CITY OF ALBUQUERQUE
ENVIRONMENTAL HEALTH DEPARTMENT
AIR QUALITY PROGRAM

MODIFICATION APPLICATION #0752-M3-1TR

American Gypsum Company, LLC
Albuquerque Plant

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1. GENERAL INFORMATION

1.0 Executive Summary

American Gypsum Company LLC (AMG) currently operates its Gypsum Wallboard Manufacturing Plant in Albuquerque, New Mexico under Construction Permit (CP) #0752-M3-1TR. The Albuquerque Plant (herein referred to as the facility) receives raw material via ore truck which it processes to form wallboard. The most recent permit modification (issued March 11, 2022) authorized the construction and operation of a new vertical mill and associated processes and control equipment. The new proposed sources were authorized to operate simultaneously with all existing, permitted, equipment although a portion of the existing equipment will be decommissioned once the new mill is constructed and operational. A technical revision permit was issued on January 23, 2023 which authorized temporary equipment during construction.

AMG is now proposing a modification to this permit to authorize an increase in annual throughputs for Units 12a and 12b. The permitted hourly value of 200 tph each for Units 12a and 12b will remain unchanged, but the annual value of 39,000 tpy each will increase to 919,800 tpy for Unit 12a and 963,600 tpy for Unit 12b. As such, overall annual particulate site emissions will be increasing as a result of this permit modification and all other sources as represented in the permit will remain unchanged. For simplicity, the calculations and application forms only include details of revised emission sources and will refer to the existing permit for unchanged emission sources.

The application includes a modeling waiver request and subsequent approval justifying that modeling is not needed because the modeling completed in the last modification application was done using a conservative hourly emission rate, and that a short term emission rate was used to model the annual emissions, which is an overestimate, and the proposed annual emission will be below what was modeled before.

As part of this permit modification, American Gypsum would also like to respectfully request a draft permit be issued prior to final permit issuance.

Table 1: Current Permitted Controlled Emissions

Unit	Description	Currently Permitted Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	0.71	0.051	0.072
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.0020	0.0030	0.00030
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.71	0.054	0.073

Table 2: Proposed Controlled Emissions

Unit	Description	Modified Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	1.67	0.051	0.18
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.048	0.0030	0.0073
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.72	0.054	0.18

Table 3: Net Change in Emissions

Description	Emissions per Unit											
	NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Change in Unit 12a Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.96	0.00	0.11
Change in Unit 12b Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.046	0.00	0.0070
Overall Change in Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.11

2. DESCRIPTION OF FACILITY AND EMISSIONS INFORMATION

The following section summarizes the emission factors and methodology used to estimate air pollutant emissions from the Albuquerque Plant.

2.1 Description of the Facility

Two process descriptions are included below: (1) for existing gypsum processing at the facility and (2) for proposed gypsum processing based on the new equipment.

2.1.1 Current Gypsum Processing Description

- Haul trucks deliver gypsum from mine;
- Belly dump into receiving hopper or on stockpile;
- Material from receiving hopper is fed to crusher to reduce size of gypsum;
- Gypsum is conveyed via belt, elevators & screws to storage silos;
- Gypsum is conveyed via elevators & screws to the grinding mills;
- Three grinding mills pulverize the gypsum into powder and drive off moisture;
- The ground gypsum is conveyed to one of four kettles where the material is cooked;
- Gypsum powder is fed into the top of the kettle;
- Each kettle has an agitator keeping the material mixing;
- There is a firebox under each kettle and flues that allow heat to run through the kettle to cook the gypsum;
- As the gypsum is cooked, it rises in the kettle and the raw gypsum powder flows toward the bottom;
- The fully cooked gypsum; plaster-of-Paris or stucco, overflows the top of the kettle;
- The stucco is conveyed to the production line to be converted to wallboard;
- Finished products are transported off site via rail and truck.

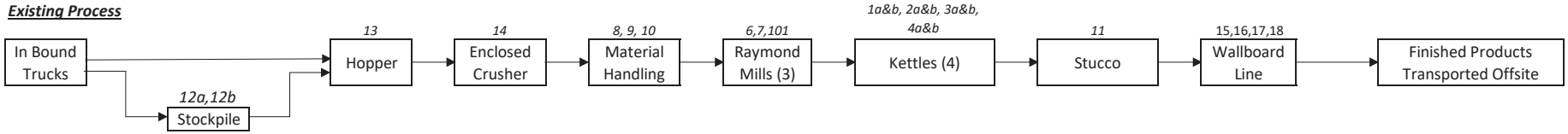
2.1.2 Proposed Gypsum Processing Description

- Haul trucks deliver gypsum from mine;
- Trucks belly dump into new receiving hopper or on stockpile;
- Material from new receiving hopper is fed to a new crusher to reduce size of gypsum;
- Gypsum is conveyed via belt & elevators to a new storage silo or the new flash-calcining roller mill;
- A single flash-calcining roller mill will pulverize the gypsum into powder and drive off moisture and cook the gypsum;
- The fully cooked gypsum; plaster-of-Paris or stucco, is collected in a dust collector;
- The stucco is conveyed to the production line to be converted to wallboard
- Finished products are transported off site via rail and truck.

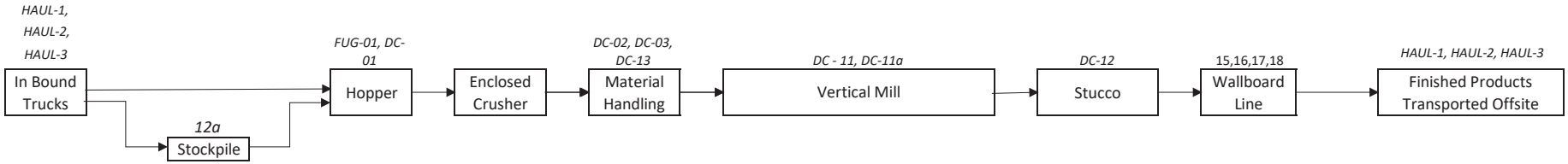
All other facility processes and permitted equipment remain unchanged as part of this permit modification.

2.2 Process Flow Sheets

Existing Process



New Process



2.3 Air Pollutant Emissions and Calculation Methodology

2.3.1 Updated Emission Calculations*

2.3.1.1 Stockpile (Units 12a)

Emissions associated with the stockpile are based on material handling (truck drops to stockpile and front-end loader drops) as well as loader and truck traffic traveling over the stockpile. Unit 12 encompasses emissions from both sources. Material handling emissions are based on AP-42 Table 11.19.2-2 for truck loading/unloading of fragmented stone. PM_{10} and $PM_{2.5}$ emissions are based on the Aerodynamic Particle Size Multiplier (k factor) from AP-42 Section 13.2.4-4 ($PM_{2.5}$ = PM_{10} * 0.053/0.35). Water sprays are utilized so the controlled factor for wet material was utilized for material removed from the stockpile.

In addition to material handling, loaders and trucks travel on the stockpile, generating dust associated with haul traffic. These emissions were calculated based on AP-42 Section 13.2.2 for unpaved roads with an assumed silt content of 9.7% for Gypsum. Vehicles per hour, vehicles per year, segment length and mean vehicle weight were all provided by American Gypsum based on the facility processes and throughput. These emissions were added to the material handling and were modeled as an area source representing the stockpile.

2.3.1.2 Stockpile Loader (Unit 12b)

Emissions associated with the stockpile loader are based on AP-42 Table 11.19.2-2 for truck loading/unloading of fragmented stone. PM_{10} and $PM_{2.5}$ emissions are based on the Aerodynamic Particle Size Multiplier (k factor) from AP-42 Section 13.2.4-4 ($PM_{2.5}$ = PM_{10} * 0.053/0.35. The hourly throughput will remain as permitted (200 tph) but the annual throughput is being increased to 963,600 tpy.

*All other emission sources remain unchanged and were previously included in the most recent permit modification application. Refer to the permit for individual emission rates.

2.4 Emission Calculations

American Gypsum
Albuquerque Plant

Unit	Description	Currently Permitted Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	0.71	0.051	0.072
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.0020	0.0030	0.00030
OTHER *	Remaining Permitted Sources	23.43	93.03	12.75	53.72	0.30	1.21	1.27	5.21	17.92	70.32	5.96	24.74
Total		23.43	93.03	12.75	53.72	0.30	1.21	1.27	5.21	18.42	71.03	6.01	24.81

Unit	Description	Modified Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	1.67	0.051	0.18
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.048	0.0030	0.0073
OTHER *	Remaining Permitted Sources	23.43	93.03	12.75	53.72	0.30	1.21	1.27	5.21	17.92	70.32	5.96	24.74
Total		23.43	93.03	12.75	53.72	0.30	1.21	1.27	5.21	18.42	72.04	6.01	24.93

* Other permitted sources include all emission units from Permit #0752-M3-1TR which remain unchanged as part of this modification. Refer to the permit for individual emission rates.

American Gypsum
Albuquerque Plant

Unit	Description	Current Permitted Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Area Source													
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	0.71	0.051	0.072
Volume Sources													
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.0020	0.0030	0.00030
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.71	0.054	0.073

Unit	Description	Proposed Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Area Source													
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	1.67	0.051	0.18
Volume Sources													
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.048	0.0030	0.0073
Total		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.72	0.054	0.18

Description	Proposed Change in Emissions											
	NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Proposed Emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	1.72	0.054	0.18
Current Permitted Levels	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.50	0.71	0.054	0.073
Increase in Emissions from Current Permit	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	1.01	0.00	0.11

American Gypsum
Albuquerque Plant
Emission Calculations - Material Handling

Unit	Description	Throughput		Emission Factors (lb/ton)[1]		Control Efficiency (%)[2]	Control Basis	Uncontrolled Emissions				Controlled Emissions			
				PM_{10}	$PM_{2.5}$			PM_{10}		$PM_{2.5}$		PM_{10}		$PM_{2.5}$	
		tons/hr	tons/yr					lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
12a	Truck Dump to Stockpile	200	919,800	0.000016	2.42286E-06	0	None	3.20E-05	7.36E-05	4.85E-06	1.11E-05	3.20E-03	7.36E-03	4.85E-04	1.11E-03
	Front-End Loader to Truck	200	919,800	0.0001	1.51429E-05	50	Wet Material	2.00E-04	4.60E-04	3.03E-05	6.96E-05	1.00E-02	2.30E-02	1.51E-03	3.48E-03

[1] Emissions are based on AP-42, Table 11.19.2-2 for truck loading/unloading of fragmented stone. $PM_{2.5}$ emissions based on the Aerodynamic Particle Size Multiplier (k factor) ratio from AP-42, Section 13.2.4-4. $PM_{2.5} = PM_{10} * 0.053/0.35$.

[2] Since the stockpile utilizes water sprays, the control factor for wet material was utilized for material removed from the stockpile.

American Gypsum
Albuquerque Plant
Unpaved Haul Road Emissions

Unpaved Haul Road Input Information		
Unit(s):	HAUL-1 and 12a	
Annual Capacity:	919,800	ton/yr
Source Description:	Unpaved Vehicle Traffic	

Unpaved Road Emission Factors

Route	Calculation Parameters [1]												Hourly Emission Factors		Annual Emission Factors	
	s	W	P			k			a		b		E [2]		E_{ext} [3]	
	Silt Content [1]	Mean Vehicle Weight	Wet Days	Material Net	Annual Tonnage	PM_{30}	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$	PM_{10}	$PM_{2.5}$
	%	tons	day	(ton)	(ton)	lb/VMT	lb/VMT	lb/VMT					lb/VMT	lb/VMT	lb/VMT	lb/VMT
Loader Traffic (Unit 12a)	9.7	21.00	70	6	157,680	4.9	1.5	0.15	0.90	0.90	0.45	0.45	2.97	0.30	2.40	0.24
Haul Trucks (Unit 12a)	9.7	29.50	70	29	762,120	4.9	1.5	0.15	0.90	0.45	0.45	0.45	3.46	0.38	2.80	0.31

[1] Emission factors calculated per AP-42 Sec. 13.2.2.3 November, 2006, Equation 2.

Unpaved Road Emissions

Route	Calculation Inputs								Uncontrolled Emissions [8,9]				Controlled Emissions [10]			
	Annual Operation	Segment Length	Trips per Segment	Number of Vehicles per Hour [4]	Number of Vehicles per Year [5]	Effective Segment Length	Average VMT/hr [6]	Average VMT/yr [7]	PM_{10}		$PM_{2.5}$		PM_{10}		$PM_{2.5}$	
	hr	mi		trucks/hr	trucks/yr	mi	mi/hr	mi/yr	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Loader Traffic (Unit 12a)	8,760	0.060	1	3.00	26,280	0.060	0.180	1,577	0.54	1.89	0.054	0.19	0.21	0.76	0.021	0.076
Haul Trucks (Unit 12a)	8,760	0.060	1	3.00	26,280	0.060	0.180	1,577	0.62	2.21	0.069	0.243	0.25	0.883	0.027	0.097
Totals									***1.16***	***4.10***	***0.12***	***0.43***	***0.46***	***1.64***	***0.049***	***0.17***

[1] Surface silt = % of 75 micron diameter and smaller particles. Conservatively assumed to be 9.7% for gypsum. (AP-42 Table 13.2.2-1)

[2] E = k x (s/12)^a x (W/3)^b (AP-42 page 13.2.2-4 Equation 1a, November 2006)

E= Size Specific Emission Factor (lb/VMT)

s = surface material silt content (%)

k, a, b = constants from AP-42 Table 13.2.2-2

W = Weighted Mean Vehicle Weight from Haul Road Inputs (tons)

[3] Wet Day Emission Factor = E * (365 - Wet Days)/365. Wet days value of 70 is the NM default allowed by NMED without additional justification.

