

PRECONSTRUCTION ANALYSIS
FOR
PILLAR MATERIALS, LLC
FACILITY NO. 305-0008
UNIT NOS. X001 & X002

Pillar Materials, LLC, of Oxford, AL, has applied to the ADEM - Air Division for Air Permits which would authorize the construction and operation of limestone crushing, screening, and conveying circuits at the 431 Quarry located on US Hwy 431 (near the Five Points Community), Heflin, AL, Cleburne County. (Location Coordinates: 33.61030° LAT, -85.72307° LONG) A portion of this site is also located in Calhoun County. Pillar Materials, LLC, is applying for an Air Permit for the following circuits:

X001 – 661 TPH Primary Crushing, Screening, and Conveying Circuit with Wet Suppression (NSPS Subpart OOO/SIP)

X002 – 496 TPH Secondary Crushing, Screening, and Conveying Circuit, including Pug Mill with Wet Suppression (NSPS Subpart OOO/SIP)

Process Description:

Aggregate material would be fed, by front end loader, into the primary crushing, screening, and conveying circuit. Material would flow through the primary circuit where it will either be distributed into stockpiles or move into the secondary circuit for further processing. Processed material from the secondary circuit would then be conveyed to different sizing stockpiles. (See flow diagram in the application.)

All equipment associated with circuits X001 and X002 was manufactured on or after April 22, 2008 and, therefore, would be subject to NSPS, Subpart OOO, unless specifically exempt. 40 CFR Part 60, Subpart OOO NSPS limits visible emissions from uncontrolled crushers to 12% opacity and limits visible emissions from grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins, and enclosed truck or railcar loading stations, or from any other affected facility to 7% opacity. Wet processes are exempt from regulation by this subpart. In addition to the opacity requirements, there are periodic monitoring and testing requirements, as well as recordkeeping requirements to remain in compliance with NSPS, Subpart OOO, as promulgated on April 28, 2009. Monthly inspections are required for all spray nozzles in wet suppression areas and for areas controlled by carry over moisture from upstream wet suppression. If inspections of the upstream spray nozzles are not conducted, the carry over areas will be subject to the five year interval retest requirement. All areas not controlled by wet suppression or carry over shall be required to retest every five years. Records of all periodic monitoring inspections, dates, results, and any corrective action taken shall be kept at the facility site, available for inspection.

Pillar Materials, LLC, will be required to conduct EPA Method 9 Visible Emissions Observations on the NSPS equipment associated with these circuits. Any equipment exempt from NSPS is subject to the State Implementation Plan (SIP).

Process X001

<i>Manufacturer</i>	<i>Type</i>	<i>Maximum Operating Capacity</i>	<i>Manufacturer's Date</i>	<i>NSPS/SIP</i>	<i>Testing?</i>
Constructed	Rock Box Feeder - F1	1200 TPH	2023	SIP	No
TBD	Conveyor -C01	1147 TPH	2023	NSPS	Yes
Keestrack	Feeder – F2	1200 TPH	2023	NSPS	Yes
Keestrack	Primary Jaw Crusher - CR1	661 TPH	2023	NSPS	Yes
Keestrack	Conveyor - C02	736 TPH	2023	NSPS	Yes
Keestrack	Feeder – F3	661 TPH	2023	NSPS	Yes
Keestrack	Conveyor - C03	736 TPH	2023	NSPS	Yes
TBD	Conveyor - C04	1147 TPH	2023	NSPS	Yes
TBD	Conveyor - C05	929 TPH	2023	NSPS	Yes
TBD	Conveyor - C06	929 TPH	2023	NSPS	Yes
Deister	Triple Deck Screen – S1	865 TPH	2023	NSPS	Yes
TBD	Conveyor - C07	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C08	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C09	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C10	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C11	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C12	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C13	300 TPH	2023	NSPS	Yes
Telsmith	Feeder – F4	300 TPH	2023	NSPS	Yes
Telsmith	Cone Crusher - CR2	507 TPH	2023	NSPS	Yes
Cedarapids	Triple Deck Screen – S2	350 TPH	2023	NSPS	Yes
TBD	Conveyor - C14	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C15	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C16	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C17	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C18	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C19	300 TPH	2023	NSPS	Yes
TBD	Conveyor - C20	300 TPH	2023	NSPS	Yes

Process X002

<i>Manufacturer</i>	<i>Type</i>	<i>Maximum Operating Capacity</i>	<i>Manufacturer's Date</i>	<i>NSPS/SIP</i>	<i>Testing?</i>
Sandvik	Feeder – F5	496 TPH	2023	NSPS	Yes
Sandvik	Jaw Crusher – CR3	496 TPH	2023	NSPS	Yes
Extec	Double Deck Screen S3	432 TPH	2023	NSPS	Yes
Extec	Conveyor – C21	300 TPH	2023	NSPS	Yes
Extec	Conveyor – C22	300 TPH	2023	NSPS	Yes
Extec	Conveyor – C23	300 TPH	2023	NSPS	Yes
Cedarapids	Pugmill – P1	661 TPH	2023	SIP (wet process)	No

