ADEQ

ARKANSAS
Department of Environmental Quality

September 26, 2014

Jerry Green, Mine Manager
CertainTeed Gypsum Manufacturing, Inc.
794 State Highway 369 North
Nashville, AR 71852

Dear Mr. Green:

The enclosed Permit No. 0598-AOP-R6 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 5/23/2014.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 0598-AOP-R6 for the construction, operation and maintenance of an air pollution control system for CertainTeed Gypsum Manufacturing, Inc. to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, Regulation 8, within thirty (30) days after service of this decision.

The applicant or permittee and any other person submitting public comments on the record may request an adjudicatory hearing and Commission review of the final permitting decisions as provided under Chapter Six of Regulation No. 8, Administrative Procedures, Arkansas Pollution Control and Ecology Commission. Such a request shall be in the form and manner required by Regulation 8.603, including filing a written Request for Hearing with the APC&E Commission Secretary at 101 E. Capitol Ave., Suite 205, Little Rock, Arkansas 72201. If you have any questions about filing the request, please call the Commission at 501-682-7890.

Sincerely,

Mike Bates
Chief, Air Division

ADEQ
OPERATING
AIR PERMIT

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

Permit No. : 0598-AOP-R6

IS ISSUED TO:

CertainTeed Gypsum Manufacturing, Inc.
794 State Highway 369 North
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 22, 2010 AND June 21, 2015

THE PERMITTEE IS SUBJECT TO ALL LIMITS AND CONDITIONS CONTAINED HEREIN.

Signed:

Mike Bates
Chief, Air Division

September 26, 2014
Date

CertainTeed Gypsum Manufacturing, Inc.
Permit #: 0598-AOP-R6
AFIN: 31-00010

Table of Contents

CertainTeed Gypsum Manufacturing, Inc.
Permit #: 0598-AOP-R6
AFIN: 31-00010

List of Acronyms and Abbreviations

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	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

SECTION I: FACILITY INFORMATION

PERMITTEE:	CertainTeed Gypsum Manufacturing, Inc.
AFIN:	31-00010
PERMIT NUMBER:	0598-AOP-R6
FACILITY ADDRESS:	794 State Highway 369 North Nashville, AR 71852
MAILING ADDRESS:	794 State Highway 369 North Nashville, AR 71852
COUNTY:	Howard County
CONTACT NAME:	Jerry Green
CONTACT POSITION:	Mine Manager
TELEPHONE NUMBER:	870-845-1055
REVIEWING ENGINEER:	Alexander Sudibjo
UTM North South (Y):	Zone 15: 3770302.94 m
UTM East West (X):	Zone 15: 417656.19 m

SECTION II: INTRODUCTION

Summary of Permit Activity

CertainTeed Gypsum (AFIN: 31-00010) 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. With this minor modification, the facility is adding a new SFX Production Line as SN-60. The facility's permitted annual emissions are increasing by 4.1 tpy and 16.6 tpy PM/PM_{10} and VOC respectively.

Process Description

CertainTeed mines and processes gypsum rock ($CaSO_4 \cdot 2\ H_2O$) to produce gypsum wallboard. The gypsum is calcined to produce stucco ($CaSO_4 \cdot 1/2\ H_2O$) in the manufacturing process. Stucco is the principal component in gypsum wallboard. Mining is covered by NAICS Code 212399 and all other processes are covered by NAICS Code 327420.

Mining Operations

CertainTeed mines gypsum rock from an open pit quarry located approximately 1.5 miles South-Southwest of the manufacturing facility. Mining is currently limited to 1,860,000 tons of gypsum rock per twelve-month rolling period. The gypsum ore lies in three dominant seams each separated by varying thicknesses of overburden. Activities at the mine include overburden removal, blasting, removal of gypsum and loading haul trucks. Trucks transport the gypsum to the manufacturing plant over an unpaved haul road. The unpaved haul road is regularly treated with water or a dust abatement emulsion to control fugitive PM_{10} emissions. All of these activities are included in SN-37.

Ore Classification and Grinding

At the manufacturing plant, the gypsum rock is dumped in a covered staging area adjacent to the rock processing equipment area. There a front end loader is used to feed the gypsum onto an apron conveyor. The conveyor delivers the rock to a grizzly screen to separate finer material. The oversize gypsum rock goes to the primary crusher (SN-06) then to a series of belt conveyors. The undersize rock from the grizzly is collected on belt conveyor B1 and conveyed to the primary screen (SN-07). Dust emissions are controlled by the Primary Screen Baghouse. The screen rejects fine material (tailings) via belt conveyor B8 to belt conveyor C11. These tailings are conveyed to a storage pile adjacent to the rock processing equipment area. A front-end loader is used to load trucks which then haul the tailings from the storage pile to another storage pile near the crushing area or back to the mine site for disposal.

All of the rock from the primary screen and primary crusher is conveyed to a large storage shed by means of conveyors B2, B3, B6 and C4. From this shed, belt conveyor C5 supplies rock to the secondary crusher (SN-19). The discharge of the secondary crusher is controlled by the

Primary Screen Baghouse previously described. Rock from the secondary crusher is then transported by belt conveyor C6 to the storage bins in the mill. A foam and/or a moisture system is used to reduce the fugitive PM_{10} emissions associated with the crushing and screening of rock in addition to/ in lieu of the baghouse controls.

Raymond Roller Mills and Flash Dryers

The storage bins feed six Raymond Roller Mills (five rated at 20 tons/hr and one rated at 50 tons/hr), and a CP Mill (rated at 80 tons/hr). The Raymond Roller Mills pulverize up to 150 tons/hr of gypsum rock and flash dry the millings to produce landplaster, the raw material used to manufacture stucco. Raymond Roller Mills #1 thru #5 flash dryers (SN-49 thru SN-53) are each equipped with a 3.0 MMBTU/hr natural gas burner. The Raymond Roller Mill #6 flash dryer (SN-38) is equipped with a 5.0 MMBTU/hr natural gas burner. PM_{10} emissions from each of the mills are controlled with a baghouse. Products of natural gas combustion are vented through the baghouses uncontrolled.

Calcining - Kettle Calciners

Landplaster is converted into stucco in continuous kettle calciners. The calciners, using natural gas as a fuel, indirectly heat and calcine (remove chemically-bound water) the landplaster producing stucco. The calciners exhaust their combustion gases through separate combustion stacks (SN-22 to SN-24). The calcined product is conveyed from the calciners into hot pits, where it begins cooling. Particulate emissions from the hot pits and calciners are controlled by baghouses (SN-46 to SN-48). Hot stucco is conveyed pneumatically and by screw conveyor to the Kettle Buell System pit for further cooling and storage.

Calcining - Claudius-Peters Mill and Flash Calciner

The manufacturing process also converts gypsum rock into stucco with the use of a Claudius/Peter (CP) Mill and Flash Calciner (SN-39). The CP mill simultaneously grinds, dries and calcines the gypsum rock into stucco. 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/hr. The equipment is capable of processing up to 80 tons/hr of gypsum rock. 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 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. This stack 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 CP Mill Buell System pit.

Buell Systems and Stucco Storage

The Kettle and CP Buell Systems receive stucco from the kettle calciners and CP Mill and cool it by forced ambient temperature air. The CP mill system pneumatically conveys the stucco to the CP Buell Baghouse (SN-41). The CP Buell baghouse also controls particulate emissions related to stucco conveyance by screw conveyors, a bucket elevator and emissions related to the loading and unloading of the CP Mill and Calcine mill stucco storage bins. The Kettle Buell system is similar to the CP Buell System. Stucco produced in the kettle calciners is pneumatically conveyed to the Kettle Buell Baghouse (SN-4).

From the CP Mill Buell and Kettle Buell baghouses, the stucco is conveyed to high capacity storage bins or directly to the line production storage bins. Both the CP Mill and Calcine Mill stucco high capacity storage bins have a capacity of 431 tons, and a throughput capacity of 80 ton per hour. These bins allow process storage capacity for occasions when stucco is not delivered directly to the line production stucco storage bins. Screw conveyors move the stucco to a bucket elevator, which in turn delivers the stucco to the pneumatic conveyance leading to the line production stucco storage bins (SN-42 and SN-42a). The Line #1 and #2 storage bins each have a capacity of 100 tons and supply the wallboard production lines with stucco.

Wallboard Manufacturing

In order to produce gypsum wallboard, a mixture of stucco, additives and water are combined in a pin mixer to form a slurry. The slurry is deposited between two continuous sheets of paper that pass through forming equipment to square the edges and then to a forming conveyor belt. As it travels along the conveyor, the slurry sets, and the wallboard is cut into 24 foot lengths by a rotating knife. The sheets of wallboard are then completely dried in a kiln. The wallboard exiting the kiln is sawed into shorter lengths, the edges are sawed to obtain a uniform width, and individual sheets of wallboard are bundled together and taped prior to storage or shipping. Details of the process are described in the following sections.

