Saint Gobain Proppants
5300 Gerber Road
Fort Smith, Arkansas 72904
AFIN: 66-00219

Response to Comments on Draft Major Source Air Permit
0492-AOP-R5

On or about November 2nd, 2007, the Director of the Arkansas Department of Environmental Quality gave notice of the draft permitting decision for the above referenced facility. During the comment period interested person(s) submitted written comments, data views, or arguments on the draft permitting decision. The Department's response to these issues and comments follows.

Comment 1:
There are some inaccuracies in the Process Description. A more accurate process description along with the major control devices are as follows:

Proppants are small sintered spherical grains ranging in size from approximately 12 U.S. mesh to 70 U.S. mesh. These sintered spheres are used in the oil and gas well industry to increase the well's flow rate. During the fracturing process, proppants are suspended in a viscous gel and injected into the rock formation. When the pressure created during the fracturing process is released, the proppants prevent the newly created formation fractures from closing, thus maximizing gas or oil recovery.

Plant #1
Ore is received at the ore unloading station and conveyed into a covered storage room. The ore is then transported to feed tanks for milling. Dust from the unloading and transport are captured by fabric filter baghouses SN-02 and SN-01. The ore is then ground to a very fine powder in continuous feed ball mills. The milled ore is captured by baghouses SN-03 and SN-11.

Finely milled ore is pelletized using high-intensity batch mixers. There are two 'forming' lines that combine water, a cornstarch binder and trace minerals to form the spherical pellets. The pellets are then dried in gas-fired dryers. Dust generated from the forming and drying processes are controlled by baghouses SN-05, SN-09 and SN-13. The dried pellets are then screened to the proper size. Oversize and undersize pellets are reintroduced into mixing process for re-pelletizing. The properly sized pellets are stored in a holding tank to await the sintering process. Dust from the screening and transport of the 'green' pellets are controlled by baghouse SN-07.

The pellets are then fed into one of two rotary kilns that sinter the material at a very high temperature. The kilns discharge their material into a rotary cooler that returns the material to an ambient temperature. Emissions from the sintering and cooling processes are collected at baghouses SN-04, SN-10 and SN-12.

The sintered pellets are then re-screened into various sizes and to remove oversize/undersize material. The finished material is held in bulk storage tanks where it can be bagged, or bulk loaded into trucks or rail-cars. Dust from the loading processes is captured by baghouse SN-08.

Plant #2
Ore is received at an unloading station and transported into one of two concrete silos for storage. Ore is then transported from the silos into the plant for size reduction in a continuous fed ball mill. Dust from the unloading and transport of the ore is captured by baghouses SN-18, SN-19 and SN-20. The milled material is captured by baghouse filters SN-21A and SN-21B.

There are three forming lines in Plant #2. Milled material is formed into pellets by combining milled ore, water and cornstarch binder in a high-intensity batch mixer. The material is discharged from each mixer into a gas-fired dryer. Dust from the dryers is captured by baghouses SN-26, SN-27 and SN-57. The dried pellets are then screened to remove over and under sized material. Off-size material is transported back to the mixer for re-forming. Dust from the transport of green-ware is captured by baghouses SN-28, SN-39 and SN-44 through SN-47.

The properly sized pellets are then sintered in a continuously fed rotary kiln and discharged into a rotary cooler. Dust from the sintering and cooling process is collected using fabric filter baghouses that discharge through SN-29. The sintered material is resized into various sizes and pneumatically transported into finish tanks to await final shipping. Dust from the sizing and transport systems are collected using baghouses SN-31, SN-32 and SN-33. The stored material can be loaded into trucks or pneumatically conveyed into tanks used to load railcars. Dust from truck loading and the pneumatic conveyance is collected by baghouses SN-34 and SN-38.

All kilns and dryers normally combust pipeline quality natural gas for heat. Saint Gobain Proppants is also permitted to operate these sources on low-sulfur diesel fuel. Fuel for the kilns and dryers is stored in two above ground storage tanks located on the property.

Response 1:
The process description has been revised as requested.

Comment 2:
A binder tank vent filter was added with the issuance of permit #0492-AOP-R4, identified as SN-64. The particulate emissions for that source were estimated at 0.1 lbs/hour and 0.1 tons/yr. Particulate testing for this source took place December 5th, 2006. It was determined that actual emissions were 0.6 lbs/hr. Emissions from this source are only generated during tank filling, which occurs about once every two weeks for a 90 minute time period. Annual emissions from this source are estimated at 25 pounds/year. It has been determined that this source is not subject to 40 CFR Part 60, Subpart OOO. Because of the very low emission level, the permittee requests that this source be moved to the "insignificant activities list" in the permit.

Response 2:
The permitted emissions for SN-64 have been revised to 0.6 pounds per hour and 2.7 tons per year in the final permit. Insignificant Activity Group A-13 activities are those with aggregate

emissions less than 5 tons per year of any regulated pollutant. Given that the potential to emit of this source alone (from testing) is 2.7 tons per year and the facility has two sources currently listed under the A-13 "Insignificant Activity," more information would be necessary with regard to the potential to emit of the two A-13 sources currently listed in the permit.

Location of SN-64 will remain as written in the draft permit.

ADEQ

ARKANSAS
Department of Environmental Quality

February 21, 2008

Mike Snyder
Process Engineer
Saint Gobain Proppants
5300 Gerber Road
Fort Smith, AR 72904-1699

Dear Mr. Snyder:

The enclosed Permit No. 0492-AOP-R5 is issued pursuant to the Arkansas Operating Permit Program, Regulation # 26.

