ADEQ

ARKANSAS
Department of Environmental Quality

August 8, 2007

Gregory McCown
CertainTeed Gypsum, Inc.
794 State Highway 369 North
Nashville, AR 71852

Re: Notice of Administrative Amendment
AFIN: 31-00010, Permit No.: 598-AOP-R4

Dear Mr. McCown:

Enclosed is revised Permit 598-AOP-R4 completed in accordance with the provisions of Section 26.901 of Regulation No. 26, *Regulations of the Arkansas Operating Air Permit Program.*

Per your request, Table 45 – Insignificant Activities has been revised to include Vermiculite, Starch, Potash, and Boric Acid Transfer and Processing Systems (formerly SN-33, SN-34, SN-35 and SN-36).

Please place the revised permit in your files.

Sincerely,

Mike Bates
Chief, Air Division

CH
Enclosure

ADEQ
OPERATING
AIR PERMIT

Pursuant to the Regulations of the Arkansas Operating Air Permit Program, Regulation No. 26:

Permit No. : 598-AOP-R4

Renewal #1

IS ISSUED TO:

BPB Gypsum, Inc.

Nashville, AR 71852

Howard County

AFIN: 31-00010

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:

June 29, 2005 AND June 28, 2010

IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Mike Bates
Chief, Air Division

August 8, 2007
Date Amended

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Table 1 - List of Acronyms

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound per hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_x	Nitrogen Oxide
PM	Particulate matter
PM_{10}	Particulate matter smaller than ten microns
SNAP	Significant New Alternatives Program (SNAP)
SO_2	Sulfur dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Ton per year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

Section I: FACILITY INFORMATION

PERMITTEE:	BPB Gypsum, Inc.
AFIN:	31-00010
PERMIT NUMBER:	598-AOP-R4
FACILITY ADDRESS:	794 State Highway 369 North Nashville, AR 71852
MAILING ADDRESS:	794 State Highway 369 North Nashville, AR 71852
COUNTY:	Howard County
CONTACT POSITION:	James Barnett, Environmental Manager
TELEPHONE NUMBER:	870-845-7171
REVIEWING ENGINEER:	Charles Hurt
UTM Zone:	15
UTM North - South (Y):	3771.4
UTM East - West (X):	420.1

Section II: INTRODUCTION

Summary of Permit Activity

BPB Gypsum, Inc. (BPB) owns and operates a gypsum wallboard manufacturing facility at 794 State Highway 369 North, Nashville, Arkansas and an open pit quarry located approximately 1.5 miles south-southeast of the manufacturing facility. BPB requested the permission for following modifications to its facility:

1. In-kind replacement of the Primary Crusher (SN-06), Primary Screen (SN-07), Secondary Crusher and its baghouse (SN-19), and associated conveyer belts and chutes;

2. Install a Secondary Screen (SN-21) and ten (10) baghouses at various transfer points; and

3. Permit sources, which were previously permitted in Facility Non-Point Sources (SN-37), to be included under SN-06, SN-07, SN-19, and SN-21.

The permitted emissions from the above modifications increased by 1.6 tpy of PM/PM_{10}.

BPB also requested to update the emission calculations for overburden removal, drilling at the mine site, and the transportation of rock on the haul roads. Past calculations used assumptions which resulted in potential to emit to be underestimated. BPB did not request to change any throughput limits or method of operation. Permitted PM and PM_{10} emissions increased by 27.1 tpy and 24.2 tpy, respectively.

Process Description

BPB mines, pulverizes and dries gypsum rock ($CaSO4•2H2O$) to produce landplaster. The landplaster is calcined, removing the chemically bound water to produce stucco ($CaSO4•1/2$ $H2O$). Stucco is the principal component in gypsum wallboard.

Mining Operations

BPD mines gypsum rock from an open pit quarry located approximately 1.5 miles South-Southwest of the manufacturing facility. Mining is limited to 1,860,000 tons of gypsum rock per twelve-month rolling period (TMRP). The gypsum ore lies in three dominant seams each separated by varying thicknesses of overburden.

Trucks move the ore over a partially unpaved haul road. BPB sprays the unpaved haul road regularly with water or Coherex (a dust abatement emulsion).

Ore Classification and Grinding

The gypsum ore is dumped at a covered staging area adjacent to the receiving pit (equipped with a water/foam sprayer). A screening gate ensures that all material used is less than 3 inches. A large jackhammer, mounted on a hydraulic boom, breaks the oversized ore that fails to pass through the screening gate. The minus 3" material then goes to a vibratory grizzly (300-ton per

hour capacity), which classifies the gypsum. The oversize gypsum rock goes to the primary crusher then to belt conveyor C-2 and C-4.

The undersize rock goes to the primary screen. The screen rejects (minus 3/4 inch) go to the tailings pile via belt conveyors C-10a and C-10. Trucks then haul the tailings back to the mine site for disposal. The primary cut is put in the ore storage facility at a rate of 300 tons per hour via belt conveyor C-8, and conveyor C-4.

Crushed rock from the Ore Storage facility passes through a secondary crusher. The Secondary Crusher Baghouse (SN-19) collects dust from the operation. Rock from the secondary grinding circuit is then conveyed to one of six 400-ton bins or a CP Mill bin. The bins feed five Raymond Roller Mills (rated at 20 tph), one Raymond Roller Mill (rated at 50 tph), and a CP Mill (rate at 80 tph).

This Permit allows the use of a foam and moisture system (already installed) to reduce the fugitive dust emissions within the building.

Raymond Roller Mills and Flash Dryers

The process operates six Raymond Roller Mills; each equipped with a flash dryer. The Raymond Mill's purpose is to pulverize up to 150 ton per hour of gypsum rock and dry the millings to produce landplaster, the raw material used to manufacture stucco. The flash dryers use only quality pipeline natural gas as heating fuel. Raymond Roller Mills #1 thru #5 (SN-49 thru SN-53) are equipped with a 3.0 MMBtu/hr natural gas burner each. Raymond Roller Mill #6 (SN-38) is equipped with a 5.0 MMBtu/hr natural gas burner. The natural gas burners account for the non-PM pollutant emissions.

Calcining

Kettle Calciners

The manufacturing process converts the landplaster into stucco in continuous kettle calciners. Landplaster from the storage bin is fed to each calciner. The calciners, using natural gas as a fuel, indirectly heat and remove water in the landplaster producing stucco. The calciners exhaust their combustion gases through their combustion stacks (SN-22 to SN-27). The calcined stucco leaves the kettles by gravity into hot pits, where it begins cooling. Particulate emissions from the hot pits are controlled by baghouses (SN-46 to SN-48) and by an electrostatic precipitator.

A portion of the gases exhausted through stacks SN-22 through SN-27 is used to heat process water in a heat exchanger (SN-20). Hot stucco is conveyed pneumatically and by screw conveyor to the Buell System pit for further cooling and storage.

Claudius/Peter Mill and Flash Calciner (SN-39) – CP Mill

The manufacturing process also converts gypsum rock into stucco with the use of a Claudius/Peter (CP) Mill and Flash Calciner. The CP mill simultaneously grinds and calcines the gypsum rock into stucco, while avoiding the intermediate steps of storing and handling

landplaster. The Flash Calciner portion of the CP Mill contacts the pulverized rock directly with the combustion gases of natural gas, which the calciner burns at a rate of 65 MMBTU/h.

The process transfers up to 80 ton per hour of gypsum rock from the CP Mill Rock Bin (3-05-015-09) to the CP Mill. The mill pulverizes the rock and contacts it with the combustion gases of the flash calciner to achieve the conversion into stucco. The gases carry the calcined stucco from the Mill to the Flash Calciner Baghouses #1 and #2. The two parallel baghouses separate the stucco from the gas stream and control particulate emissions related to the transfer of the stucco from the CP Mill to the conveyance system.

The exhaust of both baghouses is combined into a single stack (SN-39). SN-39 exhausts the combustion gases of the Flash Calciner as well as up to 12.5 ton per hour of water, released by the gypsum, as vapor. The Flash Calciner baghouses transfer up to 67.5 ton per hour of stucco to the Buell System pit using the transfer points conveyance system.

Buell System

The Buell System pit receives the stucco and cools it by forced ambient temperature air. The air further lifts the stucco to the Buell Cyclones #1 and #2. The two parallel cyclones separate most of the stucco from the lifting air stream, sending the collected material to a pneumatic conveyance system. The overhead vent of the cyclones sends the stucco particulate laden exhaust to the Buell Baghouse (SN-41).

The Buell baghouse also controls particulate emissions related to stucco conveyance by screw conveyors S-100-5, -6, -7, and bucket elevator B-300-1. Furthermore, the Buell baghouse controls particulate emissions related to the loading and unloading of the CP Mill and Calcine mill stucco storage bins.

The stucco separated by the cyclones is conveyed pneumatically to either the high capacity storage bins or directly to the line production storage bins. Both the CP Mill and Calcine Mill stucco storage bins have a capacity of 431 tons, and a throughput capacity of 80 ton per hour. These bins allow the process storage capacity for occasions when stucco is not delivered to the Buell System. The S-100-6 and –7 screw conveyors move the stucco to the bucket elevator, which in turn delivers the stucco to the pneumatic conveyance leading to the line production storage bins. The Line #1 and #2 storage bins each have a capacity of 100 tons and supply the wallboard production lines with stucco.

Wallboard Manufacturing

A mixture of stucco, additives and hot water are combined in a pin mixer to form slurry. The slurry is deposited between two continuous sheets of paper that pass through a wallboard forming equipment then to a forming conveyor belt. After the slurry sets, the wallboard is cut into sections by a rotating knife and then stacked for drying. The wallboard exiting the tunnel dryer is trimmed and the edges are taped prior to storage or shipping.

Solid Additives

Stucco from the 100 ton production line feed bins is fed to the mixing screws (production lines #1 and #2) for the addition of vermiculite, fiberglass, accelerator, potash, and boric acid.

Vermiculite enhances the fire rating of the wallboard. Dust from the vermiculite storage bin, is controlled by the vermiculite transfer baghouse.

Fiberglass acts as a binding agent for the fire retardant wallboard.

The accelerator (composed of Landplaster and Starch) shortens the set-time.

Starch enhances viscosity, improves handling; and prevents the settling of suspended solids. Starch is off-loaded in bulk quantities. Dust is controlled by the starch transfer baghouse, which exhausts to the inside of the building.

Potash and Boric Acid are added to improve the fire rating of the wallboard. Each additive is stored in a dedicated bin and is off-loaded in bulk quantities. Particulate emissions, from each storage bin, are controlled by their respective transfer baghouses which exhaust to the inside of the building.

Liquid Additives

Foam, dispersants, and water are used to prevent particles from settling and to improve the wallboard's fire resistance. Foam, generated by the addition of hot water (from SN-20), soap, and compressed air, controls the wallboard's density. Wax improves the wallboard's resistance to water damage.

Pin Mixer

The mixing screw delivers the stucco and solid additive mixture to the Pin Mixer. The solids are combined with water and foam to form a slurry. The Pin Mixer delivers the slurry to the wallboard-forming table.

Wallboard Forming

Slurry flows between two moving sheets of wallboard paper and is extruded between the top and bottom layers of paper on a forming table equipped with a vibrating roller. The wallboard's bottom sheet edges of paper are turned up to prevent the slurry from leaking out of the newly formed wallboard. A thin bead of glue is placed on the top layer of paper, which is allowed to bond with the lower layer. The glued layers of paper form a "paper envelope" for the slurry. The "paper envelope" is conveyed on a belt designed to allow the stucco mixture to re-hydrate (harden) before reaching the tunnel dryers. The wallboard is then cut into sections by a rotating knife as it arrives at the end of the conveyor belt system. An inverter flips the wallboard sections prior to stacking and drying.