Wallboard Manufacturing - Solid and Liquid Additives

Stucco from the 100 ton production line feed bins is fed to mixing screws of either production line #1 or #2 for the addition of starch, vermiculite, fiberglass, accelerator, potash, and boric acid. Starch, vermiculite, potash and boric acid are received in bulk tank trucks which unload into storage bins. These bins are located outside and transfer the material to smaller storage bins inside the manufacturing building. PM_{10} emissions associated with the loading of each storage bin are controlled by small baghouses on each bin.

Liquid foam, dispersant, retardant, silicone and water are added to the stucco in a pin mixer to produce a slurry. There is a small amount of VOC associated with the foamer.

Wallboard Manufacturing - Wallboard Forming

Slurry from the pin mixer is injected between two unwinding sheets of wallboard paper on a forming table equipped with a vibrating roller. The edges of the bottom sheet 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 mold for the slurry. The mold 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 individual sheets by a rotating knife as it arrives at the end of the conveyor belt system. An inverter flips the wallboard sheets prior to entering the tunnel dryer. CertainTeed is also capable of producing a mold and mildew resistant wallboard product that uses a woven fiberglass mat instead of paper.

Wallboard Manufacturing - Tunnel Dryers

The tunnel dryers (SN-44 and SN-45), one for each production line, drive off excess water. Both dryers are equipped with three (3) natural gas fired burners with a total capacity of 188 MMBTU/hr. 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. Each dryer has a small exhaust stack at the dryer entrance to prevent ambient air from entering the dryer. An insignificant amount of combustion by-products from the first drying zone exhausts from these seals.

Baghouses - Take-Off and End-Trim

Wallboard exiting the tunnel dryers is transferred to the Take-Off and End Trim saws. These machines cut the wallboard sections to precise lengths and widths. The particulate matter that results from these operations is controlled by the two End Trim Baghouses (SN-18 and SN-32). The baghouses transfer the collected dust to a pneumatic conveyor, which leads to the Recycle Baghouse (SN-43). The End Trim baghouse for production line #2 also controls dust associated with a slueter machine. The slueter machine is used to cut mostly off-specification wallboard into thin strips. These strips are glued together to produce slueters which are used as spacers for stacks of wallboard product.

Baghouses - Recycle Baghouse

The Recycle Baghouse (SN-43) collects the material pneumatically conveyed from SN-18 and SN-32 and deposits it on the fine tailings conveyor (C11) in the crushing and screening plant.

Haul Road

Vehicle traffic around the manufacturing plant occurs on paved roads to control fugitive dust. These emissions are included with SN-37.

SFX Production Line

Pre-manufactured gypsum wallboard is loaded into the board feeding equipment one sheet at a time. The thin layer of paper is then sanded away from one side of the board. Dust produced by the sanding equipment is controlled by a baghouse. Adhesive is then applied to the sanded surface and two boards are combined to produce one SFX board. The edges and ends of the board are then taped to produce the final product.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective June 18, 2010
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective July 27, 2013
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective November 18, 2012
40 CFR Part 60, Subpart OOO - *Standards of Performance for Nonmetallic Mineral Processing Plants*
40 CFR Part 60, Subpart UUU - *Standard of Performance for Calciners and Dryers in Mineral Industries*

Emission Summary

The following table is a summary of emissions from the facility. This table, in itself, is not an enforceable condition of the permit.

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	101.7	173.5
		PM_{10}	64.5	122.4
		SO_2	1.2	2.1
		VOC	23.4	80.9
		CO	45.1	194.8
		NO_X	53.3	232.8
		Lead	1.33E-03	5.78E-03
HAPs		Acrolein	5.26E-03	0.02
		Arsenic	8.96E-04	4.01E-03
		Cadmium	6.63E-04	2.89E-03
		Formaldehyde	0.18	0.79
		PAH	0.07	0.30

CertainTeed Gypsum Manufacturing, Inc.
Permit #: 0598-AOP-R6
AFIN: 31-00010

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
04	Kettle Buell Baghouse	PM	2.1	8.9
		PM_{10}	2.1	8.9
06	Primary Crusher	PM	1.3	1.3
		PM_{10}	0.5	0.5
07	Primary Screen	PM	0.9	0.8
		PM_{10}	0.4	0.3
08	Gasoline Storage Tank	VOC	4.4	1.3
18	End Trim Line #1	PM	0.2	0.7
		PM_{10}	0.2	0.7
19	Secondary Crusher	PM	0.7	3.6
		PM_{10}	0.3	1.4
22	Kettle Combustion Stack #1 (27.0 MMBtu/hr)	PM	0.3	1.0
		PM_{10}	0.3	1.0
		SO_2	0.1	0.1
		VOC	0.2	0.6
		CO	2.3	9.7
		NO_X	2.7	11.6
		Lead	6.68E-05	2.93E-04
		Acrolein	2.66E-04	1.16E-03
		Arsenic	4.54E-05	1.99E-04
		Cadmium	3.33E-05	1.46E-04
		Formaldehyde	9.08E-03	3.97E-02
		PAH	3.47E-03	1.52E-02
23	Kettle Combustion Stack #2 (27.0 MMBtu/hr)	PM	0.3	1.0
		PM_{10}	0.3	1.0
		SO_2	0.1	0.1
		VOC	0.2	0.6
		CO	2.3	9.7
		NO_X	2.7	11.6
		Lead	6.68E-05	2.93E-04
		Acrolein	2.66E-04	1.16E-03
		Arsenic	4.54E-05	1.99E-04
		Cadmium	3.33E-05	1.46E-04
		Formaldehyde	9.08E-03	3.97E-02
		PAH	3.47E-03	1.52E-02

CertainTeed Gypsum Manufacturing, Inc.
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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
24	Kettle Combustion Stack #3 (27.0 MMBtu/hr)	PM	0.3	1.0
		PM_{10}	0.3	1.0
		SO_2	0.1	0.1
		VOC	0.2	0.6
		CO	2.3	9.7
		NO_X	2.7	11.6
		Lead	6.68E-05	2.93E-04
		Acrolein	2.66E-04	1.16E-03
		Arsenic	4.54E-05	1.99E-04
		Cadmium	3.33E-05	1.46E-04
		Formaldehyde	9.08E-03	3.97E-02
		PAH	3.47E-03	1.52E-02
32	End Trim Line #2	PM	0.2	0.7
		PM_{10}	0.2	0.7
37A	Mining Operation	PM	33.8	35.9
		PM_{10}	21.8	25.1
37B	Unpaved Haul Roads	PM	39.2	61.2
		PM_{10}	21.3	33.2
37C	Paved Haul Roads	PM	12.9	20.1
		PM_{10}	7.3	11.3
38	Raymond Mill #6 (5 MMBtu/hr)	PM	0.1	0.3
		PM_{10}	0.1	0.3
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.5	1.8
		NO_X	0.5	2.2
		Lead	1.22E-05	5.32E-05
		Acrolein	4.84E-05	2.12E-04
		Arsenic	8.25E-06	3.61E-05
		Cadmium	6.05E-06	2.65E-05
		Formaldehyde	1.65E-03	7.23E-03
		PAH	6.30E-04	2.76E-03
39	CP Mill and Flash Calciner (65 MMBtu/hr)	PM	1.9	8.4
		PM_{10}	1.9	8.4
		SO_2	0.1	0.2
		VOC	0.4	1.5
		CO	5.4	23.4
		NO_X	6.4	27.9
		Lead	6.29E-04	2.75E-03
		Acrolein	1.07E-04	4.70E-04
		Arsenic	7.87E-05	3.44E-04
		Cadmium	2.15E-02	9.40E-02
		Formaldehyde	1.58E-04	6.92E-04
		PAH	8.19E-03	3.59E-02