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-R5 for the construction, operation and maintenance of an air pollution control system for Saint Gobain Proppants to be issued and effective on the date specified in the permit, unless a Commission review has been properly requested under §2.1.14 of Regulation No. 8, Arkansas Department of Pollution Control & Ecology Commission's Administrative Procedures, within thirty (30) days after service of this decision.

All persons submitting written comments during this thirty (30) day period, and all other persons entitled to do so, may request an adjudicatory hearing and Commission review on whether the decision of the Director should be reversed or modified. Such a request shall be in the form and manner required by §2.1.14 of Regulation No. 8.

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-R5
IS ISSUED TO:

Saint-Gobain Proppants
5300 Gerber Road
Fort Smith, AR 72904
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:

February 21, 2008 AND February 20, 2013

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

Signed:

Mike Bates
Chief, Air Division

February 21, 2008
Date

Table of Contents

List of Acronyms and Abbreviations

A.C.A.	Arkansas Code Annotated
AFIN	ADEQ Facility Identification Number
CFR	Code of Federal Regulations
CO	Carbon Monoxide
HAP	Hazardous Air Pollutant
lb/hr	Pound Per Hour
MVAC	Motor Vehicle Air Conditioner
No.	Number
NO_x	Nitrogen Oxide
PM	Particulate Matter
PM_{10}	Particulate Matter Smaller Than Ten Microns
SNAP	Significant New Alternatives Program (SNAP)
SO_2	Sulfur Dioxide
SSM	Startup, Shutdown, and Malfunction Plan
Tpy	Tons Per Year
UTM	Universal Transverse Mercator
VOC	Volatile Organic Compound

SECTION I: FACILITY INFORMATION

PERMITTEE:	Saint-Gobain Proppants
AFIN:	66-00219
PERMIT NUMBER:	0492-AOP-R5
FACILITY ADDRESS:	5300 Gerber Road Fort Smith, AR 72904-1699
MAILING ADDRESS:	5300 Gerber Road Fort Smith, AR 72904-169
COUNTY:	Sebastian
CONTACT POSITION:	General Manager – Tom Duncan Process Engineer – Richard Lee
TELEPHONE NUMBER:	(479)782-2001
FAX NUMBER:	(479)782-9984
REVIEWING ENGINEER:	Derrick Brown
UTM North South (Y):	Zone 15: 3920.56 km N
UTM East West (X):	Zone 15: 374.26 km E

SECTION II: INTRODUCTION

Summary of Permit Activity

Saint-Gobain Proppants owns and operates a facility located at 5300 Gerber Road in Fort Smith which manufactures proppants. Proppants are small, sintered, high density spherical grains in size from approximately 12 U.S. mesh to 70 U.S. mesh. The product is normally used in the fracturing of oil and gas wells. Issuance of this permit is prompted by the submittal of the facility's renewal Title V air permit application. Included in this renewal is 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 is 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).

Process Description

Proppants are small sintered spherical grains ranging in size from approximately 12 U.S. mesh to 70 U.S. mesh. These sintered spheres are used in the oil and gas well industry to increase the well's flow rate. During the fracturing process, proppants are suspended in a viscous gel and injected into the rock formation. When the pressure created during the fracturing process is released, the proppants prevent the newly created formation fractures from closing, thus maximizing gas or oil recovery.

Plant #1
Ore is received at the ore unloading station and conveyed into a covered storage room. The ore is then transported to feed tanks for milling. Dust from the unloading and transport are captured by fabric filter baghouses SN-02 and SN-01. The ore is then ground to a very fine powder in continuous feed ball mills. The milled ore is captured by baghouses SN-03 and SN-11.

Finely milled ore is pelletized using high-intensity batch mixers. There are two 'forming' lines that combine water, a cornstarch binder and trace minerals to form the spherical pellets. The pellets are then dried in gas-fired dryers. Dust generated from the forming and drying processes are controlled by baghouses SN-05, SN-09 and SN-13. The dried pellets are then screened to the proper size. Oversize and undersize pellets are reintroduced into mixing process for re-pelletizing. The properly sized pellets are stored in a holding tank to await the sintering process. Dust from the screening and transport of the 'green' pellets are controlled by baghouse SN-07.

The pellets are then fed into one of two rotary kilns that sinter the material at a very high temperature. The kilns discharge their material into a rotary cooler that returns the material to an ambient temperature. Emissions from the sintering and cooling processes are collected at baghouses SN-04, SN-10 and SN-12.

The sintered pellets are then re-screened into various sizes and to remove oversize/undersize material. The finished material is held in bulk storage tanks where it can be bagged, or bulk loaded into trucks or rail-cars. Dust from the loading processes is captured by baghouse SN-08.

Plant #2
Ore is received at an unloading station and transported into one of two concrete silos for storage. Ore is then transported from the silos into the plant for size reduction in a continuous fed ball mill. Dust from the unloading and transport of the ore is captured by baghouses SN-18, SN-19 and SN-20. The milled material is captured by baghouse filters SN-21A and SN-21B.

There are three forming lines in Plant #2. Milled material is formed into pellets by combining milled ore, water and cornstarch binder in a high-intensity batch mixer. The material is discharged from each mixer into a gas-fired dryer. Dust from the dryers is captured by baghouses SN-26, SN-27 and SN-57. The dried pellets are then screened to remove over and under sized material. Off-size material is transported back to the mixer for re-forming. Dust from the transport of green-ware is captured by baghouses SN-28, SN-39 and SN-44 through SN-47.