Tunnel Dryers (SN-44 AND SN-45)

Wallboard is formed by mixing additives and water with stucco and casting the resulting slurry into a moving sheet of paper and covering it with a second sheet. The wallboard is then sent to a cutoff knife and into a tunnel dryer, one for each production line, to drive off excess water. Both dryers are equipped with 150 MMBtu/hr natural gas fired burners. Combustion by-products are exhausted along with the excess moisture that has been removed from the board through exhaust stacks SN-44 and SN-45.

Baghouses

Take-Off and End-Trim (SN-18 and SN-32)

The process transfers the wallboard exiting the tunnel dryers to the Take-Off and end Trim saws. These machines cut the wallboard sections to precise lengths and apply a narrow strip of paper onto the exposed ends of the wallboard. The wallboard product is ready for storage and shipping.

The particulate matter that results from these operations is controlled by the Take-Off (SN-18) and End Trim (SN-32) baghouses. The baghouses transfer the collected dust to a pneumatic conveyor, which leads to the Recycle Baghouse (SN-43).

Recut Baghouse (SN-05)

Occasionally, production orders require wallboard with lengths other than standard. The process will take wallboard from the Take-Off line and cut it to the custom size ordered. The Recut (SN-05) baghouse (Under Construction) will control the particulate matter that results from this operation. The baghouse will transfer the collected dust to a pneumatic conveyor, which leads to the Recycle Baghouse (SN-43).

BPB uses wallboard from its production line to produce dunnage. Saws cut the wallboard into 4" wide strips, which are then stacked and glued. The process places the glued strips as spacers between the finished wallboard bundles, allowing the forklifts to lift and handle the material without damage. The equipment that produces the strips is called a sleuter machine and consists of several saws in parallel. The recut baghouse will receive the dust loading from a sleuter machine for control of particulate matter.

Recycle Baghouse (SN-43)

The process rejects wallboard that is not to specification. The rejected wallboard is transferred to the recycle process, where it is ground to pieces and sent to conveyor belt C-6. Recycle baghouse (SN-43) controls the particulate emissions resulting from the grinding operations. The dust collected by the baghouse, which includes the conveyed dust from trim operations, is deposited by the baghouse on conveyor belt C-6.

Haul Road

BPB is paving 5,353 linear feet of the haul road. The width of the paving is 30 feet; except for the East portion of Area No. 3 that is wider to accommodate a passing lane.

Regulations

The following table contains the regulations applicable to this permit.

Table 2 – Regulations

Source No.	Regulation Citations
All	Regulation No. 18, *Arkansas Air Pollution Control Code*
All	Regulation No. 19, *Regulations of the Arkansas Plan of Implementation for Air Pollution Control*
All	Regulation No. 26, *The Regulations of the Arkansas Air Permit Operating Program*
06, 07, 38, 40, 41, 42, 42a	40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*
39, 46, 47, 48	40 CFR Part 60, Subpart UUU - *Standard of Performance for Calciners and Dryers in Mineral Industries*

The following table is a summary of emissions from the facility. The following table contains cross-references to the pages containing specific conditions and emissions for each source. This table, in itself, is not an enforceable condition of the permit.

Table 3 – Emission Summary

EMISSION SUMMARY					
Source No.	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
Total Allowable Emissions (PM_{10} is included in PM totals)		PM	179.6	153.3	N/A
		PM_{10}	179.6	125.3	
		SO_2	1.5	2.2	
		VOC	38.0	162.1	
		CO	41.5	172.2	
		NO_x	60.7	256.1	
1	Electrostatic Precipitator (ESP)	PM	5.4	6.2	31
		PM_{10}	5.4	6.2	
4	Kettle Buell Baghouse	PM	0.1	0.1	36
		PM_{10}	0.1	0.1	
5	Recut Baghouse	PM	0.2	0.1	44
		PM_{10}	0.2	0.1	
6	Primary Crusher	PM	0.7	1.7	16
		PM_{10}	0.7	1.7	
7	Primary Crusher Screen	PM	0.6	1.6	18
		PM_{10}	0.6	1.6	

EMISSION SUMMARY					
Source No.	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
8	Gasoline Storage Tank	VOC	86.7	1.8	48
18	Take-off / End trim Baghouse #1	PM PM_{10}	0.1 0.1	0.1 0.1	42
19	Secondary Crusher	PM PM_{10}	1.9 1.9	7.6 7.6	21
20	Heat Exchanger	Emissions included with SN-22-27	--		N/A
21	Secondary Screen	PM PM_{10}	0.4 0.4	0.8 0.8	21
22	Kettle Combustion Stack #1	PM PM_{10} SO_2 VOC CO NO_X	0.2 0.2 0.1 0.2 2.3 2.7	0.9 0.9 0.1 0.7 9.8 11.6	28
23	Kettle Combustion Stack #2	PM PM_{10} SO_2 VOC CO NO_X	0.2 0.2 0.1 0.2 2.3 2.7	0.9 0.9 0.1 0.7 9.8 11.6	28
24	Kettle Combustion Stack #3	PM PM_{10} SO_2 VOC CO NO_X	0.2 0.2 0.1 0.2 2.3 2.7	0.9 0.9 0.1 0.7 9.8 11.6	28
25	Kettle Combustion Stack #4	PM PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.1 1.0 1.2	0.2 0.2 0.1 0.1 1.2 1.4	16
26	Kettle Combustion Stack #5	PM PM_{10} SO_2 VOC CO NO_X	0.1 0.1 0.1 0.1 1.0 1.2	0.2 0.2 0.1 0.1 1.2 1.4	16

Facility: BPB Gypsum, Inc.
Permit No.: 598-AOP-R4
AFIN: 31-00010

EMISSION SUMMARY					
Source No.	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
27	Kettle Combustion Stack #6	PM	0.1	0.2	16
		PM_{10}	0.1	0.2	
		SO_2	0.1	0.1	
		VOC	0.1	0.1	
		CO	1.0	1.2	
		NO_X	1.2	1.4	
32	Take-off / End trim Baghouse #2	PM	0.1	0.1	42
		PM_{10}	0.1	0.1	
37	Facility Non-Point Source Emissions	PM	159.0	92.1	49
		PM_{10}	159.0	64.1	
38	Raymond Roller Mill #6	PM	0.1	0.1	25
		PM_{10}	0.1	0.1	
		SO_2	0.1	0.1	
		VOC	0.1	0.2	
		CO	0.5	1.8	
		NO_X	0.5	2.2	
39	Claudius/Peter Mill & Flash Calciner Baghouses #1 and #2	PM	3.6	15.9	34
		PM_{10}	3.6	15.9	
		SO_2	0.1	0.2	
		VOC	0.4	1.6	
		CO	5.4	23.5	
		NO_X	6.4	28.0	
40	CP Mill Transfer Points Baghouse	PM	2.9	12.4	36
		PM_{10}	2.9	12.4	
41	CP Mill Transfer Points Baghouse	PM	0.1	0.2	36
		PM_{10}	0.1	0.2	
42	East Mezzanine Baghouse	PM	0.1	0.1	38
		PM_{10}	0.1	0.1	
42a	West Mezzanine Baghouse	PM	0.1	0.1	38
		PM_{10}	0.1	0.1	
43	Recycle Baghouse	PM	0.1	0.2	46
		PM_{10}	0.1	0.2	
44	Tunnel Dryer #1	PM	1.2	4.9	40
		PM_{10}	1.2	4.9	
		SO_2	0.1	0.4	
		VOC	17.8	77.8	
		CO	12.4	54.2	
		NO_X	20.6	90.2	

EMISSION SUMMARY					
Source No.	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
45	Tunnel Dryer #2	PM	1.2	4.9	40
		PM_{10}	1.2	4.9	
		SO_2	0.1	0.4	
		VOC	17.8	77.8	
		CO	12.4	54.2	
		NO_X	20.6	90.2	
46	Calciner Baghouse #1	PM	0.1	0.1	28
		PM_{10}	0.1	0.1	
47	Calciner Baghouse #2	PM	0.1	0.1	28
		PM_{10}	0.1	0.1	
48	Calciner Baghouse #3	PM	0.1	0.1	28
		PM_{10}	0.1	0.1	
49	Raymond Roller Mill #1	PM	0.1	0.1	25
		PM_{10}	0.1	0.1	
		SO_2	0.1	0.1	
		VOC	0.1	0.2	
		CO	0.5	1.8	
		NO_x	0.5	2.2	
50	Raymond Roller Mill #2	PM	0.1	0.1	25
		PM_{10}	0.1	0.1	
		SO_2	0.1	0.1	
		VOC	0.1	0.2	
		CO	0.5	1.8	
		NO_x	0.5	2.2	
51	Raymond Roller Mill #3	PM	0.1	0.1	25
		PM_{10}	0.1	0.1	
		SO_2	0.1	0.1	
		VOC	0.1	0.2	
		CO	0.5	1.8	
		NO_x	0.5	2.2	
52	Raymond Roller Mill #4	PM	0.1	0.1	25
		PM_{10}	0.1	0.1	
		SO_2	0.1	0.1	
		VOC	0.1	0.2	
		CO	0.5	1.8	
		NO_x	0.5	2.2	

EMISSION SUMMARY					
Source No.	**Description**	**Pollutant**	**Emission Rates**		**Cross Reference Page**
			lb/hr	**tpy**	
53	Raymond Roller Mill #5	PM	0.1	0.1	25
		PM_{10}	0.1	0.1	
		SO_2	0.1	0.1	
		VOC	0.1	0.2	
		CO	0.5	1.8	
		NO_x	0.5	2.2	

Section III: PERMIT HISTORY

Weyerhaeuser Company (Briar Plant) received the initial permit on April 4, 1980. The permit included emissions from the drying kettles and from three electrostatic precipitators (ESPs).

598-AR-1 was issued on December 6, 1989. 598-AR-1 set the major source baseline for the facility and also addressed the change of ownership from Weyerhaeuser to Briar Gypsum.

598-AR-2 was issued on July 2, 1990. The permit modification addressed the addition of two baghouses and the permitting of some previously non-permitted sources. This permit brought the facility below 250 tons per year of particulate matter and thus made the facility a minor source in regards to PSD regulations.

598-AR-3 was issued on February 19, 1993. This permit modification addressed the permitting of two additional previously non-permitted sources.

598-AR-4 was issued on July 28, 1994. This permit modification addressed the addition of existing non-permitted sources, the revision of combustion emissions, and the removal of the Wet Plant Dryer.

598-AOP-R0 was issued on July 1, 1999. This permit action represented the issuance of an initial Regulation #26 permit, the change of ownership from Briar Gypsum to BPB Gypsum, and the addition of a new production line and associated sources (SN-34 through SN-49). In addition, the electrostatic precipitator associated with the Raymond Roller Mills (SN-03) was replaced with a baghouse, the wet plant dryer exhaust (SN-21) was deleted, and the four storage bin vents (SN-30 through SN-33) have been added to the permit. Emission limits were 178.5 tpy PM/PM_{10}, 1.9 tpy SO_2, 143.3 tpy VOC, 130.5 tpy CO, and 310.7 tpy NO_X. NO_X emissions were below 250 tpy prior to the issuance of permit #598 AOP-R0. The addition of sources has raised the NOx emissions above the PSD threshold. Subsequent modifications to this permit will require review for PSD applicability.

Air Permit 598 AOP R0 erroneously classified BPB Gypsum (James Hardie Gypsum) as a major source subject to the Prevention of Significant Deterioration (PSD) regulations. The installation of the new crusher (SN-06) merely classified the facility as a major stationary source under PSD. Any subsequent modifications having a Significant emission rate increase requires a PSD review.

