 0.68 pounds per hour.

Air Permit 1016-AR-2 was issued on November 29, 1994. In this permit, RMC requested that ADEQ permit contact water and landfill runoff as allowable feeds to the SPL treatment process. In addition, the emission limit for PAHs was revised to reflect actual emissions test data. The 0.004 pound per hour limit originally proposed by RMC and incorporated in the previous permit was an estimate that did not adequately account for all PAH formation and destruction mechanisms. In the application for this modification, RMC submitted an analysis indicating that the increase from 0.004 to 0.68 pounds per hour is acceptable and within limits considered to be protective of human health and the environment.

Air Permit 1016-AOP-R0 was issued on May 11, 2000. This permit was the initial Title V permit for the facility. In this permit, the allowable potliner blend ratio was increased from 35 to 40%, the allowable kiln feed rate was increased from 24 to 30 tons per hour, and landfill leachate was included as an acceptable waste feed by direct injection. Ammonia emissions were quantified for the first time in this permit. Allowable emissions of NO<sub>x</sub> increased due to most recent testing information and the increase in throughput requested; some other pollutant emission rates changed by small amounts. In addition, the allowable cyanide and flourides in the feed increased based on testing that demonstrated these increases would not increase emissions of these pollutants. At the issuance date of this permit, the facility was operating under a RCRA permit which does not authorize the increased kiln feed rate. The facility was limited to the lower feed rates until such time as the RCRA permit was revised or superseded by a MACT permit for the combustion units.

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**SECTION IV: EMISSION UNIT INFORMATION**

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**SN-01, 02, 05, 26, 27**

**Crushing Facility**

**Source Description**

The Receiving Area Dust Collector, SN-01, controls emissions from the lift and tilt platform, belt feeders, screens and conveyors.

The Jaw Crusher Area Dust Collector, SN-02, controls emissions from the scalping screen, jaw crusher, crusher discharge conveyor and fines bypass conveyor.

The Mill Area Dust Collector, SN-05, controls emissions from the mill sizing screen, impact mill, impact discharge conveyor and prepared potliner conveyor.

The Dust Collector for Secondary Screen Area, SN-26, controls emissions from the aluminum separator #1, impact mill feed conveyor, secondary sizing screen, aluminum separator #2, screen #5 recirculating conveyor, roll crusher feed conveyor, roll crusher and collecting conveyor.

The Dust Collector for Bucket Elevator and Prepared Potliner Screw Conveyor, SN-27, controls emissions from the Prepared Potliner Screw Conveyor, bucket elevator, impact mill discharge conveyor and SPL tripper conveyor.

**Specific Conditions**

- Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-01	PM <sub>10</sub>	0.21	0.9
	Pb	2.00e-05	8.60e-05
SN-02	PM <sub>10</sub>	0.10	0.4
	Pb	9.40e-06	4.10e-05

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Source	Pollutant	lb/hr	tpy
SN-05	PM <sub>10</sub>	0.2	0.9
	Pb	1.90e-05	8.20e-05
SN-26	PM <sub>10</sub>	0.51	2.25
	Pb	4.80e-05	2.10e-04
SN-27	PM <sub>10</sub>	0.21	0.90
	Pb	2.00e-05	8.60e-05

4. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-01	PM	0.21	0.9
	Sb	1.00e-05	4.40e-05
	As	1.50e-05	6.50e-05
	Be	2.40e-05	1.00e-04
	Cd	5.80e-06	2.50e-05
	Cr	8.30e-05	3.60e-04
	Ammonia	0.2	0.7
	PAH*	5.60e-05	2.40e-04
SN-02	PM	0.10	0.4
	Sb	4.80e-06	2.10e-05
	As	7.10e-06	3.10e-05
	Be	1.10e-05	4.90e-05

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Source	Pollutant	lb/hr	tpy
	Cd	2.80e-06	1.20e-05
	Cr	4.00e-05	1.70e-04
	Ammonia	0.48	2.12
	PAH*	2.60e-05	1.20e-04
SN-05	PM	0.2	0.9
	Sb	9.60e-06	4.20e-05
	As	1.40e-05	6.20e-05
	Be	2.30e-05	9.90e-05
	Cd	5.50e-06	2.40e-05
	Cr	7.90e-05	3.50e-04
	Ammonia	2.94	12.87
	PAH*	5.30e-05	2.30e-04
SN-26	PM	0.51	2.25
	Sb	2.40e-05	1.10e-04
	As	3.60e-05	1.60e-04
	Be	5.70e-05	2.50e-04
	Cd	1.40e-05	6.20e-05
	Cr	2.00e-04	8.80e-04
	Ammonia	2.94	12.87
	PAH*	1.40e-04	5.90e-04
SN-27	PM	0.21	0.90
	Sb	1.00e-05	4.40e-05
	As	1.50e-05	6.50e-05

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Source	Pollutant	lb/hr	tpy
	Be	2.40e-05	1.00e-04
	Cd	5.80e-06	2.50e-05
	Cr	8.30e-05	3.60e-04
	Ammonia	2.94	12.87
	PAH*	5.60e-05	2.40e-04

5. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-01, 02, 05, 26, 27 shall not exceed 7%. Compliance with this condition will be demonstrated by Plantwide Condition 7.
  
6. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-01, 02, 05, 26, 27 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.



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**SN-06, 07, 08, 09, 10, 11**

**Stock Piling and Reclaiming**

**Source Description**

The Potliner Building Dust Collector, SN-06, controls emissions from the two (2) ceiling vents, SPL reclaim feed hopper and two (2) SPL reclaim feeders

The Limestone Reclaim Dust Collector, SN-07, controls emissions from the limestone reclaim hopper and limestone reclaim feeder.

The Sand Reclaim Dust Collector, SN-08, controls emissions from the sand reclaim hopper and sand reclaim feeder.

The Kiln Feed Bin Dust Collector, SN-09, controls emissions from kiln #1 feed conveyor, kiln #2 feed conveyor, kiln feed bin, two (2) kiln feed bucket elevators, two (2) kiln feed collector conveyors, kiln #1 feeder and kiln #2 feeder.

The Kiln #1 Feed Dust Collector, SN-10, controls emissions from kiln #1 screw conveyor and kiln #1 feed conveyor.

The Kiln #2 Feed Dust Collector, SN-11, controls emissions from kiln #2 screw conveyor and kiln #2 feed conveyor.