CertainTeed Gypsum Manufacturing, Inc.
Permit #: 0598-AOP-R6
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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
41	CP Mill Buell System	PM	1.9	8.0
		PM_{10}	1.9	8.0
42	Stucco Bin Line #1	PM	0.2	0.6
		PM_{10}	0.2	0.6
42A	Stucco Bin Line #2	PM	0.2	0.6
		PM_{10}	0.2	0.6
43	Recycle Baghouse	PM	0.1	0.1
		PM_{10}	0.1	0.1
44	Tunnel Dryer #1 (188 MMBtu/hr)	PM	1.5	6.6
		PM_{10}	1.5	6.6
		SO_2	0.1	0.5
		VOC	6.8	29.5
		CO	15.4	67.5
		NO_X	18.4	80.7
		Lead	4.60E-04	2.00E-03
		Acrolein	1.82E-03	8.00E-03
		Arsenic	3.10E-04	1.40E-03
		Cadmium	2.30E-04	1.00E-03
		Formaldehyde	6.20E-02	2.72E-01
		PAH	2.37E-02	1.04E-01
45	Tunnel Dryer #2 (188 MMBtu/hr)	PM	1.5	6.6
		PM_{10}	1.5	6.6
		SO_2	0.1	0.5
		VOC	6.8	29.5
		CO	15.4	67.5
		NO_X	18.4	80.7
		Lead	4.60E-04	2.00E-03
		Acrolein	1.82E-03	8.00E-03
		Arsenic	3.10E-04	1.40E-03
		Cadmium	2.30E-04	1.00E-03
		Formaldehyde	6.20E-02	2.72E-01
		PAH	2.37E-02	1.04E-01
46	Calciner Baghouse #1	PM	0.2	0.5
		PM_{10}	0.2	0.5
47	Calciner Baghouse #2	PM	0.2	0.5
		PM_{10}	0.2	0.5
48	Calciner Baghouse #3	PM	0.2	0.5
		PM_{10}	0.2	0.5

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
49	Raymond Mill #2 (3 MMBtu/hr)	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_X	0.3	1.3
		Lead	7.29E-06	3.19E-05
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03
50	Raymond Mill #1 (3 MMBtu/hr)	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_X	0.3	1.3
		Lead	7.29E-06	3.19E-05
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03
51	Raymond Mill #3 (3 MMBtu/hr)	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_X	0.3	1.3
		Lead	7.29E-06	3.19E-05
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
52	Raymond Mill #4 (3 MMBtu/hr)	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_X	0.3	1.3
		Lead	7.29E-06	3.19E-05
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03
53	Raymond Mill #5 (3 MMBtu/hr)	PM	0.1	0.1
		PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_X	0.3	1.3
		Lead	7.29E-06	3.19E-05
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03
60	SFX Production Line	PM	1.0	4.1
		PM_{10}	1.0	4.1
		VOC	3.8	16.6

*HAPs included in the PM/PM_{10} or VOC totals. Other HAPs are not included in any other totals unless specifically stated.

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).

Permit #0598-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.

Permit #0598-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.

Permit #0598-AR-3 was issued on February 19, 1993. This permit modification addressed the permitting of two additional previously non-permitted sources.

Permit #0598-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.

Permit #0598-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 NO_X 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.

Permit #0598-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.

Permit #0598-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.

Permit #0598-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.

Permit #0598-AOP-R4 was issued January 19, 2006. The permit modification replaced the Primary Crusher (SN-06), Primary Screen (SN-07), Secondary Crusher and its baghouse (SN-19), and associated conveyer belts and chutes; installed a Secondary Screen (SN-21) and ten (10) baghouses at various transfer points; and moved 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 annual permitted emissions were 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.

Permit #0598-AOP-R5 was issued on June 22, 2010. This was the second Title V Renewal for the facility. In this renewal, the permit was modified to revise emission calculations and estimates for the primary and secondary screening operations (SN-06, SN-07, and SN-19), revise the process description for the end trim lines (SN-18 and SN-32) and the recycle baghouse (SN-43), increase the emission limits for the CP Buell Baghouse (SN-41), and remove sources that were either never installed or are no longer in use. Overall, permitted PM and CO increased by 16.0 tpy and 22.6 tpy, respectively, while PM_{10}, SO_2, VOC, and NO_X decreased by 7.3 tpy, 0.1 tpy, 97.8 tpy, and 23.3 tpy, respectively.

SECTION IV: SPECIFIC CONDITIONS

SN-06 and SN-07
Primary Crusher and Primary Screen

Description

Primary Crusher (3-05-015-05)

At the manufacturing plant, the gypsum rock is dumped in a covered staging area adjacent to the rock processing equipment area. There a front end loader is used to feed the gypsum onto an apron conveyor. The conveyor delivers the rock to a grizzly screen to separate finer material. The oversize gypsum rock goes to the primary crusher (SN-06) then to a series of belt conveyors. The undersize rock from the grizzly is collected on belt conveyor B1 and conveyed to the primary screen (SN-07). Dust emissions are controlled by the Primary Screen Baghouse. The screen rejects fine material (tailings) via belt conveyor B8 to belt conveyor C11. These tailings are conveyed to a storage pile adjacent to the rock processing equipment area. A front-end loader is used to load trucks which then haul the tailings from the storage pile to another storage pile near the crushing area or back to the mine site for disposal.

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 #5. [Regulation 19, §19.501 *et seq.*, and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
06	Primary Crusher	PM_{10}	0.5	0.5
07	Primary Screen	PM_{10}	0.4	0.3

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 #5. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
06	Primary Crusher	PM	1.3	1.3
07	Primary Screen	PM	0.9	0.8

3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance with this condition shall be demonstrated through compliance with Specific Condition #4.

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

4. 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 Part 52, Subpart E]

   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.

5. 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]

6. The permittee will maintain records that demonstrate compliance with the limit set in Specific Condition #5. 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]

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. [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
Secondary Crusher

Description

All of the rock from the primary screen and primary crusher is conveyed to a large storage shed by means of conveyors B2, B3, B6 and C4. From this shed, belt conveyor C5 supplies rock to the secondary crusher (SN-19). The discharge of the secondary crusher is controlled by the Primary Screen Baghouse previously described. Rock from the secondary crusher is then transported by belt conveyor C6 to the storage bins in the mill. A foam and/or a moisture system is used to reduce the fugitive PM_{10} emissions associated with the crushing and screening of rock in addition to/ in lieu of the baghouse controls.

The secondary crusher (SN-19) is subject to 40 CFR §60 Subpart OOO. The initial compliance testing was in December 1999.

Specific Conditions

9. 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, and the ton per year pollutant emission rates are limited by Specific Condition #13. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
19	Secondary Crusher	PM_{10}	0.3	1.4

10. 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, and the ton per year pollutant emission rates are limited by Specific Condition #13. [Regulation 18, §18.801 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
19	Secondary Crusher	PM	0.7	3.6

11. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9.

SN	Limit	Regulatory Citation
19	15%	40 CFR §60.672 (b)

12. The permittee will conduct weekly observations of the opacity at SN-19 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 Part 52, Subpart E]

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.

13. 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]

14. The permittee will maintain records that demonstrate compliance with the limit in Specific Condition #13. 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]

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. Raymond Roller Mill #6 (SN-38) is subject to the requirements contained in 40 CFR Part 60, Subpart OOO. These sources are also subject to 40 CFR Part 64, *Compliance Assurance Monitoring* because they are equipped with a control device and potential emissions prior to the control device would exceed 100 tpy.

Specific Conditions

15. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition #13 and combusting only natural gas. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
38	Raymond Mill #6 5 MMBtu/hr with baghouse	PM_{10}	0.1	0.3
		SO_2	0.1	0.1
		VOC	0.1	0.2
		CO	0.5	1.8
		NO_x	0.5	2.2
		Lead	1.22E-05	5.32E-05
49	Raymond Mill #2 3 MMBtu/hr with baghouse	PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_x	0.3	1.3
		Lead	7.29E-06	3.19E-05
50	Raymond Mill #1 3 MMBtu/hr with baghouse	PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_x	0.3	1.3
		Lead	7.29E-06	3.19E-05

SN	Description	Pollutant	lb/hr	tpy
51	Raymond Mill #3 3 MMBtu/hr with baghouse	PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_x	0.3	1.3
		Lead	7.29E-06	3.19E-05
52	Raymond Mill #4 3 MMBtu/hr with baghouse	PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_x	0.3	1.3
		Lead	7.29E-06	3.19E-05
53	Raymond Mill #5 3 MMBtu/hr with baghouse	PM_{10}	0.1	0.1
		SO_2	0.1	0.1
		VOC	0.1	0.1
		CO	0.3	1.1
		NO_x	0.3	1.3
		Lead	7.29E-06	3.19E-05

16. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition through compliance with Specific Condition #13 and combusting only natural gas. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
38	Raymond Mill #6 5 MMBtu/hr with baghouse	PM	0.1	0.3
		Acrolein	4.84E-05	2.12E-04
		Arsenic	8.25E-06	3.61E-05
		Cadmium	6.05E-06	2.65E-05
		Formaldehyde	1.65E-03	7.23E-03
		PAH	6.30E-04	2.76E-03
49	Raymond Mill #2 3 MMBtu/hr with baghouse	PM	0.1	0.1
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03
50	Raymond Mill #1 3 MMBtu/hr with baghouse	PM	0.1	0.1
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03

SN	Description	Pollutant	lb/hr	tpy
51	Raymond Mill #3 3 MMBtu/hr with baghouse	PM	0.1	0.1
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03
52	Raymond Mill #4 3 MMBtu/hr with baghouse	PM	0.1	0.1
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03
53	Raymond Mill #5 3 MMBtu/hr with baghouse	PM	0.1	0.1
		Acrolein	2.90E-05	1.27E-04
		Arsenic	4.95E-06	2.17E-05
		Cadmium	3.63E-06	1.59E-05
		Formaldehyde	9.90E-04	4.34E-03
		PAH	3.78E-04	1.66E-03

17. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance with this condition shall be demonstrated through compliance with Specific Condition #18.