The total combined expected fugitive emissions rate for the proposed plant would be **9.1 TPY**. There is no allowable emissions rate for fugitive or dust emissions. Therefore, the uncontrolled, controlled, and expected emission rate calculations for these circuits can be found in Appendix A. Note: these calculations are furnished as public information and used to demonstrate the effectiveness of the wet suppression systems based on emissions factors taken from an EPA approved source of emission factors. By definition, fugitive emissions from this process would not be considered in determining Prevention of Significant Deterioration (PSD) or Title V applicability.

Pillar Materials, LLC, will utilize 4 diesel-fired engines to supply power for this plant.

<i>Manufacturer</i>	<i>Type</i>	<i>Maximum Operating Capacity</i>	<i>Manufacturer's Date</i>	<i>TIER</i>	<i>Certified*</i>
Caterpillar	CI1 4 stroke	350 Hp	2013	3	Yes
Cummins	CI2 4 stroke	380 Hp	2019	4	Yes
Deutz	CI3 4 stroke	100 Hp	2006	3	Yes
Caterpillar	CI4 4 stroke	255 Hp	<1980	N/A	N/A

*The engine certifications were submitted with the application.

Expected emissions from the four diesel-fired reciprocating internal combustion engines have been calculated for informational purposes and can be found in Appendix A. The generators potentially could be an affected source under 40 CFR Part 63, Subpart ZZZZ, National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (the “RICE MACT”). The CI1 and CI2 proposed engines would be considered new affected sources since they were constructed after June 12, 2006. According to §63.6590(c), any new stationary “RICE” located at an area source of HAP emissions must meet the requirements of the “RICE MACT” by meeting the requirements of 40 CFR 60, Subpart IIII, Standards of Performance for Stationary Compression Ignition Internal Combustion Engines.

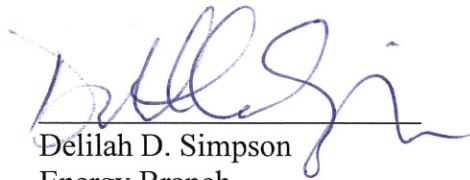
Three of these engines would be subject to NSPS, Subpart IIII, and must be certified by the manufacturer to meet the emission standards for all pollutants. None of the engines are subject to NESHAP ZZZZ, the RICE MACT. The calculations show that expected emissions for each applicable criteria pollutant are below the 100 TPY Title V threshold.

This facility is not located within 100 km of the Sipsey Class I Wilderness. The construction and operation of this plant is not anticipated to significantly impact this area.

This facility would not be considered “major” for any criteria pollutant and, therefore, would not be required to undergo the PSD process. This site would be considered a Greenfield and Pillar Materials, LLC, would be required to complete a 30-day public comment period, a joint public notice with the Water Division.

An Environmental Justice analysis was performed utilizing EPAs EJSCREEN tool and the Council on Environmental Quality’s Climate and Economic Justice (Justice 40) screening tool. Due to the low emissions expected from the operations at the proposed facility, it was determined that enhanced outreach is not necessary.

Based on this information, this analysis indicates that this source would meet the requirements of all ADEM - Air Division rules and regulations. I recommend that Air Permits be issued to Pillar Materials, LLC, incorporating the provisions of Appendix B and Appendix C, the cover letter.



Delilah D. Simpson
Energy Branch
Air Division

Date 10/17/23

**APPENDIX A
CALCULATIONS
PILLAR MATERIALS, LLC
FACILITY NO. 305-0008
UNIT X001**

X001- 661 TPH Crushing, Screening, and Conveying Circuit with Wet Suppression (NSPS Subpart OOO/SIP).

Equipment: 2 Crushers, 2 Screens, and 24 Associated Belt Conveyors (including 4 Feeders)

Hours of Operation: 8 hrs/day x 5 days/wk x 50 wks/yr = 2,000 hours /year

Pollution Control: Wet Suppression

Allowable Emission: There is no allowable particulate emission rate limiting fugitive emissions for any of these processes.