The properly sized pellets are then sintered in a continuously fed rotary kiln and discharged into a rotary cooler. Dust from the sintering and cooling process is collected using fabric filter baghouses that discharge through SN-29. The sintered material is resized into various sizes and pneumatically transported into finish tanks to await final shipping. Dust from the sizing and transport systems are collected using baghouses SN-31, SN-32 and SN-33. The stored material can be loaded into trucks or pneumatically conveyed into tanks used to load railcars. Dust from truck loading and the pneumatic conveyance is collected by baghouses SN-34 and SN-38.

All kilns and dryers normally combust pipeline quality natural gas for heat. Saint Gobain Proppants is also permitted to operate these sources on low-sulfur diesel fuel. Fuel for the kilns and dryers is stored in two above ground storage tanks located on the property.

Regulations

The following table contains the regulations applicable to this permit.

Regulations
Arkansas Air Pollution Control Code, Regulation 18, effective February 15, 1999
Regulations of the Arkansas Plan of Implementation for Air Pollution Control, Regulation 19, effective October 15, 2007
Regulations of the Arkansas Operating Air Permit Program, Regulation 26, effective September 26, 2002
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]

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

EMISSION SUMMARY				
Source Number	Description	Pollutant	Emission Rates	
			lb/hr	tpy
Total Allowable Emissions		PM	71.3	242.4
		PM_{10}	71.3	242.4
		SO_2	14.9	59.4
		VOC	1.6	6.2
		CO	23.3	92.5
		NO_X	42.1	167.0

SN	Description	Pollutant	lb/hr	tpy
Facility	Plantwide Combustion Emission Sources	PM PM_{10} SO_2 VOC CO NO_x		30.7 30.7 59.4 6.2 92.5 167.0
SN-01	Plant #1 -Ore Conveyor/Crush Tank Filter	PM PM_{10}	1.1 1.1	1.7 1.7
SN-02	Plant #1 - Ore Dump Station Filter	PM PM_{10}	0.6 0.6	0.5 0.5
SN-03	Plant #1 Ball Mill Filter	PM PM_{10}	0.3 0.3	1.1 1.1
SN-04	Plant #1 Kiln Filter (7.7 MM Btu/hr)	PM PM_{10} CO NOx SO_2 VOC	0.2 0.2 0.7 1.2 0.4 0.1	30.7* 30.7* 92.5* 167.0* 59.4* 6.2*
SN-04	Plant #1 Kiln #1 Filter	PM PM_{10}	1.0 1.0	3.7 3.7
SN-05	Plant #1 Mixers No. 1 through No. 6	PM PM_{10}	0.2 0.2	0.7 0.7
SN-06	Plant #1 North/South Tank Bin Vents Filter	PM PM_{10}	0.1 0.1	0.4 0.4
SN-07	Plant #1 Screening Kiln Feed Area Filter	PM PM_{10}	1.7 1.7	3.4 3.4
SN-08	Plant #1 Finished Product Loadout Filter	PM PM_{10}	0.6 0.6	0.9 0.9
SN-09	Plant #1 Dryer #1 46 MMBtu/hr	PM PM_{10} SO_2 VOC CO NO_x	1.2 1.2 2.5 0.3 3.9 7.0	30.7* 30.7* 59.4* 6.2* 92.5* 167.0*
SN-09	Plant #1 Dryer No. 1 Filter (process)	PM PM_{10}	0.5 0.5	1.9 1.9
SN-10	Plant #1 – Kiln No. 2 20 MMBtu/hr	PM PM_{10} SO_2 VOC CO NO_x	0.5 0.5 1.1 0.1 1.7 3.0	30.7* 30.7* 59.4* 6.2* 92.5* 167.0*

SN	Description	Pollutant	lb/hr	tpy
SN-10	Plant #1 Rotary Kiln #2 Filter (process)	PM PM_{10}	2.8 2.8	10.4 10.4
SN-11	Plant #1 Ball Mill Filter	PM PM_{10}	0.6 0.6	2.1 2.1
SN-12	Plant #1 Product Cooler Filter	PM PM_{10}	3.5 3.5	12.6 12.6
SN-13	Plant #1 Dryer No.2 46 MMBtu/hr	PM PM_{10} SO_2 VOC CO NO_x	1.2 1.2 2.5 0.3 3.9 7.0	30.7* 30.7* 59.4* 6.2* 92.5* 167.0
SN-13	Plant #1 Dryer No. 2 Filter (process)	PM PM_{10}	0.5 0.5	1.9 1.9
SN-14	Plant #1 DCF Tank Filter	PM PM_{10}	0.1 0.1	0.1 0.1
SN-15	South Tank Bin Vent	Rerouted to SN-06		
SN-16	Plant #1 Ore Transport Mill Area Filter	PM PM_{10}	0.4 0.4	1.4 1.4
SN-17	Truck Loadout	Rerouted to SN-08		
SN-18	Plant No. 2 Ore Truck Unloading Filter	PM PM_{10}	0.6 0.6	1.0 1.0
SN-19	Plant #2 Raw Material Silo Filter	PM PM_{10}	1.7 1.7	3.0 3.0
SN-20	Plant #2 Silo Loadout Filter	PM PM_{10}	2.2 2.2	8.0 8.0
SN-21A	Plant #2 Fuller Mill Filter #1	PM PM_{10}	1.5 1.5	6.3 6.3
SN-21B	Plant #2 Fuller Mill Filter #2			
SN-22	Plant #2 Mill Feed Tank	PM PM_{10}	0.2 0.2	0.6 0.6
SN-23	Plant #2 Supply Feed Tank	PM PM_{10}	0.1 0.1	0.2 0.2
SN-24	Source Removed from permit – 2000			
SN-25	Plant #2 Binder Storage	PM PM_{10}	0.2 0.2	0.1 0.1
SN-26	Plant #2, Dryer No. 1 24.5 MMBTU/hr	PM PM_{10}	0.6 0.6	30.7* 30.7*