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

18. The permittee will conduct weekly observations of the opacity at SN-38, SN-49, SN-50, SN-51, and SN-52 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, 40 CFR Part 52, Subpart E, and 40 CFR Part 64]

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

19. 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. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

20. 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)]

21. 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-24) stacks into the atmosphere. 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

22. 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 #13. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
22	Kettle Combustion Stack #1 (27.0 MMBtu/hr)	PM_{10}	0.3	1.0
		SO_2	0.1	0.1
		VOC	0.2	0.6
		CO	2.3	9.7
		NO_x	2.7	11.6
		Lead	6.68E-05	2.93E-04
23	Kettle Combustion Stack #2 (27.0 MMBtu/hr)	PM_{10}	0.3	1.0
		SO_2	0.1	0.1
		VOC	0.2	0.6
		CO	2.3	9.7
		NO_x	2.7	11.6
		Lead	6.68E-05	2.93E-04
24	Kettle Combustion Stack #3 (27.0 MMBtu/hr)	PM_{10}	0.3	1.0
		SO_2	0.1	0.1
		VOC	0.2	0.6
		CO	2.3	9.7
		NO_x	2.7	11.6
		Lead	6.68E-05	2.93E-04

SN	Description	Pollutant	lb/hr	tpy
46	Calciner Baghouse #1	PM_{10}	0.2	0.5
47	Calciner Baghouse #2	PM_{10}	0.2	0.5
48	Calciner Baghouse #3	PM_{10}	0.2	0.5

23. 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 #13. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
22	Kettle Combustion Stack #1	PM	0.3	1.0
		Acrolein	2.66E-04	1.16E-03
		Arsenic	4.54E-05	1.99E-04
		Cadmium	3.33E-05	1.46E-04
		Formaldehyde	9.08E-03	3.97E-02
		PAH	3.47E-03	1.52E-02
23	Kettle Combustion Stack #2	PM	0.3	1.0
		Acrolein	2.66E-04	1.16E-03
		Arsenic	4.54E-05	1.99E-04
		Cadmium	3.33E-05	1.46E-04
		Formaldehyde	9.08E-03	3.97E-02
		PAH	3.47E-03	1.52E-02
24	Kettle Combustion Stack #3	PM	0.3	1.0
		Acrolein	2.66E-04	1.16E-03
		Arsenic	4.54E-05	1.99E-04
		Cadmium	3.33E-05	1.46E-04
		Formaldehyde	9.08E-03	3.97E-02
		PAH	3.47E-03	1.52E-02
46	Calciner Baghouse #1	PM	0.2	0.5
47	Calciner Baghouse #2	PM	0.2	0.5
48	Calciner Baghouse #3	PM	0.2	0.5

24. 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 #25.

SN	Limit	Regulatory Citation
23, 24, 25	5%	Regulation No. 18 §18.501
46, 47, 48	10%	40 CFR §60.732 (b)

25. The permittee will conduct weekly observations of the opacity at 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 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 Part 52, Subpart E]

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

26. The Calciner Baghouses #1-#3 (SN-46, SN-47, and SN-48) are subject to all applicable requirements of 40 CFR Part 60, Subpart UUU – *Standards of Performance for Calciners and Dryers in Mineral Industries*. 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]

27. The permittee will not discharge particulate matter in excess of 0.092 gram per dry standard cubic meter (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)]

28. 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-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/hr.

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

29. 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 #13 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 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
39	CP Mill and Flash Calciner With Baghouse (65 MMBtu/hr)	PM_{10}	1.9	8.4
		SO_2	0.1	0.2
		VOC	0.4	1.5
		CO	5.4	23.4
		NO_x	6.4	27.9
		Lead	1.58E-04	6.92E-04

30. 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 #13 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 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
39	CP Mill and Flash Calciner With Baghouse (65 MMBtu/hr)	PM	1.9	8.4
		Acrolein	6.29E-04	2.75E-03
		Arsenic	1.07E-04	4.70E-04
		Cadmium	7.87E-05	3.44E-04
		Formaldehyde	2.15E-02	9.40E-02
		PAH	8.19E-03	3.59E-02

31. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance with this condition shall be demonstrated through compliance with Specific Condition #32.

SN	Limit	Regulatory Citation
39	10%	40 CFR §60.732(b)

32. 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. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR Part 52, Subpart E]

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

33. The Claudius/Peter Mill & Flash Calciner Baghouses are subject to all applicable requirements of 40 CFR Part 60, Subpart UUU – *Standards of Performance for Calciners*

and Dryers in Mineral Industries. The initial compliance tests were in May 1999. [Regulation No. 19 §19.304 and 40 CFR Subpart UUU]

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

35. The permittee will not discharge exhausts with opacity of greater than 10% from SN-39. 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
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 existing Kettle Buell Baghouse (SN-04) is not subject to 40 CFR Part 60, Subpart OOO due to the installation and modification dates of the unit.

Specific Conditions

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 ton per year pollutant emission rates for particulates are limited by Specific Condition #13. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04	Kettle Buell Baghouse	PM_{10}	2.1	8.9

37. 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 #13. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
04	Kettle Buell Baghouse	PM	2.1	8.9

38. Visible emissions may not exceed the limits specified in the following table of this permit 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]

SN	Limit	Regulatory Citation
04	5%	Regulation No. 18 §18.501

SN-41, SN-42, and SN-42b
CP Mill Buell System and Stucco Lines #1 and #2

Description

CP Mill Buell System 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.

Stucco Bin Line #1 and #2, 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

39. 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 #13. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
41	CP Mill Buell System with Baghouse	PM_{10}	1.9	8.0
42	Stucco Bin Line #1 with Baghouse	PM_{10}	0.2	0.6
42a	Stucco Bin Line #2 with Baghouse	PM_{10}	0.2	0.6

40. The permittee shall not exceed the emission rates set forth in the following table. The ton per year pollutant emission rates for particulates are limited by Specific Condition #13. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
41	CP Mill Buell System with Baghouse	PM	1.9	8.0
42	Stucco Bin Line #1 with Baghouse	PM	0.2	0.6
42a	Stucco Bin Line #2 with Baghouse	PM	0.2	0.6

41. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. Compliance with this condition shall be demonstrated through compliance with Specific Condition #18.

SN	Limit	Regulatory Citation
41, 42, 42a	7%	40 CFR §60.732(b)

42. 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. [Regulation No. 19 §19.705, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR Part 52, Subpart E]

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

43. 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. [Regulation No. 19 §19.304 and 40 CFR §60 Subpart OOO]

44. The permittee will not emit particulate matter in excess of 0.05 grams per dry standard cubic meter (0.022 grains per dry standard cubic foot) 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)]

45. 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 natural gas fired burners with a total of 188 MMBtu/hr each dryer. Each dryer has three zones. Zones #1 and #2 are 78 MMBtu/hr, and Zone #3 is 32 MMBtu/hr. 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

46. 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 annual emission rates are limited by Plant Wide Condition #7 and combustion of natural gas. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
44	Tunnel Dryer #1 188 MMBtu/hr	PM_{10}	1.5	6.6
		SO_2	0.1	0.5
		VOC	6.8	29.5
		CO	15.4	67.5
		NO_x	18.4	80.7
		Lead	4.60E-04	2.00E-03
45	Tunnel Dryer #2 188 MMBtu/hr	PM_{10}	1.5	6.6
		SO_2	0.1	0.5
		VOC	6.8	29.5
		CO	15.4	67.5
		NO_x	18.4	80.7
		Lead	4.60E-04	2.00E-03

47. 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 annual emission rates are limited by Plant Wide Condition #7 and combustion of natural gas.. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
44	Tunnel Dryer #1 188 MMBtu/hr	PM	1.5	6.6
		Acrolein	1.82E-03	8.00E-03
		Arsenic	3.10E-04	1.40E-03
		Cadmium	2.30E-04	1.00E-03
		Formaldehyde	6.20E-02	2.72E-01
		PAH	2.37E-02	1.04E-01
45	Tunnel Dryer #2 188 MMBtu/hr	PM	1.5	6.6
		Acrolein	1.82E-03	8.00E-03
		Arsenic	3.10E-04	1.40E-03
		Cadmium	2.30E-04	1.00E-03
		Formaldehyde	6.20E-02	2.72E-01
		PAH	2.37E-02	1.04E-01

48. Visible emissions may not exceed the limits specified in the following table of this permit 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]

SN	Limit	Regulatory Citation
44, 45	5%	Regulation No. 18 §18.501

SN-18 and SN-32
Take-off/End Trim Lines #1 and #2

Description

Wallboard exiting the tunnel dryers is transferred to the Take-Off and End Trim saws. These machines cut the wallboard sections to precise lengths and widths. The particulate matter that results from these operations is controlled by the two End Trim Baghouses (SN-18 and SN-32). The baghouses transfer the collected dust to a pneumatic conveyor, which leads to the Recycle Baghouse (SN-43). The End Trim baghouse for production line #2 also controls dust associated with a slueter machine. The slueter machine is used to cut mostly off-specification wallboard into thin strips. These strips are glued together to produce slueters which are used as spacers for stacks of wallboard product.

