

## RESPONSE TO COMMENTS

### SAINT-GOBAIN CERAMICS & PLASTICS PERMIT #0492-AOP-R7 AFIN: 66-00219

On December 9<sup>th</sup>, 2011 and December 11<sup>th</sup>, 2022, the Director of the Arkansas Department of Environmental Quality gave notice of a draft permitting decision for the above referenced facility. During the comment period, written comments on the draft permitting decision were submitted by Rodney Breuer of ECCI, on behalf of the facility. The Department's response to these issues follows.

*Note: The following page numbers and condition numbers refer to the draft permit. These references may have changed in the final permit based on changes made during the comment period.*

#### **Comment #1:**

Page 4: Please change the Saint-Gobain Contact Position from "Process Engineer" to "Environmental Manager," and the telephone number to (479) 424-3670.

#### **Response to Comment #1:**

The final permit has been revised as requested by Comment #1.

#### **Comment #2:**

Page 5: In the second paragraph of the Process Description, please revise the fourth sentence to read, "The calcined ores are conveyed to a small feed tank which in turn feeds to a rotary mill. The ore is reduced to fine particles in preparation for the forming operation."

#### **Response to Comment #2:**

The final permit has been revised as requested by Comment #2.

#### **Comment #3:**

Page 6: Please revise the third sentence of the second paragraph to read, "It takes several days" instead of "It takes four days."

#### **Response to Comment #3:**

The final permit has been revised as requested by Comment #3.

#### **Comment #4:**

Kiln No. 1 (SN-04) has been removed from service. Please delete reference to SN-04 on pages 7, 16, 17, 18, 19 and 22.

#### **Response to Comment #4:**

The final permit has been revised as requested by Comment #4.

**Comment #5:**

Page 9: Please change the description of SN-26 to “49 mmBtu/hr.”

**Response to Comment #5:**

The above requested change has been made.

**Comment #6:**

Page 9, 16 and 17: Please revise hourly emission rates for SN-26 to:

PM – 1.2

PM<sub>10</sub> – 1.2

SO<sub>2</sub> – 2.6

VOC – 0.3

CO – 4.2

NO<sub>x</sub> – 7.43

These are consistent with the emission factors in Plantwide Condition 7.

**Response to Comment #6:**

The above requested change has been made.

**Comment #7:**

Pages 16 through 18: Please remove references to SN-10 and SN-29. They have been routed to the scrubber SN-67.

**Response to Comment #7:**

References will remain to adequately represent sources at the facility. References for sources in Comment 7 will not be removed.

**Comment #8:**

Pages 7, 16 through 19, 22 and 25: SN-04 has been removed from service. Please remove it from the permit.

**Response to Comment #8:**

The final permit has been revised as requested by Comment #8.

**Comment #9:**

Please remove Specific Condition 8. The emission points referenced no longer exist.

**Response to Comment #9:**

The reference to SN-04 in specific Condition 8 has been removed. The reference to SN-10 and SN-29 will remain with testing required prior to the control device. The condition is a requirement to test the kilns for CO.

The first sentence of Specific Condition 8 shall be revised to read as follows:

“The permittee shall test each kiln, Sources SN-10 and SN-29, prior to the control device, to ensure compliance with the Carbon Monoxide pound per hour emission rate of 6 pounds per hour (as stated in Specific Condition 22) at least once every five years beginning with this permit action.”

**Comment #10:**

Page 25: Specific Condition 13 should replace “31,200 tons” with “76,000 tons.” This increase was approved by ADEQ in October 2009, and is what the emissions are based upon.

**Response to Comment #10:**

The final permit has been revised as requested by Comment #10.

**Comment #11:**

Page 25: Please remove “at SN-38” from Specific Condition 14. The referenced limit is for plantwide product, not SN-38 throughput.

**Response to Comment #11:**

The final permit has been revised as requested by Comment #11.

**Comment #12:**

Page 26: Please remove “SN-29B” from Specific Condition 19. Source SN-29 has been routed to source SN-67, which is addressed in Specific Conditions 22 through 30.

**Response to Comment #12:**

The reference to SN-29B still exists, but is only routed to SN-67. The phrase “routed to SN-67” shall be added after SN-29B.

**Comment #13:**

The above reference has been removed as requested.

**Response to Comment #13:**

The reference to SN-67 has been removed. Specific Condition 21 outlines requirements for Particulate Sources subject to Compliance Assurance Monitoring as stated in your application.

**Comment #14:**

Please remove Specific Condition 21.b. Sources SN-56, SN-57, SN-58 and SN-67 do not have monitoring equipment, and SN-67 is addresses in Specific Conditions 22 through 30.

**Response to Comment #14:**

Specific Condition 21.b. has been removed as requested by Comment 14.

**Comment #15:**

Page 33: Please revise the NO<sub>x</sub> equation in Plantwide Condition 7 to use 0.02 for the diesel emission factor, rather than 20. The factor is 20 lb/1,000 gal, so it needs to be 0.02 in the equation since variable “B” is gallons, rather than 1,000 gallons.

**Response to Comment #15:**

The NO<sub>x</sub> equation in Plantwide 7 has been revised as requested by Comment #15.

**The following comment was made by the Department at the end of the comment period:**

**Comment #16:**

The facility's name with the Arkansas Secretary of State is "Saint-Gobain Ceramics & Plastics, Inc."

**Response #16:**

The facility's name has been changed from "Saint-Gobain Proppants" to "Saint-Gobain Ceramics and Plastics, Inc."

# ADEQ

ARKANSAS  
Department of Environmental Quality

**MAY 29 2012**

Richard Lee, Compliance Manager  
Saint Gobain Ceramics & Plastics, Inc.  
5300 Gerber Road  
Fort Smith, AR 72904-1699

Dear Mr. Lee:

The enclosed Permit No. 0492-AOP-R7 is your authority to construct, operate, and maintain the equipment and/or control apparatus as set forth in your application initially received on 10/27/2010.

After considering the facts and requirements of A.C.A. §8-4-101 et seq., and implementing regulations, I have determined that Permit No. 0492-AOP-R7 for the construction, operation and maintenance of an air pollution control system for Saint Gobain Ceramics & Plastics, 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. : 0492-AOP-R7

IS ISSUED TO:


Saint Gobain Ceramics & Plastics, Inc.  
5300 Gerber Road  
Fort Smith, AR 72904-1699  
Sebastian County  
AFIN: 66-00219

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:

August 6, 2008 AND August 5, 2013

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

Signed:

  
Mike Bates  
Chief, Air Division

MAY 29 2012  
Date

Saint Gobain Ceramics & Plastics, Inc.  
Permit #: 0492-AOP-R7  
AFIN: 66-00219

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Saint Gobain Ceramics & Plastics, Inc.  
Permit #: 0492-AOP-R7  
AFIN: 66-00219

#### 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 <sub>x</sub>	Nitrogen Oxide
PM	Particulate Matter
PM <sub>10</sub>	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO <sub>2</sub>	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound



Saint Gobain Ceramics & Plastics, Inc.  
Permit #: 0492-AOP-R7  
AFIN: 66-00219

**SECTION I: FACILITY INFORMATION**

PERMITTEE: Saint Gobain Ceramics & Plastics, Inc.

AFIN: 66-00219

PERMIT NUMBER: 0492-AOP-R7

FACILITY ADDRESS: 5300 Gerber Road  
Fort Smith, AR 72904-1699

MAILING ADDRESS: 5300 Gerber Road  
Fort Smith, AR 72904-1699

COUNTY: Sebastian County

CONTACT NAME: Richard Lee

CONTACT POSITION: Compliance Manager

TELEPHONE NUMBER: 479-424-3670

REVIEWING ENGINEER: Derrick Brown

UTM North South (Y): Zone 15: 3921643.83 m

UTM East West (X): Zone 15: 374920.79 m

Saint Gobain Ceramics & Plastics, Inc.  
Permit #: 0492-AOP-R7  
AFIN: 66-00219

## SECTION II: INTRODUCTION

### Summary of Permit Activity

Saint-Gobain Ceramics & Plastics, Inc. (66-00219) owns and operates a facility located at 5300 Gerber road in Fort Smith which manufactures proppants. This permit action modifies the plant to plant finished product pneumatic conveying system to eliminate one material handling step, allows the installation of a new scrubber system (SN-67) to control emissions from Plant #1 Kiln #2 (SN-10) and the Plant #2 Kiln (SN-29). SN-68 is a new source designated as the Waste Lime Silo Bin Vent. Installation of a new ball mill and baghouse (SN-70), and Plant #1 Ore Receiving Bins (SN-71/SN-72). This action also allows the removal of SN-03. Finally this permit action requests hourly NO<sub>x</sub> emissions for SN-09, SN-13, SN-26, SN-27 and SN-57 adjusted based on recent stack test results. This action permits emissions at 245.6 tpy PM, 239.7 tpy PM<sub>10</sub>, 244.0 tpy SO<sub>2</sub>, 6.2 tpy VOC, 190.3 tpy CO, 245.0 tpy NO<sub>x</sub>, 3.34 tpy HCl, 2.47 tpy Cl, 11.28 tpy HF and 1.70 tpy F. The emission increases are 3.1 tons of PM per year, 184.6 tons of SO<sub>2</sub> per year, 97 tons of CO per year, 78 tons of NO<sub>x</sub> per year, and 1.7 tons of Fluorine per year. The only emission decrease was PM<sub>10</sub> at 2.8 tons per year.