[4] Number of vehicles per hour assumed to be 3 based on operational data.

[5] Number of vehicles per year based on annual tonnage, load size and trips per hour assuming 8760 hrs of operation.

[6] VMT/hr = Vehicle Miles Travelled per hour= Trips per hour * Segment Length

[7] VMT/yr = Vehicle Miles Travelled per year= Trips per year * Segment Length

[8] lb/hr = Hourly EF (lb/VMT) * VMT (mile/hr)

[9] ton/yr =Annual EF (lb/VMT) * VMT (mile/yr) / 2000 (lb/tpy)

[10] Controlled Emissions = Uncontrolled Emissions * (1 - Control Efficiency)

Control Efficiency = 60% Based on engineering judgement for use of water sprays.

American Gypsum
Albuquerque Plant
Emission Calculations - Stockpile Material Handling and Hauling
Unit: 12a (Total Emissions)

Pollutant	Total Uncontrolled Emissions									
	Dump to Stockpile		Loader to Truck		Loader Traffic		Haul Truck Traffic		Total	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
PM_{10}	3.20E-05	7.36E-05	2.00E-04	4.60E-04	0.54	1.89	0.62	2.21	1.16	4.10
$PM_{2.5}$	4.85E-06	1.11E-05	3.03E-05	6.96E-05	0.054	0.19	0.069	0.24	0.12	0.43

Pollutant	Total Controlled Emissions									
	Dump to Stockpile		Loader to Truck		Loader Traffic		Haul Truck Traffic		Total	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
PM_{10}	3.20E-03	7.36E-03	1.00E-02	2.30E-02	0.21	0.76	0.25	0.88	0.48	1.67
$PM_{2.5}$	4.85E-04	1.11E-03	1.51E-03	3.48E-03	0.021	0.076	0.027	0.097	0.051	0.18

American Gypsum
Albuquerque Plant
Emission Calculations - Material Handling
Unit: 12b (Total Emissions)

Unit	Description	Throughput		Emission Factors (lb/ton)[1]		Control Efficiency (%)	Control Basis	Uncontrolled Emissions				Controlled Emissions			
				PM_{10}	$PM_{2.5}$			PM_{10}		$PM_{2.5}$		PM_{10}		$PM_{2.5}$	
		tons/hr	tons/yr					lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
12b	Front-End Loader	200	963,600	0.0001	1.51429E-05	0	Wet Material	2.00E-02	4.82E-02	3.03E-03	7.30E-03	2.00E-02	4.82E-02	3.03E-03	7.30E-03

[1] Emissions are based on AP-42, Table 11.19.2-2 for truck loading/unloading of fragmented stone. $PM_{2.5}$ emissions based on the Aerodynamic Particle Size Multiplier (k factor) ratio from AP-42, Section 13.2.4-4. $PM_{2.5} = PM_{10} * 0.053/0.35$.

2.5 Supporting Information

AP-42 Table 11.19.2-2: Emission Factors for Crushed Stone Operation

AP-42 Section 13.2.2: Unpaved Haul Roads

NMED Guidance: Aggregate Handling, Storage Pile, and Haul Road Emissions

AP-42 Section 13.2.4: Aggregate Handling and Storage Piles

Table 11.19.2-2 (English Units). EMISSION FACTORS FOR CRUSHED STONE PROCESSING OPERATIONS (lb/Ton)[a]

Source [b]	Total Particulate Matter [r,s]	EMISSION FACTOR RATING	Total PM-10	EMISSION FACTOR RATING	Total PM-2.5	EMISSION FACTOR RATING
Primary Crushing (SCC 3-05-020-01)	ND		ND[n]		ND[n]	
Primary Crushing (controlled) (SCC 3-05-020-01)	ND		ND[n]		ND[n]	
Secondary Crushing (SCC 3-05-020-02)	ND		ND[n]		ND[n]	
Secondary Crushing (controlled) (SCC 3-05-020-02)	ND		ND[n]		ND[n]	
Tertiary Crushing (SCC 3-050030-03)	0.0054[d]	E	0.0024[o]	C	ND[n]	
Tertiary Crushing (controlled) (SCC 3-05-020-03)	0.0012[d]	E	0.00054[p]	C	0.00010[q]	E
Fines Crushing (SCC 3-05-020-05)	0.0390[e]	E	0.0150[e]	E	ND	
Fines Crushing (controlled) (SCC 3-05-020-05)	0.0030[f]	E	0.0012[f]	E	0.000070[q]	E
Screening (SCC 3-05-020-02, 03)	0.025[c]	E	0.0087[l]	C	ND	
Screening (controlled) (SCC 3-05-020-02, 03)	0.0022[d]	E	0.00074[m]	C	0.000050[q]	E
Fines Screening (SCC 3-05-020-21)	0.30[g]	E	0.072[g]	E	ND	
Fines Screening (controlled) (SCC 3-05-020-21)	0.0036[g]	E	0.0022[g]	E	ND	
Conveyor Transfer Point (SCC 3-05-020-06)	0.0030[h]	E	0.00110[h]	D	ND	
Conveyor Transfer Point (controlled) (SCC 3-05-020-06)	0.00014[t]	E	4.6×10^{-5}[i]	D	1.3×10^{-5}[q]	E
Wet Drilling - Unfragmented Stone (SCC 3-05-020-10)	ND		8.0×10^{-5}[j]	E	ND	
Truck Unloading -Fragmented Stone (SCC 3-05-020-31)	ND		1.6×10^{-5}[j]	E	ND	
Truck Loading - Conveyor, crushed stone (SCC 3-05-020-32)	ND		0.00010[k]	E	ND	

a. Emission factors represent uncontrolled emissions unless noted. Emission factors in lb/Ton of material of throughput. SCC = Source Classification Code. ND = No data.

b. Controlled sources (with wet suppression) are those that are part of the processing plant that employs current wet suppression technology similar to the study group. The moisture content of the study group without wet suppression systems operating (uncontrolled) ranged from 0.21 to 1.3 percent, and the same facilities operating wet suppression systems (controlled) ranged from 0.55 to 2.88 percent. Due to carry over of the small amount of moisture required, it has been shown that each source, with the exception of crushers, does not need to employ direct water sprays. Although the moisture content was the only variable measured, other process features may have as much influence on emissions from a given source. Visual observations from each source under normal operating conditions are probably the best indicator of which emission factor is most appropriate. Plants that employ substandard control measures as indicated by visual observations should use the uncontrolled factor with an appropriate control efficiency that best reflects the effectiveness of the controls employed.

c. References 1, 3, 7, and 8

d. References 3, 7, and 8

13.2.2 Unpaved Roads

13.2.2.1 General

When a vehicle travels an unpaved road, the force of the wheels on the road surface causes pulverization of surface material. Particles are lifted and dropped from the rolling wheels, and the road surface is exposed to strong air currents in turbulent shear with the surface. The turbulent wake behind the vehicle continues to act on the road surface after the vehicle has passed.

The particulate emission factors presented in the previous draft version of this section of AP-42, dated October 2001, implicitly included the emissions from vehicles in the form of exhaust, brake wear, and tire wear as well as resuspended road surface material[25]. EPA included these sources in the emission factor equation for unpaved public roads (equation 1b in this section) since the field testing data used to develop the equation included both the direct emissions from vehicles and emissions from resuspension of road dust.

This version of the unpaved public road emission factor equation only estimates particulate emissions from resuspended road surface material [23, 26]. The particulate emissions from vehicle exhaust, brake wear, and tire wear are now estimated separately using EPA's MOBILE6.2 [24]. This approach eliminates the possibility of double counting emissions. Double counting results when employing the previous version of the emission factor equation in this section and MOBILE6.2 to estimate particulate emissions from vehicle traffic on unpaved public roads. It also incorporates the decrease in exhaust emissions that has occurred since the unpaved public road emission factor equation was developed. The previous version of the unpaved public road emission factor equation includes estimates of emissions from exhaust, brake wear, and tire wear based on emission rates for vehicles in the 1980 calendar year fleet. The amount of PM released from vehicle exhaust has decreased since 1980 due to lower new vehicle emission standards and changes in fuel characteristics.

13.2.2.2 Emissions Calculation And Correction Parameters[1-6]

The quantity of dust emissions from a given segment of unpaved road varies linearly with the volume of traffic. Field investigations also have shown that emissions depend on source parameters that characterize the condition of a particular road and the associated vehicle traffic. Characterization of these source parameters allow for "correction" of emission estimates to specific road and traffic conditions present on public and industrial roadways.

Dust emissions from unpaved roads have been found to vary directly with the fraction of silt (particles smaller than 75 micrometers [µm] in diameter) in the road surface materials.[1] The silt fraction is determined by measuring the proportion of loose dry surface dust that passes a 200-mesh screen, using the ASTM-C-136 method. A summary of this method is contained in Appendix C of AP-42. Table 13.2.2-1 summarizes measured silt values for industrial unpaved roads. Table 13.2.2-2 summarizes measured silt values for public unpaved roads. It should be noted that the ranges of silt content vary over two orders of magnitude. Therefore, the use of data from this table can potentially introduce considerable error. Use of this data is strongly discouraged when it is feasible to obtain locally gathered data.

Since the silt content of a rural dirt road will vary with geographic location, it should be measured for use in projecting emissions. As a conservative approximation, the silt content of the parent soil in the area can be used. Tests, however, show that road silt content is normally lower than in the surrounding parent soil, because the fines are continually removed by the vehicle traffic, leaving a higher percentage of coarse particles.

Other variables are important in addition to the silt content of the road surface material. For example, at industrial sites, where haul trucks and other heavy equipment are common, emissions are highly correlated with vehicle weight. On the other hand, there is far less variability in the weights of cars and pickup trucks that commonly travel publicly accessible unpaved roads throughout the United States. For those roads, the moisture content of the road surface material may be more dominant in determining differences in emission levels between, for example a hot, desert environment and a cool, moist location.

The PM-10 and TSP emission factors presented below are the outcomes from stepwise linear regressions of field emission test results of vehicles traveling over unpaved surfaces. Due to a limited amount of information available for PM-2.5, the expression for that particle size range has been scaled against the result for PM-10. Consequently, the quality rating for the PM-2.5 factor is lower than that for the PM-10 expression.

Table 13.2.2-1. TYPICAL SILT CONTENT VALUES OF SURFACE MATERIAL ON INDUSTRIAL UNPAVED ROADS[a]

Industry	Road Use Or Surface Material	Plant Sites	No. Of Samples	Silt Content (%)	
				Range	Mean
Copper smelting	Plant road	1	3	16 - 19	17
Iron and steel production	Plant road	19	135	0.2 - 19	6.0
Sand and gravel processing	Plant road	1	3	4.1 - 6.0	4.8
	Material storage area	1	1	-	7.1
Stone quarrying and processing	Plant road	2	10	2.4 - 16	10
	Haul road to/from pit	4	20	5.0-15	8.3
Taconite mining and processing	Service road	1	8	2.4 - 7.1	4.3
	Haul road to/from pit	1	12	3.9 - 9.7	5.8
Western surface coal mining	Haul road to/from pit	3	21	2.8 - 18	8.4
	Plant road	2	2	4.9 - 5.3	5.1
	Scraper route	3	10	7.2 - 25	17
	Haul road (freshly graded)	2	5	18 - 29	24
Construction sites	Scraper routes	7	20	0.56-23	8.5
Lumber sawmills	Log yards	2	2	4.8-12	8.4
Municipal solid waste landfills	Disposal routes	4	20	2.2 - 21	6.4

[a]References 1,5-15.

The following empirical expressions may be used to estimate the quantity in pounds (lb) of size-specific particulate emissions from an unpaved road, per vehicle mile traveled (VMT):

For vehicles traveling on unpaved surfaces at industrial sites, emissions are estimated from the following equation:

$$E = k\,(s/12)^a (W/3)^b \quad (1a)$$

and, for vehicles traveling on publicly accessible roads, dominated by light duty vehicles, emissions may be estimated from the following:

$$E = \frac{k\,(s/12)^a (S/30)^d}{(M/0.5)^c} - C \quad (1b)$$

where k, a, b, c and d are empirical constants (Reference 6) given below and

E = size-specific emission factor (lb/VMT)
s = surface material silt content (%)
W = mean vehicle weight (tons)
M = surface material moisture content (%)
S = mean vehicle speed (mph)
C = emission factor for 1980's vehicle fleet exhaust, brake wear and tire wear.