SN	Description	Pollutant	lb/hr	tpy
		SO_2	1.3	59.4*
		VOC	0.1	6.2*
		CO	2.1	92.5*
		NO_x	3.7	167.0*
SN-26	Plant No.2, Dryer No. 1 Exhaust Vent Filter (process)	PM	1.0	3.9
		PM_{10}	1.0	3.9
SN-27	Plant #2, Dryer No. 2 24.5 MMBTU/hr	PM	0.6	30.7*
		PM_{10}	0.6	30.7*
		SO_2	1.3	59.4*
		VOC	0.1	6.2*
		CO	2.1	92.5*
		NO_x	3.7	167.0*
SN-27	Plant No.2, Dryer No. 2 Exhaust Vent Filter (process)	PM	1.0	3.9
		PM_{10}	1.0	3.9
SN-28	Forming Area Dust Collection Baghouse	PM	2.8	11.5
		PM_{10}	2.8	11.5
SN-29A	Cooler and Kiln Exhaust 60.0 MMBTU/hr	PM	1.5	30.7*
		PM_{10}	1.5	30.7*
		SO_2	3.2	59.4*
		VOC	0.3	6.2*
		CO	5.0	92.5*
		NO_x	9.1	167.0*
SN-29 SN-29B	Plant #2 Cooler and Kiln Exhaust Filters	PM	15.0	43.5
		PM_{10}	15.0	43.5
SN-31	Plant #2 Fired Screening Filter	PM	0.2	0.4
		PM_{10}	0.2	0.4
SN-32 / SN-33	Finished Product Loadout Tanks Filter	PM	0.4	0.6
		PM_{10}	0.4	0.6
SN-34	Shipping Area Vent (Truck Loadout)/Deduster Filter	PM	0.2	0.2
		PM_{10}	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 the permit – 1998			
SN-38	Plant to Plant Finished Product Conveyor Filter	PM	0.1	0.1
		PM_{10}	0.1	0.1
SN-39	350 Baghouse	PM	0.8	3.2
		PM_{10}	0.8	3.2

SN	Description	Pollutant	lb/hr	tpy
SN-40	Plant #1 Side #1 R/W Blower	PM PM_{10}	0.2 0.2	0.5 0.5
SN-41	Plant #1 Side #2 R/W Blower	PM PM_{10}	0.2 0.2	0.5 0.5
SN-42	Plant #1 DCF Blower	PM PM_{10}	0.1 0.1	0.1 0.1
SN-43	Plant #2 R/W Blower	PM PM_{10}	0.3 0.3	1.0 1.0
SN-44	Plant #2 R/W Blower	PM PM_{10}	0.3 0.3	1.0 1.0
SN-45	340 Baghouse	PM PM_{10}	0.8 0.8	3.2 3.2
SN-46	360 Baghouse	PM PM_{10}	0.8 0.8	3.2 3.2
SN-47	370 Baghouse	PM PM_{10}	0.8 0.8	3.2 3.2
SN-48	Equipment never installed			
SN-49	Cleaning Booth/SN-04 Backup Filter	PM PM_{10}	0.1 0.1	0.1 0.1
SN-50	Plant No. 2 Mill Conveyer Filter	PM PM_{10}	0.3 0.3	1.0 1.0
SN-51	Factory Wide Fugitives	PM PM_{10}	3.5 3.5	20.0 20.0
SN-52	Equipment never installed.			
SN-53	Plant #2 Ball Mill Area – DC 221 Filter	PM PM_{10}	1.9 1.9	8.1 8.1
SN-54	Plant #2 400 Area – DC 440 Filter	PM PM_{10}	1.9 1.9	7.7 7.7
SN-55	Plant #1 Bin Vent Mixer 6 – Baghouse	PM PM_{10}	0.1 0.1	0.5 0.5
SN-56	Line #3 Mixing Area Baghouse	PM PM_{10}	1.8 1.8	6.2 6.2
SN-57	Line #3 Dryer Area Baghouse (process)	PM PM_{10}	3.3 3.3	11.9 11.9
SN-57	Line #3 Dryer (combustion) 56 MMBtu/hr	PM PM_{10} SO_2 VOC	1.4 1.4 3.0 0.3	30.7* 30.7* 59.4* 6.2*

SN	Description	Pollutant	lb/hr	tpy
		CO NO_x	4.7 8.5	92.5* 167.0*
SN-58	Line #3 Screen Area Baghouse	PM PM_{10}	2.6 2.6	9.2 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 PM_{10}	1.2 1.2	1.9 1.9
SN-62	Line #3 Pneumatic Conveyance			
SN-63	Line #3 Pneumatic Conveyance			
SN-64	Binder Storage Vessel Vent Filter	PM PM_{10}	0.6 0.6	2.7 2.7
SN-65	Iron Ore Storage Vessel Vent Filter	PM PM_{10}	0.1 0.1	0.1 0.1
SN-66	Plant-To-Plant Pneumatic Finished Product Conveyor Filter	PM PM_{10}	0.3 0.3	0.3 0.3

*Plantwide limit for sources firing either natural gas or low sulfur diesel fuel.