Uncontrolled Emissions: Emission factors taken from EPA AP-42, Table 11.19.2-2

Source			Uncontrolled		Controlled	
		Units	Total PM	PM-10	Total PM	PM-10
Tertiary Crushing Emission Factor						
		lb/Ton	0.0054	0.0024	0.0012	0.00054
Jaw Crusher	661	TPH				
Total (# TPH * EF# lb/Ton)		lb/hr	3.5694	1.5864	0.7932	0.35694
	8760	hrs/yr				
Total (#lb/hr*#hrs/yr*(1/2000)Ton/lbs)						
		TPY	15.633972	6.948432	3.474216	1.563397
	2000	hrs/yr				
Expected (#lb/hr*exp#hrs/yr*(1/2000)Ton/lbs)						
		TPY	3.5694	1.5864	0.7932	0.35694
Screening Emission Factor						
		lb/Ton	0.025	0.0087	0.0022	0.00074
Triple Deck Screen	661	TPH				
Total (# TPH * EF# lb/Ton)		lb/hr	16.525	5.7507	1.4542	0.48914
	8760	hrs/yr				
Total (#lb/hr*#hrs/yr*1/2000Ton/lbs)						
		TPY	72.3795	25.18807	6.369396	2.142433
	2000	hrs/yr				
Expected (#lb/hr*exp#hrs/yr*1/2000Ton/lbs)						
		TPY	16.525	5.7507	1.4542	0.48914
Conveying/ Transfer Point Emission Factor						
		lb/Ton	0.003	0.0011	0.00014	0.000046
Conveyors	661	TPH				
Total (# TPH * EF# lb/Ton)		lb/hr	1.983	0.7271	0.09254	0.030406
	8760	hrs/yr				
Total (#lb/hr*#hrs/yr*1/2000Ton/lbs)						
		TPY	8.68554	3.184698	0.4053252	0.133178
	2000	hrs/yr				
Expected (#lb/hr*exp#hrs/yr*1/2000Ton/lbs)						
		TPY	1.983	0.7271	0.09254	0.030406

Total Uncontrolled Emissions:

Crushing	15.6 TPH x 2 crushers = 31.2 TPH
Screening	72.4 TPH x 2 Screens = 144.8 TPH
<u>Conveying</u>	<u>8.7 TPH x 24 Conveyors = 208.8 TPH</u>
Total	384.8 TPY at 8,760 hrs/yr

Total Controlled Emissions:

Crushing	3.5 TPH x 2 crushers = 7 TPH
Screening	6.4 TPH x 2 Screens = 12.8 TPH
<u>Conveying</u>	<u>0.4 TPH x 24 Conveyors = 9.6 TPH</u>
Total	29.4 TPY at 8,760 hrs/yr

Expected Emissions: Based on 2,000 Actual Hours of Operation and the AP-42 total particulate controlled emission factor.

Crushing	0.8 TPH x 2 crushers = 1.6 TPH
Screening	1.5 TPH x 2 Screens = 3 TPH
<u>Conveying</u>	<u>0.1 TPH x 24 Conveyors = 2.4 TPH</u>
Total	7 TPY at 2,000 hrs/yr

X002- 496 TPH Crushing, Screening, and Conveying Circuit with Wet Suppression, including Pugmill (NSPS Subpart OOO/SIP).

Equipment: 1 Crusher, 1 Screen, and 4 Associated Belt Conveyors (including 1 Feeder), 1 Pugmill (wet process)

Hours of Operation: 8 hrs/day x 5 days/wk x 50 wks/yr = 2,000 hours /year

Pollution Control: Wet Suppression

Allowable Emission: There is no allowable particulate emission rate limiting fugitive emissions for any of these processes.

Uncontrolled Emissions: Emission factors taken from EPA AP-42, Table 11.19.2-2

Source			Uncontrolled		Controlled	
		Units	Total PM	PM-10	Total PM	PM-10
Tertiary Crushing Emission Factor		lb/Ton	0.0054	0.0024	0.0012	0.00054
Jaw Crusher	496	TPH				
Total (# TPH * EF# lb/Ton)		lb/hr	2.6784	1.1904	0.5952	0.26784
	8760	hrs/yr				
Total (#lb/hr*#hrs/yr*(1/2000)Ton/lbs)		TPY	11.731392	5.213952	2.606976	1.173139
	2000	hrs/yr				
Expected (#lb/hr*exp#hrs/yr*(1/2000)Ton/lbs)		TPY	2.6784	1.1904	0.5952	0.26784
Screening Emission Factor		lb/Ton	0.025	0.0087	0.0022	0.00074
Double Deck Screen	496	TPH				
Total (# TPH * EF# lb/Ton)		lb/hr	12.4	4.3152	1.0912	0.36704
	8760	hrs/yr				
Total (#lb/hr*#hrs/yr*1/2000Ton/lbs)		TPY	54.312	18.90058	4.779456	1.607635
	2000	hrs/yr				
Expected (#lb/hr*exp#hrs/yr*1/2000Ton/lbs)		TPY	12.4	4.3152	1.0912	0.36704
Conveying/ Transfer Point Emission Factor		lb/Ton	0.003	0.0011	0.00014	0.000046
Conveyors	496	TPH				
Total (# TPH * EF# lb/Ton)		lb/hr	1.488	0.5456	0.06944	0.022816
	8760	hrs/yr				
Total (#lb/hr*#hrs/yr*1/2000Ton/lbs)		TPY	6.51744	2.389728	0.3041472	0.099934
	2000	hrs/yr				
Expected (#lb/hr*exp#hrs/yr*1/2000Ton/lbs)		TPY	1.488	0.5456	0.06944	0.022816