Specific Conditions

49. 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 annual emission rates are limited by Plant Wide Condition #7. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
18	End Trim Line #1 baghouse	PM_{10}	0.2	0.7
32	End Trim Line #2 baghouse	PM_{10}	0.2	0.7

50. 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 annual emission rates are limited by Plant Wide Condition #7. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
18	End Trim Line #1 baghouse	PM	0.2	0.7
32	End Trim Line #2 baghouse	PM	0.2	0.7

51. Visible emissions may not exceed the limits specified in the following table of this permit 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]

SN	Limit	Regulatory Citation
18, 32	5%	Regulation No. 18 §18.501

SN-43
Recycle Baghouse

Description

The Recycle Baghouse (SN-43) collects the material pneumatically conveyed from SN-18 and SN-32 and deposits it on the fine tailings conveyor (C11) in the crushing and screening plant.

Specific Conditions

52. The permittee shall not exceed the 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 is limited by Specific Condition #55. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
43	Recycle Baghouse	PM_{10}	0.1	0.1

53. The permittee shall not exceed the 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 is limited by Specific Condition #55. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
43	Recycle Baghouse	PM	0.1	0.1

54. Visible emissions may not exceed the limits specified in the following table of this permit 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]

SN	Limit	Regulatory Citation
43	5%	Regulation No. 18 §18.501

55. 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]

56. 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]

SN-08
Gasoline Storage Tank

Description

There are 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 insignificant activities.

Specific Conditions

57. 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 is limited by Specific Condition #59. [Regulation 19, §19.501 *et seq.* and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
08	Gasoline Storage Tank 7,600 gallon	VOC	4.4	1.3

58. The permittee shall store only gasoline fuel or other motor fuels with a vapor pressure equal to or less than that of gasoline (RVP 12). [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]

59. 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 40 CFR 70.6]

60. The permittee shall maintain records which demonstrate compliance with the limit set in Specific Condition #59 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-37A, SN-37B, SN-37C
Mining Operation, Unpaved Haul Roads, Paved Haul Roads

Source Description

Gypsum rock is mined from an open pit quarry located approximately 1.5 miles South-Southwest of the manufacturing facility. Mining is currently limited to 1,860,000 tons of gypsum rock per twelve-month rolling period. The gypsum ore lies in three dominant seams each separated by varying thicknesses of overburden. Activities at the mine include overburden removal, blasting, removal of gypsum and loading haul trucks. Trucks transport the gypsum to the manufacturing plant over an unpaved haul road. The unpaved haul road is regularly treated with water or a dust abatement emulsion to control fugitive PM_{10} emissions. Some of the roads have been paved to control road emissions.

Specific Conditions

61. The permittee shall not exceed the emission rates set forth in the following table. Compliance with the emission limits for SN-37A shall be demonstrated through compliance with Specific Condition #63. Compliance with the emission limits for SN-37B and SN-37C shall be demonstrated through compliance with Specific Condition #64. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
37A	Mining Operation	PM_{10}	21.8	25.1
37B	Unpaved Haul Roads	PM_{10}	21.3	33.2
37C	Paved Haul Roads	PM_{10}	7.3	11.3

62. The permittee shall not exceed the emission rates set forth in the following table. Compliance with the emission limits for SN-37A shall be demonstrated through compliance with Specific Condition #63. Compliance with the emission limits for SN-37B and SN-37C shall be demonstrated through compliance with Specific Condition #64.. [Regulation 18, §18.801, and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
37A	Mining Operation	PM	33.8	35.9
37B	Unpaved Haul Roads	PM	39.2	61.2
37C	Paved Haul Roads	PM	12.9	20.1

63. The permittee shall not blast more than 10,000 square feet of per blast and shall not exceed more than two blasts per day. Compliance with this condition shall be demonstrated through compliance with Plantwide Condition #7. Any increase in the Plantwide Condition #7 shall require the permittee to recalculate emission limits.

[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]

64. The permittee shall not exceed 57,200 vehicle miles traveled (VMT) per consecutive twelve (12) month period for the paved roads at the facility. The permittee shall not exceed 43,680 VMT traveled per consecutive twelve (12) month period for the unpaved roads at the facility. Compliance with this condition shall be demonstrated through compliance with Plantwide Condition #7. Any increase in the Plantwide Condition #7 shall require the permittee to recalculate emission limits and VMT limits. [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]

65. The permittee shall not operate in a manner such that emissions from the roads would cause a nuisance off-site or allow visible emissions from extending beyond the property boundary. Under normal conditions, off-site opacity less than or equal to 5% shall not be considered a nuisance provided that there are no complaints received by the Department regarding dust from the facility. [§18.501 and A.C.A. §8 4-203 as referenced by §8-4-304 and §8-4-311]

66. The permittee will apply water to unpaved haul roads and mechanically sweep paved haul roads once monthly or 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]

67. The permittee shall maintain a monthly log of the application of water and sweeping of the haul roads to demonstrate compliance with Specific Condition #66. 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]

68. Dust suppression activities should be conducted in a manner and at a rate of application that will not cause runoff from the area being applied. Best Management Practices (40 CFR §122.44(k)) should be used around streams and waterbodies to prevent the dust suppression agent from entering Waters of the State. Except for potable water, no agent shall be applied within 100 feet of wetlands, lakes, ponds, springs, streams, or sinkholes. Failure to meet this condition may require the permittee to obtain a National Pollutant Discharge Elimination System (NPDES) permit in accordance with 40 CFR §122.1(b). [A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

SN-60
SFX Production Line

Source Description

Pre-manufactured gypsum wallboard is loaded into the board feeding equipment one sheet at a time. The thin layer of paper is then sanded away from one side of the board. Dust produced by the sanding equipment is controlled by a baghouse. Adhesive is then applied to the sanded surface and two boards are combined to produce one SFX board. The edges and ends of the board are then taped to produce the final product.

Specific Conditions

69. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by compliance with Specific Condition #71. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
60	SFX Production Line	PM_{10} VOC	1.0 3.8	4.1 16.6

70. The permittee shall not exceed the emission rates set forth in the following table. [Regulation 18 §18.801 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
60	SFX Production Line	PM	1.0	4.1

71. Visible emissions may not exceed the limits specified in the following table of this permit 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]

SN	Limit	Regulatory Citation
60	5%	Regulation No. 18 §18.501

72. Weekly observations of the opacity from SN-60 shall be conducted by a person trained but not necessarily certified in EPA Reference Method 9. If visible emissions in excess of the permitted levels are detected, the permittee shall immediately take action to identify the cause of the visible emissions in excess of the permit limit, implement corrective action, and document that visible emissions did not appear to be in excess of the permitted opacity following the corrective action. The permittee shall maintain records which contain the following items in order to demonstrate compliance with this

specific condition. These records shall be updated weekly, kept on site, and made available to Department personnel upon request. [Regulation No. 18 §18.501 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 visible emissions which appeared to be above the permitted limit were detected.
c. If visible emissions which appeared to be above the permitted limit were detected, the cause of the exceedance of the opacity limit, the corrective action taken, and if the visible emissions appeared to be below the permitted limit after the corrective action was taken.
d. The name of the person conducting the opacity observations.