**Specific Conditions**

- Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-06	PM <sub>10</sub>	0.57	2.5
	Pb	5.30e-05	2.30e-04

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Source	Pollutant	lb/hr	tpy
SN-07	PM <sub>10</sub>	0.26	1.1
SN-08	PM <sub>10</sub>	0.26	1.1
	Pb	2.40e-05	1.10e-04
SN-09	PM <sub>10</sub>	0.39	1.7
	Pb	3.60e-05	1.60e-04
SN-10	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05
SN-11	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05

8. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-06	PM	0.57	2.5
	Sb	2.70e-05	1.20e-04
	As	4.00e-05	1.80e-04
	Be	6.40e-05	2.80e-04
	Cd	1.60e-05	6.90e-05
	Cr	2.30e-04	9.90e-04
	Ammonia	2.41	10.56
	PAH*	1.50e-04	6.60e-04

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Source	Pollutant	lb/hr	tpy
SN-07	PM	0.26	1.1
	Ammonia	0.08	0.34
SN-08	PM	0.26	1.1
	Sb	1.20e-05	5.40e-05
	As	1.80e-05	8.00e-05
	Be	2.90e-05	1.30e-04
	Cd	7.20e-06	3.10e-05
	Cr	1.00e-04	4.50e-04
	Ammonia	0.12	0.51
SN-09	PM	0.39	1.7
	Sb	1.90e-05	8.20e-05
	As	2.70e-05	1.20e-04
	Be	4.40e-05	1.90e-04
	Cd	1.10e-05	4.70e-05
	Cr	1.50e-04	6.70e-04
	Ammonia	1.26	5.54
	PAH*	1.00e-04	4.50e-04
SN-10	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05

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Source	Pollutant	lb/hr	tpy
	Ammonia	0.68	2.98
	PAH*	9.00e-06	3.90e-05
SN-11	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05
	Ammonia	0.68	2.98
	PAH*	9.00e-06	3.90e-05

9. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-06, 09, 10, 11 shall not exceed 7 %. Compliance with this condition will be demonstrated by Plantwide Condition 7.
10. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-07, 08 shall not exceed 10 %. Compliance with this condition will be demonstrated by Plantwide Condition 7.
11. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-06, SN-09 and SN-11 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.
12. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-07 and SN-08 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.

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**SN-17**

**Limestone Bin Dust Collector**

**Source Description**

The Limestone Bin Dust Collector, SN-17, controls emissions from the limestone bin.

**Specific Conditions**

13. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-17	PM <sub>10</sub>	0.051	0.23

14. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-17	PM	0.051	0.23
	Ammonia	0.02	0.07

15. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-17 shall not exceed 10 %. Compliance with this condition will be demonstrated by Plantwide Condition 7.

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16. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-17 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.

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**SN-18, 19**

**Process Off-Gas Handling**

**Source Description**

The Kiln Waste Dust Collector, SN-18, controls emissions from the dust disengaging vessel and dust loadout feed spout.

The Off-Gas Stack, SN-19, is the final emission point for the thermal treatment of the SPL. The combustion gas streams from the kilns are sent through cyclones and multiclones and then combined prior to being sent to the quench tower and fabric filter baghouse for further particulate removal. The quench tower may or may not need to be used to cool kiln gases prior to entering the bag house. The gas stream is then reheated in an afterburner/heat exchanger system for further destruction of air pollutants and emitted to the atmosphere through a 100 foot stack.

At the issuance date of this permit, the facility is operating under a RCRA permit which does not authorize the increased kiln feed rate. The facility is limited to the lower feed rates until such time as the RCRA permit is revised or superseded by a MACT permit for the combustion units.

**Specific Conditions**

17. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates for SN-18 are based on maximum operating capacity of the equipment. SN-19 rates are based on the operational limits in this permit and test data.

Source	Pollutant	lb/hr	tpy
SN-18	PM <sub>10</sub>	0.064	0.28
	Pb	6.00e-06	2.60e-05
SN-19	PM <sub>10</sub>	6.83	30.0
	SO <sub>2</sub>	0.6	2.0
	VOC	7.30	31.97

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Source	Pollutant	lb/hr	tpy
	CO	23.09	101.13
	NO <sub>x</sub>	52.0	205.0
	Lead Compounds	0.004	0.02

18. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates for SN-18 are based on maximum operating capacity of the equipment. SN-19 rates are based on the operational limits in this permit and test data.

Source	Pollutant	lb/hr	tpy
SN-18	PM	0.064	0.28
	Sb	3.10e-06	1.30e-05
	As	4.50e-06	2.00e-05
	Be	7.20e-06	3.20e-05
	Cd	1.80e-06	7.70e-06
	Cr	2.50e-05	1.10e-04
	Ammonia	0.02	0.09
	PAH*	1.70e-05	7.40e-05
SN-19	PM	6.83	30.0
	HCl	2.0	8.76
	Sb	0.9	3.0
	As	0.19	0.83
	Be	0.0018	0.01
	Cd	0.019	0.08



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Source	Pollutant	lb/hr	tpy
	Cr	0.710	3.1
	PAH*	0.68	2.98
	F	1.48	6.48

19. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-18 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.
  
20. Pursuant to §19.703 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 Permittee shall construct, maintain, calibrate and operate the process monitoring systems specified in Appendix A of this permit - Automatic Waste Feed Shutoff System Parameters, Devices, Cutoff Limits, Actions. Each monitored operating parameter identified in Appendix A shall be continuously monitored and recorded. The kiln feed material, contact water, landfill runoff and leachate shall be charged to a kiln only when all monitoring and recording instruments and devices required by this condition are on-line and operating properly. The kiln feed material, contact water, landfill runoff and leachate shall not be charged to a kiln unless all of the monitored parameters described are within the ranges specified. Upon any occurrence of an interlocked parameter deviating from the allowed range, the monitoring system shall automatically cut off the flow of all waste and aqueous waste feed streams to one, or both, kilns at the levels, and in the manner, specified below. Upon the occurrence of any automatic waste feed shutoff, the affected feeds shall not be restarted until such time as the monitored parameters are within the specified ranges. In the event of a malfunction of the automatic waste feed shutoff system, the Permittee shall perform manual shutdowns of all reclaim feeder line and kiln waste feed operations. Feeder line and kiln waste feed operations shall not be restarted until such time as the problem causing the malfunction has been located and corrected. For those monitored parameters which do not have limits specified, interlocks are not yet required. Compliance with this condition shall be demonstrated by Specific Condition 36.
  
21. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the feed material to each kiln shall consist of a blend containing, by weight percent, 25-40% crushed potliner, 25-35% sand and 30-50% limestone. The blend shall be such that the cyanide feed rate does not exceed 105 lbs/hr and the fluoride feed rate does not exceed 2600 lbs/hr. The operator shall continuously

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- monitor the blending of potliner, sand and limestone in a manner such that an inability to maintain the required blend ratio shall result in an immediate stop to all reclaim feeders. Compliance with this Specific Condition shall be determined by using the values for concentrations and feedstock densities determined by the sampling and analysis program and the as-fired blend ratio and individual kiln mass feed rates to determine the average pounds constituent per hour. Kiln feed rates used for this calculation shall be those determined in accordance with Specific Condition 21. Compliance with this condition shall be demonstrated by Specific Condition 36.
22. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, Reynolds shall not accept for treatment, any material other than the spent potliner, sand, and limestone feedstocks that are specified in this Permit. Contact water generated from routine on-site operations and landfill runoff and leachate from the on-site landfill are also acceptable feedstocks. If sampling and analysis of the kiln discharge residue indicates the need for further reduction in the concentrations of regulated constituents, the discharged residue may be re-introduced to the kiln feed system. Off-specification residuals shall be separately treated and not commingled with untreated spent potliner. If sand or limestone is considered a necessary feedstock for treatment of off-specification kiln residue, the Permittee shall establish and not exceed the minimum feed rate of limestone and sand considered necessary to result in successful treatment.
23. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, this Permit authorizes the operation of two kilns. Each kiln feed rate, as measured by the associated weight integrator, shall be no greater than 30 tons per hour average and 30.5 tons per hour instantaneous. When both kilns are in-service, each kiln is limited to a 30 ton per hour feed rate such that the total feed rate shall be no greater than 60 tons per hour. Contact water, landfill runoff and leachate may be introduced to each feed screw conveyor at a combined rate not to exceed five gallons per minute per each kiln. Compliance with this condition shall be based on a one hour averaging time. Compliance with this condition shall be demonstrated by Specific Condition 36.
24. Pursuant to §19.703 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, natural gas fuel feed to each operating kiln shall be continuous. Each natural gas burner shall be equipped with a burner flame detector that initiates an automatic waste feed shutoff in the event of a flameout. Compliance with this condition shall be demonstrated by Specific Condition 36.
25. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304

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and §8-4-311, each rotary kiln shall be operated so that the kiln draft is sufficient to maintain a negative pressure of at least -0.02 in. W.C. Compliance with this condition shall be demonstrated by Specific Condition 36.

26. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, kiln cold end temperature shall be maintained at 350E F or greater. Compliance with this condition shall be demonstrated by Specific Condition 36.
27. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, kiln hot end temperature shall be maintained at 1000E F or greater. Compliance with this condition shall be demonstrated by Specific Condition 36.
28. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the oxygen concentration in each kiln off-gas stream shall be measured in the kiln feed hood, which is located prior to the inlet of the cyclone. This oxygen concentration shall be maintained at no less than 4.0%. An oxygen concentration less than 4.0% shall result in an automatic waste feed shutoff to the affected kiln. Compliance with this condition shall be demonstrated by Specific Condition 36.
29. Pursuant to §19.703 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 gas flow rate to each kiln induced draft fan shall be continuously monitored and recorded. Loss of power to a kiln induced draft fan shall result in an automatic waste feed shutoff to the affected kiln. Compliance with this condition shall be demonstrated by Specific Condition 36.
30. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, use of the water quench shall be considered as an emergency quench and shall result in an automatic waste feed shutoff. Compliance with this condition shall be demonstrated by Specific Condition 36.
31. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the pressure differential across the off-gas dust collector shall be maintained at greater than 0.5 in. W.C. Compliance with this condition shall be demonstrated by Specific Condition 36.
32. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, loss of power to either, or both, in-service off-gas dust collector discharge fans shall result in a system-wide automatic waste feed shutoff. Compliance with this condition shall be demonstrated by Specific Condition 36.

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33. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, natural gas firing to each in-service afterburner shall be continuous. Each natural gas burner shall be equipped with a burner flame detector that initiates a system-wide automatic waste feed shutoff in the event of a flameout. Compliance with this condition shall be demonstrated by Specific Condition 36.
34. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, loss of power to any afterburner combustion air supply fan shall result in a system-wide automatic waste feed shutoff. Compliance with this condition shall be demonstrated by Specific Condition 36.
35. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the internal pressure of each afterburner chamber shall be maintained at no greater than 3 in. W.C. Compliance with this condition shall be demonstrated by Specific Condition 36.
36. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, each afterburner shall be operated with an exit gas temperature of no less than 1,800E F. An afterburner exit gas temperature less than 1,800E F shall result in an automatic waste feed shutoff to the affected kiln. Compliance with this condition shall be demonstrated by Specific Condition 36.
37. Pursuant to §19.303 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the process off-gas stack gas temperature shall be maintained at no lower than 900E F. Compliance with this condition shall be demonstrated by Specific Condition 36.
38. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility shall keep a daily record of all parameters and conditions referencing this Specific Condition. Such records shall be maintained on site and made available to Department personnel upon request.
39. Pursuant to §19.703 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 process off-gas stack shall be equipped with a continuous gas analyzer system that shall continuously monitor and record stack gas opacity and the concentrations of oxygen (O<sub>2</sub>), carbon monoxide (CO) and total hydrocarbons (THC) in the gas stream. Monitors used for this purpose shall be designed to actuate a system-wide automatic waste feed shutoff at the concentration limits described in these Specific Conditions. These monitors are subject to the Performance Specification Test procedures contained in Appendix B - Compliance Test Methods and

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the calibration, maintenance and compliance standards of Appendix C - Continuous Emission Monitoring Systems Conditions.

40. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the carbon monoxide concentration in the process off-gas stack shall not exceed 100 ppmv, dry gas basis, corrected to 7% O<sub>2</sub>. Compliance with this concentration limit shall be based on a rolling one hour averaging time. The monitoring and recording system used to demonstrate compliance with this condition shall continuously monitor, report and record dry gas, oxygen corrected, one hour average concentrations. The hourly rolling average is defined as the arithmetic mean of the 60 most recent 1-minute average values reported.
41. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the total hydrocarbon concentration (THC) in the process off-gas stack shall not exceed 20 ppmv, dry gas basis, measured as propane. The gas sample collection train for the THC monitoring system must be designed, maintained and operated in a manner such that the temperature of the sample stream to be analyzed is maintained in the range of 150E - 175E C. Compliance with this THC concentration shall be demonstrated by the monitor required in Specific Condition 37.
42. Pursuant to §19.503 of Regulation 19, and 40 CFR Part 52, Subpart E, the opacity of the process off-gas stack emissions, SN-19, shall not exceed 20%. For purposes of determining compliance with this condition, 20% opacity is exceeded only if the average opacity measured over a six minute interval is greater than 20%. Compliance with this condition will be demonstrated by opacity monitor required in Specific Condition 37.
43. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-18 shall not exceed 7 %. Compliance with this condition will be demonstrated by Plantwide Condition 7.
44. Pursuant to §19.501 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the particulate concentration of the process off-gas stack gases shall be limited to a maximum concentration of 0.08 grains per dry standard cubic foot, corrected to 7% O<sub>2</sub>. Compliance shall be demonstrated by Specific Condition 43.
45. Pursuant to §19.702 of Regulation 19, and 40 CFR Part 52, Subpart E, every 5 years, within the time frames specified in Plantwide Condition 3, and whenever else required as a means of determining compliance with the conditions herein, SN-19 will undergo the test procedures described in Appendix B - Compliance Test Methods. The Test Method Sampling and Analysis Procedures that shall be used for the purpose of

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determining compliance with the emissions limits established for SN-19, the process off-gas stack, are listed in Appendix B - Compliance Test Methods. For the duration of each test period, the average feed rate must be maintained at greater than 90% of the maximum allowable feed rate. Any feed material prepared for these tests shall be characterized by the sampling and analysis protocol described in Plantwide Condition 9 and the results of this analysis shall be submitted as an addendum to the stack test report. The monitoring data that is collected for all operating parameters that are subject to the monitoring requirements described in the Specific Conditions of this Permit shall be submitted as an addendum to the stack test report. The first test required by this condition is 5 years from the effective date of the permit.

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**SN-12, 13**

**Kiln Discharge Dust Collectors**

**Source Description**

The Kiln #1 Discharge Dust Collector, SN-12, controls emissions from the kiln #1 collection conveyor and kiln #1 cooler screw conveyor.

The Kiln #2 Discharge Dust Collector, SN-13, controls emissions from the kiln #2 collection conveyor and kiln #2 cooler screw conveyor.