598-AOP-R1 was issued September 14, 2000. This modification allowed the facility to increase the annual production from 1.6 billion ft^2 to 1.8 billion ft^2. Usage time for SN-01 also increased from 876 hours per year to 2,628 hours per year. The permittee replaced the existing primary screen (SN-07 with a more efficient unit, with no changes in emissions. Also, the permittee added a portable crusher (SN-54) to the facility. The permit gave the facility an allowance to transfer off-spec material from the calciners to an outside waste pile and designated the seal stacks at SN-44 and SN-45 as insignificant. Finally, the method used to calculate baghouse emissions changed to use grain loading factors contained in the NSPS Subpart OOO.

598-AOP-R2 was issued August 13, 2002. This permit modification authorized replacing the existing primary crusher (SN-06) with a unit having twice the capacity; authorized rerouting a sleuter machine's emissions from one baghouse (SN-18) to another (SN-05) and removed references to a portable crusher (SN-54) that was never installed.

598-AOP-R3 was issued June 29, 2005 as the first Title V Renewal for BPB Gypsum, Inc. The modification permitted the following:

- use of a foam and moisture dust suppression system as an alternative PM/PM_{10} control device within the Secondary Crusher building;
- use of the inlet manifold for the Raymond Mill #5 Baghouse (SN-53) as an aspiration pick-up point whenever the Raymond mill is down; and
- paving 5,353 linear feet of the haul road.

The modification removed Vermiculite Bulk Material Storage Bin (SN-33), Bulk Starch Material Storage Bin (SN-34), Potash Bulk Material Storage Bin (SN-35) and Boric Acid Bulk Material Storage Bin (SN-36) since the sources vent inside the building. A water heater was added as an insignificant source.

Section IV: SPECIFIC CONDITIONS

SN-06 and SN-07

Primary Crusher and Primary Screen

Description

Primary Crusher (3-05-015-05)

The apron pan feeder (54"x70') drops gypsum rock, from the covered storage piles, to an 8' stepped deck grizzly with 6" openings. The process adds foam or moisture at the apron to control PM emissions.

The grizzly, having a 600-ton per hour capacity, separates all gypsum rock greater than 6 inches in size to the new primary crusher. The crusher (SN-06) reduces the size of the rock to below 3 inches and sends the material to covered belt conveyor BC-3. The process adds foam or moisture to the feed and discharge of the primary crusher to control PM emissions.

SN-07 Primary Screen (3-05-15-07)

The grizzly also separates all rock smaller than 3 inches to the new primary screen (SN-07) by means of covered conveyor BC-1. The process controls the PM emissions from the transfer or rock from the grizzly to BC-1 by means of crushing/screening baghouse (CS BH) #1.

The screen separates all rock in the -3.0" to +3/4" inch range, sending the oversized material to BC-2 covered belt conveyor, which thereafter feeds BC-3 covered belt conveyor. The screen rejects gypsum ore smaller than 3/4 inch, considered useless, to a tailings pile through covered belt conveyors BC-6 and BC-7. BC-7 drops the tailings to the tailings pile through a telescopic chute. A front-end loader loads the tailings to trucks, which haul the rejected ore material back to the mine site for disposal. The primary screen controls particulate matter emissions from its feed and discharge points by means of baghouse CS BH #3.

Specific Conditions

1. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition is demonstrated by hourly emission rates based on the maximum capacity of the equipment and the ton per year emission rates limited by Specific Condition #4. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 4 – Criteria Pollutant Emission Limits for Primary Crusher and Primary Screen

Source No.	Pollutant	lb/hr	tpy
06	PM_{10}	0.7	1.7
07	PM_{10}	0.6	1.6

2. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition is demonstrated by hourly emission rates based on the maximum capacity of the equipment and the ton per year emission rates limited by Specific Condition #4. [Regulation No. 18 §18.801, effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 5 – Non-Criteria Pollutant Emission Limits for Primary Crusher and Primary Screen

Source No.	Pollutant	lb/hr	tpy
06	PM	0.7	1.7
07	PM	0.6	1.6

3. Visible emissions may not exceed the limits specified in the following table of this permit. Compliance with this condition shall be demonstrated through compliance with Specific Condition #6.

Table 6 – Primary Screen Visible Emissions Limit

Source No.	Limit	Regulatory Citation
06	15%	40 CFR § 60.672(c)
07	20%	Regulation No. 19 §19.503 and 40 CFR Part 52, Subpart E

4. The maximum allowable tons of gypsum rock crushed in the primary crusher (SN-06) are 1,860,000 tons during any consecutive twelve-month period. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-04 and §8-4-311, and 40 CFR 70.6]

5. The permittee will maintain records that demonstrate compliance with the limit set in Specific Condition #4. The Department may use the records for enforcement purposes. The facility will determine compliance on a monthly basis by totaling the amount of gypsum rock processed for the previous twelve months. The facility will make available each twelve-month total for inspection by the last day of the month after the reported twelve months. The facility will maintain the records onsite and provide the records to Department personnel upon request. The facility will submit each individual month and the twelve-month rolling average to the Department in accordance to General Condition #7. [Regulation No. 19 §19.705 and 40 CFR Part 52, Subpart E]

6. The permittee will conduct daily observations of the opacity of SN-06 and SN-07 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

   a. The date and time of the observation;
   b. If excess emissions were detected;

c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

NSPS Requirements

7. The primary crusher (SN-06) is subject to 40 CFR §60 Subpart OOO. The initial compliance test for SN-06 was in September 2002. Appendix A contains a copy of 40 CFR §60 Subpart OOO. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

8. The permittee will not exhaust gas exhibiting opacity of greater than fifteen percent at SN-06. Compliance with the opacity was demonstrated in the initial compliance test in September 2002 and by daily observations. [Regulation No. 19 §19.304 and 40 CFR § 60.672(c)].

SN-19 and SN-21

Secondary Crusher and Secondary Screen

Description

Secondary Screen

The process uses conveyor BC-3 to transfer the crushed rock from the primary crusher, the classified rock from the primary screen, and the recycle material from the secondary crusher to the new Secondary Screen (SN-21). The secondary screen, with a capacity of 400 TPH, delivers –1 3/8" to +3/4" classified rock either to the Ore Storage Warehouse (OSW) by means of the existing Feeds OSW conveyor, or to the 200 Ton Transfer Silo (new) by means of BC-9 covered belt conveyor. A splitter forwards the crushed rock to the OSW or to BC-9. The process controls the PM emissions from the diverter chute drop to the Feeds OSW conveyor by means of baghouse CS BH #7. Furthermore, the process controls the PM emissions from the diverter chute transfer to conveyor BC-9 by means of baghouse CS BH #6.

The process moves the stored rock from the OSW to BC-9 by means of the Reclaim Conveyor (existing). Baghouse CS BH #8 controls the emissions of the transfer of rock between the reclaim conveyor and BC-9. The 200-ton Transfer Silo delivers crushed gypsum rock to six rock bins (3-05-015-09), serving the Raymond Roller Mills #1 to #6, and to a seventh bin serving the Claudius/Peter (CP) Mill (Attachment A, Page 3). The rock bins serving Raymond Mills #1 to #5 each has a throughput capacity of 20 ton per hour, the Raymond Mill #6 bin a capacity of 50 ton per hour, and the CP Mill bin a throughput capacity of 95 ton per hour. The process controls the PM emissions from the 200-ton transfer silo by means of baghouse CS BH #9.

Secondary Crusher

The process takes the classified rock (-2 1/2" to +1 3/8") from the secondary screen to the 100 Ton Metering Bin (new) by means of BC-4 covered conveyor. The metering bin maintains an even delivery of gypsum rock to the new Secondary Crusher. The crusher sends the processed material back to reclassification by means of BC-5 covered belt conveyor.

The process controls particulate matter (PM) emissions from the secondary crushing operations by applying foam or moisture or by means of the replacement Secondary Crusher Baghouse. This cone crusher is subject to the requirements contained in 40 CFR Part 60, Subpart OOO.

The use of a foam and moisture dust suppression system (proposed modification) as an alternative to the baghouse is allowed to reduce the fugitive and nuisance dust for the following units related to the secondary crushing and screening operations:

BC-3 Diverter Chute DC-110-01
BC-4 R-200-0 Belt
BC-5 Diverter Chute DC-110-02
BC-8 R-200-2 Belt Conveyor
C-6 Covered Belt Shuttle Belt

During conditions where the gypsum rock is excessively moist, the baghouse filters become saturated (blinded) by caking of the gypsum dust. The foam and moisture spray system will then operate as needed until the conditions allow the operation of the baghouse.

Specific Conditions

9. The permittee will not exceed the emission rates set forth in the following table. The pound per hour pollutant emission rates are based on the maximum capacity of the equipment, and the ton per year pollutant emission rates are limited by Specific Condition #11. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 7 – Criteria Pollutant Emission Limits for Secondary Crusher Building

Source No.	Pollutant	lb/hr	tpy
19	PM_{10}	1.9	7.6
21	PM_{10}	0.4	0.8

10. The permittee will not exceed the air pollutant emission rates set forth in the following table. The pound per hour pollutant emission rates are based on the maximum capacity of the equipment, and the ton per year pollutant emission rates are effectively limited by Specific Condition #11. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 8 – Non-Criteria Pollutant Emission Limits for Secondary Crusher Building

Source No.	Pollutant	lb/hr	tpy
19	PM	1.9	7.6
21	PM	0.4	0.8

11. The maximum allowable tons of gypsum rock crushed in the secondary crusher (SN-19) are 1,681,920 tons of gypsum rock during any consecutive twelve-month period. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

12. The permittee will maintain records that demonstrate compliance with the limit in Specific Condition #11. The Department may use the records for enforcement purposes. The facility will determine compliance on a monthly basis by totaling the amount of gypsum rock processed for the previous twelve months. The facility will make available each twelve-month total for inspection by the last day of the month after the reported twelve months. The facility will maintain the records onsite and provide the records to Department personnel upon request. The facility will submit each individual month and

the twelve-month rolling average to the Department in accordance to General Provision #7. [Regulation No. 19 §19.705 and 40 CFR Part 52, Subpart E]

13. The permittee will conduct weekly observations of the opacity at SN-19 and SN-21 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a weekly log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

    a. The date and time of the observation;
    b. If excess emissions were detected;
    c. The cause of the excess emissions (high opacity);
    d. The corrective action taken;
    e. If excess emissions (high opacity) were corrected; and
    f. The name of the person conducting the opacity observations.

NSPS Requirements

14. The secondary crusher (SN-19) and the secondary screen (SN-21) are subject to 40 CFR §60 Subpart OOO. The initial compliance testing for SN-19 was in December 1999. Permit No. 598-AOP-R4 authorized the replacement of SN-19 in accordance with §60.670 (d)(1). Appendix A contains a copy of 40 CFR §60 Subpart OOO. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

    a. Within 60 days after achieving the maximum production rate at which SN-21 will be operated, but not later than 180 days after initial startup, the permittee shall conduct performance tests for particulate matter and opacity. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

        i. Method 5 or Method 17 shall be used to demonstrate compliance with the limit in Specific Condition #15. The performance test shall be performed according to the provisions of §60.675. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

        ii. Method 9 along with the provisions of §60.675 (c) shall be used to demonstrate compliance with the opacity limit in Specific Condition #16. This initial test shall be conducted by personnel trained and certified in Method 9 observations. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

b. With in 30 days of the performance tests, the permittee shall furnish a written report of the results to the Department in accordance with General Provision #7 of this permit. [Regulation No. 19 §19.705 40 CFR Part 52, Subpart E]

15. The permittee will not emit particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf) from the secondary crusher or the secondary screen. Compliance was demonstrated for SN-19 with the initial compliance test of December 1999. [Regulation No. 19 §19.304 and 40 CFR §60.672(a)(1)]

16. The permittee will not exhaust gas exhibiting opacity of greater than seven percent opacity at SN-19 or SN-21. Compliance is demonstrated by the initial compliance test of December 1999 (SN-19) and weekly observations. [Regulation No. 19 §19.304 and 40 CFR §60.672(a)(1)]

SN-38, SN-49, SN-50, SN-51, SN-52, and SN-53

Raymond Roller Mill Baghouses #1 through #6

Description

Raymond Roller Mills and Flash Dryers

The process operates six Raymond Roller Mills, each equipped with a flash dryer. The Raymond Mills purpose is to pulverize up to 150 ton per hour of gypsum rock and dry the millings to produce landplaster, the raw material used to manufacture stucco. The flash dryers use only pipeline quality natural gas as heating fuel. Raymond Roller Mills #1 thru #5 (SN-49 thru SN-53) are equipped with a 3.0 MMBtu/hr natural gas burner each. Raymond Roller Mill #6 (SN-38) is equipped with a 5.0 MMBtu/hr natural gas burner. The natural gas burners account for the non-PM pollutant emissions. Raymond Roller Mill #6 (SN-38) is subject to the requirements contained in 40 CFR Part 60, Subpart OOO.