73. The permittee shall maintain MSDS documents for all materials emitting VOCs. The permittee shall calculate the monthly VOC emissions by multiplying the monthly usage of each coating by the VOC content. The 12-month rolling VOC total shall not exceed 16.6 tpy. Records shall be updated by the fifteenth day of the month following the month to which the records pertain. Each individual month's VOC emissions as well as a 12-month rolling total of VOC emissions shall be maintained on-site and shall be made available to Department personnel upon request. [§18.1004 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

CertainTeed Gypsum Manufacturing, 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: PLANTWIDE CONDITIONS

1. The permittee shall 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 19, §19.704, 40 CFR Part 52, Subpart E, and A.C.A. §8-4-203 as referenced by A.C.A. §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 19, §19.410(B) and 40 CFR Part 52, Subpart E]

3. The permittee must test any equipment scheduled for testing, unless otherwise 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 shall submit the compliance test results to the Department within thirty (30) days after completing the testing. [Regulation 19, §19.702 and/or Regulation 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:

   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.

   [Regulation 19, §19.702 and/or Regulation 18, §18.1002 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee shall maintain the equipment in good condition at all times. [Regulation 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 26 and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

7. The permittee shall not exceed a maximum of 1,685,920,000 ft^2 of wallboard processed through the facility per 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 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 through #3 (SN-22 thru SN-24), 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.

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated November 15, 2009.

Description	Category
AST 4 Diesel Storage Tank 8,000 gal	A-3
AST 5 Diesel Storage Tank 8,000 gal	A-3
AST 6 Hydraulic Oil Storage Tank 4,000 gal	A-3
AST 7 Hydraulic Oil Storage Tank 4,000 gal	A-3
AST 8 Hydraulic Oil Storage Tank 4,000 gal	A-3
AST 2 Used Oil Storage Tank 5,500 gal	A-3
AST 2 Diesel Storage Tank 12,000 gal	A-13
AST 3 Diesel Storage Tank 12,000 gal	A-13
AST 10 Diesel Storage Tank 12,000 gal	A-13
Vermiculite Silo	A-13
Potash Silo	A-13
Boric Acid Silo	A-13
Starch Silo	A-13
Secondary Starch Silo	A-13

SECTION VIII: GENERAL PROVISIONS

1. Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the sole origin of and authority for the terms or conditions are not required under the Clean Air Act or any of its applicable requirements, and are not federally enforceable under the Clean Air Act. Arkansas Pollution Control & Ecology Commission Regulation 18 was adopted pursuant to the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.). Any terms or conditions included in this permit which specify and reference Arkansas Pollution Control & Ecology Commission Regulation 18 or the Arkansas Water and Air Pollution Control Act (A.C.A. §8-4-101 et seq.) as the origin of and authority for the terms or conditions are enforceable under this Arkansas statute. [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 Regulation 26 §26.701(B)]

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 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 26 §26.701(A)(2)]

5. The permittee must maintain the following records of monitoring information as required by this permit.

    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.

    [40 CFR 70.6(a)(3)(ii)(A) and Regulation 26 §26.701(C)(2)]

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 26 §26.701(C)(2)(b)]

7. The permittee must submit reports of all required monitoring every six (6) months. If the permit establishes no other reporting period, the reporting period shall end on the last day of the month six months after the issuance of the initial Title V permit and every six months thereafter. The report is due on the first day of the second month after the end of the reporting period. The first report due after issuance of the initial Title V permit shall contain six months of data and each report thereafter shall contain 12 months of data. The report shall contain data for all monitoring requirements in effect during the reporting period. If a monitoring requirement is not in effect for the entire reporting period, only those months of data in which the monitoring requirement was in effect are required to be reported. 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:

Arkansas Department of Environmental Quality
Air Division
ATTN: Compliance Inspector Supervisor
5301 Northshore Drive
North Little Rock, AR 72118-5317

[40 CFR 70.6(a)(3)(iii)(A) and Regulation 26 §26.701(C)(3)(a)]

8. The permittee shall 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 Regulation19, § 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 shall 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 shall 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 by the initial and full reports required in 8a.

[Regulation 19 §19.601 and §19.602, Regulation 26 §26.701(C)(3)(b), and 40 CFR 70.6(a)(3)(iii)(B)]

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), Regulation 26 §26.701(E), 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 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 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 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 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 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 26 §26.701(F)(5)]

15. The permittee must pay all permit fees in accordance with the procedures established in Regulation 9. [40 CFR 70.6(a)(7) and Regulation 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 26 §26.701(H)]

17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation 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 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 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 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 26 §26.703(B)]

    a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
    b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;

c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee shall 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. If the 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 on the first day of the second month after the end of the reporting period. 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 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 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]

24. The permittee may request in writing and at least 15 days in advance of the deadline, an extension to any testing, compliance or other dates in this permit. No such extensions are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion in the following circumstances:

a. Such an extension does not violate a federal requirement;
b. The permittee demonstrates the need for the extension; and
c. The permittee documents that all reasonable measures have been taken to meet the current deadline and documents reasons it cannot be met.

[Regulation 18 §18.314(A), Regulation 19 §19.416(A), Regulation 26 §26.1013(A), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

25. The permittee may request in writing and at least 30 days in advance, temporary emissions and/or testing that would otherwise exceed an emission rate, throughput requirement, or other limit in this permit. No such activities are authorized until the permittee receives written Department approval. Any such emissions shall be included in the facility's total emissions and reported as such. The Department may grant such a request, at its discretion under the following conditions:

a. Such a request does not violate a federal requirement;
b. Such a request is temporary in nature;
c. Such a request will not result in a condition of air pollution;
d. The request contains such information necessary for the Department to evaluate the request, including but not limited to, quantification of such emissions and the date/time such emission will occur;
e. Such a request will result in increased emissions less than five tons of any individual criteria pollutant, one ton of any single HAP and 2.5 tons of total HAPs; and
f. The permittee maintains records of the dates and results of such temporary emissions/testing.

[Regulation 18 §18.314(B), Regulation 19 §19.416(B), Regulation 26 §26.1013(B), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

26. The permittee may request in writing and at least 30 days in advance, an alternative to the specified monitoring in this permit. No such alternatives are authorized until the permittee receives written Department approval. The Department may grant such a request, at its discretion under the following conditions:

a. The request does not violate a federal requirement;
b. The request provides an equivalent or greater degree of actual monitoring to the current requirements; and
c. Any such request, if approved, is incorporated in the next permit modification application by the permittee.

[Regulation 18 §18.314(C), Regulation 19 §19.416(C), Regulation 26 §26.1013(C), A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311, and 40 CFR Part 52, Subpart E]

Appendix A

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

Subpart OOO—Standards of Performance for Nonmetallic Mineral Processing Plants

SOURCE: 74 FR 19309, Apr. 28, 2009, 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; plants without crushers or grinding mills above ground; and wet material processing operations (as defined in §60.671).

(b) An affected facility that is subject to the provisions of subparts F or I of this part 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, and there is no increase in the amount of emissions, 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, modification, or reconstruction 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 do not apply to owners and operators of affected facilities subject to this subpart or that apply with certain exceptions.

§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 affected facilities 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 affected facilities 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.

Crush or *Crushing* means to reduce the size of nonmetallic mineral material by means of physical impaction of the crusher or grinding mill upon the material.

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:

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

(2) Sand and Gravel.

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

(4) Rock Salt.

(5) Gypsum (natural or synthetic).

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

(7) Pumice.

(8) Gilsonite.

(9) Talc and Pyrophyllite.

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

(11) Barite.

(12) Fluorospar.

(13) Feldspar.

(14) Diatomite.

(15) Perlite.

(16) Vermiculite.

(17) Mica.

(18) 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.

Saturated material means, for purposes of this subpart, mineral material with sufficient surface moisture such that particulate matter emissions are not generated from processing of the material through screening operations, bucket elevators and belt conveyors. Material that is wetted solely by wet suppression systems is not considered to be "saturated" for purposes of this definition.

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). Grizzly feeders associated with truck dumping and static (non-moving) grizzlies used anywhere in the nonmetallic mineral processing plant are not considered to be screening operations.

Seasonal shut down means shut down of an affected facility for a period of at least 45 consecutive days due to weather or seasonal market conditions.

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) of 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 material processing operation(s) means any of the following:

(1) Wet screening operations (as defined in this section) and subsequent screening operations, bucket elevators and belt conveyors in the production line that process saturated materials (as defined in this section) up to the first crusher, grinding mill or storage bin in the production line; or

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

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.

§60.672 Standard for particulate matter (PM).

(a) Affected facilities must meet the stack emission limits and compliance requirements in Table 2 of this subpart within 60 days 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 §60.8. The requirements in Table 2 of this subpart apply for affected facilities with capture systems used to capture and transport particulate matter to a control device.

(b) Affected facilities must meet the fugitive emission limits and compliance requirements in Table 3 of this subpart within 60 days 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. The requirements in Table 3 of this subpart apply for fugitive emissions from affected facilities without capture systems and for fugitive emissions escaping capture systems.