**Specific Conditions**

46. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-12	PM <sub>10</sub>	0.056	0.25
	Pb	1.10e-09	4.90e-09
SN-13	PM <sub>10</sub>	0.056	0.25
	Pb	1.10e-09	4.90e-09

47. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment

Source	Pollutant	lb/hr	tpy
SN-12	PM	0.056	0.25

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Source	Pollutant	lb/hr	tpy
	Sb	3.40e-09	1.50e-08
	As	4.00e-06	1.80e-05
	Be	1.40e-09	6.10e-09
	Cd	3.10e-09	1.30e-08
	Cr	4.10e-08	1.80e-07
	Ammonia	0.16	0.68
	SN-13	PM	0.056
	Sb	3.40e-09	1.50e-08
	As	4.00e-06	1.80e-05
	Be	1.40e-09	6.10e-09
	Cd	3.10e-09	1.30e-08
	Cr	4.10e-08	1.80e-07
	Ammonia	0.16	0.68

48. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-12, 13 shall not exceed 10 %. Compliance with this condition will be demonstrated by Plantwide Condition 7.
49. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-12 and SN-13 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide 8.



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**SN-14, 15, 16**

**Product Storage and Loadout**

**Source Description**

The Silo Distribution Dust Collector, SN-14, controls emissions from the product storage bucket elevator, silo #6, silo #6 feed conveyor, silo #7 feed conveyor, silo #8 and silo #8 feed conveyor.

The Product Silo #7 Dust Collector, SN-15, controls emissions from silo #7.

The Product Loadout Dust Collector, SN-16, controls emissions from two (2) truck loadout bucket elevators and product loadout bins 9 and 10.

**Specific Conditions**

50. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-14	PM <sub>10</sub>	0.193	0.85
	Pb	3.90e-09	1.70e-08
SN-15	PM <sub>10</sub>	0.064	0.28
	Pb	1.30e-09	5.60e-09
SN-16	PM <sub>10</sub>	0.107	0.47
	Pb	2.10e-09	9.40e-09

51. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following

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table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-14	PM	0.193	0.85
	Sb	1.20e-08	5.10e-08
	As	1.40e-05	6.00e-05
	Be	4.80e-09	2.10e-08
	Cd	1.10e-08	4.60e-08
	Cr	1.40e-07	6.20e-07
	Ammonia	0.06	0.26
SN-15	PM	0.064	0.28
	Sb	3.80e-09	1.70e-08
	As	4.60e-06	2.00e-05
	Be	1.60e-09	7.00e-09
	Cd	3.50e-09	1.50e-08
	Cr	4.70e-08	2.10e-07
	Ammonia	0.02	0.09
SN-16	PM	0.107	0.47
	Sb	6.40e-09	2.80e-08
	As	7.70e-06	3.40e-05
	Be	2.70e-09	1.20e-08
	Cd	5.90e-09	2.60e-08
	Cr	7.90e-08	3.40e-07
	Ammonia	0.03	0.14

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52. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-14, 15, 16 shall not exceed 10 %.  
Compliance with this condition will be demonstrated by Plantwide Condition 7.
  
53. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-14, SN-15 and SN-16 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.

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**SN-20, 21, 22**

**Off-Spec Product Transfer**

**Source Description**

The Off-Spec Transfer Dust Collectors, SN-20 and 21, control emissions from the off-spec bypass conveyor.

The Off-Spec Transfer Dust Collector, SN-22, controls emissions from the off-spec crossover conveyor.

**Specific Conditions**

54. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-20	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05
SN-21	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05
SN-22	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05

55. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

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Source	Pollutant	lb/hr	tpy
SN-20	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05
	Ammonia	0.01	0.05
	PAH*	9.00e-06	3.90e-05
SN-21	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05
	Ammonia	0.01	0.05
	PAH*	9.00e-06	3.90e-05
SN-22	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05

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Source	Pollutant	lb/hr	tpy
	Ammonia	0.01	0.05
	PAH*	9.00e-06	3.90e-05

56. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-20, 21, 22 shall not exceed 7 %. Compliance with this condition will be demonstrated by Plantwide Condition 7.
57. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-20 and SN-22 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.

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**SN-23, 24, 25**

**Product Transfer**

**Source Description**

The Product Transfer Dust Collectors , SN-23,24 and 25, control emissions from the product transfer conveyor.

**Specific Conditions**

58. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

Source	Pollutant	lb/hr	tpy
SN-23	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05
SN-24	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05
SN-25	PM <sub>10</sub>	0.034	0.15
	Pb	3.20e-06	1.40e-05

59. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr and tpy rates are based on maximum operating capacity of the equipment.

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Source	Pollutant	lb/hr	tpy
SN-23	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05
	Ammonia	0.01	0.05
	PAH*	9.00e-06	3.90e-05
SN-24	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05
	Ammonia	0.01	0.05
	PAH*	9.00e-06	3.90e-05
SN-25	PM	0.034	0.15
	Sb	1.60e-06	7.10e-06
	As	2.40e-06	1.00e-05
	Be	3.80e-06	1.70e-05
	Cd	9.40e-07	4.10e-06
	Cr	1.30e-05	5.90e-05
	Ammonia	0.01	0.05



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Source	Pollutant	lb/hr	tpy
	PAH*	9.00e-06	3.90e-05

60. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, visible emissions from SN-23, 24, 25 shall not exceed 10 %.  
Compliance with this condition will be demonstrated by Plantwide Condition 7.
  
61. Pursuant to §18.501 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, process equipment served by SN-23 and SN-25 shall be maintained to minimize fugitive emissions. Compliance with this condition will be demonstrated by Plantwide Condition 8.

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**SN-28**

**Gasoline Storage**

**Source Description**

The facility has two gasoline storage tanks on site, both 1000 gallon capacity.

**Specific Conditions**

62. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition will be demonstrated by the throughput limit in Specific Condition 61.

Source	Pollutant	lb/hr	tpy
SN-28	VOC	23.4	1.0

63. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall not receive in excess of 24,000 gallons of gasoline per consecutive 12 months.
64. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility shall maintain monthly records of the amount of gasoline received at the facility. Each month's data and a rolling 12 month total shall be calculated. The records shall be maintained on-site and available to Department personnel upon request. These records shall be submitted to the Department in accordance with General Provision 7.

**SN-29**

**Limestone Handling Fugitives**

**Source Description**

Fugitive emissions from limestone handling occur in railcar unloading into the receiving pit, truck loading for transfer to the storage building (off-loading of trucks is done in an enclosed structure) and truck unloading directly into inside limestone storage pile.

**Specific Conditions**

65. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr are based on maximum capacity of the equipment. Tpy is demonstrated by compliance with Specific Condition 65.

Source	Pollutant	lb/hr	tpy
SN-29	PM <sub>10</sub>	0.25	1.1

66. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table. The lb/hr are based on maximum capacity of the equipment. Tpy is demonstrated by compliance with Specific Condition 65.

Source	Pollutant	lb/hr	tpy
SN-29	PM	0.25	1.1

67. Pursuant to §19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6, the facility shall not receive in excess of 260,000 tons of limestone per consecutive 12 months.

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68. Pursuant to §19.705 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility shall maintain monthly records of the amount of limestone received at the facility. Each month's data and a rolling 12 month total shall be calculated. The records shall be maintained on-site and available to Department personnel upon request. These records shall be submitted to the Department in accordance with General Provision 7.