Specific Conditions

17. The permittee shall not exceed the emission rates set forth in the following table. The maximum capacity of the equipment limits the pound per hour pollutant emission rates. Compliance with Specific Condition #11 and combustion of natural gas limit the tons per year pollutant emission rates. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 9 – Criteria Emission Limits for Raymond Roller Mill Baghouses #1 through #6

Source No.	Pollutant	lb/hr	tpy
38	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.2
	CO	0.5	1.8
	NO_X	0.5	2.2
49	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.1	1.1
	NO_X	0.1	1.3
50	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.1	1.1
	NO_X	0.1	1.3

Source No.	Pollutant	lb/hr	tpy
51	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.1	1.1
	NO_X	0.1	1.3
52	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.1	1.1
	NO_X	0.1	1.3
53	PM_{10}	0.1	0.1
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	0.1	1.1
	NO_X	0.1	1.3

18. The maximum emission rates are in the following table. The pound per hour pollutant emission rates are based on the maximum capacity of the equipment. The ton per year pollutant emission rates are limited by Specific Condition #11 and combustion of natural gas. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 10 –Non-Criteria Emission Limits for Raymond Roller Mill Baghouses #1-#6

Source No.	Pollutant	lb/hr	tpy
38	PM	0.1	0.1
49	PM	0.1	0.1
50	PM	0.1	0.1
51	PM	0.1	0.1
52	PM	0.1	0.1
53	PM	0.1	0.1

19. Visible emissions may not exceed the limits specified in the following table of this permit. Compliance with this condition shall be demonstrated through compliance with Specific Condition #20.

Table 11 –Raymond Roller Mill Baghouses Visible Emission Limits

Source No.	Limit	Regulatory Citation
38	7%	40 CFR § 60.672(a)(1)
49, 50, 51, 52, 53	5%	Regulation No. 18 §18.501 and A.C.A

20. The permittee will conduct weekly observations of the opacity by personnel familiar with the permittee's visible emissions on sources SN-38, SN-49, SN-50, SN-51 SN-52 and SN-53. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions.

To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [Regulation No. 18 §18.1004 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

21. The Raymond Roller Mill #6 (SN-38) is subject to 40 CFR §60 Subpart OOO. The initial compliance tests for SN-38 were in September 1999. Appendix A contains a copy of 40 CFR §60 Subpart OOO. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

22. The permittee will not emit particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf) from the Raymond Roller Mill #6 (SN-38). Compliance was demonstrated with the initial compliance test in September 1999. [Regulation No. 19 §19.304 and 40 CFR §60.672(a)(1)]

23. The permittee will not exhaust gas exhibiting opacity of greater than seven percent opacity from SN-38. Compliance was demonstrated by initial compliance test in September 1999 and weekly observations. [Regulation No. 19 §19.304 and 40 CFR §60.672(a)(1)]

SN-22, SN-23, SN-24 (Combustion Stacks) and SN-46, SN-47, SN-48 (Baghouses)

Kettle Calciners #1, #2, and #3 and Baghouses

Description

The manufacturing process converts dried and pulverized gypsum rock (landplaster) into stucco in kettle calciners SN-22, SN-23, and SN-24. The process delivers up to 20 tons per hour of landplaster from the storage bin to each calciner. The calciners, using natural gas as fuel, indirectly heat and remove up to 85% of the chemically bound water in landplaster, converting the landplaster into stucco.

The calciners exhaust their combustion gases through their (SN-22 to SN-27) stacks into the atmosphere. A portion of the gases exhausted through the stacks is used to heat process water in a heat exchanger (SN-20). The calcined stucco leaves the kettles by gravity into hot pits, where the process de-steams the material. The process controls the particulate matter resulting from the transfer of the stucco to the hot pits with Calciner Baghouses #1, #2, and #3 (SN-46, 47, and 48). The calciners are subject to 40 CFR §60, Subpart UUU.

Specific Conditions

24. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour pollutant emission rates are based on the maximum capacity of the equipment. The ton per year pollutant emission rates from the natural gas combustion are based on the maximum capacity of the equipment (SN-22, SN-23 and SN-24). The ton per year pollutant emission rate for particulates (SN-46, SN-47 and SN-48) is limited by Specific Condition #11 and proper operation of the control device. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 12 – Criteria Emission Limits for Kettles Calciners#1, #2, and #3

Source No.	Pollutant	lb/hr	tpy
20	The emissions from SN-20 are included in the emissions from SN-22 through SN-27.		
22	PM_{10}	0.2	0.9
	SO_2	0.1	0.1
	VOC	0.2	0.7
	CO	2.3	9.8
	NO_X	2.7	11.6
23	PM_{10}	0.2	0.9
	SO_2	0.1	0.1
	VOC	0.2	0.7
	CO	2.3	9.8
	NO_X	2.7	11.6

Source No.	Pollutant	lb/hr	tpy
24	PM_{10}	0.2	0.9
	SO_2	0.1	0.1
	VOC	0.2	0.7
	CO	2.3	9.8
	NO_X	2.7	11.6
46	PM_{10}	0.1	0.1
47	PM_{10}	0.1	0.1
48	PM_{10}	0.1	0.1

25. The permittee shall not exceed the emission rates set forth in the following table. Compliance with the particulate emission rates is demonstrated through proper operation of the control device for SN-46, SN-47 and SN-48 and Specific Condition #11. Compliance with the particulate emission rates is demonstrated through combustion of natural gas for SN-22, SN-23 and SN-24. The pound per hour pollutant emission rates are based on the maximum capacity of the equipment. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 13 – Non-Criteria Emission Limits for Kettle Calciners #1, #2, and #3

Source No.	Pollutant	lb/hr	tpy
20	The emissions from SN-20 are included in the emissions from SN-22 through SN-27.		
22	PM	0.2	0.9
23	PM	0.2	0.9
24	PM	0.2	0.9
46	PM	0.1	0.1
47	PM	0.1	0.1
48	PM	0.1	0.1

26. The permittee shall not exceed the opacity from sources listed below. The permittee shall demonstrate compliance for SN-22, SN-23, and SN-24 by combustion of natural gas. The permittee shall demonstrate compliance for SN-46, SN-47, and SN-48 through compliance with Specific Condition #27.

Table 14 – Kettle Calciners #1, #2, and #3 Visible Emission Limits

Source No.	Limit	Regulatory Citation
22, 23, 24	5%	Regulation No. 18 §18.501 and A.C.A
46, 47, 48	10%	40 CFR §60.732(b)

27. The permittee will conduct weekly observations of the opacity from SN-46, SN-47 and SN-48 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to

Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

NSPS Requirements

28. The Calciner Baghouses #1-#3 (SN-46, SN-47, and SN-48) are subject to all applicable requirements of the New Source Performance Standards (NSPS) Subpart UUU provisions as identified in the Code of Federal Regulations (CFR) Title 40, Part 60.730. The initial compliance tests for SN-46, SN-47, and SN-48 were in September 1999. A copy of this Subpart is provided in Appendix A. [Regulation No. 19 §19.304 and 40 CFR Subpart UUU]

29. The permittee will not discharge particulate matter in excess of 0.092 gr/dscm (0.040 grains per dry standard cubic foot) from SN-46, SN-47, and SN-48. Compliance was demonstrated with the initial compliance test of September 1999. [Regulation No. 19 §19.304 and 40 CFR §60.732(a)]

30. The permittee will not discharge exhausts with opacity of greater than 10% from SN-46, SN-47, and SN-48. Compliance was demonstrated by initial compliance test of September 1999 and weekly observations. [Regulation No. 19 §19.304 and 40 CFR §60.732(b)]

SN-01 (North ESP) and SN-25, SN-26, SN-27 (Combustion Stacks)

North ESP and Kettle Calciners #4, #5, and #6

Description

Kettle calciners convert landplaster into stucco. Landplaster from the storage bin is fed to each calciner. The calciners, each using 12.0 MMBTU/hr of natural gas as fuel, indirectly heat and remove water in the landplaster to produce stucco. The calciners exhaust combustion gases through their combustion stacks (SN-25 to SN-27). The calcined stucco leaves the kettle by gravity into a hot pit, where it begins cooling. Particulate emissions from the hot pits are controlled by the electrostatic precipitator (SN-01). The process conveys the stucco from the hot pits to the Buell System pit, by means of pneumatic and screw conveyors, for further cooling and storage. These kettles are estimated to only be used for 2,268 hr/year. These calcining kettles are not subject to regulation 40 CFR Part 60, Subpart UUU due to the installation and modification dates of the units.

A portion of the gases exhausted through stacks SN-22 to SN-27 is used to heat process water in a heat exchanger (SN-20). Hot stucco is conveyed pneumatically and by screw conveyor to the Buell System pit for further cooling and storage.

Specific Conditions

31. The permittee shall not exceed the emission rates set forth in the following table. The permittee demonstrates compliance with the particulate emission rates for SN-01 through proper operation of the control device and Specific Condition #11. The maximum capacity of the equipment limits the pound per hour emission rates. Compliance with Specific Condition #11 and combustion of natural gas limits the tons per year emission rates. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 15 – Criteria Emission Limits for North ESP and Kettle Calciners #4, #5, and #6

Source No.	Pollutant	lb/hr	tpy
01	PM_{10}	5.4	6.2
20	The emissions from SN-20 are included in the emissions from SN-22 through SN-27.		
25	PM_{10}	0.1	0.2
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	1.0	1.2
	NO_X	1.2	1.4
26	PM_{10}	0.1	0.2
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	1.0	1.2
	NO_X	1.2	1.4

Source No.	Pollutant	lb/hr	tpy
27	PM_{10}	0.1	0.2
	SO_2	0.1	0.1
	VOC	0.1	0.1
	CO	1.0	1.2
	NO_X	1.2	1.4

32. The maximum emission rates are in the following table. Compliance with the particulate emission rates is demonstrated through proper operation of the control device and Specific Condition #11 for SN-01. The pound per hour pollutant emission rates are based on the maximum capacity of the equipment. The ton per year pollutant emission rates are limited by combustion of natural gas for SN-25-27. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 16 – Non-Criteria Emission Limits for North ESP and Kettles Calciners #4, #5, and #6

Source No.	Pollutant	lb/hr	tpy
01	PM	5.4	6.2
20	The emissions from SN-20 are included in the emissions from SN-22 through SN-27.		
25	PM	0.1	0.2
26	PM	0.1	0.2
27	PM	0.1	0.2

33. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method. The permittee will comply with the opacity limits for sources SN-25, SN-26, and SN-27 by burning pipeline quality natural gas. The daily observations demonstrate compliance for SN-01.