### Process Description

Proppants are small sintered, high density spherical grains ranging in size from approximately 12 U.S. mesh to 80 U.S. mesh. These sintered spheres are used in the oil and gas industry to increase the well's flow rate. After the drilling of a new well is complete and the casing installed, the rock formation at the bottom of the well must be fractured to maximize the gas or oil flow. A viscous material, mixed with the proper size proppants, enters the fissures and prevents them from closing when the pressure is relieved.

The basic raw materials used to manufacture the proppants are heat treated and calcined bauxite ore. The ores are delivered to the facility in covered dump trucks and unloaded at the receiving station at one of the two process buildings. The ore is then conveyed to storage. The calcined ores are conveyed to a small feed tank which in turn feeds to a rotary mill. The ore is reduced to fine particles in preparation for the forming operation. The milled ore is conveyed to the forming areas where there are mixing lines at each plant. All mixers are batch type. Milled ore, water and binder are introduced into the mixer, where high-energy rotors compact and pelletize the mix.

The moist spheres are conveyed from the forming area into natural gas or diesel fuel-fired continuously fed dryers, where the moisture content is reduced from approximately 21% by weight to 8%. From the dryers, the product is sent to a screening deck to eliminate over- and under-sized material. Material of optimum size is then sent to the kiln feed tank and the screened off material is sent back to the forming area to be reformed. The "green" product is conveyed from the kiln feed tanks to one of the continuous feed kilns. The kilns are fired with either natural gas or diesel fuel and are heated to the necessary sintering temperature. The spheres exit the kiln as red-hot ceramic proppants.

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The product flows directly into an air swept rotary cooler following the kilns. Following the coolers, the product is conveyed to a screening deck where any remaining off-spec material is screened off and discarded. Fired and sintered ceramic material cannot be reworked.

The kilns and the dryers may be fired with either natural gas or diesel fuel. Due to the high temperature, the kilns must be cooled or heated slowly to prevent the bricks from cracking or the drum from warping. It takes several days to bring a kiln from ambient to operating temperature. These conditions mandate that the kilns be continuously fired and that two different types of fuel be available for use.

The sintered and sized product is conveyed to finished product storage tanks. The product is packaged in 50- to 100-pound bags, in super sacks, and/or truck or rail shipping. The majority of the product is shipped in bulk from the railcar loadout or one of the five truck loadouts.

### 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 18, 2009
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective January 25, 2009
40 CFR 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants – [SN-18, SN-19, SN-20, SN-21, SN-22, SN-23, SN-25, SN-28, SN-29, SN-31, SN-34, SN-38, SN-39, SN-45, SN-46, SN-47, SN-48, SN-50, SN-51, SN-52, SN-53, SN-54, SN-56, SN-57, SN-58, SN-59, SN-60, SN-61, and SN-66]

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### 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	63.6	245.6
		PM <sub>10</sub>	62.3	239.7
		SO <sub>2</sub>	55.7	244.0
		VOC	1.6	6.2
		CO	23.4	190.3
		NO <sub>x</sub>	108.4	245.0
	HAPs	HCl*	0.77	3.34
		Cl*	0.57	2.47
		HF*	2.58	11.28
	Air Contaminants **	F**	0.39	1.70
01	Plant #1 Ore Conveyor/Crush Tank Filter	PM	1.1	1.7
		PM <sub>10</sub>	1.1	1.7
02	Plant #1 Ore Dump Station Filter	PM	0.6	0.9
		PM <sub>10</sub>	0.2	0.3
03	Removed per October 2010 request.			
04	Kiln No. 1, 7.7 MMBtu/hr	Removed.		
04	Kiln No. 1, 7.7 MMBtu/hr (Process)	Removed.		
05	Plant #1 Mixers No. 1 through No. 6 Filter	PM	0.2	0.7
		PM <sub>10</sub>	0.2	0.7
06	Plant #1 North/South Tank Bin Vents Filter	PM	0.1	0.4
		PM <sub>10</sub>	0.1	0.4
07	Plant #1 Screening/Kiln Feed Area Filter	PM	1.7	3.4
		PM <sub>10</sub>	1.7	3.4
SN-09	Plant No. 1, Dryer No. 1, 46 MMBtu/hr	PM	1.2	30.7~
		PM <sub>10</sub>	1.2	30.7~
		SO <sub>2</sub>	2.5	244.0~
		VOC	0.1	6.2~

Saint Gobain Ceramics & Plastics, Inc.  
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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		CO	3.9	190.3~
		NO <sub>x</sub>	2.7	245.0~
SN-09	Plant No. 1, Dryer No. 1, 46 MMBtu/hr (Process)	PM	0.5	1.9
		PM <sub>10</sub>	0.5	1.9
SN-10	Rotary Kiln No. 2, Plant No. 1, 20 MMBtu/hr	Routed to SN-67.		
SN-11	Plant #1 Ball Mill Filter	PM	0.6	0.7
		PM <sub>10</sub>	0.6	0.7
SN-12	Plant #1 Product Cooler Filter	PM	3.5	12.6
		PM <sub>10</sub>	3.5	12.6
SN-13	Plant No. 1, Dryer No. 2, 46 MMBtu/hr	PM	1.2	30.7~
		PM <sub>10</sub>	1.2	30.7~
		SO <sub>2</sub>	2.5	244.0~
		VOC	0.1	6.2~
		CO	3.9	190.3~
		NO <sub>x</sub>	2.7	245.0~
SN-13	Plant No. 1, Dryer No. 2, 46 MMBtu/hr (Process)	PM	0.5	1.9
		PM <sub>10</sub>	0.5	1.9
SN-14	Plant #1 DCF Tank Filter	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
SN-15	South Tank Bin Vent	Rerouted to SN-06.		
SN-16	Plant #1 Ore Transport Mill Area Filter	PM	0.4	1.4
		PM <sub>10</sub>	0.4	1.4
SN-17	Truck Loadout	Rerouted to SN-08.		
SN-18	Plant #2 Ore Truck Unloading Filter	PM	0.6	1.0
		PM <sub>10</sub>	0.6	1.0
SN-19	Plant #2 Raw Material Silo Transport Filter	PM	1.7	3.0
		PM <sub>10</sub>	1.7	3.0
SN-20	Plant #2 Silo Loadout Filter	PM	2.2	8.0
		PM <sub>10</sub>	2.2	8.0
SN-21A	Plant #2 Fuller Ball Mill Filter #1	PM	0.75	3.15
		PM <sub>10</sub>	0.75	3.15
SN-21B	Plant #2 Fuller Ball Mill Filter #2	PM	0.75	3.15
		PM <sub>10</sub>	0.75	3.15
SN-22	Plant #2 Ball Mill Feed Vessel Vent Filter	PM	0.2	0.6