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**SN-30**

**Incinerator Residue Management**

**Source Description**

Fugitive emissions from handling of incinerator residue are generated by truck loading and unloading of processed potliner in transfer to the landfill and by wind erosion.

**Specific Conditions**

69. Pursuant to §19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective February 15, 1999 and 40 CFR Part 52, Subpart E, the permittee shall not exceed the emission rates set forth in the following table.

Source	Pollutant	lb/hr	tpy
SN-30	PM <sub>10</sub>	0.3*	1.4

\* lb/hr does not include an estimate of landfill erosion emissions.

70. Pursuant to §18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the permittee shall not exceed the emission rates set forth in the following table.

Source	Pollutant	lb/hr	tpy
SN-30	PM	0.3*	1.4

\* lb/hr does not include an estimate of landfill erosion emissions.

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

Reynolds Metals Company - Gum Springs Plant is in compliance with the applicable regulations cited in the permit application. Reynolds Metals Company - Gum Springs Plant will continue to operate in compliance with those identified regulatory provisions. The facility will examine and analyze future regulations that may apply and determine their applicability with any necessary action taken on a timely basis.

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**SECTION VI: PLANTWIDE CONDITIONS**

1. Pursuant to §19.704 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, the Director shall be notified in writing within thirty (30) days after construction has commenced, construction is complete, the equipment and/or facility is first placed in operation, and the equipment and/or facility first reaches the target production rate.
2. Pursuant to §19.410(B) of Regulation 19, 40 CFR Part 52, Subpart E, the Director may cancel all or part of this permit if the construction or modification authorized herein is not begun within 18 months from the date of the permit issuance if the work involved in the construction or modification is suspended for a total of 18 months or more.
3. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, any equipment that is to be tested, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, shall be tested with the following time frames: (1) Equipment to be constructed or modified shall be tested within sixty (60) days of achieving the maximum production rate, but in no event later than 180 days after initial start-up of the permitted source or (2) equipment already operating shall be tested according to the time frames set forth by the Department. The permittee shall notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. Compliance test results shall be submitted to the Department within thirty (30) days after the completed testing.
4. Pursuant to §19.702 of Regulation 19 and/or §18.1002 of Regulation 18 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311, the permittee shall provide:
  1. Sampling ports adequate for applicable test methods
  2. Safe sampling platforms
  3. Safe access to sampling platforms
  4. Utilities for sampling and testing equipment
5. Pursuant to §19.303 of Regulation 19 and A.C.A. §8-4-203 as referenced by A.C. A. §8-4-304 and §8-4-311, the equipment, control apparatus and emission monitoring equipment shall be operated within their design limitations and maintained in good condition at all times.
6. Pursuant to Regulation 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, this permit subsumes and incorporates all previously issued air permits for this

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facility.

7. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, weekly observations of the opacity from all sources shall be conducted by personnel familiar with the permittee's visible emissions. The permittee shall maintain personnel trained in EPA Reference Method 9. If visible emissions which appear to be in excess of the permitted opacity are detected, the permittee shall immediately take action to identify the cause of the visible emissions, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request.
  - a. The date and time of the observation.
  - b. If visible emissions which appeared to be above the permitted limit were detected.
  - c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
  - d. The opacity from a Method 9 observation if the opacity appeared to be above the permitted limit after the corrective action was taken.
  - e. The name of the person conducting the opacity observations.
8. Pursuant to §19.705 of Regulation 19 and 40 CFR Part 52, Subpart E, the permittee shall conduct a quarterly evaluation of process equipment referenced by this condition. This evaluation will consist of visible observation of the condition of the equipment and operation of the equipment to assure operation that minimizes fugitive emissions. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this specific condition. These records shall be updated quarterly, kept on site, and made available to Department personnel upon request. The Department reserves the right to require a formal Method 22 observation on any equipment.
  - a. Equipment identification
  - b. The date and time of the evaluation.
  - c. Condition of the equipment;
  - d. The name of the person conducting the evaluation.
9. Pursuant to §19.703 of Regulation 19, 40 CFR Part 52, Subpart E, and A.C.A. §8- 4-203



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as referenced by §8-4-304 and §8-4-311, as a means of verifying that the material fed to the kiln meets the physical and chemical composition limit specified in this Permit, all spent potliner to be treated shall be subject to the sampling and analysis program described in Reynolds Metals Company's RCRA Part B Permit Application Section C (dated June 1998 revised: December 1998). A copy of the sampling and analysis program shall be kept on site and made available to Department personnel immediately upon request. The Permittee shall not accept for processing spent potliner with mass concentrations of PAHs exceeding 1200 ppm. Limestone received for processing shall, at a minimum, consist of 95 weight percent calcium carbonate. The Permittee shall not process contact water, landfill runoff or landfill leachate exhibiting a pH of greater than 12.5.

10. Pursuant to §19.702 of Regulation 19, and 40 CFR Part 52, Subpart E, the facility shall test one fabric filter controlling emissions from untreated SPL to confirm a design emission rate of 0.002 grains/dscf. Testing shall be conducted in accordance with Plantwide Condition 3. Emissions in excess of the 0.002 grains/dscf is an exceedence of the PM and PM10 emission rates for the source tested. This is an initial performance test requirement only and upon acceptable results, is not required to be repeated by this condition.
11. Pursuant to 19.304 and 40 CFR 63, Subpart EEE, National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors the facility must comply with all applicable parts by the required dates listed in the rule. The notification requirements are outlined in Plantwide Conditions 12 and 13. Compliance with this subpart shall be addressed in the required submissions of Plantwide Condition 14.
12. Pursuant to 19.304 and 40 CFR 63, Subpart EEE, National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, the facility must submit the following notifications with appropriate information listed in the subpart, to the Administrator:

Reference	Notification
63.9(b)	Initial notifications that you are subject to Subpart EEE of this Part by January 28, 2000
63.1210(b) and (c)	Notification of intent to comply by September 30, 2000
63.1207(e), 63.9(e) 63.9(g)(1)and (3)	Notification of performance test and continuous monitoring system evaluation, including the performance test plan and CMS performance evaluation plan <sup>1</sup> at least one (1) year before the scheduled date of the testing.

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63.1210(d), 63.1207(j), 63.9(h), 63.10(d)(2), 63.10(e)(2)	Notification of compliance, including results of performance tests and continuous monitoring system performance evaluations postmarked within 90 days of completion of relevant compliance demonstration activity.
63.1206(b)(6)	Notification of changes in design, operation, or maintenance 60 days prior to the change, unless you document circumstances that dictate such prior notice is not reasonably feasible.
63.9(j)	Notification and documentation of any change in information already provided under §63.9

You may also be required on a case-by-case basis to submit a feedstream analysis plan under §63.1209(c)(3).