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_{10} 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_{10} - 91.3 tpy, SO_2 - 0.8 tpy, VOC - 25.0 tpy, CO - 18.8 tpy, NO_x - 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_{10} - 90.1 tpy, SO_2 - 0.8 tpy, VOC - 25.0 tpy, CO - 18.8 tpy, NO_x - 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_{10} - 94.3 tpy, SO_2 - 0.8 tpy, VOC - 25.0 tpy, CO - 18.8 tpy, NO_x - 75.1 tpy, Formaldehyde - 4.61 tpy, Ethylene Glycol - 7.86 tpy, and Phenol 9.40 tpy.

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_{10} - 95.3 tpy, SO_2 - 90.0 tpy, VOC - 3.6 tpy, CO - 54.2 tpy, and NO_x - 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_{10} – 178.1 tpy, SO_2 - 90.0 tpy, VOC - 5.6 tpy, CO - 84.2 tpy, and NO_x – 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_{10} – 208.5 tpy, SO_2 - 90.0 tpy, VOC - 5.6 tpy, CO - 84.2 tpy, and NO_x – 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_{10} – 235.2 tpy, SO_2 - 90.0 tpy, VOC – 7.1 tpy, CO - 105.2 tpy, and NO_x – 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_{10} – 235.5 tpy, SO_2 - 90.0 tpy, VOC – 7.1 tpy, CO - 105.2 tpy, and NO_x – 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.

SECTION IV: SPECIFIC CONDITIONS

SN-04, SN-09, SN-10, SN-13, SN-26, SN-27, SN-29 and SN-57
Combustion Sources

Source Description

There are three kilns (SN-04, 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

1. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition is demonstrated by each source being permitted at its maximum capacity and full time operation on the fuel which causes the highest emissions of that pollutant. [§19.501 et seq of the Regulations of the Arkansas Plan of Implementation for Air Pollution Control (Regulation #19) effective October 15, 2007 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
04	Kiln No. 1 7.7 MMBtu/hr	PM_{10} SO_2 VOC CO NO_x	0.2 0.4 0.1 0.7 1.2	30.7* 59.4* 6.2* 92.5* 167.0*
09	Plant No. 1, Dryer No. 1 46.0 MM Btu/hr	PM_{10} SO_2 VOC CO NO_x	1.2 2.5 0.3 3.9 7.0	
10	Rotary Kiln No. 2, Plant No. 1 20 MM Btu/hr	PM_{10} SO_2 VOC CO NO_x	0.5 1.1 0.1 1.7 3.0	
13	Plant No. 1, Dryer No. 2 46.0 MM Btu/hr	PM_{10} SO_2 VOC CO NO_x	1.2 2.5 0.3 3.9 7.0	
26	Plant No. 2, Dryer No. 1 24.5 MM Btu/hr	PM_{10} SO_2 VOC	0.6 1.3 0.1	

SN	Description	Pollutant	lb/hr	tpy
		CO NO_x	2.1 3.7	
27	Plant No. 2, Dryer No. 2 24.5 MM Btu/hr	PM_{10} SO_2 VOC CO NO_x	0.6 1.3 0.1 2.1 3.7	
29	Plant No. 2, Kiln and Cooler 60.0 MM Btu/hr	PM_{10} SO_2 VOC CO NO_x	1.5 3.2 0.3 5.0 9.1	
57	Line #3 Dryer 56.0 MM Btu/hr	PM_{10} SO_2 VOC CO NO_x	1.4 3.0 0.3 4.7 8.5	

*Plantwide limit for the pollutant listed firing either natural gas or low sulfur diesel fuel.

2. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition is demonstrated by each source being permitted at its maximum capacity and full time operation on the fuel which causes the highest emissions of that pollutant. [§18.801 of the Arkansas Air Pollution Control Code (Regulation #18) effective February 15, 1999, and A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

SN	Description	Pollutant	lb/hr	tpy
04	Kiln No. 1 7.7 MMBtu/hr	PM	0.2	30.7* 59.4* 6.2* 92.5* 167.0*
09	Plant No. 1, Dryer No. 1 46.0 MM Btu/hr	PM	1.2	
10	Rotary Kiln No. 2, Plant No. 1 20 MM Btu/hr	PM	0.5	
13	Plant No. 1, Dryer No. 2 46.0 MM Btu/hr	PM	1.2	
26	Plant No. 2, Dryer No. 1 24.5 MM Btu/hr	PM	0.6	
27	Plant No. 2, Dryer No. 2 24.5 MM Btu/hr	PM	0.6	
29	Plant No. 2, Kiln and Cooler	PM	1.5	

SN	Description	Pollutant	lb/hr	tpy
	60.0 MM Btu/hr			
57	Line #3 Dryer 56.0 MM Btu/hr	PM	1.4	

3. 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, and 40 CFR 70.6]

4. 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 and 40 CFR Part 52, Subpart E]

5. 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]