Total Uncontrolled Emissions:

Crushing	11.7 TPH x 1 crusher = 11.7 TPH
Screening	54.3 TPH x 1 Screen = 54.3 TPH
<u>Conveying</u>	<u>6.5 TPH x 4 Conveyors = 26 TPH</u>
Total	92 TPY at 8,760 hrs/yr

Total Controlled Emissions:

Crushing	2.6 TPH x 1 crusher = 2.6 TPH
Screening	4.8 TPH x 1 Screen = 4.8 TPH
<u>Conveying</u>	<u>0.3 TPH x 4 Conveyors = 1.2 TPH</u>
Total	8.6 TPY at 8,760 hrs/yr

Expected Emissions: Based on 2,000 Actual Hours of Operation and the AP-42 total particulate controlled emission factor.

Crushing	0.6 TPH x 1 crusher = 0.6 TPH
Screening	1.1 TPH x 1 Screen = 1.1 TPH
<u>Conveying</u>	<u>0.1 TPH x 4 Conveyors = 0.4 TPH</u>
Total	2.1 TPY at 2,000 hrs/yr

X001 Total Expected Emissions	7 TPY at 2,000 hrs/yr
X002 Total Expected Emissions	<u>2.1 TPY at 2,000 hrs/yr</u>
Plantwide Total	9.1 TPY at 2,000 hrs/yr

CALCULATIONS FOR ENGINES

Equipment: 350 Hp Caterpillar Diesel Engine

Hours of Operation: 2,000 hours /year

Pollution Control: Not applicable

Allowable Emission Rate: 40 CFR 60, Subpart IIII

Uncontrolled Emissions: Emission factors taken from AP-42 Table 3.3-1 Emission Factors for Uncontrolled Gasoline and Diesel Engines.

NO_x Emissions

NO_x Emission Factor 0.031 lb/Hp-hr, AP-42 Table 3.3-1.

350 Hp	0.031 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 10.85 T Yr
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SO_x Emissions

SO_x Emission Factor 2.05 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

350 Hp	0.00205 lb HP-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.72 T Yr
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CO Emissions

CO Emission Factor 6.68 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

350 HP	0.00668 lb Hp-hr	2,000 hrs 1 Yr	1 T 2,000 lbs	= 2.34 T Yr
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PM Emissions

PM Emission Factor 2.20 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

350 Hp	0.00220 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.77 T Yr
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Equipment: 380 Hp Cummins Diesel Engine

Hours of Operation: 2,000 hours /year

Pollution Control: Not applicable

Allowable Emission Rate: 40 CFR 60, Subpart IIII

Uncontrolled Emissions: Emission factors taken from AP-42 Table 3.3-1 Emission Factors for Uncontrolled Gasoline and Diesel Engines.

NO_x Emissions

NO_x Emission Factor 0.031 lb/Hp-hr, AP-42 Table 3.3-1.

380 Hp	0.031 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 11.78 T Yr
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SO_x Emissions

SO_x Emission Factor 2.05 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

380 Hp	0.00205 lb HP-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.78 T Yr
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CO Emissions

CO Emission Factor 6.68 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

380 HP	0.00668 lb Hp-hr	2,000 hrs 1Yr	1 T 2,000 lbs	= 2.54 T Yr
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PM Emissions

PM Emission Factor 2.20 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

380 Hp	0.00220 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.84 T Yr
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Equipment: 100 Hp Deutz Diesel Engine

Hours of Operation: 2,000 hours /year

Pollution Control: Not applicable

Allowable Emission Rate: 40 CFR 60, Subpart IIII

Uncontrolled Emissions: Emission factors taken from AP-42 Table 3.3-1 Emission Factors for Uncontrolled Gasoline and Diesel Engines.

NO_x Emissions

NO_x Emission Factor 0.031 lb/Hp-hr, AP-42 Table 3.3-1.

100 Hp	0.031 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 3.1 T Yr
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SO_x Emissions

SO_x Emission Factor 2.05 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

100 Hp	0.00205 lb HP-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.21 T Yr
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CO Emissions

CO Emission Factor 6.68 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

100 Hp	0.00668 lb Hp-hr	2,000 hrs 1Yr	1 T 2,000 lbs	= 0.67 T Yr
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PM Emissions

PM Emission Factor 2.20 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

100 Hp	0.00220 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.22 T Yr
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Equipment: 255 Hp Caterpillar Diesel Engine

Hours of Operation: 2,000 hours /year

Pollution Control: Not applicable

Allowable Emission Rate: 40 CFR 60, Subpart IIII

Uncontrolled Emissions: Emission factors taken from AP-42 Table 3.3-1 Emission Factors for Uncontrolled Gasoline and Diesel Engines.