13. Pursuant to 19.304 and 40 CFR 63, Subpart EEE, National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors, the facility must submit the following notifications with appropriate information listed in the subpart, to the Administrator if you request or elect to comply with alternative requirements:

Reference	Notification, Request, Petition, or Application
63.1206(b)(5), 63.1213, 63.6(i), 63.9(c)	You may request an extension of the compliance date for up to one year.
63.9(i)	You may request an adjustment to time periods or postmark deadlines for submittal and review of required information.
63.1209(g)(1)	You may request approval of: (1) alternative monitoring methods, except for standards that you must monitor with a continuous emission monitoring system (CEMS) and except for requests to use a CEMS in lieu of operating parameter limits; or (2) a waiver of an operating parameter limit.
63.1209(a)(5), 63.8(f)	You may request: (1) approval of alternative monitoring methods for compliance with standards that are monitored with a CEMS; and (2) approval to use a CEMS in lieu of operating parameter limits.
63.1206(b)(1)(ii)(A)	Notification that you elect to document compliance with all applicable requirements and standards promulgated under authority of the Clean Air Act, including Sections 112 and 129, in lieu of the requirements of Subpart EEE of this Part when not burning hazardous waste.
63.1206(b)(5)(i)(C)(2)	You may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting after a making a change in the design or operation that could affect compliance with emission standards and prior to submitting a revised Notification of Compliance.

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63.1206(b)(9)(iii)(B)	If you elect to conduct particulate matter CEMS correlation testing and wish to have federal particulate matter and opacity standards and associated operating limits waived during the testing, you must notify the Administrator by submitting the correlation test plan for review and approval.
63.1206(b)(14)	Owners and operators of incinerators may comply with an alternative particulate matter standard of 68 mg/dscm, corrected to 7% oxygen, under a petition documenting de minimis metals levels in feedstreams.
63.1207(c)(2)	You may request to base initial compliance on data in lieu of a comprehensive performance test.
63.1207(d)(3)	You may request more than 60 days to complete a performance test if additional time is needed for reasons beyond your control.
63.1207(i)	You may request up to a one-year time extension for conducting a performance test (other than the initial comprehensive performance test) to consolidate testing with other state or federally-required testing.
63.1207(j)(4)	You may request more than 90 days to submit a Notification of Compliance after completing a performance test if additional time is needed for reasons beyond your control.
63.1207(l)(3)	After failure of a performance test, you may request to burn hazardous waste for more than 720 hours and for purposes other than testing or pretesting.
63.1209(l)(1)	You may request to extrapolate mercury feedrate limits.
63.1209(n)(2)(ii)	You may request to extrapolate semivolatile and low volatile metal feedrate limits.
63.10(e)(3)(ii)	You may request to reduce the frequency of excess emissions and CMS performance reports.
63.10(f)	You may request to waive recordkeeping or reporting requirements.
63.1211(e)	You may request to use data compression techniques to record data on a less frequent basis than required by §63.1209.

14. Pursuant to §19.401 of Regulation 19 et seq, and 40 CFR Part 52, Subpart E, the facility shall submit to the Department an application for permit modification to incorporate the applicable provisions and requirements of 40 CFR 63, Subpart EEE, National Emissions Standards for Hazardous Air Pollutants from Hazardous Waste Combustors. The application shall detail methods of compliance and be submitted prior to any modifications to the facility and at least 180 days prior to the compliance dates in the subpart.

**Title VI Provisions**

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15. The permittee shall comply with the standards for labeling of products using ozone depleting substances pursuant to 40 CFR Part 82, Subpart E:
  1. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.
  2. The placement of the required warning statement must comply with the requirements pursuant to §82.108.
  3. The form of the label bearing the required warning must comply with the requirements pursuant to §82.110.
  4. No person may modify, remove, or interfere with the required warning statement except as described in §82.112.
  
16. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:
  1. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to §82.156.
  2. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.
  3. Persons performing maintenance, service repair, or disposal of appliances must be certified by an approved technician certification program pursuant to §82.161.
  4. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. (“MVAC-like appliance” as defined at §82.152.)
  5. Persons owning commercial or industrial process refrigeration equipment must comply with leak repair requirements pursuant to §82.156.
  6. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.
  
17. 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.
  
18. 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

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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.

19. 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.

20. Compliance with the conditions of this permit shall be deemed compliance with all applicable requirements, as of the date of permit issuance, included in and specifically identified in item A of this condition:

A. The following have been specifically identified as applicable requirements based upon information submitted by the permittee in an application dated October 10, 1996.

Source No.	Regulation	Description
Facility	Arkansas Regulation 19	Compilation of Regulations of the Arkansas State Implementation Plan for Air Pollution Control
Facility	Arkansas Regulation 26	Regulations of the Arkansas Operating Air Permit Program

B. The following requirements have been specifically identified as not applicable, based upon information submitted by the permittee in an application dated October 10, 1996.

Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
CAM Rule	40 CFR 64	SN-19	Subject to MACT (40 CFR 63, Subpart EEE) which governs emission monitoring requirements.

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Description of Regulation	Regulatory Citation	Affected Source	Basis for Determination
Cement Kiln NSPS	40 CFR 60, Subpart F	SN-19	These units superficially resemble cement kilns but are not engaged in the manufacture of Portland cement.
Nonmetallic mineral processing	40 CFR 60, Subpart OOO	Facility	Spent potliner is not a "nonmetallic mineral" since the majority of the SPL is carbon material.

C. Nothing shall alter or affect the following:

Provisions of Section 303 of the Clean Air Act;

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

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

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

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**SECTION VII: INSIGNIFICANT ACTIVITIES**

Pursuant to §26.3(d) 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 §3(d) of Regulation 26 or is listed below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated February 10, 1997.

Description	Category
Five (5) Diesel Fuel Storage Tanks - 4000, 2 @ 3000, 2000 and 1000 gallon capacity.	Group A, #3

Pursuant to §26.3(d) 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.

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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.<sup>1</sup>
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.<sup>2</sup>
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.<sup>3</sup>

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<sup>1</sup> 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.

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

<sup>3</sup> 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



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19. Air compressors and pneumatically operated equipment, including hand tools.
20. Batteries and battery charging stations, except at battery manufacturing plants.
21. Storage tanks, vessels, and containers holding or storing liquid substances that do not contain any VOCs or HAPs.<sup>4</sup>
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

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emit HAP metals are treated as trivial and listed separately in this appendix.

<sup>4</sup> 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.

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the steam.

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

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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.

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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.

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**SECTION VIII: 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:
  1. The date, place as defined in this permit, and time of sampling or measurements;
  2. The date(s) analyses were performed;
  3. The company or entity that performed the analyses;
  4. The analytical techniques or methods used;

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5. The results of such analyses; and
  6. 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 Environmental Quality  
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 §19.601 and 19.602 of Regulation #19, all deviations from permit requirements, including those attributable to upset conditions as defined in the permit shall be reported to the Department. An initial report shall be made to the Department by the next business day after the occurrence. The initial report may be made by telephone and shall include:
1. The facility name and location,
  2. The process unit or emission source which is deviating from the permit limit,
  3. The permit limit, including the identification of pollutants, from which deviation occurs,
  4. The date and time the deviation started,
  5. The duration of the deviation,
  6. The average emissions during the deviation,
  7. The probable cause of such deviations,
  8. Any corrective actions or preventive measures taken or being taken to

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- prevent such deviations in the future, and
9. The name of the person submitting the report.

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

9. Pursuant to 40 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 as defined in Regulation #26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. 7401, *et seq.* and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. Any permit noncompliance with a state requirement constitutes a violation of the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 *et seq.*) and is also grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application.
11. Pursuant to 40 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.

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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.