The source characteristics s, W and M are referred to as correction parameters for adjusting the emission estimates to local conditions. The metric conversion from lb/VMT to grams (g) per vehicle kilometer traveled (VKT) is as follows:

1 lb/VMT = 281.9 g/VKT

The constants for Equations 1a and 1b based on the stated aerodynamic particle sizes are shown in Tables 13.2.2-2 and 13.2.2-4. The PM-2.5 particle size multipliers (k-factors) are taken from Reference 27.

Table 13.2.2-2. CONSTANTS FOR EQUATIONS 1a AND 1b

Constant	Industrial Roads (Equation 1a)			Public Roads (Equation 1b)		
	PM-2.5	PM-10	PM-30*	PM-2.5	PM-10	PM-30*
k (lb/VMT)	0.15	1.5	4.9	0.18	1.8	6.0
a	0.9	0.9	0.7	1	1	1
b	0.45	0.45	0.45	-	-	-
c	-	-	-	0.2	0.2	0.3
d	-	-	-	0.5	0.5	0.3
Quality Rating	B	B	B	B	B	B

*Assumed equivalent to total suspended particulate matter (TSP)
"-" = not used in the emission factor equation

Table 13.2.2-2 also contains the quality ratings for the various size-specific versions of Equation 1a and 1b. The equation retains the assigned quality rating, if applied within the ranges of source conditions, shown in Table 13.2.2-3, that were tested in developing the equation:

Table 13.2.2-3. RANGE OF SOURCE CONDITIONS USED IN DEVELOPING EQUATION 1a AND 1b

Emission Factor	Surface Silt Content, %	Mean Vehicle Weight		Mean Vehicle Speed		Mean No. of Wheels	Surface Moisture Content, %
		Mg	ton	km/hr	mph		
Industrial Roads (Equation 1a)	1.8-25.2	1.8-260	2-290	8-69	5-43	4-17[a]	0.03-13
Public Roads (Equation 1b)	1.8-35	1.4-2.7	1.5-3	16-88	10-55	4-4.8	0.03-13

[a] See discussion in text.

As noted earlier, the models presented as Equations 1a and 1b were developed from tests of traffic on unpaved surfaces. Unpaved roads have a hard, generally nonporous surface that usually dries quickly after a rainfall or watering, because of traffic-enhanced natural evaporation. (Factors influencing how fast a road dries are discussed in Section 13.2.2.3, below.) The quality ratings given above pertain to the mid-range of the measured source conditions for the equation. A higher mean vehicle weight and a higher than normal traffic rate may be justified when performing a worst-case analysis of emissions from unpaved roads.

The emission factors for the exhaust, brake wear and tire wear of a 1980's vehicle fleet (*C*) was obtained from EPA's MOBILE6.2 model [23]. The emission factor also varies with aerodynamic size range

as shown in Table 13.2.2-4

Table 13.2.2-4. EMISSION FACTOR FOR 1980'S VEHICLE FLEET EXHAUST, BRAKE WEAR AND TIRE WEAR

Particle Size Range[a]	*C*, Emission Factor for Exhaust, Brake Wear and Tire Wear[b] lb/VMT
$PM_{2.5}$	0.00036
PM_{10}	0.00047
PM_{30}[c]	0.00047

[a] Refers to airborne particulate matter (PM-x) with an aerodynamic diameter equal to or less than x micrometers.
[b] Units shown are pounds per vehicle mile traveled (lb/VMT).
[c] PM-30 is sometimes termed "suspendable particulate" (SP) and is often used as a surrogate for TSP.

It is important to note that the vehicle-related source conditions refer to the average weight, speed, and number of wheels for all vehicles traveling the road. For example, if 98 percent of traffic on the road are 2-ton cars and trucks while the remaining 2 percent consists of 20-ton trucks, then the mean weight is 2.4 tons. More specifically, Equations 1a and 1b are *not* intended to be used to calculate a separate emission factor for each vehicle class within a mix of traffic on a given unpaved road. That is, in the example, one should *not* determine one factor for the 2-ton vehicles and a second factor for the 20-ton trucks. Instead, only one emission factor should be calculated that represents the "fleet" average of 2.4 tons for all vehicles traveling the road.

Moreover, to retain the quality ratings when addressing a group of unpaved roads, it is necessary that reliable correction parameter values be determined for the road in question. The field and laboratory procedures for determining road surface silt and moisture contents are given in AP-42 Appendices C.1 and C.2. Vehicle-related parameters should be developed by recording visual observations of traffic. In some cases, vehicle parameters for industrial unpaved roads can be determined by reviewing maintenance records or other information sources at the facility.

In the event that site-specific values for correction parameters cannot be obtained, then default values may be used.In the absence of site-specific silt content information, an appropriate mean value from Table 13.2.2-1 may be used as a default value, but the quality rating of the equation is reduced by two letters. Because of significant differences found between different types of road surfaces and between different areas of the country, use of the default moisture content value of 0.5 percent in Equation 1b is discouraged. The quality rating should be downgraded two letters when the default moisture content value is used. (It is assumed that readers addressing industrial roads have access to the information needed to develop average vehicle information in Equation 1a for their facility.)

The effect of routine watering to control emissions from unpaved roads is discussed below in Section 13.2.2.3, “Controls”. However, all roads are subject to some natural mitigation because of rainfall and other precipitation. The Equation 1a and 1b emission factors can be extrapolated to annual

average uncontrolled conditions (but including natural mitigation) under the simplifying assumption that annual average emissions are inversely proportional to the number of days with measurable (more than 0.254 mm [0.01 inch]) precipitation:

$$E_{ext} = E\ [(365 - P)/365] \quad (2)$$

where:

E_{ext} = annual size-specific emission factor extrapolated for natural mitigation, lb/VMT

E = emission factor from Equation 1a or 1b

P = number of days in a year with at least 0.254 mm (0.01 in) of precipitation (see below)

Figure 13.2.2-1 gives the geographical distribution for the mean annual number of "wet" days for the United States.

Equation 2 provides an estimate that accounts for precipitation on an annual average basis for the purpose of inventorying emissions. It should be noted that Equation 2 does not account for differences in the temporal distributions of the rain events, the quantity of rain during any event, or the potential for the rain to evaporate from the road surface. In the event that a finer temporal and spatial resolution is desired for inventories of public unpaved roads, estimates can be based on a more complex set of assumptions. These assumptions include:

1. The moisture content of the road surface material is increased in proportion to the quantity of water added;
2. The moisture content of the road surface material is reduced in proportion to the Class A pan evaporation rate;
3. The moisture content of the road surface material is reduced in proportion to the traffic volume; and
4. The moisture content of the road surface material varies between the extremes observed in the area. The CHIEF Web site (http://www.epa.gov/ttn/chief/ap42/ch13/related/c13s02-2.html) has a file which contains a spreadsheet program for calculating emission factors which are temporally and spatially resolved. Information required for use of the spreadsheet program includes monthly Class A pan evaporation values, hourly meteorological data for precipitation, humidity and snow cover, vehicle traffic information, and road surface material information.

It is emphasized that the simple assumption underlying Equation 2 and the more complex set of assumptions underlying the use of the procedure which produces a finer temporal and spatial resolution have not been verified in any rigorous manner. For this reason, the quality ratings for either approach should be downgraded one letter from the rating that would be applied to Equation 1.

13.2.2.3 Controls[18-22]

A wide variety of options exist to control emissions from unpaved roads. Options fall into the following three groupings:

1. Vehicle restrictions that limit the speed, weight or number of vehicles on the road;

2. Surface improvement, by measures such as (a) paving or (b) adding gravel or slag to a dirt road; and

3. Surface treatment, such as watering or treatment with chemical dust suppressants.

Available control options span broad ranges in terms of cost, efficiency, and applicability. For example, traffic controls provide moderate emission reductions (often at little cost) but are difficult to enforce. Although paving is highly effective, its high initial cost is often prohibitive. Furthermore, paving is not feasible for industrial roads subject to very heavy vehicles and/or spillage of material in transport. Watering and chemical suppressants, on the other hand, are potentially applicable to most industrial roads at moderate to low costs. However, these require frequent reapplication to maintain an acceptable level of control. Chemical suppressants are generally more cost-effective than water but not in cases of temporary roads (which are common at mines, landfills, and construction sites). In summary, then, one needs to consider not only the type and volume of traffic on the road but also how long the road will be in service when developing control plans.

Vehicle restrictions. These measures seek to limit the amount and type of traffic present on the road or to lower the mean vehicle speed. For example, many industrial plants have restricted employees from driving on plant property and have instead instituted bussing programs. This eliminates emissions due to employees traveling to/from their worksites. Although the heavier average vehicle weight of the busses increases the base emission factor, the decrease in vehicle-miles-traveled results in a lower overall emission rate.

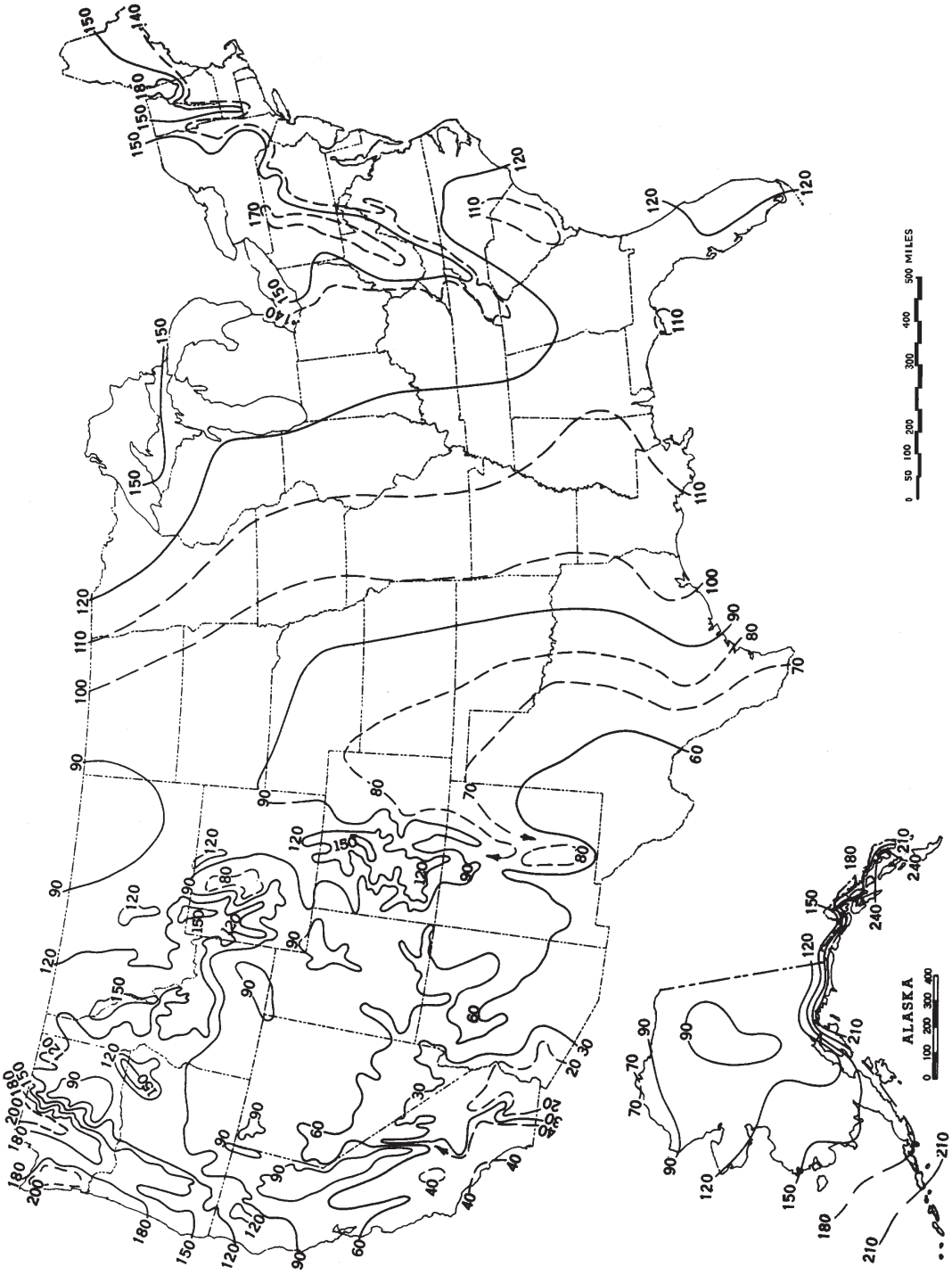


Figure 13.2.2-1. Mean number of days with 0.01 inch or more of precipitation in United States.

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DEPARTMENT ACCEPTED VALUES FOR:
AGGREGATE HANDLING, STORAGE PILE, and HAUL ROAD EMISSIONS

TO: Applicants and Air Quality Bureau Permitting Staff

SUBJECT: Department accepted default values for percent silt, wind speed, moisture content, and control efficiencies for haul road control measures

This guidance document provides the Department accepted default values for correction parameters in the emission calculation equations for aggregate handling and storage piles emissions in construction permit applications and notices of intent submitted under 20.2.72 and 20.2.73 NMAC; and the Department accepted control efficiencies for haul road control measures for applications submitted under 20.2.72 NMAC.