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		PM <sub>10</sub>	0.2	0.6
SN-23	Plant #2 Ball Mill Feed Vent No.2 Filter	PM PM <sub>10</sub>	0.1 0.1	0.2 0.2
SN-24	Source removed from permit – 2000.			
SN-25	Plant #2 Binder Storage Vessel Vent Filter	PM PM <sub>10</sub>	0.2 0.2	0.1 0.1
SN-26	Plant No. 2, Dryer No. 1, 49.0 MMBtu/hr	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>x</sub>	1.2 1.2 2.6 0.3 4.2 7.4	30.7~ 30.7~ 244.0~ 6.2~ 190.3~ 245.0~
SN-26	Plant No. 2, Dryer No. 1, 49.0 MMBtu/hr (Process)	PM PM <sub>10</sub>	1.0 1.0	3.9 3.9
SN-27	Plant #2, dryer No. 2, 24.5 MMBtu/hr	PM PM <sub>10</sub> SO <sub>2</sub> VOC CO NO <sub>x</sub>	0.6 0.6 1.3 0.3 2.1 3.5	30.7~ 30.7~ 244.0~ 6.2~ 190.3~ 245.0~
SN-27	Plant #2, dryer No. 2, 24.5 MMBtu/hr (Process)	PM PM <sub>10</sub>	1.0 1.0	3.9 3.9
SN-28	Forming Area Dust Collection Baghouse	PM PM <sub>10</sub>	2.8 2.8	11.5 11.5
SN-29	Plant No. 2, Kiln and Cooler, 60.0 MMBtu/hr	Routed to SN-67.		
SN-31	Plant #2 Sizing Area Vent/Fired Screening Filter	PM PM <sub>10</sub>	0.2 0.2	0.4 0.4
SN-32/ SN-33	Plant #2 Finished Product Loadout Tanks Filter	PM PM <sub>10</sub>	0.4 0.4	0.6 0.6
SN-34	Plant #2 Shipping Area Vent (Truck Loadout)/Deduster Filter	PM PM <sub>10</sub>	0.2 0.2	0.2 0.2
SN-35	Diesel Fuel Storage Tank	Insignificant Activity.		
SN-36	Diesel Fuel Storage Tank	Insignificant Activity.		

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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
SN-37	Source removed from permit – 1998.			
SN-08/ SN-38	Plant #1 Finished Product Loadout Filter	PM PM <sub>10</sub>	0.6 0.6	0.9 0.9
SN-39	350 Baghouse	PM PM <sub>10</sub>	0.8 0.8	3.2 3.2
SN-40	Plant #1 Side #1 R/W Blower	PM PM <sub>10</sub>	0.2 0.2	0.5 0.5
SN-41	Plant #1 Side #2 R/W Blower	PM PM <sub>10</sub>	0.2 0.2	0.5 0.5
SN-42	Plant #1 DCF Blower	PM PM <sub>10</sub>	0.1 0.1	0.1 0.1
SN-43	Plant #2 R/W Blower	PM PM <sub>10</sub>	0.3 0.3	1.0 1.0
SN-44	Plant #2 R/W Blower	PM PM <sub>10</sub>	0.3 0.3	1.0 1.0
SN-45	340 Baghouse	PM PM <sub>10</sub>	0.8 0.8	3.2 3.2
SN-46	360 Baghouse	PM PM <sub>10</sub>	0.8 0.8	3.2 3.2
SN-47	370 Baghouse	PM PM <sub>10</sub>	0.8 0.8	3.2 3.2
SN-48	This equipment was not installed.			
SN-49	Plant to Plant Finished Product Conveyor Filter & Cleaning Booth/SN-04 Backup Filter	PM PM <sub>10</sub>	0.1 0.1	0.1 0.1
SN-50	Plant No. 2 Mill Conveyor Filter	PM PM <sub>10</sub>	0.3 0.3	1.0 1.0
SN-51	Non-point Source Emissions	PM PM <sub>10</sub>	3.5 3.5	20.0 20.0
SN-52	This equipment was not installed.			
SN-53	Plant #2 Ball Mill Area – DC 221 Filter	PM PM <sub>10</sub>	1.9 1.9	8.1 8.1
SN-54	Plant #2 400 Area – DC 440 Filter	PM PM <sub>10</sub>	1.9 1.9	7.7 7.7

Saint Gobain Ceramics & Plastics, Inc.  
 Permit #: 0492-AOP-R7  
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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
SN-55	Plant #1 Bin Vent Mixer 6 – Baghouse	PM	0.1	0.5
		PM <sub>10</sub>	0.1	0.5
SN-56	Line #3 Mixing Area Baghouse	PM	1.8	6.2
		PM <sub>10</sub>	1.8	6.2
SN-57	Line #3 Dryer, 56 MMBtu/hr	PM	1.4	30.7~
		PM <sub>10</sub>	1.4	30.7~
		SO <sub>2</sub>	3.0	244.0~
		VOC	0.3	6.2~
		CO	4.7	190.3~
		NO <sub>x</sub>	2.1	245.0~
SN-57	Line #3 Dryer, 56 MMBtu/hr (Process)	PM	3.3	11.9
		PM <sub>10</sub>	3.3	11.9
SN-58	Line #3 Screen Area Baghouse	PM	2.6	9.2
		PM <sub>10</sub>	2.6	9.2
SN-59	Line #3 Milled Feed Vessel Filter	Insignificant Activity.		
SN-60	Line #3 Binder Feed Vessel Filter	Insignificant Activity.		
SN-61	Line #3 Rework Feed Vessel Filter	PM	1.0	1.6
		PM <sub>10</sub>	1.0	1.6
SN-62	Line #3 Pneumatic Conveyance	PM	0.1	0.2
		PM <sub>10</sub>	0.1	0.2
SN-63	Line #3 Pneumatic Conveyance	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
SN-64	Binder Storage Vessel Vent Filter	PM	0.6	2.7
		PM <sub>10</sub>	0.6	2.7
SN-65	Iron Ore Storage Vessel Vent Filter	PM	0.1	0.1
		PM <sub>10</sub>	0.1	0.1
SN-66	Plant-to-Plant Pneumatic Finished Product Conveyance	PM	0.3	0.3
		PM <sub>10</sub>	0.3	0.3
SN-67	Dry Scrubber-Baghouse Unit	PM	10.2	44.7
		PM <sub>10</sub>	10.2	44.7
		SO <sub>2</sub>	44.7	244.0~
		VOC	0.4	6.2~
		CO	6.0	190.3~
		NO <sub>x</sub>	92.7	245.0~
		HCl*	0.77	3.34
		Cl*	0.57	2.47



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EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
		HF*	2.58	11.28
		F	0.39	1.70
SN-68	Waste Lime Silo Bin Vent	PM	1.0	0.3
		PM <sub>10</sub>	1.0	0.3
SN-69	Waste Lime Loadout Operation	PM	0.4	0.2
		PM <sub>10</sub>	0.4	0.2
SN-70	Rotary Mill Baghouse	PM	1.5	13.2
		PM <sub>10</sub>	1.0	8.6
SN-71 /SN-72	Plant #1 Ore Receiving and Storage Bins	PM	0.6	0.9
		PM <sub>10</sub>	0.2	0.2

\*HAPs included in the VOC totals. Other HAPs are not included in any other totals unless specifically stated.

\*\* Air Contaminants such as ammonia, acetone, and certain halogenated solvents are not VOCs or HAPs.

~Plantwide Combustion Bubble.

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### SECTION III: PERMIT HISTORY

492-A was issued to Norton Company on May 26, 1978. 492-A permitted Norton to construct and operate a sintered aluminum oxide manufacturing plant at the present location with an annual production capacity of 20,000 tons per year.

492-AR-1 was issued to the Norton Company on May 22, 1981. 492-AR-1 permitted the installation and operation of a new sintering kiln (SN-10), a new ball mill (SN-11), mixing and sizing equipment (SN-16), and a product cooler system.

492-AR-2 was issued to the Norton Company on January 22, 1982. 492-AR-2 permitted the installation and operation of a new dryer (SN-13) with associated baghouse.

492-AR-3 was issued to Norton-Alcoa Proppants on July 24, 1985. 492-AR-3 permitted the construction and operation of new expanded facilities (SN-18 through SN-34). The permit also recognized the facility's name change from Norton Company to Norton-Alcoa Proppants.

492-AR-4 was issued to Norton-Alcoa Proppants on September 30, 1998 to reclassify the facility as a synthetic minor with annual PM<sub>10</sub> emissions of 91.3 tons per year. The permit also included two previously unlisted sources, the railcar loadout (SN-08), and the truck loadout (SN-17). The permit also includes the plant to plant pneumatic conveyor (SN-38) as a new source.

492-AR-5 was issued to Norton-Alcoa Proppants on September 30, 1999. The permit was issued to allow the installation of a back up bucket elevator which increased the operating efficiency of the facility, but with no increase in emissions. A new baghouse (SN-39) was added with this permit modification. Several sources were also listed for the first time as being subject to 40 CFR 60 Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants.