Table 17 – North ESP and Kettle Calciners #4, #5, and #6 Visible Emission Limits

Source No.	Limit	Regulatory Citation
01	20%	Regulation No. 19 §19.503 and 40 CFR Part 52, Subpart E
25, 26, 27	5%	Regulation No. 18 §18.501 and A.C.A

34. The permittee will conduct daily observations of the opacity from SN-01 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;

c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

SN-39

Claudius/Peter Mill & Flash Calciner Baghouses #1 and #2

Description

The manufacturing process also converts gypsum rock into stucco with the use of a Claudius/Peter (CP) Mill and Flash Calciner. The CP mill simultaneously grinds and calcines the gypsum rock into stucco, while avoiding the intermediate steps of storing and handling landplaster. The Flash Calciner portion of the CP Mill contacts the pulverized rock directly with the combustion gases of natural gas, which the calciner burns at a rate of 65 MMBTU/h.

The process transfers up to 80 ton per hour of gypsum rock from the CP Mill Rock Bin (3-05-015-09) to the CP Mill. The mill pulverizes the rock and contacts it with the combustion gases of the flash calciner to achieve the conversion into stucco. The gases carry the calcined stucco from the Mill to the Flash Calciner Baghouses #1 and #2. The two parallel baghouses separate the stucco from the gas stream and control particulate emissions related to the transfer of the stucco from the CP Mill to the conveyance system.

The exhaust of both baghouses is combined into a single stack (SN-39). SN-39 exhausts the combustion gases of the Flash Calciner as well as up to 12.5 ton per hour of water, released by the gypsum, as vapor. The Flash Calciner baghouses transfer up to 67.5 ton per hour of stucco to the Buell System pit using the transfer point's conveyance system. The Claudius Peter Mill/Flash Calciner is subject to the requirements contained in 40 CFR Part 60, Subpart UUU.

Specific Conditions

35. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. Specific Condition #11 limits the ton per year pollutant emission rates for particulates. The products of combustion are limited by the combustion of pipeline quality natural gas. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 18 – Criteria Emission Limits for Claudius/Peter Mill & Flash Calciner Baghouses

Pollutant	lb/hr	tpy
PM_{10}	3.6	15.9
SO_2	0.1	0.2
VOC	0.4	1.6
CO	5.4	23.5
NO_X	6.4	28.0

36. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The emission ton per year emission rates for particulates are limited by Specific Condition #11. The products of combustion are limited by the combustion of pipeline quality natural gas.

[Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311

Table 19 – Non-Criteria Emission Limits for Claudius/Peter Mill & Flash Calciner Baghouses

Pollutant	lb/hr	tpy
PM	3.6	15.9

37. The permittee will conduct weekly observations of the opacity from SN-39 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

NSPS Requirements

38. The Claudius/Peter Mill & Flash Calciner Baghouses are subject to all applicable requirements of the New Source Performance Standards (NSPS) Subpart UUU provisions as identified in the Code of Federal Regulations (CFR) Title 40, Part 60.730. The initial compliance tests were in May 1999. A copy of this Subpart is in Appendix A:. [Regulation No. 19 §19.304 and 40 CFR Subpart UUU]

39. The permittee will not discharge particulate matter in excess of 0.092 gr/dscm (0.040 grains per dry standard cubic foot) from SN-39 CP, Mill and Flash Calciner. Compliance was demonstrated with the initial compliance test in May 1999. [Regulation No. 19 §19.304 and 40 CFR §60.732(a)]

40. The permittee will not discharge exhausts with opacity of greater than 10% from SN-39, CP Mill. Compliance was demonstrated by initial compliance test in May 1999 and weekly observations. [Regulation No. 19 §19.304 and 40 CFR §60.732(b)]

SN-04 and SN-40

Kettle Buell Baghouse and CP Mill Transfer Points Baghouse

Description

Stucco is gravity fed to the hot pits from each kettle for de-steaming. The process conveys all the stucco from the hot pit using screw conveyors and then pneumatically to the Kettle Buell Baghouse (SN-04). The conveyor handles up to 100 ton per hour of stucco.

The baghouse separates the finished stucco from the conveying stream and transfers it to the Kettle Stucco 500 ton storage tank.

The CP Mill Transfer Points Baghouse (SN-40) is subject to the requirements contained in 40 CFR Part 60, Subpart OOO. The existing Kettle Buell Baghouse (SN-04) is not subject to regulation 40 CFR Part 60, Subpart OOO due to the installation and modification dates of the unit.

Specific Conditions

41. The permittee will not exceed the emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The ton per year pollutant emission rates for particulates are limited by Specific Condition #11 and proper operation of the baghouse. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 20 – Criteria Emission Limits for Kettle Buell Baghouse and CP Mill Transfer Points

Source No.	Pollutant	lb/hr	tpy
04	PM_{10}	0.1	0.1
40	PM_{10}	2.9	12.4

42. The permittee shall not exceed the air pollutant emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The ton per year pollutant emission rate for particulates is limited by Specific Condition #11 and proper operation of the baghouse. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 21 – Non-Criteria Emission Limits for Kettle Buell Baghouse and CP Mill Transfer Points

Source No.	Pollutant	lb/hr	tpy
04	PM_{10}	0.1	0.1
40	PM_{10}	2.9	12.4

43. The permittee shall not exceed the opacities listed below, as measured by EPA Reference Method 9. [Regulation No. 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 22 – Kettle Buell Baghouse and CP Mill Transfer Points Visible Emission Limits

Source No.	Limit	Regulatory Citation
04	5%	Regulation No. 18 §18.501 and A.C.A
40	7%	40 CFR § 60.672(a)(1)

44. The permittee will conduct weekly observations of the opacity from SN-04 and SN-40 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

NSPS

45. The CP Mill Transfer Points Baghouse (SN-40) is subject to 40 CFR §60 Subpart OOO. The initial compliance tests were in November 1999. Appendix A: contains a copy of 40 CFR §60 Subpart OOO. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

46. The permittee will not emit particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf) from the CP Mill Transfer Points Baghouse (SN-40). Compliance was demonstrated with the initial compliance test in November 1999. [Regulation No. 19 §19.304 and 40 CFR § 60.672(a)(1)]

47. The permittee will not exhaust gas exhibiting opacity of greater than seven percent opacity from CP Mill Transfer Points Baghouse (SN-40). Compliance was demonstrated by initial compliance test in November 1999 and weekly observations. [Regulation No. 19 §19.304 and 40 CFR § 60.672(a)(1)]

SN-41, SN-42, and SN-42b

CP Buell, East and West Mezzanine Baghouses

Description

CP Buell Baghouse

The Buell System pit receives the stucco and cools it by forced ambient temperature air. The air further lifts the stucco to the Buell Cyclones #1 and #2. The two parallel cyclones separate most of the stucco from the lifting air stream, sending the collected material to a pneumatic conveyance system. The overhead vent of the cyclones sends the stucco particulate laden exhaust to the Buell Baghouse (SN-41).

The Buell baghouse also controls particulate emissions related to stucco conveyance by screw conveyors S-100-5, -6, -7, and bucket elevator B-300-1. Furthermore, the Buell baghouse controls particulate emissions related to the loading and unloading of the CP Mill and Calcine mill stucco storage bins.

East and West Mezzanine Baghouses (SN-42 and SN-42a)

The stucco separated by the cyclones is conveyed pneumatically to either the high capacity storage bins or directly to the line production storage bins. Both the CP Mill and Calcine Mill stucco storage bins have a capacity of 431 tons, and a throughput capacity of 80 ton per hour. These bins allow the process storage capacity for occasions when stucco is not delivered to the Buell System. The S-100-6 and –7 screw conveyors move the stucco to the bucket elevator, which in turn delivers the stucco to the pneumatic conveyance leading to the line production storage bins. The Line #1 and #2 storage bins each have a capacity of 100 tons and supply the wallboard production lines with stucco. Each of the Stucco Storage Baghouses is subject to the requirements contained in 40 CFR Part 60, Subpart OOO.

Specific Conditions

48. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The ton per year pollutant emission rates for particulates are limited by Specific Condition #11 and proper operation of the baghouse. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 23 - Criteria Emission Rates for CP Buell, East and West Mezzanine Baghouses

Source No.	Pollutant	lb/hr	tpy
41	PM_{10}	0.1	0.2
42	PM_{10}	0.1	0.1
42a	PM_{10}	0.1	0.3

49. The permittee shall not exceed the air pollutant emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity.

The ton per year pollutant emission rates for particulates are limited by Specific Condition #111 and proper operation of the baghouse. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 24 – Non-Criteria Emission Limits for CP Buell, East and West Mezzanine Baghouses

Source No.	Pollutant	lb/hr	tpy
41	PM	0.1	0.2
42	PM	0.1	0.1
42a	PM	0.1	0.3

50. The permittee will conduct weekly observations of the opacity from SN-41, SN-42 and 42a by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

NSPS Requirements

51. The Stucco Storage Baghouses (SN-41, SN-42 and SN-42a) are subject to 40 CFR §60 Subpart OOO. The initial compliance tests were in December 1999. A copy of this Subpart is in Appendix A: contains a copy of 40 CFR §60 Subpart OOO. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

52. The permittee will not emit particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf) from the Stucco Storage Baghouses (SN-41, SN-42 and SN-42a). Compliance was demonstrated with the initial compliance test in December 1999. [Regulation No. 19 §19.304 and 40 CFR § 60.672(a)(1)]

53. The permittee will not exhaust gas exhibiting opacity of greater than seven percent opacity from the Stucco Storage Baghouses (SN-41, SN-42 and SN-42a). Compliance was demonstrated by initial compliance test in December 1999 and weekly observations. [Regulation No. 19 §19.304 and 40 CFR § 60.672(a)(1)]

SN-44 and SN-45

Tunnel Dryers #1 and #2

Description

The two existing process lines form wallboard by placing a slurry (made of a stucco, water, and additives mixture) between two moving sheets of paper. The wallboard is then sent to a cutoff knife and into a tunnel dryer, one for each production line, to drive off excess water by direct contact with heat. Both dryers are equipped with 150 MMBtu/hr natural gas fired burners. The SN-44 and SN-45 stacks exhaust the combustion by-products along with the excess moisture removed from the wallboard. The tunnel dryers are exempt from the requirements contained in 40 CFR Part 60, Subpart UUU.

Specific Conditions

54. The permittee shall not exceed the emission rates set forth in the following table. The emission rates are limited by Plant Wide Condition #7 and combustion of natural gas. The pound per hour emission rates are based on maximum equipment capacity. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 25 – Criteria Emission Limits for Tunnel Dryers #1 and #2

Source No.	Pollutant	lb/hr	tpy
44	PM_{10}	1.2	4.9
	SO_2	0.1	0.4
	VOC	17.8	77.8
	CO	12.4	54.2
	NO_X	20.6	90.2
45	PM_{10}	1.2	4.9
	SO_2	0.1	0.4
	VOC	17.8	77.8
	CO	12.4	54.2
	NO_X	20.6	90.2

55. The permittee shall not exceed the air pollutant emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The ton per year pollutant emission rate for particulates is limited by Plant Wide Condition #7 and combustion of natural gas. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 26 – Non-Criteria Emission Limits for Tunnel Dryers #1 and #2

Source No.	Pollutant	lb/hr	tpy
44	PM	1.2	4.9
45	PM	1.2	4.9

56. The permittee shall not exceed the opacities listed below, as measured by EPA Reference Method 9. [Regulation No. 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 27 – Tunnel Dryers #1 and #2 Visible Emission Limits

Source No.	Limit	Regulatory Citation
44, 45	5%	Regulation No. 18 §18.501 and A.C.A

57. The permittee will conduct weekly observations of the opacity from SN-44 and SN-45 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

SN-18 and SN-32

Take-off/End Trim Baghouses #1 and #2

Description

The process transfers the wallboard exiting the tunnel dryers to the Take-Off and end Trim saws. These machines cut the wallboard sections to precise lengths and apply a narrow strip of paper onto the exposed ends of the wallboard. The wallboard product is ready for storage and shipping.

The particulate matter that results from these operations is controlled by the Take-Off (SN-18) and End Trim (SN-32) baghouses. The baghouses transfer the collected dust to a pneumatic conveyor, which leads to the Recycle Baghouse (SN-43).