Aggregate Handling and Storage Pile Emission Calculations

Applicants should calculate the particulate matter emissions from aggregate handling and storage piles using the EPA's AP-42 Chapter 13.2.4.
http://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0204.pdf

Equation 1 from Chapter 13.2.4 requires users to input values for two correction parameters, U and M, where U = mean wind speed and M = material moisture content. Below are the accepted values for U and M:

Default Values for Chapter 13.2.4, Equation 1:

Parameter	Default Value
U = Mean wind speed (miles per hour)	11 mph
M = Material moisture content (% water)	2%

Applicants must receive preapproval from the Department if they wish to assume a higher moisture content and/or a lower wind speed in these calculations. Higher moisture contents may require site specific testing either as a permit condition or submitted with the application. Applicants may assume higher wind speeds and lower percent moisture content in their calculations without prior approval from the Department.

Haul Road Emissions and Control Measure Efficiencies

Applicants should calculate the particulate matter emissions from unpaved haul roads using the EPA's AP-42 Chapter 13.2.2. http://www3.epa.gov/ttn/chief/ap42/ch13/final/c13s0202.pdf

Equation 1(a) from Chapter 13.2.2 requires users to input values for two correction parameters, s and W, where s = surface material silt content (%) and W = mean vehicle weight (tons). The applicant should calculate the mean vehicle weight in accordance with the chapter's instructions. Below is the accepted value for the parameter s:

Default Values for Chapter 13.2.2, Equation 1(a):

Parameter	Default Value
s = surface material silt content (%)	4.8%

Applicants may use a higher silt content without prior approval from the Department. Use of a lower silt content requires prior approval from the Department and may require site specific testing in support of the request.

Equation 2 from Chapter 13.2.2 allows users to take credit for the number of days that receive precipitation in excess of 0.01 inches, in the annual emissions calculation, where P = number of days in a year with at least 0.01 inches of precipitation.

Default Values for Chapter 13.2.2, Equation 2:

Parameter	Default Value
P = number of days in a year with at least 0.01 inches of precipitation	70 days

Applications submitted under Part 72 may request to apply control measures to reduce the particulate matter emissions from facility haul roads. Applications submitted under Part 73 may not consider any emission reduction from control measures in the potential emission rate calculation, as registrations issued under Part 73 are not federally enforceable under the Clean Air Act or the New Mexico Air Quality Control Act. In order for those control measures to be federally enforceable, the controls must be a requirement in an air quality permit.

Below are the Department accepted control efficiencies for various haul road control measures:

Haul Road Control Measures and Control Efficiency:

Control Measure	Control Efficiency
None	0%
Base course **or** watering	60%
Base course **and** watering	80%
Base course **and** surfactant	90%
Paved **and** Swept	95%

13.2.4 Aggregate Handling And Storage Piles

13.2.4.1 General

Inherent in operations that use minerals in aggregate form is the maintenance of outdoor storage piles. Storage piles are usually left uncovered, partially because of the need for frequent material transfer into or out of storage.

Dust emissions occur at several points in the storage cycle, such as material loading onto the pile, disturbances by strong wind currents, and loadout from the pile. The movement of trucks and loading equipment in the storage pile area is also a substantial source of dust.

13.2.4.2 Emissions And Correction Parameters

The quantity of dust emissions from aggregate storage operations varies with the volume of aggregate passing through the storage cycle. Emissions also depend on 3 parameters of the condition of a particular storage pile: age of the pile, moisture content, and proportion of aggregate fines.

When freshly processed aggregate is loaded onto a storage pile, the potential for dust emissions is at a maximum. Fines are easily disaggregated and released to the atmosphere upon exposure to air currents, either from aggregate transfer itself or from high winds. As the aggregate pile weathers, however, potential for dust emissions is greatly reduced. Moisture causes aggregation and cementation of fines to the surfaces of larger particles. Any significant rainfall soaks the interior of the pile, and then the drying process is very slow.

Silt (particles equal to or less than 75 micrometers [µm] in diameter) content is determined by measuring the portion of dry aggregate material that passes through a 200-mesh screen, using ASTM-C-136 method.[1] Table 13.2.4-1 summarizes measured silt and moisture values for industrial aggregate materials.

Table 13.2.4-1. TYPICAL SILT AND MOISTURE CONTENTS OF MATERIALS AT VARIOUS INDUSTRIES[a]

Industry	No. Of Facilities	Material	Silt Content (%)			Moisture Content (%)		
			No. Of Samples	Range	Mean	No. Of Samples	Range	Mean
Iron and steel production	9	Pellet ore	13	1.3 - 13	4.3	11	0.64 - 4.0	2.2
		Lump ore	9	2.8 - 19	9.5	6	1.6 - 8.0	5.4
		Coal	12	2.0 - 7.7	4.6	11	2.8 - 11	4.8
		Slag	3	3.0 - 7.3	5.3	3	0.25 - 2.0	0.92
		Flue dust	3	2.7 - 23	13	1	—	7
		Coke breeze	2	4.4 - 5.4	4.9	2	6.4 - 9.2	7.8
		Blended ore	1	—	15	1	—	6.6
		Sinter	1	—	0.7	0	—	—
		Limestone	3	0.4 - 2.3	1.0	2	ND	0.2
Stone quarrying and processing	2	Crushed limestone	2	1.3 - 1.9	1.6	2	0.3 - 1.1	0.7
		Various limestone products	8	0.8 - 14	3.9	8	0.46 - 5.0	2.1
Taconite mining and processing	1	Pellets	9	2.2 - 5.4	3.4	7	0.05 - 2.0	0.9
		Tailings	2	ND	11	1	—	0.4
Western surface coal mining	4	Coal	15	3.4 - 16	6.2	7	2.8 - 20	6.9
		Overburden	15	3.8 - 15	7.5	0	—	—
		Exposed ground	3	5.1 - 21	15	3	0.8 - 6.4	3.4
Coal-fired power plant	1	Coal (as received)	60	0.6 - 4.8	2.2	59	2.7 - 7.4	4.5
Municipal solid waste landfills	4	Sand	1	—	2.6	1	—	7.4
		Slag	2	3.0 - 4.7	3.8	2	2.3 - 4.9	3.6
		Cover	5	5.0 - 16	9.0	5	8.9 - 16	12
		Clay/dirt mix	1	—	9.2	1	—	14
		Clay	2	4.5 - 7.4	6.0	2	8.9 - 11	10
		Fly ash	4	78 - 81	80	4	26 - 29	27
		Misc. fill materials	1	—	12	1	—	11

[a] References 1-10. ND = no data.

13.2.4.3 Predictive Emission Factor Equations

Total dust emissions from aggregate storage piles result from several distinct source activities within the storage cycle:

1. Loading of aggregate onto storage piles (batch or continuous drop operations).
2. Equipment traffic in storage area.
3. Wind erosion of pile surfaces and ground areas around piles.
4. Loadout of aggregate for shipment or for return to the process stream (batch or continuous drop operations).

Either adding aggregate material to a storage pile or removing it usually involves dropping the material onto a receiving surface. Truck dumping on the pile or loading out from the pile to a truck with a front-end loader are examples of batch drop operations. Adding material to the pile by a conveyor stacker is an example of a continuous drop operation.

The quantity of particulate emissions generated by either type of drop operation, per kilogram (kg) (ton) of material transferred, may be estimated, with a rating of A, using the following empirical expression:[11]

$$E = k(0.0016) \frac{\left(\frac{U}{2.2}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (kg/megagram [Mg])} \quad (1)$$

$$E = k(0.0032) \frac{\left(\frac{U}{5}\right)^{1.3}}{\left(\frac{M}{2}\right)^{1.4}} \text{ (pound [lb]/ton)}$$

where:

E = emission factor
k = particle size multiplier (dimensionless)
U = mean wind speed, meters per second (m/s) (miles per hour [mph])
M = material moisture content (%)

The particle size multiplier in the equation, k, varies with aerodynamic particle size range, as follows:

Aerodynamic Particle Size Multiplier (k) For Equation 1				
< 30 µm	< 15 µm	< 10 µm	< 5 µm	< 2.5 µm
0.74	0.48	0.35	0.20	0.053[a]

[a] Multiplier for < 2.5 µm taken from Reference 14.

The equation retains the assigned quality rating if applied within the ranges of source conditions that were tested in developing the equation, as follows. Note that silt content is included, even though silt content does not appear as a correction parameter in the equation. While it is reasonable to expect that silt content and emission factors are interrelated, no significant correlation between the 2 was found during the derivation of the equation, probably because most tests with high silt contents were conducted under lower winds, and vice versa. It is recommended that estimates from the equation be reduced 1 quality rating level if the silt content used in a particular application falls outside the range given:

Ranges Of Source Conditions For Equation 1			
Silt Content (%)	Moisture Content (%)	Wind Speed	
		m/s	mph
0.44 - 19	0.25 - 4.8	0.6 - 6.7	1.3 - 15

To retain the quality rating of the equation when it is applied to a specific facility, reliable correction parameters must be determined for specific sources of interest. The field and laboratory procedures for aggregate sampling are given in Reference 3. In the event that site-specific values for

correction parameters cannot be obtained, the appropriate mean from Table 13.2.4-1 may be used, but the quality rating of the equation is reduced by 1 letter.

For emissions from equipment traffic (trucks, front-end loaders, dozers, etc.) traveling between or on piles, it is recommended that the equations for vehicle traffic on unpaved surfaces be used (see Section 13.2.2). For vehicle travel between storage piles, the silt value(s) for the areas among the piles (which may differ from the silt values for the stored materials) should be used.

Worst-case emissions from storage pile areas occur under dry, windy conditions. Worst-case emissions from materials-handling operations may be calculated by substituting into the equation appropriate values for aggregate material moisture content and for anticipated wind speeds during the worst case averaging period, usually 24 hours. The treatment of dry conditions for Section 13.2.2, vehicle traffic, "Unpaved Roads", follows the methodology described in that section centering on parameter p. A separate set of nonclimatic correction parameters and source extent values corresponding to higher than normal storage pile activity also may be justified for the worst-case averaging period.

13.2.4.4 Controls[12-13]

Watering and the use of chemical wetting agents are the principal means for control of aggregate storage pile emissions. Enclosure or covering of inactive piles to reduce wind erosion can also reduce emissions. Watering is useful mainly to reduce emissions from vehicle traffic in the storage pile area. Watering of the storage piles themselves typically has only a very temporary slight effect on total emissions. A much more effective technique is to apply chemical agents (such as surfactants) that permit more extensive wetting. Continuous chemical treating of material loaded onto piles, coupled with watering or treatment of roadways, can reduce total particulate emissions from aggregate storage operations by up to 90 percent.[12]

References For Section 13.2.4

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3. OPERATION PLAN – AIR EMISSIONS DURING SSM

A startup, shutdown, and malfunction plan is included in this section. Additionally, literature is provided by the manufacturer for startup and shutdown operations.

STARTUP SHUTDOWN AND MALFUNCTION PLAN

Revision 0
January 2021

TABLE OF CONTENTS

TABLES

1.0 INTRODUCTION

American Gypsum (AG) has developed a Startup, Shutdown, and Malfunction Plan (SSMP). Provided in this section is a discussion of the purpose of the SSMP, definitions, and documentation.

1.1 PURPOSE

The purpose of the SSMP is to describe the procedures for operating and maintaining an applicable source during periods of startup, shutdown, and malfunction. The SSMP also includes a program of corrective actions for malfunctioning process and air pollution control equipment used to comply with the relevant standards. This SSMP identifies all known routine and otherwise predictable malfunctions. The purpose of the SSMP is to:

- Ensure that affected sources, including associated air pollution control equipment, are operated and maintained in a manner consistent with good air pollution control practices for minimizing emissions at least to the levels required by all relevant standards; and

- Ensure that procedures are prepared to correct malfunctions as soon as practicable after their occurrence in order to minimize excess emissions of hazardous air pollutants; and

- Reduce the reporting burden associated with periods of startup, shutdown, and malfunction (including corrective action taken to restore malfunctioning process and air pollution control equipment to its normal or usual manner of operation).

1.2 DEFINITIONS

The following terms are used throughout this document. These definitions are based on generally accepted industry standards.

Startup means the setting in operation of an affected source or portion of an affected source for any purpose.

Shutdown means the cessation of operation of an affected source or portion of an affected source for any purpose.

Malfunction means any sudden, infrequent, and not reasonably preventable failure of air pollution control and monitoring equipment, process equipment, or a process to operate in a normal or usual manner which causes, or has the potential to cause, the emission limitations in an applicable standard to be exceeded. Failures that are caused in part by poor maintenance or careless operation are not malfunctions.

1.3 DOCUMENTATION

When actions during SSM (including actions to correct a malfunction that results in excess emissions) are consistent with the procedures specified in this plan, documentation will occur for that event demonstrating that the procedures specified in the plan were followed. This documentation for compliance with the SSMP may be in the form of a checklist, either using computer capabilities, which can be used to create reports, or other effective form of recordkeeping including programming logic for HMI control system logic sequence.

2.0 AFFECTED UNITS

The affected units are shown in Table 1.

Table 1 – Affected Units

Vertical Mill System
Material Handling System

Table 1.a. Summary of Affected Sources and Standards.