492-AR-6 was issued to Norton Alcoa Proppants on February 16, 2000. The permit was issued to allow the manufacture of an alternate product at the facility. Permit limits were: PM - 135.7 tpy, PM<sub>10</sub> - 91.3 tpy, SO<sub>2</sub> - 0.8 tpy, VOC - 25.0 tpy, CO - 18.8 tpy, NO<sub>x</sub> - 75.1 tpy, Formaldehyde - 4.61 tpy, Ethylene Glycol - 7.86 tpy, and Phenol 9.40 tpy.

An administrative amendment was issued to the above permit on March 10, 2000. It was determined during testing for the above permit that SN-24 did not vent to atmosphere and was not an emission source. Its emission limits were removed from the permit. Permit limits were: PM - 134.4 tpy, PM<sub>10</sub> - 90.1 tpy, SO<sub>2</sub> - 0.8 tpy, VOC - 25.0 tpy, CO - 18.8 tpy, NO<sub>x</sub> - 75.1 tpy, Formaldehyde - 4.61 tpy, Ethylene Glycol - 7.86 tpy, and Phenol 9.40 tpy.

492-AR-7 was issued to Norton Alcoa Proppants on July 12, 2000. The permit was issued to allow the manufacture to revise cycle times to increase throughput. Permit limits were: PM - 139.8 tpy, PM<sub>10</sub> - 94.3 tpy, SO<sub>2</sub> - 0.8 tpy, VOC - 25.0 tpy, CO - 18.8 tpy, NO<sub>x</sub> - 75.1 tpy, Formaldehyde - 4.61 tpy, Ethylene Glycol - 7.86 tpy, and Phenol 9.40 tpy.

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492-AR-8 was issued to Norton Alcoa Proppants on September 15, 2001. The permit was issued to allow seven minor changes to the previous permit. The primary changes were to allow diesel fuel as a fully permitted fuel and to remove the HAPS containing materials from the process. Permit limits were: PM - 144.9 tpy, PM<sub>10</sub> - 95.3 tpy, SO<sub>2</sub> - 90.0 tpy, VOC - 3.6 tpy, CO - 54.2 tpy, and NO<sub>x</sub> - 98.5 tpy.

492-AOP-R0 was issued to Norton Proppants, Inc. on August 5, 2002. The permit allowed several changes to the previous permit including recalculating several of the emission sources. Permit limits were: PM - 178.1 tpy, PM<sub>10</sub> - 178.1 tpy, SO<sub>2</sub> - 90.0 tpy, VOC - 5.6 tpy, CO - 84.2 tpy, and NO<sub>x</sub> - 153.1 tpy.

Permit No. 0492-AOP-R1 was issued to Norton Proppants, a Division of Saint-Gobain Ceramics and Plastics on November 27, 2003. This modification was issued to allow several minor process changes. Permit limits were: PM - 208.5 tpy, PM<sub>10</sub> - 208.5 tpy, SO<sub>2</sub> - 90.0 tpy, VOC - 5.6 tpy, CO - 84.2 tpy, and NO<sub>x</sub> - 153.1 tpy.

Permit No. 0492-AOP-R2 was issued to Norton Proppants, a Division of Saint-Gobain Ceramics and Plastics on July 13, 2004. This modification was issued to allow the installation of a third forming line. Permit limits were: PM - 235.2 tpy, PM<sub>10</sub> - 235.2 tpy, SO<sub>2</sub> - 90.0 tpy, VOC - 7.1 tpy, CO - 105.2 tpy, and NO<sub>x</sub> - 191.0 tpy.

Permit No. 0492-AOP-R3 was issued to Saint-Gobain Proppants on November 18, 2004. Two pneumatic conveyances (SN-62 & SN-63) are added to the permit on this modification. Permit limits were: PM - 235.5 tpy, PM<sub>10</sub> - 235.5 tpy, SO<sub>2</sub> - 90.0 tpy, VOC - 7.1 tpy, CO - 105.2 tpy, and NO<sub>x</sub> - 153.1 tpy.

Permit No. 0492-AOP-R4 was issued April 7, 2007. This permit modification allowed the facility to add 3 small new sources to the facility. A binder tank vent filter (SN-64), an iron ore tank vent filter (SN-66) and a dust collector for a plant-to-plant conveyance (SN-66) will be added to the facility. Several other changes will be made to existing sources. A supplemental dust collector will be added at the Plant #2 Kiln/cooler so it will then be controlled by 2 dust collectors. Two baghouses will be improved or replaced (SN-09 & SN-11). Two sources will be removed from the permit (SN-48 & SN-52) which were never installed. Two sources (SN-59 & SN-60) will be moved to the Insignificant Activities List since they vent inside the building. Three sources (SN-61, SN-62 & SN-63) will be combined to exhaust through a single stack.

Permit No. 0492-AOP-R5 was issued February 21, 2008. Issuance of this permit was prompted by the submittal of the facility's renewal Title V air permit application. Included in the renewal was the removal of SN-64 and SN-65 as affected sources for 40 CFR Part 60, Subpart OOO. Basis for the removal of these sources from the affected source list was because SN-64 is a bulk storage tank for cornstarch and SN-65 is a bulk storage tank for iron ore (hematite). An affected facility storage bin is defined as a facility for storage of nonmetallic minerals prior to further processing or loading. Cornstarch and hematite are not defined as nonmetallic minerals by 40 CFR Part 60, Subpart OOO. Also included is the installation of a new baghouse (Plant #2 Fuller Mill filter #2).

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Permit No. 0492-AOP-R6 was issued September 16, 2008. This minor permit modification replaced a baghouse (SN-38), installed additional ductwork and pickup points to supplement the dust collection system for SN-38 and SN-39, and increased the annual throughput for SN-38 to 31,200 tons per year. This minor permit modification increased annual PM and PM<sub>10</sub> emissions by 0.1 tons per year to 245.25 tons.

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**SECTION IV: SPECIFIC CONDITIONS**

SN-09, SN-10, SN-13, SN-26, SN-27, SN-27, SN-29 and SN-27

Combustion Sources

Source Description

There are three kilns (SN-10, and SN-29) and five dryers (SN-09, SN-13, SN-26, SN-27 and SN-57) that are the fired equipment operating in the process at the facility. Each source is permitted for full time operation at maximum capacity on either natural gas or low sulfur diesel fuel. The emission limits are based on using the fuel which causes the highest emissions of that pollutant.

Specific Conditions

- The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 15. [Regulation 19, §19.501 et seq., and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04	Kiln No. 1, 7.7 MMBtu/hr	Removed.		
09	Plant No. 1, Dryer No. 1, 46 MMBtu/hr	PM <sub>10</sub>	1.2	*
		SO <sub>2</sub>	2.5	
		VOC	0.3	
		CO	3.9	
		NO <sub>x</sub>	2.7	
10	Rotary Kiln No. 2, Plant No. 1, 20 MMBtu/hr	Reroute to SN-67.		
13	Plant No. 1, Dryer No. 2, 46 MMBtu/hr	PM <sub>10</sub>	1.2	*
		SO <sub>2</sub>	2.5	
		VOC	0.3	
		CO	3.9	
		NO <sub>x</sub>	2.7	
26	Plant No.2, Dryer No. 1, 49.0 MMBtu,hr	PM <sub>10</sub>	1.2	*
		SO <sub>2</sub>	2.6	
		VOC	0.3	
		CO	4.2	
		NO <sub>x</sub>	7.4	
27	Plant No. 2, Dryer No. 2, 24.5 MMBtu/hr	PM <sub>10</sub>	0.6	*
		SO <sub>2</sub>	1.3	
		VOC	0.3	
		CO	2.1	
		NO <sub>x</sub>	3.5	

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SN	Description	Pollutant	lb/hr	tpy
29	Plant No. 2, Kiln and Cooler, 60.0 MMBtu/hr	Reroute to SN-67.		
57	Line #3 Dryer, 56 MMBtu/hr	PM <sub>10</sub>	1.4	*
		SO <sub>2</sub>	3.0	
		VOC	0.3	
		CO	4.7	
		NO <sub>x</sub>	2.1	

\*Plantwide Bubble for Combustion Sources.

2. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific condition 15. [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	Kiln No. 1, 7.7 MMBtu/hr	Removed.		
09	Plant No. 1, Dryer No. 1, 46 MMBtu/hr	PM	1.2	30.7*
10	Rotary Kiln No. 2, Plant No. 1, 20 MMBtu/hr	Reroute to SN-67.		
13	Plant No. 1, Dryer No. 2, 46 MMBtu/hr	PM	1.2	30.7*
26	Plant No.2, Dryer No. 1, 49.0 MMBtu/hr	PM	1.2	30.7*
27	Plant No. 2, Dryer No. 2, 24.5 MMBtu/hr	PM	1.2	30.7*
29	Plant No. 2, Kiln and Cooler, 60.0 MMBtu/hr	Reroute to SN-67.		
57	Line #3 Dryer, 56 MMBtu/hr	PM	1.4	30.7*

\*Plantwide Bubble for combustion sources.