(c) [Reserved]

(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) and (b) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:

(1) Fugitive emissions from the building openings (except for vents as defined in §60.671) must not exceed 7 percent opacity; and

(2) Vents (as defined in §60.671) in the building must meet the applicable stack emission limits and compliance requirements in Table 2 of this subpart.

(f) Any baghouse that controls emissions from only an individual, enclosed storage bin is exempt from the applicable stack PM concentration limit (and associated performance testing) in Table 2 of this subpart but must meet the applicable stack opacity limit and compliance requirements in Table 2 of this subpart. This exemption from the stack PM concentration limit does not apply for multiple storage bins with combined stack emissions.

§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.

(a) 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:

(1) 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.

(2) 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.

(b) The owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses wet suppression to control emissions from the affected facility must perform monthly periodic inspections to check that water is flowing to discharge spray nozzles in the wet suppression system. The owner or operator must initiate corrective action within 24 hours and complete corrective action as expediently as practical if the owner or operator finds that water is not flowing properly during an inspection of the water spray nozzles. The owner or operator must record each inspection of the water spray nozzles, including the date of each inspection and any corrective actions taken, in the logbook required under §60.676(b).

(1) If an affected facility relies on water carryover from upstream water sprays to control fugitive emissions, then that affected facility is exempt from the 5-year repeat testing requirement specified in Table 3 of this subpart provided that the affected facility meets the criteria in paragraphs (b)(1)(i) and (ii) of this section:

(i) The owner or operator of the affected facility conducts periodic inspections of the upstream water spray(s) that are responsible for controlling fugitive emissions from the affected facility. These inspections are conducted according to paragraph (b) of this section and §60.676(b), and

(ii) The owner or operator of the affected facility designates which upstream water spray(s) will be periodically inspected at the time of the initial performance test required under §60.11 of this part and §60.675 of this subpart.

(2) If an affected facility that routinely uses wet suppression water sprays ceases operation of the water sprays or is using a control mechanism to reduce fugitive emissions other than water sprays during the monthly inspection (for example, water from recent rainfall), the logbook entry required under §60.676(b) must specify the control mechanism being used instead of the water sprays.

(c) Except as specified in paragraph (d) or (e) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions must conduct quarterly 30-minute visible emissions inspections using EPA Method 22 (40 CFR part 60, Appendix A-7). The Method 22 (40 CFR part 60, Appendix A-7) test shall be conducted while the baghouse is operating. The test is successful if no visible emissions are observed. If any visible emissions are observed, the owner or operator of the affected facility must initiate corrective action within 24 hours to return the baghouse to normal operation. The owner or operator must record each Method 22 (40 CFR part 60, Appendix A-7) test, including the date and any corrective actions taken, in the logbook required under §60.676(b). The owner or operator of the affected facility may establish a different baghouse-specific success level for the visible emissions test (other than no visible emissions) by conducting a PM performance test according to §60.675(b) simultaneously with a Method 22 (40 CFR part 60, Appendix A-7) to determine what constitutes normal visible emissions from that affected facility's baghouse when it is in compliance with the applicable PM concentration limit in Table 2 of this subpart. The revised visible emissions success level must be incorporated into the permit for the affected facility.

(d) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility for which construction, modification, or reconstruction commenced on or after April 22, 2008, that uses a baghouse to control emissions may use a bag leak detection system. The owner or operator must install, operate, and maintain the bag leak detection system according to paragraphs (d)(1) through (3) of this section.

(1) Each bag leak detection system must meet the specifications and requirements in paragraphs (d)(1)(i) through (viii) of this section.

(i) The bag leak detection system must be certified by the manufacturer to be capable of detecting PM emissions at concentrations of 1 milligram per dry standard cubic meter (0.00044 grains per actual cubic foot) or less.

(ii) The bag leak detection system sensor must provide output of relative PM loadings. The owner or operator shall continuously record the output from the bag leak detection system using electronic or other means (*e.g.*, using a strip chart recorder or a data logger).

(iii) The bag leak detection system must be equipped with an alarm system that will sound when the system detects an increase in relative particulate loading over the alarm set point established according to paragraph (d)(1)(iv) of this section, and the alarm must be located such that it can be heard by the appropriate plant personnel.

(iv) In the initial adjustment of the bag leak detection system, the owner or operator must establish, at a minimum, the baseline output by adjusting the sensitivity (range) and the averaging period of the device, the alarm set points, and the alarm delay time.

(v) Following initial adjustment, the owner or operator shall not adjust the averaging period, alarm set point, or alarm delay time without approval from the Administrator or delegated authority except as provided in paragraph (d)(1)(vi) of this section.

(vi) Once per quarter, the owner or operator may adjust the sensitivity of the bag leak detection system to account for seasonal effects, including temperature and humidity, according to the procedures identified in the site-specific monitoring plan required by paragraph (d)(2) of this section.

(vii) The owner or operator must install the bag leak detection sensor downstream of the fabric filter.

(viii) Where multiple detectors are required, the system's instrumentation and alarm may be shared among detectors.

(2) The owner or operator of the affected facility must develop and submit to the Administrator or delegated authority for approval of a site-specific monitoring plan for each bag leak detection system. The owner or operator must operate and maintain the bag leak detection system according to the site-specific monitoring plan at all times. Each monitoring plan must describe the items in paragraphs (d)(2)(i) through (vi) of this section.

(i) Installation of the bag leak detection system;

(ii) Initial and periodic adjustment of the bag leak detection system, including how the alarm set-point will be established;

(iii) Operation of the bag leak detection system, including quality assurance procedures;

(iv) How the bag leak detection system will be maintained, including a routine maintenance schedule and spare parts inventory list;

(v) How the bag leak detection system output will be recorded and stored; and

(vi) Corrective action procedures as specified in paragraph (d)(3) of this section. In approving the site-specific monitoring plan, the Administrator or delegated authority may allow owners and operators more than 3 hours to alleviate a specific condition that causes an alarm if the owner or operator identifies in the monitoring plan this specific condition as one that could lead to an alarm, adequately explains why it is not feasible to alleviate this condition within 3 hours of the time the alarm occurs, and demonstrates that the requested time will ensure alleviation of this condition as expeditiously as practicable.

(3) For each bag leak detection system, the owner or operator must initiate procedures to determine the cause of every alarm within 1 hour of the alarm. Except as provided in paragraph (d)(2)(vi) of this section, the owner or

operator must alleviate the cause of the alarm within 3 hours of the alarm by taking whatever corrective action(s) are necessary. Corrective actions may include, but are not limited to the following:

(i) Inspecting the fabric filter for air leaks, torn or broken bags or filter media, or any other condition that may cause an increase in PM emissions;

(ii) Sealing off defective bags or filter media;

(iii) Replacing defective bags or filter media or otherwise repairing the control device;

(iv) Sealing off a defective fabric filter compartment;

(v) Cleaning the bag leak detection system probe or otherwise repairing the bag leak detection system; or

(vi) Shutting down the process producing the PM emissions.

(e) As an alternative to the periodic Method 22 (40 CFR part 60, Appendix A-7) visible emissions inspections specified in paragraph (c) of this section, the owner or operator of any affected facility that is subject to the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) may follow the continuous compliance requirements in row 1 items (i) through (iii) of Table 6 to Subpart AAAAA of 40 CFR part 63.

§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 appendices A-1 through A-7 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 PM standards in §60.672(a) as follows:

(1) Except as specified in paragraphs (e)(3) and (4) of this section, Method 5 of Appendix A-3 of this part or Method 17 of Appendix A-6 of this part shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5 (40 CFR part 60, Appendix A-3), 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 of Appendix A-4 of this part 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) or §60.672(e)(1), the owner or operator shall use Method 9 of Appendix A-4 of this part 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 of Appendix A-4 of this part, 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)(i) 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 (40 CFR part 60, Appendix A-4), the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations shall be 1 hour (ten 6-minute averages).

(ii) The duration of the Method 9 (40 CFR part 60, Appendix A-4) observations may be reduced to the duration the affected facility operates (but not less than 30 minutes) for baghouses that control storage bins or enclosed truck or railcar loading stations that operate for less than 1 hour at a time.

(3) When determining compliance with the fugitive emissions standard for any affected facility described under §60.672(b) or §60.672(e)(1) of this subpart, the duration of the Method 9 (40 CFR part 60, Appendix A-4) observations must be 30 minutes (five 6-minute averages). Compliance with the applicable fugitive emission limits in Table 3 of this subpart must be based on the average of the five 6-minute averages.

(d) To demonstrate compliance with the fugitive emission limits for buildings specified in §60.672(e)(1), the owner or operator must complete the testing specified in paragraph (d)(1) and (2) of this section. Performance tests must be conducted while all affected facilities inside the building are operating.