NO_x Emissions

NO_x Emission Factor 0.031 lb/Hp-hr, AP-42 Table 3.3-1.

255 Hp	0.031 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 7.91 T Yr
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SO_x Emissions

SO_x Emission Factor 2.05 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

255 Hp	0.00205 lb HP-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.52 T Yr
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CO Emissions

CO Emission Factor 6.68 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

255 Hp	0.00668 lb Hp-hr	2,000 hrs 1Yr	1 T 2,000 lbs	= 1.70 T Yr
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PM Emissions

PM Emission Factor 2.20 E-03 lb/Hp-hr, AP-42, Table 3.3-1.

255 Hp	0.00220 lb Hp-hr	2,000 hrs Yr	1 T 2,000 lbs	= 0.56 T Yr
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Appendix B
Pillar Materials, LLC
Cleburne County, Alabama
Permit No. 305-0008-X001
Provisos

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shut down as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events that exceed **1 hour within 24 hours**. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.
6. This process, including all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
7. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
8. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction

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and/or operation without authorization could result in revocation of this permit.

9. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants. Written tests results are to be reported to the Air Division within 15 working days of completion of testing.

Particulates	()	Carbon Monoxide	()
Sulfur Dioxide	()	Nitrogen Oxides	()
Volatile Organic Compounds	()	Visible Emissions	(X)

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Department pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
14. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.
- (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).

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- (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis. All test reports must be submitted to the Air Division within 15 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

- 15. Precautions to prevent fugitive dust shall be taken so that provisions of the Department's rules and regulations shall not be violated.
- 16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds shall be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- (c) by paving;
- (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

- 17. If this plant relocates to another site, this plant's Air Permit remains valid for this site unless or until it is revoked for failure to comply with ADEM Air Division Rules and Regulations. The owner or operator of this plant must provide written notification of the intent to relocate the plant to this site at least two weeks in advance. The written notification should include the planned construction beginning date and the projected startup date.

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Failure to provide this written notification is a violation of this permit condition and is grounds for revocation of this permit.

18. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.
19. All equipment associated with this process is subject to either the State Implementation Plan (SIP) or the New Source Performance Standards (40 CFR Part 60, Subpart OOO- Standards of Performance for Nonmetallic Mineral Processing Plants). All NSPS – Subpart OOO equipment will be subject to the limitations and opacity limits for fugitive emissions according to the applicability date of 40 CFR Part 60, Subpart OOO that is specific to the equipment. This NSPS limits fugitive emissions from uncontrolled crushers to 12% opacity, and fugitive emissions from 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 to 7 % opacity. This NSPS allows no emissions from wet screening operations.
20. Compliance with the opacity standards for sources subject to NSPS-Subpart OOO will be determined by conducting visible emission observations in accordance with EPA Reference Method 9 (40 CFR Part 60, Appendix A-4). When determining compliance with the fugitive emissions standard for grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins and enclosed truck and railcar loading stations or from any other affected facility of this circuit, the duration of the Method 9 observations are required to be 30 minutes or five six minute averages. No more than 3 points may be tested concurrently by the same observer. The specified criteria of NSPS - Subpart OOO must be met.

The required performance testing will be conducted within 60 days of the source achieving maximum production rate but no later than 180 days of initial start-up of the facility. The test reports will be submitted to the Department within 15 days of the test date.

21. Recordkeeping is required for all monthly periodic monitoring inspections. Records shall be kept on the facility site, either in a handwritten log book or in electronic version suitable for inspection upon request by Air Division inspectors and will be retained for at least five (5) years following the date of the inspection. Records of the inspection date, results, and any corrective action taken shall be recorded. In addition, if wet suppression is not utilized during the inspection, any other control method used should be recorded or circumstances shall be noted.

Permit No.: 305-0008-X001

22. Periodic monitoring is required for all affected facilities controlled by direct wet suppression and/or water carryover. Each spray nozzle shall be examined monthly to assure water is appropriately supplied to the nozzle and that the water is sprayed from the nozzle correctly. Any corrective action indicated shall be taken within 24 hours of the inspection and completed as expeditiously as possible.
23. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
24. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
25. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
26. Should this facility, at any time, exceed the limits set forth in this permit, this Department must be notified within ten (10) days of the exceedance.