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3. Visible emissions may not exceed the limits specified in the following table of this permit as measured by EPA Reference Method 9. [§18.501 of Regulation 18, §19.503 of Regulation 19, 40 CFR Part 52, Subpart E and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Limit	Regulatory Citation
09, 10, 13, 26, 27,	5%	§18.501 of Regulation 18 & A.C.A.
29, 57	20%	§19.503 & 40 CFR Part 52, Subpart E

4. The combustion sources may only be fired with pipeline quality natural gas or low sulfur diesel fuel. Low sulfur diesel fuel must have a sulfur content of no more than 0.05 weight percent sulfur. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 & 40 CFR 70.6]
5. The permittee shall maintain records of the sulfur content of all shipments of diesel fuel received at the facility. These records shall be maintained on site and made available to Department personnel upon request. [§19.705 of Regulation 19 & 40 CFR Part 52, Subpart E]
6. Visible emissions from the Combustion sources shall not exceed 5% when firing natural gas and 20% when firing low sulfur diesel fuel as measured by EPA Method 9. [§18.501 of Regulation 18 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
7. The permittee shall conduct daily observations of the opacity from sources SN-09, SN-10, SN-26, SN-27, SN-29 and SN-57 when burning low sulfur diesel and keep a record of these observations. If the permittee detects visible emissions, the permittee must immediately take action to identify and correct the cause of the visible emissions. After implementing the corrective action, the permittee must document that the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions and the corrective action taken. The permittee must keep these records onsite and make them available to Department personnel upon request. [§19.503 of Regulation 19 and 40 CFR Part 52, Subpart E]
8. The permittee shall test each kiln, Sources SN-10 and SN-29, prior to the control device, to ensure compliance with the Carbon Monoxide pound per hour emission rate of 6 pounds per hour (as stated in Specific Condition 22) at least once every five years beginning with this permit action. The test shall be conducted in accordance with Plantwide Condition #3 using EPA Reference Method 10. The permittee shall test the source within 90% of its rated capacity. [Regulation 19, §19.702 and 40 CFR Part 52, Subpart E]

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SN-01 through SN-14, SN-16, SN-18 through SN-23, SN-25 through SN-34, SN-38, SN-39, SN-45 through SN-55, SN-56 through SN-66, SN-70, SN-71/72

Particulate Sources

Source Description

Saint-Gobain Proppants operates a facility with three manufacturing trains which produce proppants used in completions of oil and gas wells. A more complete description of the service for each source is contained in the process description at the beginning of this permit.

Specific Conditions

- The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by each source being permitted at its maximum capacity for pound per hour rates and limited annually by fuel usage. [Regulation 19, §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-01	Plant #1 Ore conveyor/Crush Tank Filter	PM <sub>10</sub>	1.1	1.7
SN-02	Plant #1 Ore Dump Station Filter	PM <sub>10</sub>	0.2	0.3
SN-03	Plant #1 Ball Mill No. 1 Filter	Removed.		
SN-04	Plant #1 Kiln No. 1 Filter (Process)	Removed.		
SN-05	Plant #1 Mixers No. 1 through No. 6 Filter	PM <sub>10</sub>	0.2	0.7
SN-06	Plant #1 North/South Tank Bin Vents Filter	PM <sub>10</sub>	0.1	0.4
SN-07	Plant #1 Screening/Kiln Feed Area Filter	PM <sub>10</sub>	1.7	3.4
SN-08 /SN-38	Plant #1 Finished Product Loadout Filter	PM <sub>10</sub>	0.6	0.9
SN-09	Plant #1, Dryer No. 1 Filter (process)	PM <sub>10</sub>	0.5	1.9
SN-10	Plant #1 Rotary Kiln No. 2 Filter (process)	Reroute to SN-67.		
SN-11	Plant #1 Ball Mill Filter	PM <sub>10</sub>	0.6	0.7
SN-12	Plant #1 Product Cooler Filter	PM <sub>10</sub>	3.5	12.6
SN-13	Plant #1, Dryer No.2 Filter (process)	PM <sub>10</sub>	0.5	1.9
SN-14	Plant #1 DCF Tank Filter	PM <sub>10</sub>	0.1	0.1



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SN	Description	Pollutant	lb/hr	tpy
SN-15	South Tank Bin Vent	Rerouted to SN-06		
SN-16	Plant #1 Ore Transport Mill Area Filter	PM <sub>10</sub>	0.4	1.4
SN-17	Truck Loadout	Rerouted to SN-08		
SN-18	Plant #2 Ore Truck Unloading Filter	PM <sub>10</sub>	0.6	1.0
SN-19	Plant #2 Raw Material Silo Transport Filter	PM <sub>10</sub>	1.7	3.0
SN-20	Plant #2 Silo Loadout Filter	PM <sub>10</sub>	2.2	8.0
SN-21A	Plant #2 Fuller Ball Mill Filter #1	PM <sub>10</sub>	0.75	3.15
SN-21B	Plant #2 Fuller Ball Mill Filter #2	PM <sub>10</sub>	0.75	3.15
SN-22	Plant #2 Ball Mill Feed Vessel Vent Filter	PM <sub>10</sub>	0.2	0.6
SN-23	Plant #2 Ball Mill Feed Vent No.2 Filter	PM <sub>10</sub>	0.1	0.2
SN-24	Source removed from permit – 2000			
SN-25	Plant #2 Binder Storage Vessel Vent Filter	PM <sub>10</sub>	0.2	0.1
SN-26	Plant #2, Dryer No. 1 Exhaust Vent Filter (process)	PM <sub>10</sub>	1.0	3.9
SN-27	Plant #2, Dryer No. 2 Exhaust Vent Filter (process)	PM <sub>10</sub>	1.0	3.9
SN-28	Forming Area Dust Collection Baghouse	PM <sub>10</sub>	2.8	11.5
SN-29	Plant #2 Cooler and Kiln Exhaust Filters	Reroute to SN-67.		
SN-31	Plant #2 Sizing Area Vent/Fired Screening Filter	PM <sub>10</sub>	0.2	0.4
SN-32 /SN-33	Plant #2 Finished Product Loadout Tanks Filter	PM <sub>10</sub>	0.4	0.6
SN-34	Plant #2 Shipping Area Vent (Truck Loadout)/Deduster Filter	PM <sub>10</sub>	0.2	0.2
SN-35	Diesel Fuel Storage Tank	Insignificant Activity		
SN-36	Diesel Fuel Storage Tank	Insignificant Activity		
SN-37	Source removed from permit – 1998			
SN-49	Plant to Plant Finished Product Conveyor Filter & Cleaning Booth/SN-04 Backup Filter	PM <sub>10</sub>	0.1	0.1
SN-39	350 Baghouse	PM <sub>10</sub>	0.8	3.2

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SN	Description	Pollutant	lb/hr	tpy
SN-40	Plant #1 Side #1 R/W Blower	PM <sub>10</sub>	0.2	0.5
SN-41	Plant #1 Side #2 R/W Blower	PM <sub>10</sub>	0.2	0.5
SN-42	Plant #1 DCF Blower	PM <sub>10</sub>	0.1	0.1
SN-43	Plant #2 R/W Blower	PM <sub>10</sub>	0.3	1.0
SN-44	Plant #2 R/W Blower	PM <sub>10</sub>	0.3	1.0
SN-45	340 Baghouse	PM <sub>10</sub>	0.8	3.2
SN-46	360 Baghouse	PM <sub>10</sub>	0.8	3.2
SN-47	370 Baghouse	PM <sub>10</sub>	0.8	3.2
SN-48	This equipment was not installed.			
SN-50	Plant No. 2 Mill Conveyer Filter	PM <sub>10</sub>	0.3	1.0
SN-51	Non-point Source Emissions	PM <sub>10</sub>	3.5	20.0
SN-52	This equipment was not installed.			
SN-53	Plant #2 Ball Mill Area – DC 221 Filter	PM <sub>10</sub>	1.9	8.1
SN-54	Plant #2 400 Area – DC 440 Filter	PM <sub>10</sub>	1.9	7.7
SN-55	Plant #1 Bin Vent Mixer 6 – Baghouse	PM <sub>10</sub>	0.1	0.5
SN-56	Line #3 Mixing Area Baghouse	PM <sub>10</sub>	1.8	6.2
SN-57	Line #3 Dryer Area Baghouse (process)	PM <sub>10</sub>	3.3	11.9
SN-58	Line #3 Screen Area Baghouse	PM <sub>10</sub>	2.6	9.2
SN-59	Line #3 Milled Feed Vessel Filter	Insignificant Activity		
SN-60	Line #3 Binder Feed Vessel Filter	Insignificant Activity		
SN-61	Line #3 Rework Feed Vessel Filter	PM <sub>10</sub>	1.0	1.6
SN-62	Line #3 Pneumatic Conveyance	PM <sub>10</sub>	0.1	0.2
SN-63	Line #3 Pneumatic Conveyance	PM <sub>10</sub>	0.1	0.1
SN-64	Binder Storage Vessel Vent Filter	PM <sub>10</sub>	0.6	2.7
SN-65	Iron Ore Storage Vessel Vent Filter	PM <sub>10</sub>	0.1	0.1
SN-66	Plant-to-Plant Pneumatic Finished Product Conveyance	PM <sub>10</sub>	0.3	0.3