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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:
  1. Enter upon the permittee's premises where the permitted source is located or emissions-related activity is conducted, or where records must be kept under the conditions of this permit;
  2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  3. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
  4. As authorized by the Act, sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with this permit or applicable requirements.
21. Pursuant to 40 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:
  1. The identification of each term or condition of the permit that is the basis of the certification;
  2. The compliance status;
  3. Whether compliance was continuous or intermittent;
  4. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and
  5. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and 504(b) of the Act.
22. Pursuant to §26.7 of Regulation #26, nothing in this permit shall alter or affect the following:

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

## **APPENDIX A**

**Appendix A - Automatic Waste Feed Shutoff System Parameters, Devices, Cutoff Limits, Actions**

<b>Parameter</b>	<b>Monitoring Device</b>	<b>Shutoff Limits</b>	<b>Action Required</b>
feed ratio SPL/LS/S	weight integrator	25-40%/30-50%/25-35%	reclaim feeder line stop
kiln feed rate	weight integrator	> 30 tons per hour (avg.)	feed stop - kiln
		> 30.5 tph (instantaneous)	feed stop - kiln
kiln aqueous waste feed rate	orifice flowmeter	> 5 gpm (instantaneous)	feed stop - aq. feed only
kiln flame status	flame safety system	no burner flame	feed stop - kiln
kiln comb. air fan power	motor current signal	current loss	feed stop - kiln
loss of kiln rotation	drive speed switch	0 rev. per minute	feed stop - kiln
kiln draft	pressure transducer	> -0.02 in. W.C.	feed stop - kiln
kiln cold end temperature	thermocouple	< 350E F	feed stop - kiln
kiln hot end temperature	pyrometer	< 1000E F	feed stop - kiln
kiln exit O <sub>2</sub> concentration	gas analyzer	< 4% as measured	feed stop - kiln
kiln I.D. fan power	motor current signal	current loss	feed stop - kiln
quench water flow	orifice flowmeter	> max. demonstrated	feed stop - system
off-gas dust coll. inlet temp	thermocouple	> 475E F	feed stop - system
off-gas dust collector dP	pressure transducer	< 0.5 in. W.C.	feed stop - system
discharge fan power	motor current signal	current loss	feed stop - system
afterburner flame status	flame safety system	no burner flame	feed stop - system
afterburner internal press.	pressure transducer	> 3 in. W.C.	feed stop - system
afterburner exit temp.	thermocouple	< 1800E F.	feed stop - system

<b>Parameter</b>	<b>Monitoring Device</b>	<b>Shutoff Limits</b>	<b>Action Required</b>
stack gas temperature	thermocouple	< 900E F	feed stop - system
avg. stack gas CO conc.	gas analyzer	> 100 ppmv, dry, at 7% O <sub>2</sub>	feed stop - system
avg. stack gas THC conc.	gas analyzer	> 20 ppmv, dry, at 7% O <sub>2</sub>	feed stop - system
stack gas opacity	transmissometer	> 20%	feed stop - system

## **APPENDIX B**

<b>Appendix B - Compliance Test Methods</b>		
<b>Regulated Constituent</b>	<b>EPA Test Method</b>	<b>Source Reference</b>
PM <sub>10</sub>	Method 201/201A	40 CFR 60 Appendix A
condensable particulate	Method 202	40 CFR 60 Appendix A
carbon monoxide	Method 10 - Continuous	40 CFR 60 Appendix A
	Performance Specification Test	40 CFR 266 Appendix IX
nitrogen oxides	Method 7E	40 CFR 60 Appendix A
sulfur dioxide	Method 6C - U.V. Absorption	40 CFR 60 Appendix A
opacity		
SN-19	Performance Specification Test	40 CFR 60 Appendix B
All other SN's	Method 9	40 CFR 60 Appendix A
process equip.	Method 22	40 CFR 60 Appendix A
oxygen	Performance Specification Test	40 CFR 266 Appendix IX
total hydrocarbons	Performance Specification Test	40 CFR 266 Appendix IX
HCl/particulate conc.	Method 0050	SW-846
total cyanides	Method 5 w. NaOH Impinger	40 CFR 60 Appendix A
total fluoride	Method 13B	40 CFR 60 Appendix A
Beryllium	Method 104	40 CFR 61 Appendix B
PAHs	Method 0010	SW-846

## **APPENDIX C**



# Arkansas Department of Pollution Control & Ecology



## CONTINUOUS EMISSION MONITORING SYSTEMS CONDITIONS

## SECTION I

### DEFINITIONS

**Continuous Emission Monitoring System (CEMS)** - The total equipment required for the determination of a gas concentration and/or emission rate so as to include sampling, analysis and recording of emission data. <sup>1</sup>

**Calibration Drift (CD)** - The difference in the CEMS output reading from the established reference value after a stated period of operation during which no unscheduled maintenance, repair, or adjustments took place. <sup>2</sup>

**Primary CEMS** - The main reporting CEMS with the ability to sample, analyze and record stack pollutant to determine gas concentration and/or emission rate.

**Back-up CEM (Secondary CEM)** - A CEM with the ability to sample, analyze and record stack pollutant to determine gas concentration and/or emission rate. This CEM is to serve as a back-up to the primary CEMS to minimize monitor downtime.

**Out-of-Control Period** - Begins with the hour corresponding to the completion of a daily calibration error, linearity check, or quality assurance audit that indicates that the instrument is not measuring and recording within the applicable performance specifications. Out-of-Control Period ends with the hour corresponding to the completion of an additional calibration error, linearity check, or quality assurance audit following corrective action that demonstrates that the instrument is measuring and recording within the applicable performance specifications. <sup>3</sup>

**Monitor Downtime** - Any period during which the CEMS is unable to sample, analyze and record a minimum of four evenly spaced data points over an hour, except during one daily zero-span check during which two data points per hour are sufficient.

**Excess Emissions** - Any period in which the emissions exceed the permit limits.

## SECTION II

### MONITORING REQUIREMENTS

- A. For new sources, the installation date for the CEMS shall be no later than thirty (30) days from the date of start-up of the source. <sup>4</sup>
- B. For existing sources, the installation date for the CEMS shall be no later than sixty (60) days from the issuance of the permit unless a specific date is required by the permit. <sup>4</sup>
- C. Within sixty (60) days of installation of a CEMS, a performance specification test (PST) must be completed. PST's are defined in 40 CFR, Part 60, Appendix B, PS 1-9. The Department may accept alternate PSTs for pollutants not covered by Appendix B on a case-by-case basis. Alternate PST's shall be approved, in writing, by the Compliance Inspector Supervisor prior to testing. <sup>5</sup>
- D. Each CEMS shall have, as a minimum, a daily zero-span check. The zero-span shall be adjusted whenever the 24-hour zero or 24-hour span drift exceeds two times the limits in the applicable performance specification in 40 CFR, Part 60, Appendix B. Before any adjustments are made to either the zero or span drifts measured at the 24-hour interval the excess zero and span drifts measured must be quantified and recorded. <sup>6</sup>
- E. All CEMS shall be in continuous operation and shall meet minimum frequency of operation requirements of 95% up-time for each quarter for each pollutant measured. Failure to maintain operation time shall constitute a violation of the CEMS conditions. <sup>18</sup>
- F. All sources with a CEMS shall meet 95% compliance per quarter for each pollutant. Failure to maintain compliance shall constitute a violation of the CEMS conditions. <sup>18</sup>
- G. All CEMS measuring emissions shall complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive fifteen minute period unless more cycles are required by the permit. For each CEMS, one-hour averages shall be computed from four or more data points equally spaced over each one hour period unless more data points are required by the permit. <sup>7</sup>
- H. When the pollutant from a single affected facility is released through more than one point, a CEMS shall be installed on each point unless installation of fewer systems is approved, in writing, by the Compliance Inspector Supervisor. When more than one CEMS is used to monitor emissions from one affected facility (e.g. multiple breaching or multiple exhaust) the owner or operator shall report the results as required from each CEMS. <sup>8</sup>