(1) If the building encloses any affected facility that commences construction, modification, or reconstruction on or after April 22, 2008, the owner or operator of the affected facility must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and §60.11.

(2) If the building encloses only affected facilities that commenced construction, modification, or reconstruction before April 22, 2008, and the owner or operator has previously conducted an initial Method 22 (40 CFR part 60, Appendix A-7) performance test showing zero visible emissions, then the owner or operator has demonstrated compliance with the opacity limit in §60.672(e)(1). If the owner or operator has not conducted an initial performance test for the building before April 22, 2008, then the owner or operator must conduct an initial Method 9 (40 CFR part 60, Appendix A-4) performance test according to this section and §60.11 to show compliance with the opacity limit in §60.672(e)(1).

(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.

(2) A single visible emission observer may conduct visible emission observations for up to three fugitive, stack, or vent emission points within a 15-second interval if the following conditions are met:

(i) No more than three emission points may be read concurrently.

(ii) All three emission points must be within a 70 degree viewing sector or angle in front of the observer such that the proper sun position can be maintained for all three points.

(iii) If an opacity reading for any one of the three emission points equals or exceeds the applicable standard, then the observer must stop taking readings for the other two points and continue reading just that single point.

(3) Method 5I of Appendix A-3 of this part may be used to determine the PM concentration as an alternative to the methods specified in paragraph (b)(1) of this section. Method 5I (40 CFR part 60, Appendix A-3) may be useful for affected facilities that operate for less than 1 hour at a time such as (but not limited to) storage bins or enclosed truck or railcar loading stations.

(4) In some cases, velocities of exhaust gases from building vents may be too low to measure accurately with the type S pitot tube specified in EPA Method 2 of Appendix A-1 of this part [*i.e.*, velocity head <1.3 mm H_2O (0.05 in. H_2O)] and referred to in EPA Method 5 of Appendix A-3 of this part. For these conditions, the owner or operator may determine the average gas flow rate produced by the power fans (*e.g.*, from vendor-supplied fan curves) to the building vent. The owner or operator may calculate the average gas velocity at the building vent measurement site using Equation 1 of this section and use this average velocity in determining and maintaining isokinetic sampling rates.

$$V_e = \frac{Q_f}{A_e} \qquad \text{(Eq. 1)}$$

Where:

V_e = average building vent velocity (feet per minute);

Q_f = average fan flow rate (cubic feet per minute); and

A_e = area of building vent and measurement location (square feet).

(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)(1) and (2) during each particulate matter run and shall determine the averages.

(g) For performance tests involving only Method 9 (40 CFR part 60 Appendix A-4) testing, the owner or operator may reduce the 30-day advance notification of performance test in §60.7(a)(6) and 60.8(d) to a 7-day advance notification.

(h) [Reserved]

(i) If the initial performance test date for an affected facility falls during a seasonal shut down (as defined in §60.671 of this subpart) of the affected facility, then with approval from the permitting authority, the owner or operator may postpone the initial performance test until no later than 60 calendar days after resuming operation of the affected facility.

§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)(1) Owners or operators of affected facilities (as defined in §§60.670 and 60.671) for which construction, modification, or reconstruction commenced on or after April 22, 2008, must record each periodic inspection required under §60.674(b) or (c), including dates and any corrective actions taken, in a logbook (in written or electronic format). The owner or operator must keep the logbook onsite and make hard or electronic copies (whichever is requested) of the logbook available to the Administrator upon request.

(2) For each bag leak detection system installed and operated according to §60.674(d), the owner or operator must keep the records specified in paragraphs (b)(2)(i) through (iii) of this section.

(i) Records of the bag leak detection system output;

(ii) Records of bag leak detection system adjustments, including the date and time of the adjustment, the initial bag leak detection system settings, and the final bag leak detection system settings; and

(iii) The date and time of all bag leak detection system alarms, the time that procedures to determine the cause of the alarm were initiated, the cause of the alarm, an explanation of the actions taken, the date and time the cause of the alarm was alleviated, and whether the cause of the alarm was alleviated within 3 hours of the alarm.

(3) The owner or operator of each affected facility demonstrating compliance according to §60.674(e) by following the requirements for processed stone handling operations in the Lime Manufacturing NESHAP (40 CFR part 63, subpart AAAAA) must maintain records of visible emissions observations required by §63.7132(a)(3) and (b) of 40 CFR part 63, subpart AAAAA.

(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 and liquid flow rate decrease by more than 30 percent from the average determined during the most recent performance test.

(e) The reports required under paragraph (d) of this section 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 (40 CFR part 60, Appendix A-4) to demonstrate compliance with §60.672(b), (e) and (f).

(g) The owner or operator of any wet material processing operation that processes saturated and subsequently processes unsaturated materials, shall submit a report of this change within 30 days following such change. At the time of such change, this screening operation, bucket elevator, or belt conveyor becomes subject to the applicable opacity limit in §60.672(b) and the emission test requirements of §60.11.

(h) The subpart A requirement under §60.7(a)(1) for notification of the date construction or reconstruction commenced is waived for affected facilities 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.

(k) Notifications and reports required under this subpart and under subpart A of this part to demonstrate compliance with this subpart need only to be sent to the EPA Region or the State which has been delegated authority according to §60.4(b).

Table 1 to Subpart OOO of Part 60—Exceptions to Applicability of Subpart A to Subpart OOO

Subpart A reference	Applies to subpart OOO	Explanation
60.4, Address	Yes	Except in §60.4(a) and (b) submittals need not be submitted to both the EPA Region and delegated State authority (§60.676(k)).
60.7, Notification and recordkeeping	Yes	Except in (a)(1) notification of the date construction or reconstruction commenced (§60.676(h)).
		Also, except in (a)(6) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.8, Performance tests	Yes	Except in (d) performance tests involving only Method 9 (40 CFR part 60, Appendix A-4) require a 7-day advance notification instead of 30 days (§60.675(g)).
60.11, Compliance with standards and maintenance requirements	Yes	Except in (b) under certain conditions (§§60.675(c)), Method 9 (40 CFR part 60, Appendix A-4) observation is reduced from 3 hours to 30 minutes for fugitive emissions.

60.18, General control device	No	Flares will not be used to comply with the emission limits.

Table 2 to Subpart OOO of Part 60—Stack Emission Limits for Affected Facilities With Capture Systems

For * * *	The owner or operator must meet a PM limit of * * *	And the owner or operator must meet an opacity limit of * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008	0.05 g/dscm (0.022 gr/dscf)[a]	7 percent for dry control devices[b]	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e).
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	0.032 g/dscm (0.014 gr/dscf)[a]	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed storage bins	An initial performance test according to §60.8 of this part and §60.675 of this subpart; and Monitoring of wet scrubber parameters according to §60.674(a) and §60.676(c), (d), and (e); and
			Monitoring of baghouses according to §60.674(c), (d), or (e) and §60.676(b).

[a]Exceptions to the PM limit apply for individual enclosed storage bins and other equipment. See §60.672(d) through (f).

[b]The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

Table 3 to Subpart OOO of Part 60—Fugitive Emission Limits

For * * *	The owner or operator must meet the following fugitive emissions limit for grinding mills, screening operations, bucket elevators, transfer points on belt conveyors, bagging operations, storage bins, enclosed truck or railcar loading stations or from any other affected facility (as defined in §§60.670 and 60.671) * * *	The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *	The owner or operator must demonstrate compliance with these limits by conducting * * *
Affected facilities (as defined in §§60.670 and 60.671) that commenced	10 percent opacity	15 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart.

construction, modification, or reconstruction after August 31, 1983 but before April 22, 2008			
Affected facilities (as defined in §§60.670 and 60.671) that commence construction, modification, or reconstruction on or after April 22, 2008	7 percent opacity	12 percent opacity	An initial performance test according to §60.11 of this part and §60.675 of this subpart; and Periodic inspections of water sprays according to §60.674(b) and §60.676(b); and
			A repeat performance test according to §60.11 of this part and §60.675 of this subpart within 5 years from the previous performance test for fugitive emissions from affected facilities without water sprays. Affected facilities controlled by water carryover from upstream water sprays that are inspected according to the requirements in §60.674(b) and §60.676(b) are exempt from this 5-year repeat testing requirement.

Appendix B

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

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.

CERTIFICATE OF SERVICE

I, Pamela Owen, hereby certify that a copy of this permit has been mailed by first class mail to CertainTeed Gypsum Manufacturing, Inc., 794 State Highway 369 North, Nashville, AR, 71852, on this 26th day of September, 2014.

Pamela Owen

Pamela Owen, ASIII, Air Division