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SN	Description	Pollutant	lb/hr	tpy
SN-70	Rotary Mill Baghouse	PM <sub>10</sub>	1.0	8.6
SN-71 /SN-72	Plant #1 Ore Receiving and Storage Bins	PM <sub>10</sub>	0.2	0.2

10. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by each source being permitted at its maximum capacity for pound per hour rates and limited annually by fuel usage. [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
SN-01	Plant #1 Ore Conveyor/Crush Tank Filter	PM	1.1	1.7
SN-02	Plant #1 Ore Dump Station Filter	PM	0.6	0.9
SN-03	Plant #1 Ball Mill No. 1 Filter	Removed.		
SN-04	Plant #1 Kiln No. 1 Filter (Process)	Removed.		
SN-05	Plant #1 Mixers No. 1 through No. 6 Filter	PM	0.2	0.7
SN-06	Plant #1 North/South Tank Bin Vents Filter	PM	0.1	0.4
SN-07	Plant #1 Screening/Kiln Feed Area Filter	PM	1.7	3.4
SN-08 /SN-38	Plant #1 Finished Product Loadout Filter	PM <sub>10</sub>	0.6	0.9
SN-09	Plant #1, Dryer No. 1 Filter (process)	PM	0.5	1.9
SN-10	Plant #1 Rotary Kiln No. 2 Filter (process)	Reroute to SN-67.		
SN-11	Plant #1 Ball Mill No. Filter	PM	0.6	0.7
SN-12	Plant #1 Product Cooler Filter	PM	3.5	12.6
SN-13	Plant #1, Dryer No.2 Filter (process)	PM	0.5	1.9
SN-14	Plant #1 DCF Tank Filter	PM	0.1	0.1
SN-15	South Tank Bin Vent	Rerouted to SN-06		
SN-16	Plant #1 Ore Transport Mill Area Filter	PM	0.4	1.4
SN-17	Truck Loadout PM <sub>10</sub>	Rerouted to SN-08		

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SN	Description	Pollutant	lb/hr	tpy
SN-18	Plant #2 Ore Truck Unloading Filter	PM	0.6	1.0
SN-19	Plant #2 Raw Material Silo Transport Filter	PM	1.7	3.0
SN-20	Plant #2 Silo Loadout Filter	PM	2.2	8.0
SN-21A	Plant #2 Fuller Ball Mill Filter #1	PM	0.75	3.15
SN-21B	Plant #2 Fuller Ball Mill Filter #2	PM	0.75	3.15
SN-22	Plant #2 Ball Mill Feed Vessel Vent Filter	PM	0.2	0.6
SN-23	Plant #2 Ball Mill Feed Vent No.2 Filter	PM	0.1	0.2
SN-24	Source removed from permit – 2000			
SN-25	Plant #2 Binder Storage Vessel Vent Filter	PM	0.2	0.1
SN-26	Plant #2, Dryer No. 1 Exhaust Vent Filter (process)	PM	1.0	3.9
SN-27	Plant #2, Dryer No. 2 Exhaust Vent Filter (process)	PM	1.0	3.9
SN-28	Forming Area Dust Collection Baghouse	PM	2.8	11.5
SN-29	Plant #2 Cooler and Kiln Exhaust Filters	Reroute to SN-67.		
SN-31	Plant #2 Sizing Area Vent/Fired Screening Filter	PM	0.2	0.4
SN-32 /SN-33	Plant #2 Finished Product Loadout Tanks Filter	PM	0.4	0.6
SN-34	Plant #2 Shipping Area Vent (Truck Loadout)/Deduster Filter	PM	0.2	0.2
SN-35	Diesel Fuel Storage Tank	Insignificant Activity		
SN-36	Diesel Fuel Storage Tank	Insignificant Activity		
SN-37	Source removed from permit – 1998			
SN-49	Plant to Plant Finished Product Conveyor Filter & Cleaning Booth/SN-04 Backup Filter	PM	0.1	0.1
SN-39	350 Baghouse	PM	0.8	3.2
SN-40	Plant #1 Side #1 R/W Blower	PM	0.2	0.5
SN-41	Plant #1 Side #2 R/W Blower	PM	0.2	0.5
SN-42	Plant No. 1 DCF Blower	PM	0.1	0.1

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SN	Description	Pollutant	lb/hr	tpy
SN-43	Plant #2 R/W Blower	PM	0.3	1.0
SN-44	Plant #2 R/W Blower	PM	0.3	1.0
SN-45	340 Baghouse	PM	0.8	3.2
SN-46	360 Baghouse	PM	1.9	8.1
SN-47	370 Baghouse	PM	0.8	3.2
SN-48	This equipment was not installed.			
SN-50	Plant #2 Mill Conveyer Filter	PM	0.3	1.0
SN-51	Non-point Source Emissions	PM	3.5	20.0
SN-52	This equipment was not installed.			
SN-53	Plant #2 Ball Mill Area – DC 221 Filter	PM	1.9	8.1
SN-54	Plant #2 400 Area – DC 440 Filter	PM	1.9	8.1
SN-55	Plant #1 Bin Vent Mixer 6 – Baghouse	PM	0.1	0.5
SN-56	Line #3 Mixing Area Baghouse	PM	1.8	6.2
SN-57	Line #3 Dryer Area Baghouse (process)	PM	3.3	11.9
SN-58	Line #3 Screen Area Baghouse	PM	2.6	9.2
SN-59	Line #3 Milled Feed Vessel Filter	Insignificant Activity		
SN-60	Line #3 Binder Feed Vessel Filter	Insignificant Activity		
SN-61	Line #3 Rework Feed Vessel Filter	PM	1.0	1.6
SN-62	Line #3 Pneumatic Conveyance	PM	0.1	0.2
SN-63	Line #3 Pneumatic Conveyance	PM	0.1	0.1
SN-64	Binder Storage Vessel Vent Filter	PM	0.6	2.7
SN-65	Iron Ore Storage Vessel Vent Filter	PM	0.1	0.1
SN-66	Plant-to-Plant Pneumatic Finished Product Conveyance	PM	0.3	0.3
SN-70	Rotary Mill Baghouse	PM	1.4	13.2
SN-71 /SN-72	Plant #1 Ore receiving and Storage Bins	PM	0.6	0.9

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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
01-14, 16, 18 - 23, 25-34, 38, 39, 45-55, 56-61	5%	§18.501 of Regulation 18 & A.C.A.