6. The permittee will conduct daily observations of opacity from source No.'s 04, 09, 10, 13, 26, 27, 29 and 57 when burning low sulfur diesel and keep a record of these observations. If the permittee detects visible emissions in excess of 20%, 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 the source complies with the visible emissions requirements. The permittee shall maintain records of the cause of any visible emissions and the orrective action taken. The permittee must keep the records onsite and make the records available to Department personnel upon request. [Regulation 19, §19.503 and 40 CFR Part 52, Subpart E]

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-61
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

7. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition is demonstrated by the sources lb/hr limits being based on maximum capacity and the tpy limits are based on the throughput limits in Specific Condition No. 10. [§19.501 et seq of Regulation 19 and 40 CFR Part 52, Subpart E]

SN	Description	Pollutant	lb/hr	tpy
SN-01	Plant #1 Ore Conveyor/Crush Tank Filter	PM_{10}	1.1	1.7
SN-02	Plant #1 Ore Dump Station Filter	PM_{10}	0.6	0.5
SN-03	Plant #1 Ball Mill No. 1 Filter	PM_{10}	0.3	1.1
SN-04	Plant #1 Kiln No. 1 Filter (Process)	PM_{10}	1.0	3.7
SN-05	Plant #1 Mixers No. 1 through No. 6 Filter	PM_{10}	0.2	0.7
SN-06	Plant #1North/South Tank Bin Vents Filter	PM_{10}	0.1	0.4
SN-07	Plant #1 Screening/Kiln Feed Area Filter	PM_{10}	1.7	3.4
SN-08	Plant #1 Finished Product Loadout Filter	PM_{10}	0.6	0.9
SN-09	Plant #1, Dryer No. 1 Filter (process)	PM_{10}	0.5	1.9
SN-10	Plant #1 Rotary Kiln No. 2 Filter (process)	PM_{10} SO_2	2.8 60.0	10.4 *
SN-11	Plant #1Ball Mill Filter	PM_{10}	0.6	2.1
SN-12	Plant #1 Product Cooler Filter	PM_{10}	3.5	12.6
SN-13	Plant #1, Dryer No.2 Filter (process)	PM_{10}	0.5	1.9
SN-14	Plant #1 DCF Tank Filter	PM_{10}	0.1	0.1
SN-15	South Tank Bin Vent	Rerouted to SN-06		
SN-16	Plant #1 Ore Transport Mill Area Filter	PM_{10}	0.4	1.4
SN-17	Truck Loadout	Rerouted to SN-08		
SN-18	Plant #2 Ore Truck Unloading Filter	PM_{10}	0.6	1.0

SN	Description	Pollutant	lb/hr	tpy
SN-19	Plant #2 Raw Material Silo Transport Filter	PM_{10}	1.5	6.3
SN-20	Plant #2 Silo Loadout Filter	PM_{10}	1.5	8.0
SN-21A	Plant #2 Fuller Ball Mill Filter #1	PM_{10}	1.5	6.3
SN-21B	Plant #2 Fuller Ball Mill Filter #2			
SN-22	Plant #2 Ball Mill Feed Vessel Vent Filter	PM_{10}	0.2	0.6
SN-23	Plant #2 Ball Mill Feed Vent No.2 Filter	PM_{10}	0.1	0.2
SN-24	Source Removed from permit - 2000			
SN-25	Plant #2 Binder Storage Vessel Vent Filter	PM_{10}	0.2	0.1
SN-26	Plant #2, Dryer No. 1 Exhaust Vent Filter (process)	PM_{10}	1.0	3.9
SN-27	Plant #2, Dryer No. 2 Exhaust Vent Filter (process)	PM_{10}	1.0	3.9
SN-28	Forming Area Dust Collection Baghouse	PM_{10}	2.8	11.5
SN-29	Plant #2 Cooler and Kiln Exhaust Filters	PM_{10}	15.0	43.5
SN-31	Plant #2 Sizing Area Vent/Fired Screening Filter	PM_{10}	0.2	0.4
SN-32/ SN-33	Plant #2 Finished Product Loadout Tanks Filter	PM_{10}	0.4	0.6
SN-34	Plant #2 Shipping Area Vent (Truck Loadout)/Deduster Filter	PM_{10}	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-38	Plant to Plant Finished Product Conveyor Filter	PM_{10}	0.1	0.1
SN-39	350 Baghouse	PM_{10}	0.8	3.2
SN-40	Plant #1 Side #1 R/W Blower	PM_{10}	0.2	0.5
SN-41	Plant #1 Side #2 R/W Blower	PM_{10}	0.2	0.5
SN-42	Plant #1 DCF Blower	PM_{10}	0.1	0.1
SN-43	Plant #2 R/W Blower	PM_{10}	0.3	1.0
SN-44	Plant #2 R/W Blower	PM_{10}	0.3	1.0
SN-45	340 Baghouse	PM_{10}	0.8	3.2
SN-46	360 Baghouse	PM_{10}	1.9	8.1
SN-47	370 Baghouse	PM_{10}	0.8	3.2
SN-48	This equipment was not installed.			