### SECTION III

#### NOTIFICATION AND RECORD KEEPING

- A. When requested to do so by an owner or operator, the Compliance Inspector Supervisor will review plans for installation or modification for the purpose of providing technical advice to the owner or operator. <sup>9</sup>
- B. Each facility which operates a CEMS shall notify the Compliance Inspector Supervisor of the date for which the demonstration of the CEMS performance will commence (ie. PST, RATA, RAA, CGA). Notification shall be received in writing no less than 15 days prior to testing. <sup>10</sup>
- C. Each facility which operates a CEMS shall maintain records of the occurrence and duration of start up/shut down, cleaning/soot blowing, process problems, fuel problems, or other malfunction in the operation of the affected facility which causes excess emissions. This includes any malfunction of the air pollution control equipment or any period during which a continuous monitoring device/system is inoperative. <sup>11</sup>
- D. Each facility required to install a CEMS shall submit an excess emission and monitoring system performance report to the Department (Attention: Air Division, Compliance Inspector Supervisor) at least quarterly, unless more frequent submittals are warranted to assess the compliance status of the facility. Quarterly reports shall be postmarked no later than the 30th day of the month following the end of each calendar quarter. <sup>12</sup>
- E. All excess emissions shall be reported in terms of the applicable standard. Each report shall be submitted on ADPC&E Quarterly Excess Emission Report Forms. These forms may be obtained from the Air Division of the Little Rock office of ADPC&E. Alternate forms may be used with the prior written approval from the Department. <sup>13</sup>
- F. Each facility which operates a CEMS must maintain on site a file of CEMS data including all raw data, corrected and adjusted, repair logs, calibration checks, adjustments, and test audits. This file must be retained for two years, and is required to be maintained in such a condition that it can easily be audited by an inspector. <sup>14</sup>
- G. Quarterly reports shall be used by the Department to determine compliance with the permit. Violations of the CEMS Conditions may result in penalties and/or other enforcement action. <sup>18</sup>

## SECTION IV

### QUALITY ASSURANCE/QUALITY CONTROL

- A. For each CEMS a Quality Assurance/Quality Control (QA/QC) plan shall be submitted to the Department (Attn.: Air Division, Compliance Inspector Supervisor). Quality assurance procedures are defined in 40 CFR, Part 60, Appendix F. This plan shall be submitted within 180 days of the CEMS installation. A QA/QC plan shall consist of procedure and practices which assures acceptable level of monitor data accuracy, precision, representativeness, and availability.
- B. The submitted QA/QC plan for each CEMS shall not be considered as accepted until the facility receives a written notification of acceptance from the Department.
- C. Facilities responsible for one, or more, CEMS used for compliance monitoring shall meet these minimum requirements and are encouraged to develop and implement a more extensive QA/QC program, or to continue such programs where they already exist. Each QA/QC program must include written procedures which should describe in detail, complete, step-by-step procedures and operations for each of the following activities: <sup>15</sup>
1. Calibration of CEMS
    - a.. Daily calibrations (including the approximate time(s) that the daily zero and span drifts will be checked and the time required to perform these checks and return to stable operation)
  2. Calibration drift determination and adjustment of CEMS
    - a. Out-of-control period determination
    - b. Steps of corrective action
  3. Preventive maintenance of CEMS
    - a. CEMS information
      - 1) Manufacture
      - 2) Model number
      - 3) Serial number
    - b. Scheduled activities (check list)
    - c. Spare part inventory
  4. Data recording, calculations, and reporting
  5. Accuracy audit procedures including sampling and analysis methods
  6. Program of corrective action for malfunctioning CEMS
- D. As part of the QA/QC plan for each CEMS, a Relative Accuracy Test Audit (RATA), shall be conducted at least once every four calendar quarters. A Relative Accuracy Audit (RAA), or a Cylinder Gas Audit (CGA), may be conducted in the other three quarters but in no more than three quarters in succession. The RATA, RAA, and CGA test procedures shall be included in the QA/QC plan submitted for approval. Additionally, the justification and methodology for any alternate tests shall be submitted with

the QA/QC plan.<sup>16</sup>

E. If either the zero or span drift results exceed two times the applicable drift specification in 40 CFR, Part 60, Appendix B for five consecutive, daily periods, the CEMS is out-of-control. If either the zero or span drift results exceed four times the applicable drift specification in Appendix B during a calibration drift check, the CEMS is out-of-control.<sup>17</sup>

1. Out-of-control begins with the hour corresponding to the completion of a daily calibration error, linearity check, or quality assurance audit that indicates that the instrument is not measuring and recording within the applicable performance specifications.

2. Out-of-control ends with the hour corresponding to the completion of an additional calibration error, linearity check, or quality assurance audit following corrective action that demonstrates that the instrument is measuring and recording within the applicable performance specifications.

3. If a CEMS is out-of-control, the data from that out-of-control period is not counted towards meeting the minimum data availability as required and described in the applicable subpart.

F. A back-up monitor may be placed on an emission source to minimize monitor downtime. This back-up CEM is subject to the same QA/QC procedure and practices as the primary CEMS. The back-up CEM shall be certified by a PST. Daily zero-span checks must be performed and recorded in accordance with standard practices. When the primary CEMS goes down, the back-up CEMS may then be engaged to sample, analyze and record the emission source pollutant until repairs are made and the primary unit is placed back in service. Records must be maintained on site when the back-up CEMS is placed in service, these records shall include at a minimum the reason the primary CEMS is out of service, the date and time the primary CEMS was out of service and the date and time the primary CEMS was placed back in service.

- 1 40 CFR, Part 60, Appendix F 2.1
- 2 40 CFR, Part 60, Appendix F 2.5
- 3 40 CFR, Part 60, Appendix F 4.3.1 & 5.2.1
- 4 40 CFR 60.13(b)
- 5 40 CFR 60.3(j)
- 6 40 CFR 60.13(d)(1), Part 60, Appendix F 4
- 7 40 CFR 60.13(e)(2)
- 8 40 CFR 60.13(g)
- 9 40 CFR 60.6(a)
- 10 40 CFR 60.7(5)
- 11 40 CFR 60.7(c)(2)
- 12 40 CFR 60.7(c)
- 13 40 CFR 60.7(d)
- 14 40 CFR 60.7(e)
- 15 40 CFR, Part 60, Appendix F 3
- 16 40 CFR, Part 60, Appendix F 5

- <sup>17</sup> 40 CFR, Part 60, Appendix F 4.3
- 18 USEPA Guidance on the “Timely and Appropriate Enforcement Response to Significant Air Pollution Violators” (2/7/92)