Affected Source	Pollutant	Emission Limit
Vertical Mill System	Opacity	7%[1]
Material Handling System	Opacity	7%[1]
[1] Per 40 CFR Part 60, Subpart OOO		

3.0 STARTUP, SHUTDOWN, AND MALFUNCTION SCENARIOS

3.1 VERTICAL MILL

Vertical Mill Startup
The vertical mill startup is performed according to vendor guidelines, but the associated air pollution control device will be in operation prior to startup. Various malfunctions may occur during startups. These are discussed in the malfunction section.

Vertical Mill Shutdown – Normal/Emergency
The vertical mill shutdown is performed according to vendor guidelines, but the associated air pollution control device will be in operation throughout the shutdown period. Various malfunctions may occur during shutdowns. These are discussed in the malfunction section.

Vertical Mill Malfunction
Malfunction conditions may occur during startup, shutdown, and regular operation. Possible malfunctions and the procedures designed to respond and correct include but are not limited to those malfunctions shown in Table 2. A malfunction is not assumed to occur unless an applicable emission standard has been exceeded.

Table 2 –Vertical Mill Malfunctions

Malfunction Description	May Result In	Corrective Actions/Procedures
Failure of Hot Gas Generator	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.
Failure of Ductwork/Dampers	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.
Fan Failure	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.
Drive Failure	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.
Hole in Mill	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.

3.2 VERTICAL MILL APCD

Vertical Mill APCD Startup

The vertical mill APCD startup is performed according to vendor guidelines. Various malfunctions may occur during startups. These are discussed in the malfunction section.

Vertical Mill APCD Shutdown – Normal/Emergency

The vertical mill APCD shutdown is performed according to vendor guidelines. Various malfunctions may occur during shutdowns. These are discussed in the malfunction section.

Vertical Mill APCD Malfunction

Malfunction conditions may occur during startup, shutdown, and regular operation. Possible malfunctions and the procedures designed to respond and correct include but are not limited to those malfunctions shown in Table 3. A malfunction is not assumed to occur unless an applicable emission standard has been exceeded.

Table 3 – Vertical Mill APCD Malfunctions

Malfunction Description	May Result In	Corrective Actions/Procedures
APCD Failure	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.
Dust Conveying System Failure	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.

3.3 MATERIAL HANDLING OPERATION

Material Handling Startup

The operator, before starting the transport device, should determine that the proper equipment is in place and properly maintained to minimize dust emissions.

Material Handling Shutdown

No procedures are required to minimize dust emissions during shutdowns.

Material Handling Malfunction

The potential of a transfer point malfunction to cause an opacity problem is dependant upon the properties (moisture content, size, etc.) of the material. Transfer point malfunctions with the potential to cause an opacity problem and the procedures designed to respond and correct the problem include but are not limited to those malfunctions shown in Table 4. A malfunction is not assumed to occur unless an applicable emission standard has been exceeded.

Table 4 – Material Handling Malfunctions

Malfunction Description	May Result In	Corrective Actions/Procedures
APCD Failure	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.
Dust Conveying System Failure	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.
Material Handling System Failure	Emissions and/or System Stop	Inspect, clean, adjust, repair and/or replace damaged parts as necessary.

Cool down procedure of the gypsum calcining mill type MPS xxxx GC

When the gypsum calcining plant is shut-down, the interlocking system shuts down all drives in reverse order (compared to starting procedure).

In order to protect the grinding rollers, the seal air fan will continue to run for two more hours. It will then also be shut-down automatically by the interlocking system.

The oil supply unit for the mill drive will continue to run for 3 hours. If the mill is to be restarted in the foreseeable future, you should not shut-down the gearbox oil supply unit. It should continue to run until the mill is restarted.

The unit for the oil circulating lubrication of the grinding rollers is running continuously. It is only shut-down in case of a longer standstill, for instance if maintenance works are to be carried out.

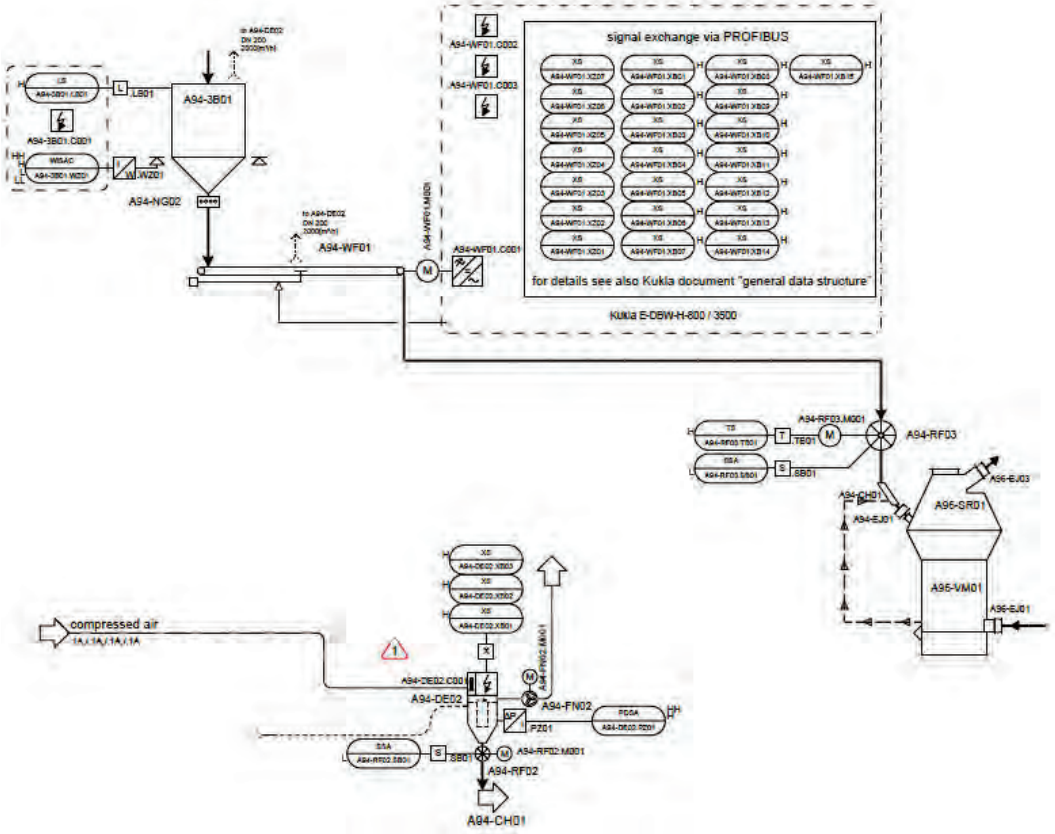
If the mill is shut-down for maintenance works, the filter and the filter fan should continue to run – with the recirculation air flap being shut and the fresh air flap being open – until the temperature after classifier is below 30 °C.

Functional Description

Gebr. Pfeiffer Gypsum Grinding/Calcining Production Line

1.1 Group A94-02. Gypsum Dosing for Mill Feed.

This functional Group provides raw gypsum to be grinded by the mill. The weighfeeder A94-WF01 doses the gypsum according to the setpoint. Gypsum is fed to mill using the rotary valve A94-RF03.M001 (Group A96-05).



1.1.1 Start Sequence.

- The operator must open the Group A94-02 faceplate
- The operator must verify the Group Ready status.
- When all the conditions to start grinding prouct are met (see process conditions for each Group), the operator must open the selection window “Start Grinding” and select A94-G02.SEL2 = True, the Group should start automatically.
- After a 20 second delay, the weighfeeder A94-WF01.C001 starts.

  The A94-02 Group should indicate Completely Running.

  The operator can start the Group using the Groups’ pop up window Start pushbutton; however, stating using the seleccion “Start Grinding” synchronizes the weighfeeder start and the lower rollers function. The Group start pushbutton starts the weighfeeder but it does not command the “lower rollers” function.

1.1.2 Stop Sequence.

- The operator must open the Group A94-01 faceplate, then hit the STOP pushbutton.
- After 1 seconds, weighfeeder A94-WF01.C001 stops.
  The Group A94-02 should indicate Completely Stopped.

Deselecting “Start Grinding” stops the feed system and commands the rollers. The Group stop pushbutton stops inly the feeder.

2. GPAC A96. STUCCO GRINDING AND GAS HANDLING.

2.1 General Functions. Group GPAC A96

The Group GPAC A96 receives the raw product at a rate specified by the operator (Fresh Feed Control) or by Mill Feed Control loop.

The material is introduced to the mill to the rotating grinding table driven by the mill main motor A96-MD01.M001. Three grinding rollers exert pressure on the material against the rotating table resulting on the material being grounded. The rollers are powered by the hydraulic unit A96-HS01.C001.

Gas flow though the mill is needed to lift the material from the table. This gas flow is produced by the system ID fan A96-FN02.M001. This process gas-gysum dust passes though the classifier A96-SR01. The rotating classifier allows a certain particle size material in the gas to exit the mill. Material not passing the rotating classifier cage returns to the mill to continue the grinding process, mixing with fresh material entering the mill.

At the mill exit chute, process gas-gypsum dust must pass through a bag filter to collect the gypsum dust. The filter A96-BF01 accomplishes this task by collecting the dust attached to the bag fabric, then applying compressed air bursts to the bags to dump the dust to the bagfilter collecting hopper. Ground gypsum collected by the bag filter is transported for futher processing downstream (this is purpose of the Group GPAC A99 later on this document).

In addition to the main equipment named above, the mill operation requires other subsystems to accomplish the basic gypsum grinding task.

- The unit A96-LQ02.C001 lubricates the grinding rollers.
- The unit A96-LQ01.C001 lubricates the grinding table.
- The process requires a heat source to dry and grind the raw material. The heat is generated by the Hot Gas Generator A96-HG01.C001.

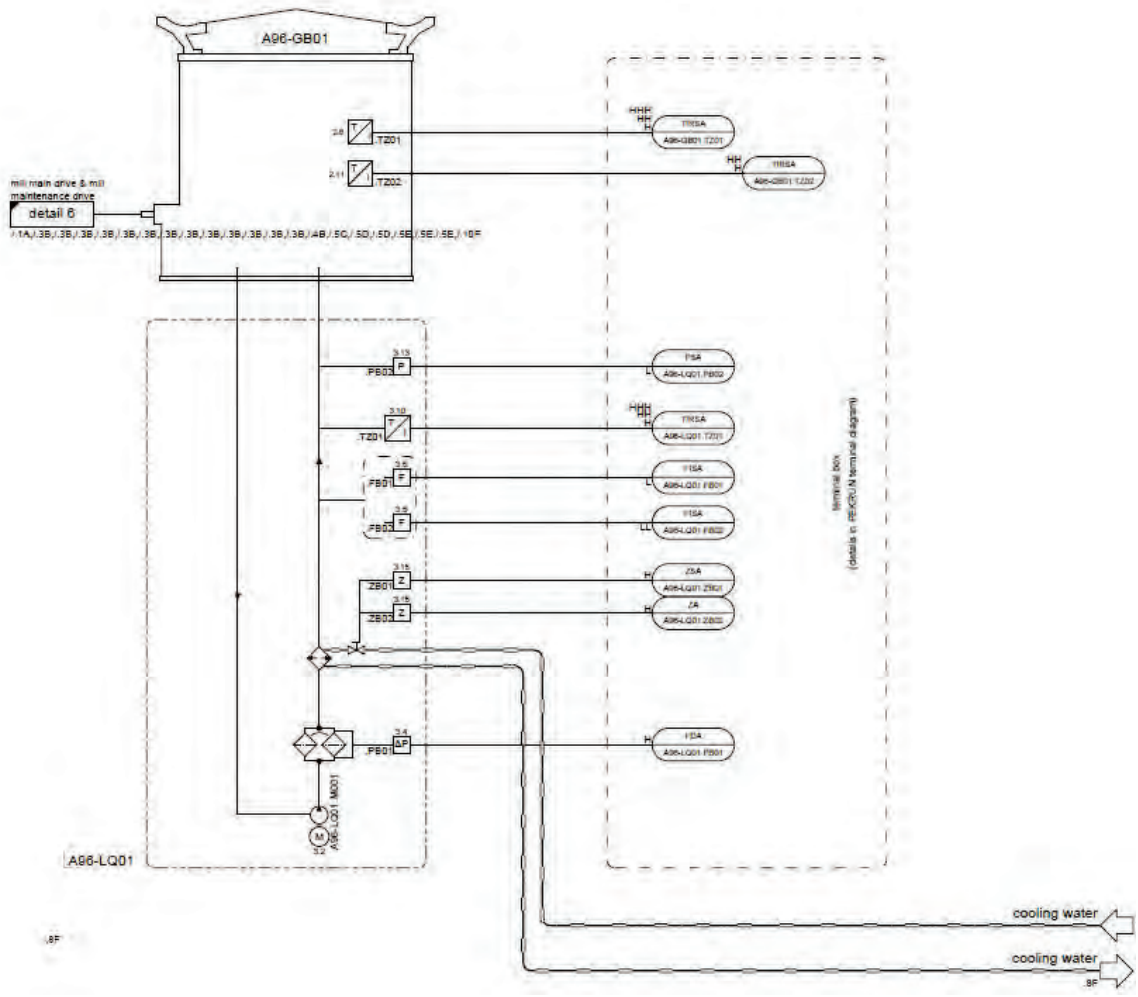
The functions provided by the Group GPAC A96 should be handled by the following functional Groups:

A96-01 Gearbox Oil Lubricacion Unit A96-LQ01
A96-02 Circulating Oil Lubrication Unit A96-LQ02
A96-03 Hydraulic Tension Unit A96-HS01
A96-04 Main Motor
A96-05 Gas-Grinding Circuit
A96-06 Hot Generator Unit A96-HG01

2.2 Group A96-01. Gearbox Lubrication Unit A96-LQ01.

This functional Group keeps the main motor gearbox lubricated. The unit should be started ahead of time the mill start up process to attain the proper levels of oil temperature.
Oil flow and pressure are monitored to ensure the gearbox thrust pad gets enough oil.
An interlock for the mill operation is generated when the gearbox lubrication is ready.