Specific Conditions

58. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. Plant Wide Condition #7 and proper operation of the baghouse limit the ton per year pollutant emission rate for particulates. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 28 – Criteria Emission Limits for Take-off/End Trim Baghouses #1 and #2

Source No.	Pollutant	lb/hr	tpy
18	PM_{10}	0.1	0.1
32	PM_{10}	0.1	0.1

59. The permittee shall not exceed the air pollutant emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The ton per year pollutant emission rates for particulates are limited by Plant Wide Condition #7 and proper operation of the baghouse. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 29 – Non-Criteria Emission Limits for Take-off/End Trim Baghouses #1 and #2

Source No.	Pollutant	lb/hr	tpy
18	PM	0.1	0.1
32	PM	0.1	0.1

60. The permittee shall not exceed the opacities listed below, as measured by EPA Reference Method 9. The permittee demonstrates compliance by opacity observations. [Regulation No. 18 §18.501 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 30 – Take-off/End Trim Baghouses #1 and #2 Visible Emission Limits

Source No.	Limit	Regulatory Citation
18, 32	5%	Regulation No. 18 §18.501 and A.C.A

61. The permittee will conduct weekly observations of the opacity from SN-18 and SN-32 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

SN-05

Recut Baghouse

Description

Occasionally, production orders require wallboard with lengths other than standard. The process will take wallboard from the Take-Off line and cut it to the custom size ordered. The Recut (SN-05) baghouse (Under Construction) will control the particulate matter that results from this operation. The baghouse will transfer the collected dust to a pneumatic conveyor, which leads to the Recycle Baghouse (SN-43).

BPB uses wallboard from its production line to produce dunnage. Saws cut the wallboard into 4" wide strips, which are then stacked and glued. The process places the glued strips as spacers between the finished wallboard bundles, allowing the forklifts to lift and handle the material without damage. The equipment that produces the strips is called a sleuter machine and consists of several saws in parallel. The recut baghouse will receive the dust loading from a sleuter machine for control of particulate matter.

Specific Conditions

62. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The ton per year pollutant emission rate for particulates is limited by Plant Wide Condition #7 and proper operation of the baghouse. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 31 – Criteria Emission Limits for Recut Baghouse

Pollutant	lb/hr	tpy
PM_{10}	0.2	0.1

63. The permittee shall not exceed the air pollutant emission rates set forth in the following table. The pound per hour emission rates are based on maximum equipment capacity. The ton per year pollutant emission rate for particulate is limited by Plant Wide Condition #7. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 32 – Non-Criteria Emission Limits for Recut Baghouse

Pollutant	lb/hr	tpy
PM	0.2	0.1

64. The permittee shall not exceed the opacity listed below, as measured by EPA Reference Method 9. The permittee will comply with the opacity by proper operation of the control equipment and opacity observations. [18.501 of Regulation 18 - Arkansas Air Pollution Control Code, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

Table 33 – Opacity for Recut Baghouse Visible Emission Limit

Limit	Regulatory Citation
5%	Regulation No. 18 §18.501 and A.C.A

65. The permittee will conduct weekly observations of the opacity from SN-05 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

SN-43

Recycle Baghouse

Description

The process rejects wallboard that is not to specification. The rejected wallboard is transferred to the recycle process, where it is ground to pieces and sent to conveyor belt C-6. Recycle baghouse (SN-43) controls the particulate emissions resulting from the grinding operations. The dust collected by the baghouse, which includes the conveyed dust from trim operations, is deposited by the baghouse on conveyor belt C-6.

Specific Conditions

66. The permittee shall not exceed the air pollutant emission rates in the following table. The pound per hour is based on the maximum capacity of the equipment. The ton per year pollutant emission rate for particulates is limited by Specific Condition #70. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 34 – Criteria Emission Limits for Recycle Baghouse

Pollutant	lb/hr	tpy
PM_{10}	0.1	0.2

67. The permittee shall not exceed the air pollutant emission rates set forth in the following table. The pound per hour is based on the maximum capacity of the equipment. The ton per year pollutant emission rate for particulates is limited by Specific Condition #70. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 35 – Non-Criteria Emission Limits for Recycle Baghouse

Pollutant	lb/hr	tpy
PM	0.1	0.2

68. The permittee shall not exceed the opacities listed below, as measured by EPA Reference Method 9. The permittee will demonstrate compliance by proper operation of the baghouse and weekly observations.

Table 36 – Recycle Baghouse Visible Emission Limit

Limit	Regulatory Citation
5%	Regulation No. 18 §18.501 and A.C.A

69. The permittee will recycle a maximum of 28,800 tons per year of wallboard. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

70. The permittee will maintain a twelve-month total of the amount of wallboard recycled. The permittee will keep the records on-site, and make the records available to Department personnel upon request. The permittee will submit the records to the Department in

accordance with General Condition #7. [Regulation No. 19 §19.705 and 40 CFR Part 52, Subpart E]

71. The permittee will conduct weekly observations of the opacity from SN-43 by personnel familiar with the permittee's visible emissions. The permittee will maintain personnel trained in EPA Reference Method 9. If visible emissions in excess of the permitted opacity are detected, the permittee will immediately take action to identify the cause of the excess emissions, implement corrective action, and document that the corrective action corrected the excess emissions. To demonstrate compliance the permittee shall maintain a daily log to record the following information. The permittee will update the records daily, keep the records on-site, and make the records available to Department personnel upon request. [19.705 of Regulation 19 - Regulations of the Arkansas Plan of Implementation for Air Pollution Control, 40 CFR part 52, Subpart E, and A.C.A. 8-4-203 as referenced by 8-4-304 and 8-4-311]

a. The date and time of the observation;
b. If excess emissions were detected;
c. The cause of the excess emissions (high opacity);
d. The corrective action taken;
e. If excess emissions (high opacity) were corrected; and
f. The name of the person conducting the opacity observations.

SN-08

Gasoline Storage Tank

Description

BPB Gypsum, Inc. has several gasoline, diesel, and lubricating oil storage tanks on site. The gasoline storage tank (SN-08) is the only tank with emissions of a great enough magnitude to be included in the permit. The rest of the tanks are included in the list of Insignificant Activities contained in Section VII of this permit.

Specific Conditions

72. The permittee shall not exceed the emission rates set forth in the following table. The pound per hour is based on the maximum fill rate of the tank. The ton per year pollutant emission rate for particulates is limited by Specific Condition #74. [Regulation No. 19 §19.501 *et seq*. effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 37 – Criteria Emission Limits for Gasoline Storage Tank

Pollutant	lb/hr	tpy
VOC	86.7	1.8

73. The permittee shall store only gasoline fuel or other motor fuels with a vapor pressure equal to or less than that of gasoline at SN-08. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]

74. The permittee shall not exceed the throughput limit of 120,000 gallons of gasoline during any consecutive 12-month period. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and CFR Part 52, Subpart E]

75. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #74 and may be used by the Department for enforcement purposes. These records shall be maintained on site and shall be provided to Department personnel upon request. [Regulation No. 19 §19.705 and 40 CFR Part 52, Subpart E]

SN-37

Facility Non-Point Source Emissions

Description

Several activities at the BPB Gypsum facility result in the production of non-point source emissions. Each of these points involves the handling or processing of raw gypsum ore. The following table gives a complete list of all points included in the Facility Non-Point Source Emissions (SN-37). There are no points included in this list where pulverized land plaster or stucco (dry powdery material) is handled.

BPB is paving a portion of the road to control fugitive emissions related to the transport of finished product.

The summary of the non-point sources for SN-37 is as follows:

Table 38 – Facility Non-Point Source Emissions Summary Table

Description	Pollutant
Overburden Removal	PM & PM_{10}
Drilling at Mine Site	PM & PM_{10}
Loading of Ore	PM & PM_{10}
Transportation over Unpaved roads	PM & PM_{10}
Transportation over Paved Roads	PM & PM_{10}

Proposed Modification to Unpaved Haul Road

BPB proposes to pave 5,353 linear feet of the haul road. The proposed pavement sections are:

Area No. 3 - 3,299 Linear Feet
Area No. 4 - 2,124 Linear Feet

The width of the proposed paving will be 30 feet except for the East portion of Area No. 3. This portion will be wider to accommodate a passing lane. Traffic on this road consists of 110 round trips of semi-trucks a day in a 5-day workweek. Furthermore, maintenance vehicles traverse the same road at a rate of 20 round trips per day on the same workweek schedule. This traffic translates to 34,267 Vehicle Miles Traveled (VMT) per year.

Presently, BPB controls fugitive emissions on the unpaved haul road by spraying Coherex (Dust abatement emulsion) and moisture. The control efficiency of this method is 80%. BPB proposes to control fugitive emissions on the paved haul road by periodic mechanical sweeping. The control efficiency of this method is 50%.

Specific Conditions

76. The permittee shall not exceed the emission rates set forth in the following table. The ton per year pollutant emission rate for particulates is limited by Specific Conditions #3 and #80. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 39 – Non-Point Source Criteria Emission Limits with Unpaved Roads

Pollutant	lb/hr	tpy
PM_{10}	159.0	74.7

77. The permittee shall not exceed the air pollutant emission rates set forth in the following table. The ton per year pollutant emission rate for particulates is limited by Specific Conditions #3 and #80. [Regulation No. 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

Table 40 – Non-Point Source Non-Criteria Emission Limits with Unpaved Roads

Pollutant	lb/hr	tpy
PM	159.0	111.5

78. The permittee will meet the following emission limits after the completion of pavement of the 5,353 linear feet of the haul road. The ton per year pollutant emission rate for particulates is limited by Specific Conditions #3 and #80. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 41 – Criteria Emission Limits for Non-Point Sources with Paved Roads

Pollutant	lb/hr	Tpy
PM_{10}	159.0	64.1

79. The permittee will meet the following emission limits after the completion of pavement of the 5,353 linear feet of the haul road. The ton per year pollutant emission rate for particulates is limited by Specific Conditions #3 and #80. [Regulation No. 19 §19.501 *et seq.* effective December 19, 2004, and 40 CFR Part 52, Subpart E]

Table 42 – Non-Criteria Emission Limits for Non-Point Sources with Paved Roads

Pollutant	lb/hr	tpy
PM	159.0	92.1

80. The permittee will apply chemical stabilizer or mechanically sweep the haul roads when dusty conditions are observed. [Regulation No. 19 §19.703 and A.C.A §8-4-203 as referenced by §8-4-304 an §8-4-311]

81. The permittee shall maintain a monthly log of the application of the chemical stabilizer or sweeping of the haul roads to demonstrate compliance with Specific Condition #80. The log shall be maintained on sited and be provided to Department personnel upon request. [Regulation No. 19 §19.705 and 40 CFR Part 52, Subpart E]

82. The permittee will complete the paving prior to December 28, 2005. [A.C.A 8-4-203 as referenced by §8-4-304 and §8-4-311]

Section V: COMPLIANCE PLAN AND SCHEDULE

BPB Gypsum, Inc. 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.

Section VI: PLANT WIDE CONDITIONS

1. The permittee will notify the Director in writing within thirty (30) days after commencing construction, completing construction, first placing the equipment and/or facility in operation, and reaching the equipment and/or facility target production rate. [Regulation No. 19 §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

2. If the permittee fails to start construction within eighteen months or suspends construction for eighteen months or more, the Director may cancel all or part of this permit. [Regulation No. 19 §19.410(B) and 40 CFR Part 52, Subpart E]

3. The permittee must test any equipment scheduled for testing, unless stated in the Specific Conditions of this permit or by any federally regulated requirements, within the following time frames: (1) New Equipment or newly modified equipment within sixty (60) days of achieving the maximum production rate, but no later than 180 days after initial start-up of the permitted source or (2) operating equipment according to the time frames set forth by the Department or within 180 days of permit issuance if no date is specified. The permittee must notify the Department of the scheduled date of compliance testing at least fifteen (15) days in advance of such test. The permittee will submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation No. 19 §19.702 and/or Regulation No. 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

4. The permittee must provide: [Regulation No. 19 §19.702 and/or Regulation No. 18 §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]
   a. Sampling ports adequate for applicable test methods;
   b. Safe sampling platforms;
   c. Safe access to sampling platforms; and
   d. Utilities for sampling and testing equipment.