12. If visible emissions are detected at the Particulate sources, then the permittee shall immediately conduct a 6 minute opacity reading in accordance with EPA Reference Method #9. The results of these observations or readings shall be recorded in a log which shall be maintained on site and made available to Department personnel upon request.
13. The permittee shall not exceed a throughput of 76,000 tons of plantwide product per consecutive twelve month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 & 40 CFR 70.6]
14. The permittee shall not produce more than 256,000 tons of ceramic beads (standard proppant product) at SN-38 per consecutive twelve month period. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
15. The permittee shall not receive more than 350,000 tons of Ore at SN-70 and SN-21 combined, per consecutive twelve month period. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311].
16. The permittee shall not store more than 150,000 tons of Ore at SN-02 per consecutive twelve month period. [§19.705 of Regulation 19, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6]
17. The permittee shall maintain monthly records which demonstrate compliance with Specific Conditions 13, 14, 15, and 16. Records shall be updated by the fifteenth day of the month following the month for which the records pertain. These records shall be kept on site, and shall be made available to Department personnel upon request. A copy of the results of these records shall be submitted with the semi-annual report required in General Provision No. 7. [§19.705 of Regulation 19 and 40 CFR Part 52, Subpart E]
18. SN-18, SN-19, SN-20, SN-21, SN-22, SN-23, SN-25, SN-28, SN-31, SN-34, SN-38\*, SN-39, SN-45, SN-46, SN-47, SN-48, SN-49, SN-50, SN-52, SN-53, SN-54, SN-55, SN-56, SN-57(process), SN-58, SN-59, SN-60 and SN-61 are subject to NSPS 40 CFR 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. No additional limits are necessary at this time to assure compliance other than those previously listed. The sources have been tested to meet the following standards [§19.304 of Regulation 19 and 40 CFR 60, Subpart OOO]:

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Test Method	Standard
EPA Method 5 or 17	Not in excess of 0.05 g/dscm particulate matter
EPA Method 9	Not in excess of 15% opacity

SN-18, SN-19, and SN-20 are non-stack emissions; therefore, testing for particulate was not required.

\* A special request for alternate testing for SN-38 was sent to EPA Region VI, April 3, 2000. Letter dated May 11, 2000 from John R. Hepola waived requirement for particulate matter testing for the source. Source No. 66 is an identical process to SN-38 and is therefore subject to the alternate testing approved May 11, 2000.

19. SN-29B (Routed to SN-67) and SN-66\* are subject to NSPS 40 CFR 60, Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. Within 60 days of the facility achieving the maximum production rate when the proposed changes in this permit are activated but no later than 180 days after their initial start up, these sources shall be tested to meet the following standards [§19.304 of Regulation 19 and 40 CFR 60, Subpart OOO]:

Test Method	Standard
EPA Method 5 or 17	Not in excess of 0.05 g/dscm particulate matter
EPA Method 9	Not in excess of 15% opacity

\* - see Specific Condition No. 13

Particulate Compliance Assurance Monitoring Plan Conditions

20. SN-56, SN-57, SN-58, and SN-61 are subject to and shall comply with all applicable provisions of §19.304 of Regulation 19, 40 CFR Part 52, Subpart E, and Section §64.6 for Compliance Assurance Monitoring.
- a. The permittee shall daily monitor opacity from each exhaust.
  - b. A full Method 9 opacity observation will be performed if visible emissions in excess of the permit limit are noted.
  - c. Each source shall be inspected weekly. Maintenance and repair shall be performed on an as needed basis. Records shall be kept of all weekly equipment inspections and of any maintenance performed.
  - d. Maintenance and repair of systems shall be performed in accordance with the manufacturer's specifications.

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21. SN-56, SN-57, SN-58, and SN-61 are subject and shall comply with all applicable provisions of §19.304 of Regulation 19, 40 CFR Part 52, Subpart E, and Section §64.9 for Compliance Assurance Monitoring. The following information pertaining to exceedances or excursions from permitted values shall be submitted in semi-annual reports in accordance with General Provision #7 as outlined in 40 CFR §70.6.
  - a. The permittee shall maintain records for SN-56, SN-57, SN-58, and SN-61 that summarize the number, duration, and cause of excursions or exceedances of emission limits as well as corrective action taken. [40 CFR §64.9(a)(2)(i) and §64.9(b)]
  - b. The permittee shall maintain a quality improvement plan (QIP) threshold for each indicator of no more than nine excursions or 5% of the daily averages in a six-month period. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]
  - c. The permittee shall develop and implement a new QIP if the threshold is exceeded during any six-month period. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]
  - d. The permittee shall maintain records for SN-03 that describes the actions taken to implement the QIP. Upon completion of the QIP, documentation shall be maintained to confirm that the plan was completed and reduced the likelihood of similar excursions or exceedances. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]



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SN-67, SN-68 and SN-69

Dry Scrubber-Baghouse Unit (SN-67), Waste Lime silo bin Vent (SN-68) and Waste Lime Loading Operation (SN-69)

Source Description

The Dry Scrubber-Baghouse Unit is used to treat exhaust from SN-10 and SN-29. The exhaust gas is transferred to the venture reactor where hydrated lime is injected as a dry scrubbing agent. The exhaust from venture reactor is collected by a baghouse to remove lime and particulate matter prior to discharge to the atmosphere. Waste Lime from the dry scrubber is stored in a silo and located into trucks for off site disposal. A sealing boot is applied between the bottom of the silo load-out tube to the truck opening to limit fugitive dust. The vendor estimates a removal efficiency of 85% for SO<sub>2</sub> and 98% for HF.

Specific Conditions

22. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 25 and 26. [Regulation 19 §19.501 et seq. and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-67	Dry Scrubber-Baghouse Unit	PM <sub>10</sub>	10.2	44.7
		SO <sub>2</sub>	44.7	*
		VOC	0.4	*
		CO	6.0	*
		NO <sub>x</sub>	92.7	*
		HCl	0.77	3.34
		Cl	0.57	2.47
		HF	2.58	11.28
		F	0.39	1.70
SN-68	Waste Lime Silo Bin Vent	PM <sub>10</sub>	1.0	4.5
SN-69	Waste Lime Loading Operations	PM <sub>10</sub>	0.4	0.2

\*Plantwide Bubble for Combustion sources.

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23. The permittee shall not exceed the emission rates set forth in the following table. The permittee shall demonstrate compliance with this condition by Specific Condition 25 and 26. [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
SN-67	Dry Scrubber-Baghouse Unit	PM	10.2	44.7
SN-68	Waste Lime Silo Bin Vent	PM	1.0	4.5
SN-69	Waste Lime Loading Operations	PM	0.4	0.2

24. Visible emissions from SN-67, SN-68 and SN-69 shall not exceed 5% as measured by EPA Method 9. [§18.501 of Regulation 18 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]
25. The permittee shall observe visible emissions from SN-67 and SN-68 daily. A full EPA Method 9 opacity observation will be performed if any visible emissions are noted. The permittee shall maintain records of all the observations and Full Method 9 Readings (when necessary). [§18.501 of Regulation 18 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]

SO<sub>2</sub> Compliance Assurance Monitoring Plan Conditions

26. SN-67 is subject to and shall comply with all applicable provisions of §19.304 of Regulation 19, 40 CFR Part 52, Subpart E, and Section §64.6 for Compliance Assurance Monitoring.
- a. The permittee shall maintain a scrubber lime feed rate of at least 33.6 pounds of lime per ton of lightweight product or 42 pounds of lime per ton of high strength product.
  - b. The permittee shall continuously monitor scrubbing agent (lime) feed rate and spent lime recirculation rate.
  - c. The feed and recirculation systems shall be inspected weekly. Maintenance and repair shall be performed on an as needed basis. Records shall be kept of all weekly equipment inspections and of any maintenance performed.
  - d. Maintenance and repair of systems shall be performed in accordance with the manufacturer's specifications.
27. SN-67 is subject to and shall comply with all applicable provisions of §19.304 of Regulation 19, 40 CFR Part 52, Subpart E, and Section §64.9 for Compliance Assurance Monitoring. The following information pertaining to exceedances or excursions from permitted values shall be submitted in semi-annual reports in accordance with General Provision #7 as outlined in 40 CFR §70.6

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- a. The permittee shall maintain records for SN-67 that summarize the number, duration, and cause of excursions or exceedances of emission limits as well as corrective action taken. [40 CFR §64.9(a)(2)(i) and §64.9(b)]
- b. The permittee shall maintain records for SN-67 that summarize the number, duration, and cause of monitoring equipment downtime incidents, other than routine downtime for calibration checks. [40 CFR §64.9(a)(2)(i) and §64.9(b)]
- c. The permittee shall maintain a quality improvement plan (QIP) threshold for each indicator of no more than nine excursions or 5% of the daily averages in a six-month period. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]
- d. The permittee shall develop and implement a new QIP if the threshold is exceeded during any six-month period. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]
- e. The permittee shall maintain records for SN-03 that describes the actions taken to implement the QIP. Upon completion of the QIP, documentation shall be maintained to confirm that the plan was completed and reduced the likelihood of similar excursions or exceedances. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]