SN	Description	Pollutant	lb/hr	tpy
SN-49	Cleaning Booth/SN-04 Backup Filter	PM_{10}	0.1	0.1
SN-50	Plant No. 2 Mill Conveyer Filter	PM_{10}	0.3	1.0
SN-51	Non-point Source Emissions	PM_{10}	3.5	20.0
SN-52	This equipment was not installed.			
SN-53	Plant #2 Ball Mill Area – DC 221 Filter	PM_{10}	1.9	8.1
SN-54	Plant #2 400 Area – DC 440 Filter	PM_{10}	1.9	8.1
SN-55	Plant #1 Bin Vent Mixer 6 – Baghouse	PM_{10}	0.1	0.5
SN-56	Line #3 Mixing Area Baghouse	PM_{10}	1.8	6.2
SN-57	Line #3 Dryer Area Baghouse (process)	PM_{10}	3.3	11.9
SN-58	Line #3 Screen Area Baghouse	PM_{10}	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_{10}	1.2	1.9
SN-62	Line #3 Pneumatic Conveyance			
SN-63	Line #3 Pneumatic Conveyance			
SN-64	Binder Storage Vessel Vent Filter	PM_{10}	0.6	2.7
SN-65	Iron Ore Storage Vessel Vent Filter	PM_{10}	0.1	0.1
SN-66	Plant-to-Plant Pneumatic Finished Product Conveyance	PM_{10}	0.3	0.3

*See Specific Condition No. 12 for Plantwide sulfur dioxide yearly limit.

8. The permittee shall not exceed the emission rates set forth in the following table. Compliance with this condition is demonstrated by the sources lb/hr limits being based on maximum capacity and the tpy limits are based on the throughput limits in Specific Condition No. 10. [§18.801 of Regulation 18 and A.C.A. §8-4-203 as referenced by §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	0.5
SN-03	Plant #1 Ball Mill No. 1 Filter	PM	0.3	1.1
SN-04	Plant #1 Kiln No. 1 Filter (Process)	PM	1.0	3.7
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	Plant #1 Finished Product Loadout Filter	PM	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)	PM	2.8	10.4
SN-11	Plant #1 Ball Mill No. Filter	PM	0.6	2.1
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 PM10	Rerouted to SN-08		
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	1.5	6.3
SN-21B	Plant #2 Fuller Ball Mill Filter #2			
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	Description	Pollutant	lb/hr	tpy
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	PM	15.0	43.5
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-38	Plant to Plant Finished Product Conveyor 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
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-49	Cleaning Booth/SN-04 Backup Filter	PM	0.1	0.1
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	Description	Pollutant	lb/hr	tpy
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	1.2	1.9
SN-62	Line #3 Pneumatic Conveyance			
SN-63	Line #3 Pneumatic Conveyance			
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

9. Visible emissions from the Particulate Sources 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]

10. 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. [A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311]

11. The permittee shall not produce more than 256,000 tons of ceramic beads (standard proppant product) at the facility per consecutive 12 month period. [§19.705 of Regulation 19, A.C.A. §8-4-203 as referenced by §8-4-304 and §8-4-311 and 40 CFR 70.6]

12. The permittee shall maintain monthly records which demonstrate compliance with Specific Condition 10. 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]

Sulfur Dioxide PAL Requirements:

13. To demonstrate compliance with the Plantwide Sulfur Dioxide Limit in Specific Condition #1, the permittee shall complete the following material balance for sulfur dioxide emissions 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]:

$$TPY\ SO_2 = (0.157)(A)(B)(ton/2000\ lbs) + (C)(0.6)(ton/2000\ lbs)$$

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.

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 equation for the previous 12 months operation each month. A rolling 12 month total in excess of 59.4 tons shall be a violation of this permit. The records of sulfur dioxide emissions from the above material balance 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.

14. 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]:

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.

15. SN-29B 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

COMPLIANCE ASSURANCE MONITORING PLAN CONDITIONS:

16. Daily visible emissions observations will be taken by trained plant operators at the exhaust of SN-56, SN-57, SN-58, and SN-61. If visible emissions are detected at these sources, then the permittee shall immediately conduct a 6 minute opacity reading in accordance with EPA Reference Method #9. The results of these observations and readings shall be recorded in a log which shall be maintained on site and made available to Department personnel upon request. [§19.304 of Regulation 19 and 40 CFR 64.3]

17. A weekly inspection will be completed on the baghouses listed as SN-56, SN-57, SN-58, and SN-61. A checklist will be maintained for each inspection. The results of these observations and readings shall be recorded in a log which shall be maintained on site and made available to Department personnel upon request. [§19.304 of Regulation 19 and 40 CFR 64.3]

SECTION V: COMPLIANCE PLAN AND SCHEDULE

Saint-Gobain Proppants 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 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: [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]

    a. Sampling ports adequate for applicable test methods;
    b. Safe sampling platforms;
    c. Safe access to sampling platforms; and
    d. Utilities for sampling and testing equipment.

5. The permittee must operate the equipment, control apparatus and emission monitoring equipment within the design limitations. The permittee 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]

SECTION VII: INSIGNIFICANT ACTIVITIES

The following sources are insignificant activities. Any activity that has a state or federal applicable requirement shall be considered a significant activity even if this activity meets the criteria of §26.304 of Regulation 26 or listed in the table below. Insignificant activity determinations rely upon the information submitted by the permittee in an application dated November 22, 2006.