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee will maintain the equipment in good condition at all times. [Regulation No. 19 §19.303 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

6. This permit subsumes and incorporates all previously issued air permits for this facility. [Regulation No. 26 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

7. The permittee may process a maximum of 1,800,000,000 ft^2 of wallboard through the facility. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

8. The permittee will maintain a twelve-month rolling total of the wallboard production. The permittee will maintain the records on-site, and make the records available to Department personnel. The permittee will submit the records to the Department in

accordance with General Condition #7. [Regulation No. 19 §19.705 and 40 CFR Part 52, Subpart E]

9. The permittee shall use only pipeline quality natural gas as fuel for the following units: Raymond Roller Mills #1 thru #6 (SN-38, SN-49 thru SN-53), Calcining Kettles #1 thru #6 (SN-22 thru SN-27), Claudius Peters Mill and Flash Calciner (SN-39), and Tunnel Dryers #1 and #2 (SN-44 and SN-45). [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR 70.6]

Title VI Provisions

10. The permittee must comply with the standards for labeling of products using ozone-depleting substances. [40 CFR Part 82, Subpart E]

    a. All containers containing a class I or class II substance stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced to interstate commerce pursuant to §82.106.

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

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

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

11. The permittee must comply with the standards for recycling and emissions reduction, except as provided for MVACs in Subpart B. [40 CFR Part 82, Subpart F]

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

    b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to §82.158.

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

    d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with record keeping requirements pursuant to §82.166. ("MVAC-like appliance" as defined at §82.152.)

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

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to §82.166.

12. 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.

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

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

14. The permittee can switch from any ozone-depleting substance to any alternative listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR Part 82, Subpart G, "Significant New Alternatives Policy Program".

Permit Shield

15. 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 the following table of this condition.

a. The permit specifically identifies the following as applicable requirements based upon the information submitted by the permittee in an application dated .

Table 43 - Applicable Regulations

Source No.	Regulation	Description
SN-06, SN-19, SN-40, SN-41, SN-42 and SN-42a	40 CFR Part 60, Subpart OOO	Standards of Performance for Nonmetallic Mineral Processing Plants
SN-22, SN-23, SN-24 and SN-39	40 CFR Part 60, Subpart UUU	Standards of Performance for Calciners and Dryers in Mineral Industries
Facility	Arkansas Regulation 19	Compilation of Regulations of the Arkansas State implementation Plan
Facility	Arkansas Regulation 26	Regulations of the Arkansas operating Air Permit Program

b. The permit specifically identifies the following as inapplicable based upon information submitted by the permittee in an application dated January 12, 2004.

Table 44 - Inapplicable Regulations

Source No.	Regulation	Description	Basis
Standards of Performance for Nonmetallic Mineral Processing Plants	40 CFR Part 60, Subpart OOO	SN-04, SN-07, SN-49, SN-50, SN-51, SN-52, SN-53	The units were constructed before August 31, 1983 and have not been modified or reconstructed since the applicability date
Standards of Performance for Calciners and Dryers in Mineral Industries	40 CFR Part 60, Subpart UUU	SN-25, SN-26 and SN-27	The units were constructed before April 23, 1986 and have not been modified or reconstructed since the applicability date

Section VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement is a significant activity even if this activity meets the criteria of §304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated **8/1/2007.**

Table 45 - Insignificant Activities

Description	Category
Waste Oil Storage Tanks	A-3
Process Water Heater	A-1
Diesel Fuel Storage Tanks	A-13
Waste Oil Storage Tanks	A-3
Gear Oil Storage Tanks	A-3
Dryer Seal Stack	A-13
Dryer Seal Stack	A-13
Vermiculite, Starch, Potash, and Boric Acid Transfer and Processing Systems*	A-13

* Formerly Permit No. 298-AOP-R3 Sources SN-33, SN-34, SN-35, and SN-36

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

Section VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation No. 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.[40 CFR 70.6(b)(2)]

2. 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. [40 CFR 70.6(a)(2) and §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective September 26, 2002]

3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will 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. [Regulation No. 26 §26.406]

4. 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, the permit incorporates both provisions into the permit, and the Director or the Administrator can enforce both provisions. [40 CFR 70.6(a)(1)(ii) and Regulation No. 26 §26.701(A)(2)]

5. The permittee must maintain the following records of monitoring information as required by this permit. [40 CFR 70.6(a)(3)(ii)(A) and Regulation No. 26 §26.701(C)(2)]

   a. The date, place as defined in this permit, and time of sampling or measurements;

   b. The date(s) analyses performed;

   c. The company or entity performing the analyses;

   d. The analytical techniques or methods used;

   e. The results of such analyses; and

f. The operating conditions existing at the time of sampling or measurement.

6. The permittee must retain the records of all required monitoring data and support information for at least five (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. [40 CFR 70.6(a)(3)(ii)(B) and Regulation No. 26 §26.701(C)(2)(b)]

7. The permittee must submit reports of all required monitoring every six (6) months. If permit establishes no other reporting period, the reporting period shall end on the last day of the anniversary month of the initial Title V permit. The report is due within thirty (30) days of the end of the reporting period. Although the reports are due every six months, each report shall contain a full year of data. The report must clearly identify all instances of deviations from permit requirements. A responsible official as defined in Regulation No. 26 §26.2 must certify all required reports. The permittee will send the reports to the address below: [40 C.F.R. 70.6(a)(3)(iii)(A) and §26.701(C)(3)(a) of Regulation #26]

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

8. The permittee will report to the Department all deviations from permit requirements, including those attributable to upset conditions as defined in the permit.

a. For all upset conditions (as defined in Regulation 19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report may be made by telephone and shall include:

i. The facility name and location,

ii. The process unit or emission source deviating from the permit limit,

iii. The permit limit, including the identification of pollutants, from which deviation occurs,

iv. The date and time the deviation started,

v. The duration of the deviation,

vi. The average emissions during the deviation,

vii. The probable cause of such deviations,

viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and

ix. The name of the person submitting the report.

The permittee will make a full report in writing to the Department within five (5) business days of discovery of the occurrence. The report must include, in addition to the information required by the initial report, a schedule of actions taken or planned to eliminate future occurrences and/or to minimize the amount the permit's limits were exceeded and to reduce the length of time the limits were exceeded. The permittee 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 the report will serve as both the initial report and full report.

b. For all deviations, the permittee will report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a. above. The semi-annual report must include all the information as required in the initial and full report required in 8a. [40 CFR 70.6(a)(3)(iii)(B), Regulation No. 26 §26.701(C)(3)(b), Regulation No. 19 §19.601 and §19.602]

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will 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. [40 CFR 70.6(a)(5), §26.701(E) of Regulation No. 26, and A.C.A. §8-4-203, as referenced by §8-4-304 and §8-4-311]

10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation No. 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, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation No. 26 §26.701(F)(1)]

11. 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 to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and Regulation No. 26 §26.701(F)(2)]

12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation No. 26 §26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation No. 26 §26.701(F)(4)]

14. The permittee must 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 must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation No. 26 §26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Regulation No. 9. [40 CFR 70.6(a)(7) and Regulation No. 26 §26.701(G)]

16. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes provided for elsewhere in this permit. [40 CFR 70.6(a)(8) and Regulation No. 26 §26.701(H)]

17. If the permit allows different operating scenarios, the permittee will, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation No. 26 §26.701(I)(1)]

18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation No. 26 §26.702(A) and (B)]

19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation No. 26 §26.2. [40 CFR 70.6(c)(1) and Regulation No. 26 §26.703(A)]

20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation No. 26 §26.703(B)]

    c. 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;

    d. Have access to and copy, at reasonable times, any records required under the conditions of this permit;

e. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and

f. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee will submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually within 30 days following the last day of the anniversary month of the initial Title V permit. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation No. 26 §26.703(E)(3)]

a. The identification of each term or condition of the permit that is the basis of the certification;

b. The compliance status;

c. Whether compliance was continuous or intermittent;

d. The method(s) used for determining the compliance status of the source, currently and over the reporting period established by the monitoring requirements of this permit; and

e. Such other facts as the Department may require elsewhere in this permit or by §114(a)(3) and §504(b) of the Act.

22. Nothing in this permit will alter or affect the following: [Regulation No. 26 §26.704(C)]

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the Administrator under that section;

b. The liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program, consistent with §408(a) of the Act or,

d. The ability of EPA to obtain information from a source pursuant to §114 of the Act.

23. This permit authorizes only those pollutant-emitting activities addressed in this permit. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

APPENDIX A

40 CFR Part 60, Subpart OOO – *Standards of Performance for Nonmetallic Mineral Processing Plants*

Electronic Code of Federal Regulations
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Title 40: Protection of Environment
PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

Source: 51 FR 31337, Aug. 1, 1985, unless otherwise noted.

§ 60.670 Applicability and designation of affected facility.

(a)(1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.

(2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.

(b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.

(c) Facilities at the following plants are not subject to the provisions of this subpart:

(1) Fixed sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 23 megagrams per hour (25 tons per hour) or less;

(2) Portable sand and gravel plants and crushed stone plants with capacities, as defined in §60.671, of 136 megagrams per hour (150 tons per hour) or less; and

(3) Common clay plants and pumice plants with capacities, as defined in §60.671, of 9 megagrams per hour (10 tons per hour) or less.

(d)(1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.

(2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in §60.676(a).

(3) An owner or operator replacing all existing facilities in a production line with new facilities does not

qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.

(e) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

(f) Table 1 of this subpart specifies the provisions of subpart A of this part 60 that apply and those that do not apply to owners and operators of affected facilities subject to this subpart.

Table 1—Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to Subpart OOO	Comment
60.1, Applicability	Yes	
60.2, Definitions	Yes	
60.3, Units and abbreviations	Yes	
60.4, Address:		
(a)	Yes	
(b)	Yes	
60.5, Determination of construction or modification	Yes	
60.6, Review of plans	Yes	
60.7, Notification and recordkeeping	Yes	Except in (a)(2) report of anticipated date of initial startup is not required (§60.676 (h)).
60.8, Performance tests	Yes	Except in (d), after 30 days notice for an initially scheduled performance test, any rescheduled performance test requires 7 days notice, not 30 days (§60.675(g)).
60.9, Availability of information	Yes	
60.10, State authority	Yes	
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675 (c)(3) and (c)(4)), Method 9 observation may be reduced from 3 hours to 1 hour. Some affected facilities exempted from Method 9 tests (§60.675 (h)).
60.12, Circumvention	Yes	
60.13, Monitoring requirements	Yes	
60.14, Modification	Yes	
60.15, Reconstruction	Yes	

60.16, Priority list	Yes	
60.17, Incorporations by reference	Yes	
60.18, General control device	No	Flares will not be used to comply with the emission limits.
60.19, General notification and reporting requirements	Yes	

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.671 Definitions.

All terms used in this subpart, but not specifically defined in this section, shall have the meaning given them in the Act and in subpart A of this part.

Bagging operation means the mechanical process by which bags are filled with nonmetallic minerals.

Belt conveyor means a conveying device that transports material from one location to another by means of an endless belt that is carried on a series of idlers and routed around a pulley at each end.

Bucket elevator means a conveying device of nonmetallic minerals consisting of a head and foot assembly which supports and drives an endless single or double strand chain or belt to which buckets are attached.

Building means any frame structure with a roof.

Capacity means the cumulative rated capacity of all initial crushers that are part of the plant.