Date

Pillar Materials, LLC
Cleburne County, Alabama
Permit No. 305-0008-X002
Provisos

1. This permit is issued on the basis of Rules and Regulations existing on the date of issuance. In the event additional Rules and Regulations are adopted, it shall be the permit holder's responsibility to comply with such rules.
2. This permit is not transferable. Upon sale or legal transfer, the new owner or operator must apply for a permit within 30 days.
3. A new permit application must be made for new sources, replacements, alterations or design changes which may result in the issuance of, or an increase in the issuance of, air contaminants, or the use of which may eliminate or reduce or control the issuance of air contaminants.
4. The permittee shall keep this permit under file or on display at all times at the site where the facility for which the permit is issued is located and shall make the permit readily available for inspection by any or all persons who may request to see it.
5. All air pollution control equipment shall be operated at all times while this process is operational. In the event of scheduled maintenance, unscheduled maintenance, or a breakdown of the pollution control equipment, the process shall be shut down as expeditiously as possible (unless this act and subsequent re-start would clearly cause greater emissions than continuing operations of the process for a short period). The Department shall be notified of all such events that exceed **1 hour within 24 hours**. The notification shall include all pertinent facts, including the duration of the process operating without the control device and the level of excess emissions which have occurred. Records of all such events, regardless of reporting requirements, shall be made and maintained for a period of five years. These records shall be available for inspection.
6. This process, including all air pollution control devices and capture systems for which this permit is issued shall be maintained and operated at all times in a manner so as to minimize the emissions of air contaminants. Procedures for ensuring that the above equipment is properly operated and maintained so as to minimize the emission of air contaminants shall be established.
7. This permit expires and the application is cancelled if construction has not begun within 24 months of the date of issuance of the permit.
8. On completion of construction of the device(s) for which this permit is issued, written notification of the fact is to be submitted to the Chief of the Air Division. The notification shall indicate whether the device(s) was constructed as proposed in the application. The device(s) shall not be operated until authorization to operate is granted

Permit No.: 305-0008-X002

by the Chief of the Air Division. Failure to notify the Chief of the Air Division of completion of construction and/or operation without authorization could result in revocation of this permit.

9. Prior to a date to be specified by the Chief of the Air Division in the authorization to operate, emission tests are to be conducted by persons familiar with and using the EPA Sampling Train and Test Procedure as described in the Code of Federal Regulations, Title 40, Part 60, for the following pollutants. Written tests results are to be reported to the Air Division within 15 working days of completion of testing.

Particulates	()	Carbon Monoxide	()
Sulfur Dioxide	()	Nitrogen Oxides	()
Volatile Organic Compounds	()	Visible Emissions	(X)

10. Submittal of other reports regarding monitoring records, fuel analyses, operating rates, and equipment malfunctions may be required as authorized in the Department's air pollution control rules and regulations. The Department may require stack emission testing at any time.
11. Additions and revisions to the conditions of this Permit will be made, if necessary, to ensure that the Department's air pollution control rules and regulations are not violated.
12. Nothing in this permit or conditions thereto shall negate any authority granted to the Department pursuant to the Alabama Environmental Management Act or regulations issued thereunder.
13. This permit is issued with the condition that, should obnoxious odors arising from the plant operations be verified by Air Division inspectors, measures to abate the odorous emissions shall be taken upon a determination by the Alabama Department of Environmental Management that these measures are technically and economically feasible.
14. The Air Division must be notified in writing at least 10 working days in advance of all emission tests to be conducted and submitted as proof of compliance with the Department's air pollution control rules and regulations.

To avoid problems concerning testing methods and procedures, the following shall be included with the notification letter:

- (a) The date the test crew is expected to arrive, the date and time anticipated of the start of the first run, how many and which sources are to be tested, and the names of the persons and/or testing company that will conduct the tests.

Permit No.: 305-0008-X002

- (b) A complete description of each sampling train to be used, including type of media used in determining gas stream components, type of probe lining, type of filter media, and probe cleaning method and solvent to be used (if test procedure requires probe cleaning).
- (c) A description of the process(es) to be tested, including the feed rate, any operating parameter used to control or influence the operations, and the rated capacity.
- (d) A sketch or sketches showing sampling point locations and their relative positions to the nearest upstream and downstream gas flow disturbances.

A pretest meeting may be held at the request of the source owner or the Department. The necessity for such a meeting and the required attendees will be determined on a case-by-case basis. All test reports must be submitted to the Air Division within 15 days of the actual completion of the test, unless an extension of time is specifically approved by the Air Division.

- 15. Precautions to prevent fugitive dust shall be taken so that provisions of the Department's rules and regulations shall not be violated.
- 16. Precautions shall be taken to prevent fugitive dust emanating from plant roads, grounds, stockpiles, screens, dryers, hoppers, ductwork, etc.