Please refer to the following P&I D.



2.2.1 Start Sequence.

- The operator must open the Group A96-01 faceplate
- The operator must verify the Group Ready status.
- If the Group is READY, then the operator may proceed to start the Group by pressing the START pushbutton on the faceplate.
- Horn blows for 10 seconds.

- The pump A96-LQ01.M001 starts.

The A96-01 Group should indicate Completely Running.

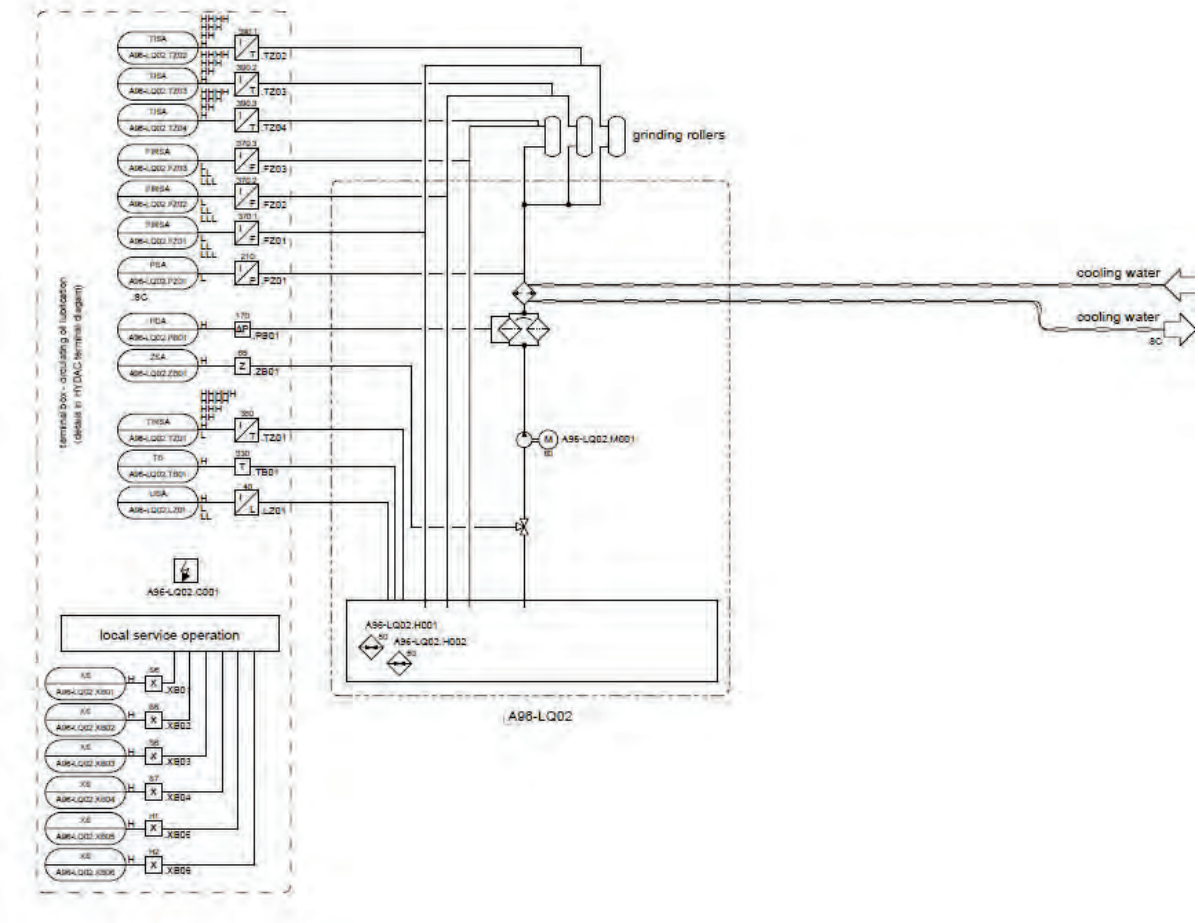
2.2.2 Stop Sequence.

- The operator must open the Group A96-01 faceplate, then hit the STOP pushbutton.
- After 1 seconds, the Lubrication Pump A96-LQ01.M001 stops.

The Group A96-01 should indicate Completely Stopped.

2.3 Group A96-02. Circulating Oil Lubrication Unit A96-LQ02.

This functional Group controls the oil lubrication for the 3-grinding rollers. Please refer to the following P&I D.



The unit can be operated locally from the control box or in automatic from the main PLC room. To run the mill, the system must be operated automatically.

There are 4 functions provided by the unit.

- Oil Flushing. It is performed from the local control box.
- Oil Filling/Emptying. Also requested from the local control box.
- Pump start. Requested at the local control box.
- Remote Operation. Selected at the local control box.

2.3.1 Start Sequence.

- The operator must open the Group A96-02 faceplate
- The operator must verify the Group Ready status.
- If the Group is READY, then the operator may proceed to start the Group by pressing the START pushbutton on the faceplate.
- Horn blows for 10 seconds.
- Oil Lubication Pump A96-LQ02.M001 starts.
- Oil Tank Heater A96-LQ02.H001 is enabled.
- Oil Tank Heater A96-LQ02.H002 is enabled.
-

  The A96-02 Group should indicate Completely Running.

Heaters Normal Operation in Automatic.

Heaters should turn on if :

- Oil Temperature A96-LQ02.TZ01 < SL (50 °C) AND A96-LQ02.LZ01 > H

Heaters should turn off if :

- Oil Temperature A96-LQ02.TZ01 > SH (55 °C), OR
- Oil Temperature Switch A96-LQ02.TB01 is False OR
- A96-LQ02.LZ01 < LL OR
- A96-LQ02.OilLeak = True

2.3.2 Stop Sequence.

- The operator must open the Group A96-02 faceplate, then hit the STOP pushbutton.
- After 1 seconds, the heaters A96-LQ02.H001 and H002 stop.
- After 5 seconds, the pump A96-LQ02.M001 stops.
-

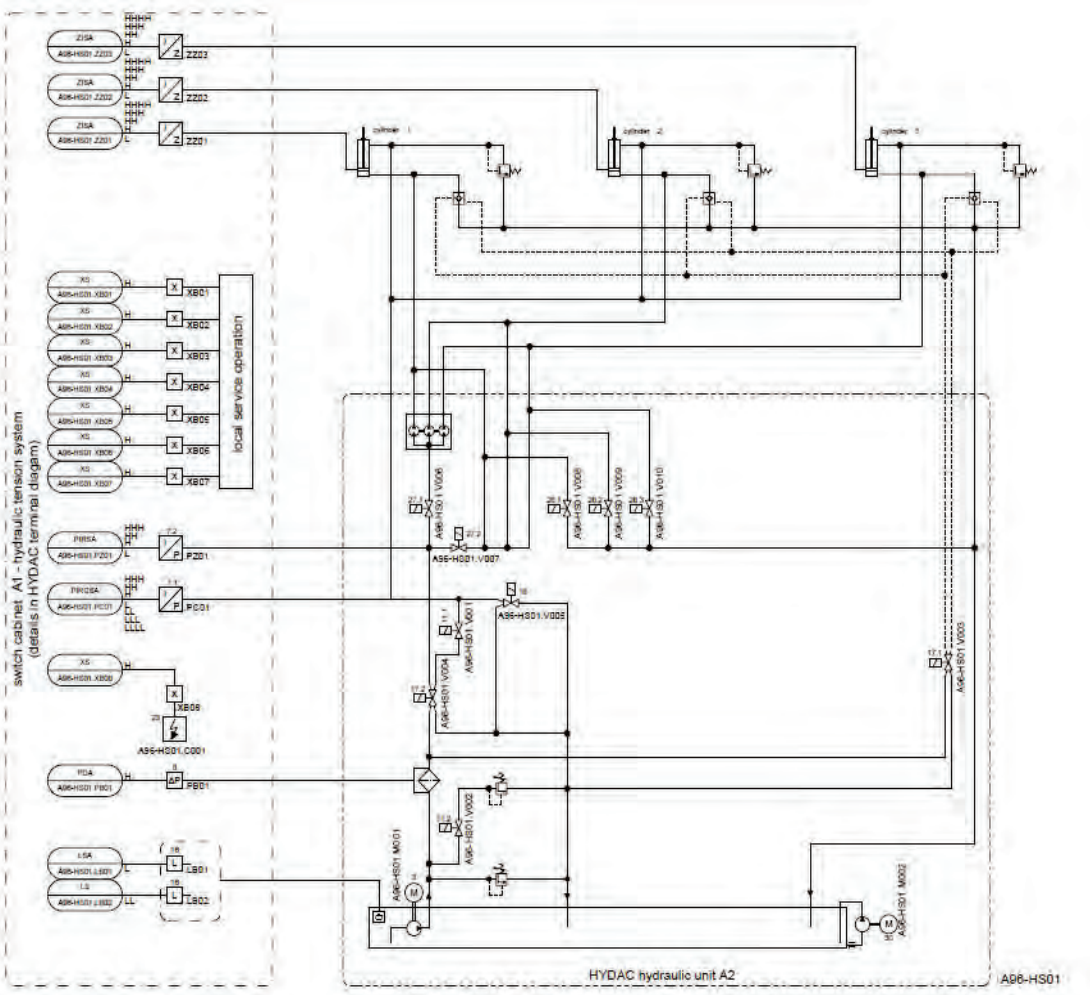
  The Group A96-02 should indicate Completely Stopped.

2.4 Group A96-03. Hydraulic Tension Unit A96-HS1.

This functional Group controls the hydraulic pressure applied to the rollers to obtain uniform grinding. Hydraulic pump A96-HS01.M001 provides the oil flow from the oil tank to the roller's cylinders.A train valve insures the same pressure is applied to the rollers. The unit must be operational before starting the mill grinding process.

All the instrument wiring is concentrated in a local box. From the local box it is possible to initiate local functions. These functions will be described later on this section.

Please refer to the following P&I D.



2.4.1 Start Sequence.

- The operator must open the Group A96-02 faceplate
- The operator must verify the Group Ready status.
- If the Group is READY, then the operator may proceed to start the Group by pressing the START pushbutton on the faceplate.
- Horn blows for 10 seconds.

- Pump A96-HS01.M001 is enabled
- Valve A96-HS01.V001 is enabled
- Valve A96-HS01.V002 is enabled
- Valve A96-HS01.V003 is enabled
- Valve A96-HS01.V004 is enabled
- Valve A96-HS01.V005 is enabled
- Valve A96-HS01.V006 is enabled
- Valve A96-HS01.V007 is enabled
- Valve A96-HS01.V008 is enabled
- Valve A96-HS01.V009 is enabled
- Valve A96-HS01.V010 is enabled
-
-

The A96-03 Group should indicate Completely Running.

The hydraulic unit logic should be developed in 5 sequences. It is recomemded to use a SR flip flop to store the current sequence and be to transfer to the next sequence. The state of valves/pump required on each sequence will be indicated in the following paragraphs.

2.4.1 Stop Sequence.

- The operator must open the Group A96-03 faceplate, then hit the STOP pushbutton.
- After 1 seconds, the Pump A96-HS01.M001 is disabled
- After 1 seconds, Valve A96-HS01.V001 is disabled
- After 1 seconds, Valve A96-HS01.V002 is disabled
- After 1 seconds, Valve A96-HS01.V003 is disabled
- After 1 seconds, Valve A96-HS01.V004 is disabled
- After 1 seconds, Valve A96-HS01.V005 is disabled
- After 1 seconds, Valve A96-HS01.V006 is disabled
- After 1 seconds, Valve A96-HS01.V007 is disabled
- After 1 seconds, Valve A96-HS01.V008 is disabled
- After 1 seconds, Valve A96-HS01.V009 is disabled

- After 1 seconds, Valve A96-HS01.V00101 is disabled
- After 1 seconds, Pump A96-HS01.M002 stops.
-

  The Group A96-03 should indicate Completely Stopped.