Description	Category
Gas Fired Pilot Plant Kiln	Group A1
Gas Fired Pilot Plant Test Dryer	Group A1
Two Laboratory Vent Hoods	Group A5
Three portable emergency use electrical generators	Group B16
One Diesel Fuel Storage Tank	Group A3
Two 15,000 gallon Diesel Storage Tanks	Group A13
Two Line #3 Milled Feed Vessel Filters	Group A13

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 §26.701(B) of the Regulations of the Arkansas Operating Air Permit Program (Regulation 26), effective September 26, 2002]

3. The permittee must submit a complete application for permit renewal at least six (6) months before permit expiration. Permit expiration terminates the permittee's right to operate unless the permittee submitted a complete renewal application at least six (6) months before permit expiration. If the permittee submits a complete application, the existing permit will remain in effect until the Department takes final action on the renewal application. The Department will not necessarily notify the permittee when the permit renewal application is due. [Regulation 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. [40 CFR 70.6(a)(3)(ii)(A) and Regulation 26, §26.701(C)(2)]

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

6. The permittee must retain the records of all required monitoring data and support information for at least five (5) years from the date of the monitoring sample,

measurement, report, or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, and copies of all reports required by this permit. [40 CFR 70.6(a)(3)(ii)(B) and Regulation 26, §26.701(C)(2)(b)]

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

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

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

a. For all upset conditions (as defined in Regulation19, § 19.601), the permittee will make an initial report to the Department by the next business day after the discovery of the occurrence. The initial report my be made by telephone and shall include:

i. The facility name and location
ii. The process unit or emission source deviating from the permit limit,
iii. The permit limit, including the identification of pollutants, from which deviation occurs,
iv. The date and time the deviation started,
v. The duration of the deviation,
vi. The average emissions during the deviation,
vii. The probable cause of such deviations,
viii. Any corrective actions or preventive measures taken or being taken to prevent such deviations in the future, and
ix. The name of the person submitting the report.

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

permittee may submit a full report in writing (by facsimile, overnight courier, or other means) by the next business day after discovery of the occurrence, and the report will serve as both the initial report and full report.

b. For all deviations, the permittee shall report such events in semi-annual reporting and annual certifications required in this permit. This includes all upset conditions reported in 8a above. The semi-annual report must include all the information as required by the initial and full reports required in 8a.

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

9. If any provision of the permit or the application thereof to any person or circumstance is held invalid, such invalidity will not affect other provisions or applications hereof which can be given effect without the invalid provision or application, and to this end, provisions of this Regulation are declared to be separable and severable. [40 CFR 70.6(a)(5), Regulation 26, §26.701(E), and A.C.A. §8-4-203 as referenced by A.C.A. §8-4-304 and §8-4-311]

10. The permittee must comply with all conditions of this Part 70 permit. Any permit noncompliance with applicable requirements as defined in Regulation 26 constitutes a violation of the Clean Air Act, as amended, 42 U.S.C. §7401, et seq. and is grounds for enforcement action; for permit termination, revocation and reissuance, for permit modification; or for denial of a permit renewal application. [40 CFR 70.6(a)(6)(i) and Regulation 26, §26.701(F)(1)]

11. It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the conditions of this permit. [40 CFR 70.6(a)(6)(ii) and Regulation 26, §26.701(F)(2)]

12. The Department may modify, revoke, reopen and reissue the permit or terminate the permit for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. [40 CFR 70.6(a)(6)(iii) and Regulation 26, §26.701(F)(3)]

13. This permit does not convey any property rights of any sort, or any exclusive privilege. [40 CFR 70.6(a)(6)(iv) and Regulation 26, §26.701(F)(4)]

14. The permittee must furnish to the Director, within the time specified by the Director, any information that the Director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee must also furnish to the Director copies of records required by the permit. For information the permittee claims confidentiality, the Department may require the permittee to furnish such records directly to the Director

along with a claim of confidentiality. [40 CFR 70.6(a)(6)(v) and Regulation 26, §26.701(F)(5)]

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

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

17. If the permit allows different operating scenarios, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log at the permitted facility a record of the operational scenario. [40 CFR 70.6(a)(9)(i) and Regulation 26, §26.701(I)(1)]

18. The Administrator and citizens may enforce under the Act all terms and conditions in this permit, including any provisions designed to limit a source's potential to emit, unless the Department specifically designates terms and conditions of the permit as being federally unenforceable under the Act or under any of its applicable requirements. [40 CFR 70.6(b) and Regulation 26, §26.702(A) and (B)]

19. Any document (including reports) required by this permit must contain a certification by a responsible official as defined in Regulation 26, §26.2. [40 CFR 70.6(c)(1) and Regulation 26, §26.703(A)]

20. The permittee must allow an authorized representative of the Department, upon presentation of credentials, to perform the following: [40 CFR 70.6(c)(2) and Regulation 26, §26.703(B)]

    a. Enter upon the permittee's premises where the permitted source is located or emissions related activity is conducted, or where records must be kept under the conditions of this permit;
    b. Have access to and copy, at reasonable times, any records required under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under this permit; and
    d. As authorized by the Act, sample or monitor at reasonable times substances or parameters for assuring compliance with this permit or applicable requirements.

21. The permittee shall submit a compliance certification with the terms and conditions contained in the permit, including emission limitations, standards, or work practices. The permittee must submit the compliance certification annually 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;
e. and 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 A.C.A. §8-4-304 and §8-4-311]

CERTIFICATE OF SERVICE

I, Pam Owen, hereby certify that a copy of this permit has been mailed by first class mail to Saint Gobain Proppants, 5300 Gerber Road, Fort Smith, AR, 72904-1699, on this 21st day of February, 2008.

Pam Owen

Pam Owen, AAII, Air Division