Plant or haul roads and grounds shall be maintained in the following manner so that dust will not become airborne. A minimum of one, or a combination, of the following methods shall be utilized to minimize airborne dust from plant or haul roads and grounds:

- (a) by the application of water any time the surface of the road is sufficiently dry to allow the creation of dust emissions by the act of wind or vehicular traffic;
- (b) by reducing the speed of vehicular traffic to a point below that at which dust emissions are created;
- (c) by paving;
- (d) by the application of binders to the road surface at any time the road surface is found to allow the creation of dust emissions;

Should one, or a combination, of the above methods fail to adequately reduce airborne dust from plant or haul roads and grounds, alternative methods shall be employed, either exclusively or in combination with one or all of the above control techniques, so that dust will not become airborne. Alternative methods shall be approved by the Department prior to utilization.

Permit No.: 305-0008-X002

17. If this plant relocates to another site, this plant's Air Permit remains valid for this site unless or until it is revoked for failure to comply with ADEM Air Division Rules and Regulations. The owner or operator of this plant must provide written notification of the intent to relocate the plant to this site at least two weeks in advance. The written notification should include the planned construction beginning date and the projected startup date. Failure to provide this written notification is a violation of this permit condition and is grounds for revocation of this permit.
18. Any performance tests required shall be conducted and data reduced in accordance with the test methods and procedures contained in each specific permit condition unless the Director (1) specifies or approves, in specific cases, the use of a reference method with minor changes in methodology, (2) approves the use of an equivalent method, or (3) approves the use of an alternative method, the results of which he has determined to be adequate for indicating whether a specific source is in compliance.
19. All equipment associated with this process is subject to either the State Implementation Plan (SIP) or the New Source Performance Standards (40 CFR Part 60, Subpart OOO- Standards of Performance for Nonmetallic Mineral Processing Plants). All NSPS – Subpart OOO equipment will be subject to the limitations and opacity limits for fugitive emissions according to the applicability date of 40 CFR Part 60, Subpart OOO that is specific to the equipment. This NSPS limits fugitive emissions from uncontrolled crushers to 12% opacity, and fugitive emissions from 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 to 7 % opacity. This NSPS allows no emissions from wet screening operations.
20. Compliance with the opacity standards for sources subject to NSPS-Subpart OOO will be determined by conducting visible emission observations in accordance with EPA Reference Method 9 (40 CFR Part 60, Appendix A-4). When determining compliance with the fugitive emissions standard for grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins and enclosed truck and railcar loading stations or from any other affected facility of this circuit, the duration of the Method 9 observations are required to be 30 minutes or five six minute averages. No more than 3 points may be tested concurrently by the same observer. The specified criteria of NSPS - Subpart OOO must be met.

The required performance testing will be conducted within 60 days of the source achieving maximum production rate but no later than 180 days of initial start-up of the facility. The test reports will be submitted to the Department within 15 days of the test date.

21. Recordkeeping is required for all monthly periodic monitoring inspections. Records shall be kept on the facility site, either in a handwritten log book or in electronic version suitable for inspection upon request by Air Division inspectors and will be retained for at least five (5) years following the date of the inspection. Records of the inspection date, results, and any corrective action taken shall be recorded. In addition, if wet suppression

Permit No.: 305-0008-X002

is not utilized during the inspection, any other control method used should be recorded or circumstances shall be noted.

22. Periodic monitoring is required for all affected facilities controlled by direct wet suppression and/or water carryover. Each spray nozzle shall be examined monthly to assure water is appropriately supplied to the nozzle and that the water is sprayed from the nozzle correctly. Any corrective action indicated shall be taken within 24 hours of the inspection and completed as expeditiously as possible.
23. The permittee shall not use as a defense in an enforcement action that maintaining compliance with conditions of this permit would have required halting or reducing the permitted activity.
24. The issuance of this permit does not convey any property rights of any sort, or any exclusive privilege.
25. Precautions shall be taken by the permittee and its personnel to ensure that no person shall ignite, cause to be ignited, permit to be ignited, or maintain any open fire in such a manner as to cause the Department's rules and regulations applicable to open burning to be violated.
26. Should this facility, at any time, exceed the limits set forth in this permit, this Department must be notified within ten (10) days of the exceedance.