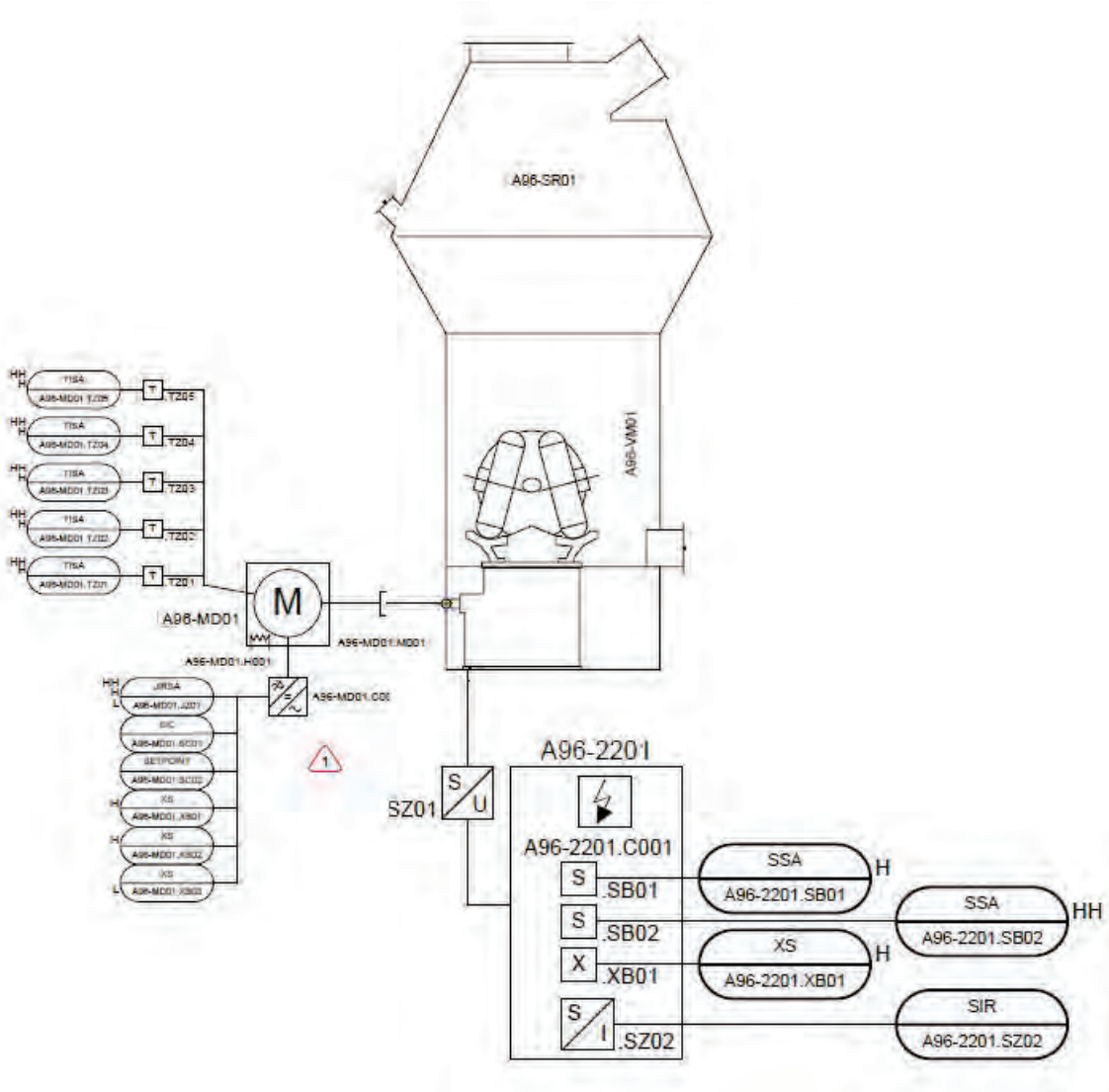
2.5 Group A96-04. Main Motor.

This functional Group controls the main mill motor A96-MD01. The motor provides the power to run the grinding table.

Please refer to the following P&I D.

The mill main motor is run by a VFD. This allows the mill to run at low throughput rate durin the heating process as well during the continuous production regime. The VFD allows the mill to run 50%-60% nominal capacity if required.

A vibration monitoring system is used to protect the gearbox-main drive.



2.5.1 Start Sequence.

- The operator must open the Group A96-04 faceplate
- The operator must verify the Group Ready status.
- If the Group is READY, then the operator may proceed to start the Group by pressing the START pushbutton on the faceplate.
- Horn blows for 10 seconds.

- A96-MD01.M001 starts.
-

  The A96-04 Group should indicate Completely Running.

2.5.2 Stop Sequence.

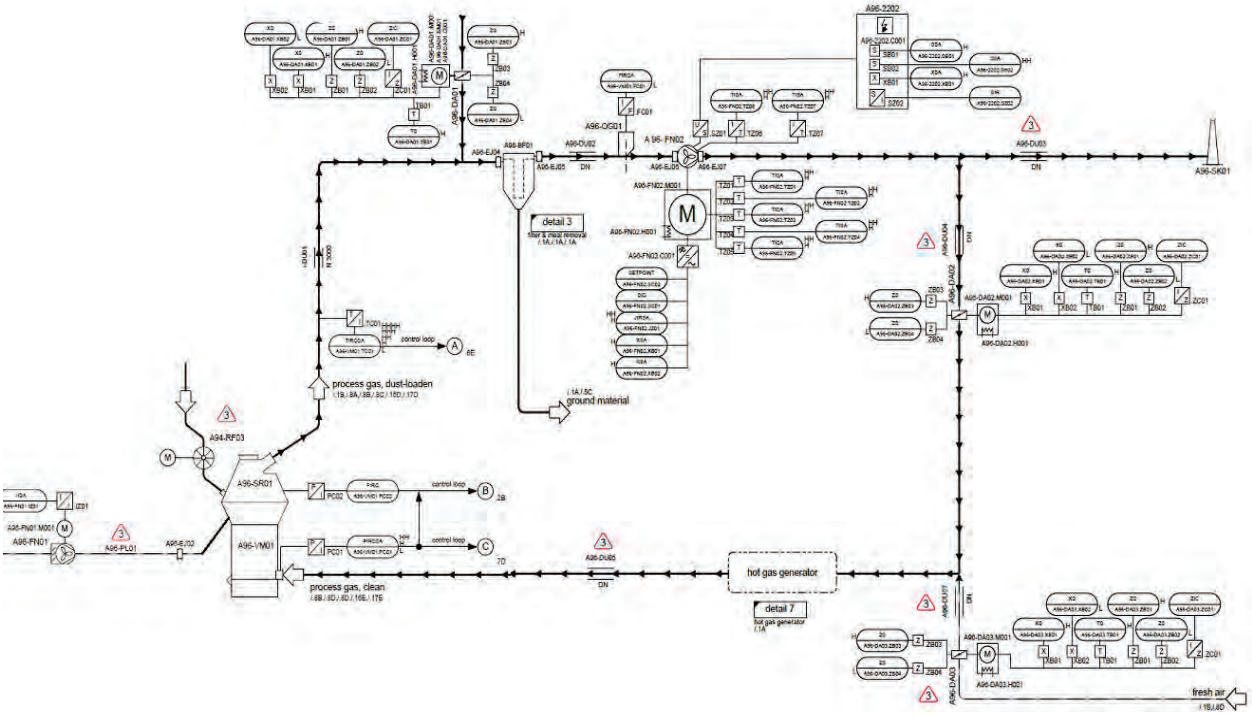
- The operator must open the Group A96-04 faceplate, then hit the STOP pushbutton.
- After 1 seconds, main motor A96-MD01.M001 stops.

  The Group A96-04 should indicate Completely Stopped.

2.6 Group A96-05. Gas and Grinding Circuit.

This functional Group uses the services provided by other others within this GPAC Group as well as the machines necessary to process the product. The ID fan A96-FN02 produces the airflow necessary to lift the ground product from the grinding table. The separator A96-SR01 classifies the material so only the proper size material gets to the bagfilter A96-BF01 where it is collected. A94-RF03 is included on this Group to prevent any structure deformation due to heat.

Most of the control loops required to automatically run the grinding mill are referred to this Group. Please refer to the following P&ID.



2.6.1 Start Sequence.

- The operator must open the Group A96-05 faceplate
- The operator must verify the Group Ready status.
- If the Group is READY, then the operator may proceed to start the Group by pressing the START pushbutton on the faceplate.
- Horn blows for 10 seconds.
- Mill Feed Rotary Valve A94-RF03 starts
- Mill Seal Fan A96-FN01.M001 starts, then
- After a 120 second delay, A96-SR01.M001 starts,
- After a 120 second delay, A96-FN02.M001 starts,
- After a 10 second delay, A96-BF01.C001 starts.

The A96-05 Group should indicate Completely Running.

2.6.2 Stop Sequence.

- The operator must open the Group A96-06 faceplate, then hit the STOP pushbutton.
- After 1 seconds, Mill Process Fan A96-FN02.M001 stops.
- After 20 seconds, Separator A96-SR1.M001, stops and after 600 secs. A96-BF01.C001 stops.
- After 30 seconds, Seal Fan A96-FN01.M001 stops.
- A94-RF03.M001 should stop when A96-FN01.M001 stops and A96-VM01.TC01 < L

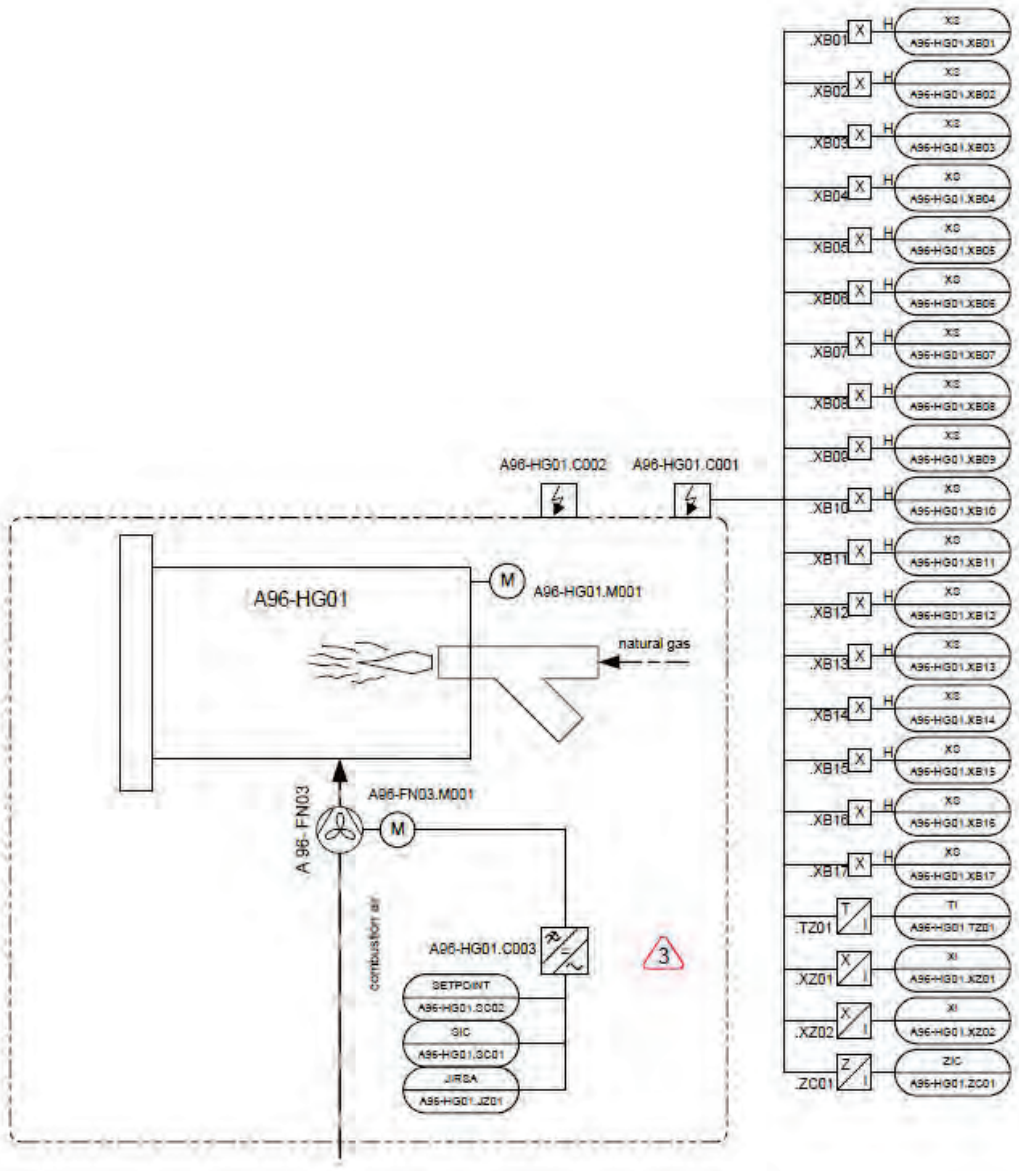
The Group A96-05 should indicate Completely Stopped.

2.7 Group A96-06. Hot Gas Generator A96-HG01.

This functional Group controls hot gas generator. The hot gas generator is necessary to raise the gas temperature to calcine the gypsum.

Control is provided by the OEM and the control system uses a digital interface to start/stop this subsystem. At the same time, a PROFIBUS connection to the unit allows to retrieve additional information, unit status and alarm indications.