Capture system means the equipment (including enclosures, hoods, ducts, fans, dampers, etc.) used to capture and transport particulate matter generated by one or more process operations to a control device.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more process operations at a nonmetallic mineral processing plant.

Conveying system means a device for transporting materials from one piece of equipment or location to another location within a plant. Conveying systems include but are not limited to the following: Feeders, belt conveyors, bucket elevators and pneumatic systems.

Crusher means a machine used to crush any nonmetallic minerals, and includes, but is not limited to, the following types: jaw, gyratory, cone, roll, rod mill, hammermill, and impactor.

Enclosed truck or railcar loading station means that portion of a nonmetallic mineral processing plant where nonmetallic minerals are loaded by an enclosed conveying system into enclosed trucks or railcars.

Fixed plant means any nonmetallic mineral processing plant at which the processing equipment specified in §60.670(a) is attached by a cable, chain, turnbuckle, bolt or other means (except electrical connections) to any anchor, slab, or structure including bedrock.

Fugitive emission means particulate matter that is not collected by a capture system and is released to the atmosphere at the point of generation.

Grinding mill means a machine used for the wet or dry fine crushing of any nonmetallic mineral. Grinding mills include, but are not limited to, the following types: hammer, roller, rod, pebble and ball, and fluid energy. The grinding mill includes the air conveying system, air separator, or air classifier, where such systems are used.

Initial crusher means any crusher into which nonmetallic minerals can be fed without prior crushing in the plant.

Nonmetallic mineral means any of the following minerals or any mixture of which the majority is any of the following minerals:

(a) Crushed and Broken Stone, including Limestone, Dolomite, Granite, Traprock, Sandstone, Quartz, Quartzite, Marl, Marble, Slate, Shale, Oil Shale, and Shell.

(b) Sand and Gravel.

(c) Clay including Kaolin, Fireclay, Bentonite, Fuller's Earth, Ball Clay, and Common Clay.

(d) Rock Salt.

(e) Gypsum.

(f) Sodium Compounds, including Sodium Carbonate, Sodium Chloride, and Sodium Sulfate.

(g) Pumice.

(h) Gilsonite.

(i) Talc and Pyrophyllite.

(j) Boron, including Borax, Kernite, and Colemanite.

(k) Barite.

(l) Fluorospar.

(m) Feldspar.

(n) Diatomite.

(o) Perlite.

(p) Vermiculite.

(q) Mica.

(r) Kyanite, including Andalusite, Sillimanite, Topaz, and Dumortierite.

Nonmetallic mineral processing plant means any combination of equipment that is used to crush or grind any nonmetallic mineral wherever located, including lime plants, power plants, steel mills, asphalt concrete plants, portland cement plants, or any other facility processing nonmetallic minerals except as provided in §60.670 (b) and (c).

Portable plant means any nonmetallic mineral processing plant that is mounted on any chassis or skids and may be moved by the application of a lifting or pulling force. In addition, there shall be no cable, chain, turnbuckle, bolt or other means (except electrical connections) by which any piece of equipment is attached or clamped to any anchor, slab, or structure, including bedrock that must be removed prior to

the application of a lifting or pulling force for the purpose of transporting the unit.

Production line means all affected facilities (crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck and railcar loading stations) which are directly connected or are connected together by a conveying system.

Screening operation means a device for separating material according to size by passing undersize material through one or more mesh surfaces (screens) in series, and retaining oversize material on the mesh surfaces (screens).

Size means the rated capacity in tons per hour of a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station; the total surface area of the top screen of a screening operation; the width of a conveyor belt; and the rated capacity in tons of a storage bin.

Stack emission means the particulate matter that is released to the atmosphere from a capture system.

Storage bin means a facility for storage (including surge bins) or nonmetallic minerals prior to further processing or loading.

Transfer point means a point in a conveying operation where the nonmetallic mineral is transferred to or from a belt conveyor except where the nonmetallic mineral is being transferred to a stockpile.

Truck dumping means the unloading of nonmetallic minerals from movable vehicles designed to transport nonmetallic minerals from one location to another. Movable vehicles include but are not limited to: trucks, front end loaders, skip hoists, and railcars.

Vent means an opening through which there is mechanically induced air flow for the purpose of exhausting from a building air carrying particulate matter emissions from one or more affected facilities.

Wet mining operation means a mining or dredging operation designed and operated to extract any nonmetallic mineral regulated under this subpart from deposits existing at or below the water table, where the nonmetallic mineral is saturated with water.

Wet screening operation means a screening operation at a nonmetallic mineral processing plant which removes unwanted material or which separates marketable fines from the product by a washing process which is designed and operated at all times such that the product is saturated with water.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997]

§ 60.672 Standard for particulate matter.

(a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:

(1) Contain particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf); and

(2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).

(b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d), and (e) of this section.

(c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.

(d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.

(e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.

(2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

(f) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup as required under §60.11 of this part, no owner or operator shall cause to be discharged into the atmosphere from any baghouse that controls emissions from only an individual, enclosed storage bin, stack emissions which exhibit greater than 7 percent opacity.

(g) Owners or operators of multiple storage bins with combined stack emissions shall comply with the emission limits in paragraph (a)(1) and (a)(2) of this section.

(h) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere any visible emissions from:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, where such screening operations, bucket elevators, and belt conveyors process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[51 FR 31337, Aug. 1, 1985, as amended at 62 FR 31359, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

§ 60.673 Reconstruction.

(a) The cost of replacement of ore-contact surfaces on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Ore-contact surfaces are crushing surfaces; screen meshes, bars, and plates; conveyor belts; and elevator buckets.

(b) Under §60.15, the "fixed capital cost of the new components" includes the fixed capital cost of all depreciable components (except components specified in paragraph (a) of this section) which are or will be replaced pursuant to all continuous programs of component replacement commenced within any 2-year period following August 31, 1983.

§ 60.674 Monitoring of operations.

The owner or operator of any affected facility subject to the provisions of this subpart which uses a wet scrubber to control emissions shall install, calibrate, maintain and operate the following monitoring

devices:

(a) A device for the continuous measurement of the pressure loss of the gas stream through the scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±250 pascals ±1 inch water gauge pressure and must be calibrated on an annual basis in accordance with manufacturer's instructions.

(b) A device for the continuous measurement of the scrubbing liquid flow rate to the wet scrubber. The monitoring device must be certified by the manufacturer to be accurate within ±5 percent of design scrubbing liquid flow rate and must be calibrated on an annual basis in accordance with manufacturer's instructions.

§ 60.675 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.672 (a) as follows:

(1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity.

(c)(1) In determining compliance with the particulate matter standards in §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:

(i) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).

(ii) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.

(iii) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.

(2) In determining compliance with the opacity of stack emissions from any baghouse that controls emissions only from an individual enclosed storage bin under §60.672(f) of this subpart, using Method 9, the duration of the Method 9 observations shall be 1 hour (ten 6-minute averages).

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 10 percent opacity; and

(ii) There are no more than 3 readings of 10 percent for the 1-hour period.

(4) When determining compliance with the fugitive emissions standard for any crusher at which a capture system is not used as described under §60.672(c) of this subpart, the duration of the Method 9 observations may be reduced from 3 hours (thirty 6-minute averages) to 1 hour (ten 6-minute averages) only if the following conditions apply:

(i) There are no individual readings greater than 15 percent opacity; and

(ii) There are no more than 3 readings of 15 percent for the 1-hour period.

(d) In determining compliance with §60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.

(e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:

(1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:

(i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.

(ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.

(f) To comply with §60.676(d), the owner or operator shall record the measurements as required in §60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.

(g) If, after 30 days notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting any rescheduled performance test required in this section, the owner or operator of an affected facility shall submit a notice to the Administrator at least 7 days prior to any rescheduled performance test.

(h) Initial Method 9 performance tests under §60.11 of this part and §60.675 of this subpart are not required for:

(1) Wet screening operations and subsequent screening operations, bucket elevators, and belt conveyors that process saturated material in the production line up to, but not including the next crusher, grinding mill or storage bin.

(2) Screening operations, bucket elevators, and belt conveyors in the production line downstream of wet mining operations, that process saturated materials up to the first crusher, grinding mill, or storage bin in the production line.

[54 FR 6680, Feb. 14, 1989, as amended at 62 FR 31360, June 9, 1997]

§ 60.676 Reporting and recordkeeping.

(a) Each owner or operator seeking to comply with §60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.

(1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:

(i) The rated capacity in megagrams or tons per hour of the existing facility being replaced and

(ii) The rated capacity in tons per hour of the replacement equipment.

(2) For a screening operation:

(i) The total surface area of the top screen of the existing screening operation being replaced and

(ii) The total surface area of the top screen of the replacement screening operation.

(3) For a conveyor belt:

(i) The width of the existing belt being replaced and

(ii) The width of the replacement conveyor belt.

(4) For a storage bin:

(i) The rated capacity in megagrams or tons of the existing storage bin being replaced and

(ii) The rated capacity in megagrams or tons of replacement storage bins.

(b) [Reserved]

(c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.

(d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than ±30 percent from the averaged determined during the most recent performance test.

(e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.

(f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672 of this subpart, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672(b), (c), and (f), and reports of observations using Method 22 to demonstrate compliance with §60.672(e).

(g) The owner or operator of any screening operation, bucket elevator, or belt conveyor that processes saturated material and is subject to §60.672(h) and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the 10 percent opacity limit in §60.672(b) and the emission test requirements of §60.11 and this subpart. Likewise a screening operation, bucket elevator, or belt conveyor that processes unsaturated material but subsequently processes saturated material shall submit a report of this change within 30 days following such change. This screening operation, bucket elevator, or belt conveyor is then subject to the no visible emission limit in §60.672(h).

(h) The subpart A requirement under §60.7(a)(2) for notification of the anticipated date of initial startup of an affected facility shall be waived for owners or operators of affected facilities regulated under this subpart.

(i) A notification of the actual date of initial startup of each affected facility shall be submitted to the Administrator.

(1) For a combination of affected facilities in a production line that begin actual initial startup on the same day, a single notification of startup may be submitted by the owner or operator to the Administrator. The notification shall be postmarked within 15 days after such date and shall include a description of each affected facility, equipment manufacturer, and serial number of the equipment, if available.

(2) For portable aggregate processing plants, the notification of the actual date of initial startup shall include both the home office and the current address or location of the portable plant.

(j) The requirements of this section remain in force until and unless the Agency, in delegating

enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected facilities within the State will be relieved of the obligation to comply with the reporting requirements of this section, provided that they comply with requirements established by the State.

[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989; 62 FR 31360, June 9, 1997; 65 FR 61778, Oct. 17, 2000]

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APPENDIX B

40 CFR Part 60, Subpart UUU – *Standards of Performance for Calciners and Dryers in Mineral Industries*

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Title 40: Protection of Environment

PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

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Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries

Source: 57 FR 44503, Sept. 28, 1992, unless otherwise noted.

§ 60.730 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in §60.731, "Mineral processing plant").

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

§ 60.731 Definitions.

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Calciner means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities.

Dryer means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

Installed in series means a calciner and dryer installed such that the exhaust gases from one flow

through the other and then the combined exhaust gases are discharged to the atmosphere.

Mineral processing plant means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (>50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

§ 60.732 Standards for particulate matter.

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test required by §60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

[57 FR 44503, Sept. 28, 1992, as amended at 65 FR 61778, Oct. 17, 2000]

§ 60.733 Reconstruction.

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

§ 60.734 Monitoring of emissions and operations.

(a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.

(b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss

monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

§ 60.735 Recordkeeping and reporting requirements.

(a) Records of the measurements required in §60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with §60.732 shall determine and record once each day, from the recordings of the monitoring devices in §60.734(d), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by §60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in §60.735(b) that is less than 90 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in §60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

§ 60.736 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of §60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §60.735(c).

§ 60.737 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.

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