Date

AIR PERMIT

PERMITTEE: PILLAR MATERIALS, LLC
FACILITY NAME: 431 QUARRY
LOCATION: HEFLIN, CLEBURNE COUNTY, ALABAMA

<u>PERMIT NUMBER</u>	<u>DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE</u>
305-0008-X001	661 TPH Crushing, Screening, and Conveying Circuit with Wet Suppression (NSPS Subpart OOO/SIP)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

AIR PERMIT

PERMITTEE: PILLAR MATERIALS, LLC
FACILITY NAME: 431 QUARRY
LOCATION: HEFLIN, CLEBURNE COUNTY, ALABAMA

<u>PERMIT NUMBER</u>	<u>DESCRIPTION OF EQUIPMENT, ARTICLE OR DEVICE</u>
305-0008-X002	496 TPH Crushing, Screening, and Conveying Circuit with Wet Suppression, including Pugmill (NSPS Subpart OOO/SIP)

In accordance with and subject to the provisions of the Alabama Air Pollution Control Act of 1971, Ala. Code §§ 22-28-1 to 22-28-23, as amended, the Alabama Environmental Management Act, Ala. Code §§ 22-22A-1 to 22-22A-17, as amended, and rules and regulations adopted there under, and subject further to the conditions set forth in this permit, the Permittee is hereby authorized to construct, install and use the equipment, device or other article described above.

ISSUANCE DATE:

Alabama Department of Environmental Management

Appendix C Cover Letter

Date

Mr. Lance Taylor
President
Pillar Materials, LLC
P.O. Box 3424
Oxford, AL 36203

Dear Mr. Taylor:

**RE: Facility No. 305-0008
Units X001, X002**

The enclosed Air Permits are issued pursuant to the Department's air pollution control rules and regulations. Please note the conditions (provisions) which must be met in order to retain these Air Permits.

New sources of air pollution receiving approval by an Air Permit must notify the Chief of the Air Division upon completion of construction and prior to operation. Authorization to Operate must then be received from the Chief of the Air Division. Failure to notify the Chief of the Air Division upon completion of construction and/or operation without authorization can result in the revocation of the Air Permit.

Upon receiving the enclosed Air Permits, please review **all** of the provisions. In addition, please be aware that the engines associated with these circuits must meet the requirements of NSPS, Subpart IIII, Standards of Performance for Stationary Compression Ignition Combustion Engines.

Should you have any questions or if clarification of permit conditions is required, please do not hesitate to contact Delilah Simpson at (334) 271-7787 in Montgomery.

Sincerely,

Ronald W. Gore, Chief
Air Division

RWG/dds
Enclosures

CHECKLIST FOR ISSUANCE OF PERMITS

Permit No. 305-0008-X001 Type: Air

Company Pillar Materials, LLC – 431 Quarry

Location Hwy 431, Heflin (Cleburne County)

Description of Permit Unit: X001 – 661 TPH Crushing, Screening, and Conveying Circuit with Wet Suppression (NSPS Subpart OOO/SIP)

Pollutant Type:

Particulates	01	Nitrogen Oxides	05	Chlorine	09
Sulfur Oxides	02	Total Reduced Sulfur	06	Hydrogen Sulfide	10
Carbon Monoxide	03	Asbestos	07	Lead	11
Hydrocarbons	04	Beryllium	08	Mercury	12

Pollutant Type	Reported Emissions lb/hr	Method Of Estimate	Uncontrolled Emissions lb/hr	Controlled Emissions lb/hr	Allowable Emissions lb/hr
See Preconstruction Analysis					

Operating Hours Per Year: 2,000

Provisos: See Preconstruction Analysis

Mail To: _____
Mr. Lance Taylor
Pillar Materials, LLC
P.O. Box 3424
Oxford, AL 36203

Engineer: D. Simpson
 Date: _____

Type: PSD _____ SMS _____ NAME _____ MOD _____ TEMP _____ OTHER X
 Source: NSPS X NESHAP _____ SIP _____ OTHER _____

CHECKLIST FOR ISSUANCE OF PERMITS

Permit No. 305-0008-X002 Type: Air

Company Pillar Materials, LLC – 431 Quarry

Location Hwy 431, Heflin (Cleburne County)

Description of Permit Unit: X002 – 496 TPH Crushing, Screening, and Conveying Circuit with Wet Suppression, including Pugmill (NSPS Subpart OOO/SIP)

Pollutant Type:

Particulates	01	Nitrogen Oxides	05	Chlorine	09
Sulfur Oxides	02	Total Reduced Sulfur	06	Hydrogen Sulfide	10
Carbon Monoxide	03	Asbestos	07	Lead	11
Hydrocarbons	04	Beryllium	08	Mercury	12

Pollutant Type	Reported Emissions lb/hr	Method Of Estimate	Uncontrolled Emissions lb/hr	Controlled Emissions lb/hr	Allowable Emissions lb/hr
See Preconstruction Analysis					

Operating Hours Per Year: 2,000

Provisos: See Preconstruction Analysis

Mail To: _____
Mr. Lance Taylor
Pillar Materials, LLC
P.O. Box 3424
Oxford, AL 36203

Engineer: D. Simpson
 Date: _____

Type: PSD _____ SMS _____ NAME _____ MOD _____ TEMP _____ OTHER X
 Source: NSPS X NESHAP _____ SIP _____ OTHER _____