#### Particulate Compliance Assurance Monitoring Plan Conditions

28. SN-67 is subject to and shall comply with all applicable provisions of §19.304 of Regulation 19, 40 CFR Part 52, Subpart E, and Section §64.6 for compliance Assurance Monitoring.
  - a. The permittee shall daily monitor opacity from each exhaust.
  - b. A full Method 9 opacity observation will be performed if visible emissions in excess of the permit limit are noted.
  - c. Each source shall be inspected weekly. Maintenance and repair shall be performed on an as needed basis. Records shall be kept of all weekly equipment inspections and of any maintenance performed.
  - d. Maintenance and repair of systems shall be performed in accordance with the manufacturer's specifications.
29. SN-67 is subject to and shall comply with all applicable provisions of §19.304 of Regulation 19, 40 CFR Part 52, Subpart E, and Section §64.9 for Compliance Assurance Monitoring. The following information pertaining to exceedances or excursions from permitted values shall be submitted in semi-annual reports in accordance with General Provision #7 as outlined in 40 CFR §70.6.
  - a. The permittee shall maintain records for SN-67 that summarize the number, duration, and cause of excursions or exceedances of emission limits as well as corrective action taken. [40 CFR §64.9(a)(2)(i) and §64.9(b)]
  - b. The permittee shall maintain a quality improvement plan (QIP) threshold for each indicator of no more than nine excursions or 5% of the daily averages in a six-month period. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]

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- c. The permittee shall develop and implement a new QIP if the threshold is exceeded during any six-month period. [40 CFR §64.9(a)92)(iii) and §64.9(b)]
  - d. The permittee shall maintain records for SN-03 that describes the actions taken to implement the QIP. Upon completion of the QIP, documentation shall be maintained to confirm that the plan was completed and reduced the likelihood of similar excursions or exceedances. [40 CFR §64.9(a)(2)(iii) and §64.9(b)]
30. The permittee shall keep a copy of the facility's CAM (Compliance Assurance Monitoring) Plan (for all sources applicable to CAM) on-site and have it readily available to Department personnel upon request. [§18.501 of Regulation 18 and A.C.A §8-4-203 as referenced by §8-4-304 and §8-4-311]
31. Within five years from the date of the issuance of 0492-AOP-7 and every 5-years thereafter, the permittee shall test SN-67 to measure HF pound per hour emissions in accordance with EPA Reference Method 26A, 320, or equivalent from SN-67. During the compliance test, the SN-10 and SN-29 will operate at maximum production level. This test shall be performed to demonstrate compliance with the facility's permitted control efficiency of 98% for HF at the scrubber. Any equivalent testing method must first be approved by the Department. The results of this testing will be submitted to the Department in accordance with General Condition No. 7. [§18.1002 of Regulation 18, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]
32. Within five years from the date of the issuance of 0492-AOP-7 and every 5-years thereafter, the permittee shall test SN-67 to measure SO<sub>2</sub> pound per hour emissions in accordance with EPA Reference Method 6, or equivalent from SN-67. During the compliance test, the SN-10 and SN-29 will operate at maximum production level. This test shall be performed to demonstrate compliance with the facility's permitted control efficiency of 85% for SO<sub>2</sub> at the scrubber. Any equivalent testing method must first be approved by the Department. The results of this testing will be submitted to the Department in accordance with General Condition No. 7. [§19.702 of Regulation 19, and 40 CFR Part 52, Subpart E]

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

Saint Gobain Ceramics & Plastics, 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]

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7. The permittee shall demonstrate compliance with the Plantwide Combustion Limit in Specific Condition #1, by completing the following material balance for the following pollutants for each month the facility operates. [§19.705 of Regulation 19 and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]:

$$30.7 \text{ TPY PM}_{10} = (0.0033)(B)(\text{ton}/2000 \text{ lbs}) + (C)(7.6)(\text{ton}/2000 \text{ lbs})$$

$$30.7 \text{ TPY PM} = (0.0033)(B)(\text{ton}/2000 \text{ lbs}) + (C)(7.6)(\text{ton}/2000 \text{ lbs})$$

$$6.2 \text{ TPY VOC} = (0.0003)(B)(\text{ton}/2000 \text{ lbs}) + (C)(5.5)(\text{ton}/2000 \text{ lbs})$$

$$244.0 \text{ TPY SO}_2 = (0.142)(A)(B)(\text{ton}/2000 \text{ lbs}) + (C)(0.6)(\text{ton}/2000 \text{ lbs}) + (D)(1.53 \text{ lb}/\text{ton})(\text{ton}/2000)$$

$$190.3 \text{ TPY CO} = (0.005)(B)(\text{ton}/2000 \text{ lbs}) + (C)(84)(\text{ton}/2000 \text{ lbs})$$

$$245.0 \text{ TPY NO}_x = (0.02)(B)(\text{ton}/2000 \text{ lbs}) + (C@ \text{SN-09})(58.7)(\text{ton}/2000 \text{ lbs}) + (C@ \text{SN-13})(58.7)(\text{ton}/2000 \text{ lbs}) + (C@ \text{SN-26})(71.4)(\text{ton}/2000 \text{ lbs}) + (C@ \text{SN-27})(142.86)(\text{ton}/2000 \text{ lbs}) + (C@ \text{SN-57})(37.5)(\text{ton}/2000 \text{ lbs}) + (C@ \text{SN-67})(562.5)(\text{ton}/2000 \text{ lbs})$$

Where:

- A = Weigh percent sulfur in the diesel fuel consumed.  
(i.e.: if fuel is 0.05% sulfur, then A = 0.05)  
B = Gallons of diesel fuel burned.  
C = Million standard cubic feet of natural gas used per year.  
D = Tons of final product produced.

The facility shall keep satisfactory usage and content records to complete the above equation on site. The facility shall also complete a summation of the resultant of the above equations for the previous 12 months operation each month. The records from the above material balances shall be kept on site and made available to Department personnel upon request. A copy of the results of this calculation shall be submitted with the semi-annual report required in General Provision No. 7.

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### 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 October 2010.

Description	Category
Gas fired Pilot Plant	A-1
Two 0.6 MMBtu/hr Hot Water Heaters	A-1
Two Laboratory Vent Hoods	A-5
Three Portable Emergency Use Electrical Generators	B-16
One Diesel Fuel Storage Tank	A-3
Two 15,000 gallon Diesel Storage Tanks	A-13
Two Line #3 Milled Feed Vessel Filters	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)]

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

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 Regulation 19, § 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.

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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)]

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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

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- 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 within 30 days following the last day of the anniversary month of the initial Title V permit. The permittee must also submit the compliance certification to the Administrator as well as to the Department. All compliance certifications required by this permit must include the following: [40 CFR 70.6(c)(5) and Regulation 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.

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[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**

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## Electronic Code of Federal Regulations

e-CFR

TM

**e-CFR Data is current as of October 13, 2011**

### **Title 40: Protection of Environment**

#### **PART 60—STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES**

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#### **Subpart 000—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  $\pm 250$  pascals  $\pm 1$  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  $\pm 5$  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 §608, 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<sub>2</sub>O (0.05 in. H<sub>2</sub>O)] 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.

$$v_e = \frac{Q_f}{A_e} \quad (\text{Eq. 1})$$

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



		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—Stack Emission Limits for Affected Facilities With Capture Systems

Table 2 to Subpart OOO—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) <sup>a</sup>	7 percent for dry control devices <sup>b</sup>	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) <sup>a</sup>	Not applicable (except for individual enclosed storage bins) 7 percent for dry control devices on individual enclosed	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

		storage bins	§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).

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

<sup>b</sup>The stack opacity limit and associated opacity testing requirements do not apply for affected facilities using wet scrubbers.

**Table 3 to Subpart OOO—Fugitive Emission Limits**

**Table 3 to Subpart OOO—Fugitive Emission Limits**

	<b>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) * * *</b>	<b>The owner or operator must meet the following fugitive emissions limit for crushers at which a capture system is not used * * *</b>	<b>The owner or operator must demonstrate compliance with these limits by conducting * * *</b>
<b>For * * *</b>	<b>10 percent opacity</b>	<b>15 percent opacity</b>	<b>An initial performance test according to §60.11 of this part and §60.675 of this subpart.</b>
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			
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.

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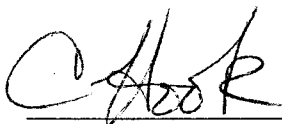
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**CERTIFICATE OF SERVICE**

I, Cynthia Hook, hereby certify that a copy of this permit has been mailed by first class mail to Saint Gobain Ceramics & Plastics, Inc., 5300 Gerber Road, Fort Smith, AR, 72904-1699, on this 29<sup>th</sup> day of May, 2012.



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Cynthia Hook, ASIII, Air Division