Please refer to the following P&ID.



2.7.1 Start Sequence.

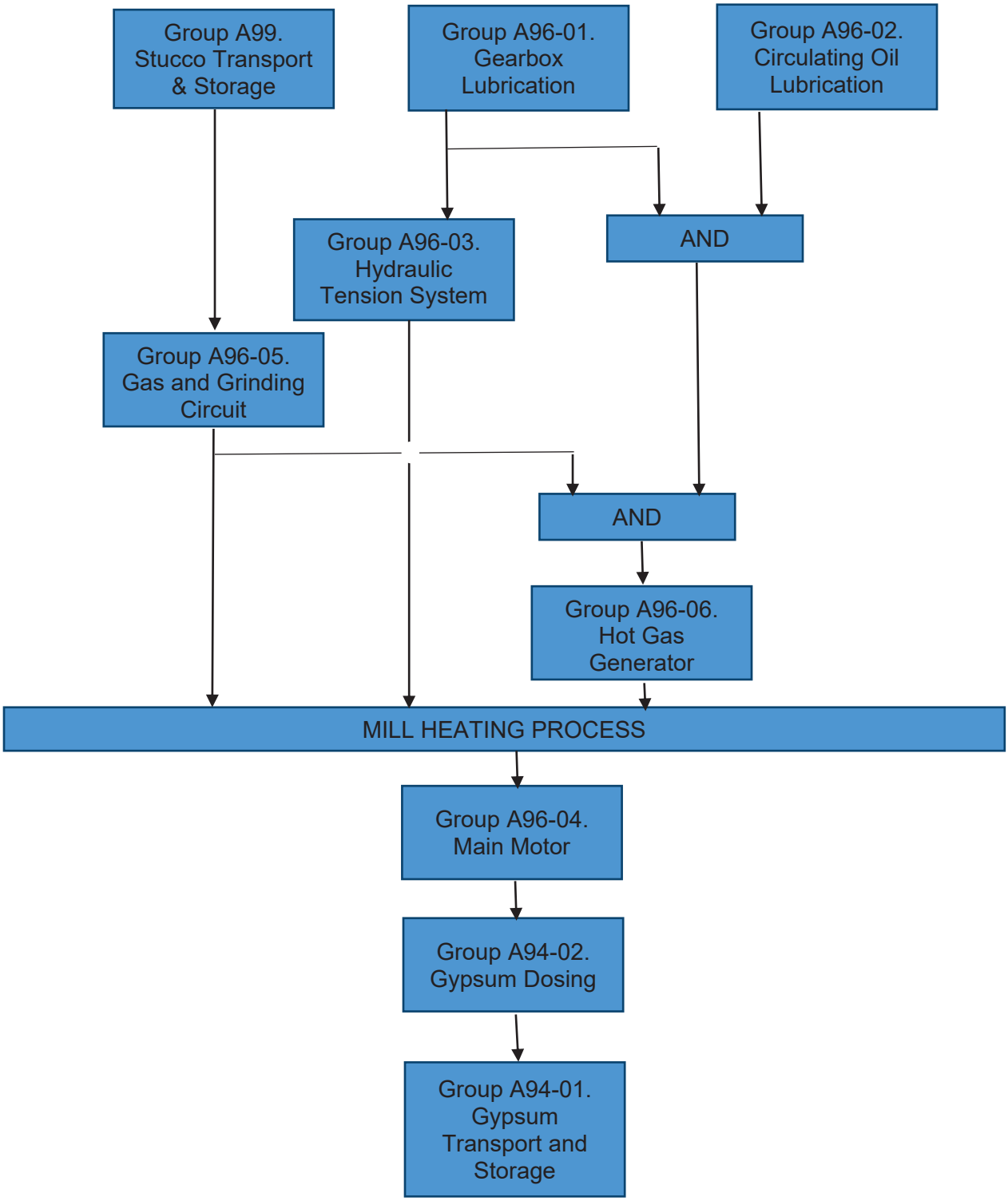
- The operator must open the Group A96-06 faceplate
- The operator must verify the Group Ready status.
- If the Group is READY, then the operator may proceed to start the Group by pressing the START pushbutton on the faceplate.
- Horn blows for 10 seconds.
- System ID Fan A96-FN02 should run at 20%.
- Combustion Fan A96-FN03.M001 starts, then when the combustion reaches full sped, the system ID fan speed shoul change to 55%.
- After 30 seconds, A96-HG01.XB02 = True
- After 5 seconds, A96-HG01.XB03 = True
- When A96-HG01.XB05 = True and A96-HG01.XB09 = True, then
  The A96-06 Group should indicate Completely Running.

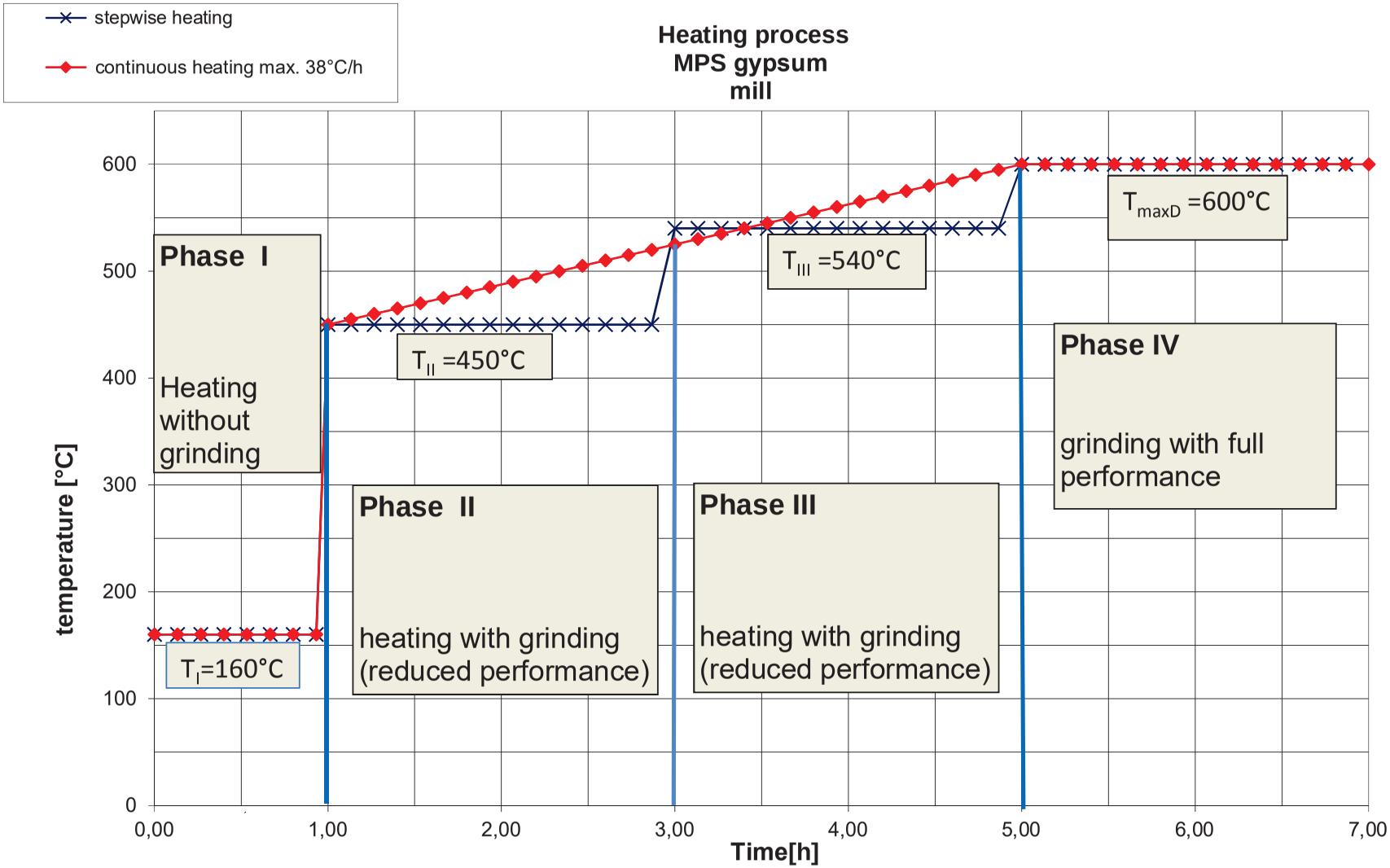
2.7.2 Stop Sequence.

- The operator must open the Group A96-06 faceplate, then hit the STOP pushbutton.
- After 1 seconds, the signal A96-HG01.XB04 (Stop Command) is generated, then
- After 120 seconds, the combustion air fan A96-FN03.M001 stops.
  The Group A96-06 should indicate Completely Stopped.

3. MASTER GROUP SEQUENCE.

In order to simplify the operator's task, a Master Group should be implemented.




stepwise heating
continuous heating max. 38°C/h
Heating process
MPS gypsum
mill
temperature [°C]
Time[h]
0
100
200
300
400
500
600
0,00
1,00
2,00
3,00
4,00
5,00
6,00
7,00
Phase I
Heating without grinding
T_I=160°C
Phase II
heating with grinding (reduced performance)
T_II =450°C
Phase III
heating with grinding (reduced performance)
T_III =540°C
Phase IV
grinding with full performance
T_maxD =600°C

4. AIR DISPERSION MODELING ANALYSIS

An air dispersion modeling waiver was submitted to the EHD for this facility on December 16, 2022. The EHD approved the modeling waiver on January 6, 2023.

The original waiver and approval email are all included in this section.

City of Albuquerque – Environmental Health Department

Air Quality Program

Air Dispersion Modeling Waiver Request Form

The following information is required to ensure that the modeling section of the Air Quality Program can make a reliable determination regarding whether modeling will be required for a project and, if so, what pollutants will need to be modeled.

Applicant Company: American Gypsum Company, LLC

Facility Name: Albuquerque Plant

Describe the proposed change/modification and why you believe modeling should be waived.

American Gypsum Company LLC (AMG) currently operates its Gypsum Wallboard Manufacturing Plant in Albuquerque, New Mexico under Construction Permit #0752-M3. The Albuquerque Plant (herein referred to as the facility) receives raw material via ore truck which it processes to form wallboard. The most recent permit modification (issued March 11, 2022) authorized the construction and operation of a new vertical mill and associated processes and control equipment. The new proposed sources were authorized to operate simultaneously with all existing, permitted, equipment although a portion of the existing equipment will be decommissioned once the new mill is constructed and operational. AMG is now proposing a permit modification with the project details included below.

The most recent permit modification authorized a process rate of 200 tph and 39,600 tpy for Units 12a and 12b. American Gypsum is proposing to keep the hourly rate as permitted, but is proposing an increase of annual throughput for these units to 963,600 tpy. The maximum short term lb/hr emissions were used to demonstrate compliance with both the 24-hr and annual standards in the most recent modeling demonstration. Since AMG is not proposing to increase the hourly throughput, the lb/hr value in the previous modeling submittal still demonstrates compliance with both the 24-hr and annual ambient air quality standards. Although the annual value is increasing, the lb/hr input from the previous modeling submittal is representative of this new increase.

Attach a map of the facility, including a layout of sources and buildings. If this is a relocation, be sure to include new location address.

A map of relevant sources is included in Appendix A.

Are there changes between current emissions and emissions with the proposed change? If so, explain below and fill out Table X.

There are no proposed increases in hourly emissions as a result of this proposed revision. Please refer to Table X for full details.

Are there changes in the stack parameters between existing and proposed equipment? If so, explain below and fill out Table Y.

There are no proposed changes to stack parameters.

Are there any changes to fugitive sources such as haul roads or piles? If so, explain below and fill out Table Z.

There are no proposed changes to hourly fugitive emissions, only the annual emissions for 12a and 12b are proposed to be increased.

What fuel will be used in any proposed engine/generator or combustion source and is this a change from the previous equipment?

N/A

Is the property surrounded by a fence or some other barrier that restricts access?

Yes, the property is surrounded by a fence.

Are there any other sources or facilities located on the same site?

No – there are no other sources located at this location.

Operating hours and days. Is this a change?

24/7/365 – Continuous operation. This is unchanged.

Standards requested to be waived from modeling.

Pollutant		Averaging Period(s)
NO_2	☒	All
SO_2	☒	All
CO	☒	All
PM_{10}	☒	All
$PM_{2.5}$	☒	All
Lead	☒	All
H_2S	☒	All

Any comments regarding standards.

All standards for all pollutants are proposed to be waived. There are no increases in lb/hr emissions.

Issuance date of current permit. If known, was modeling completed as part of this permit application?

March 11, 2022. Full air dispersion modeling was completed as part of this modification for all pollutants and averaging periods.

Are any generators emergency generators that are only used to backup PNM power or are they used as part of the process?

N/A

Are boilers used for process or for comfort heat?

N/A

Table X. Emissions Changes

Unit No.	NO_x lb/hr	CO lb/hr	VOC lb/hr	SO_2 lb/hr	PM_{10} lb/hr	$PM_{2.5}$ lb/hr	Pb lb/hr	H_2S lb/hr
Existing Equipment								
12a	-	-	-	-	0.00	0.00	-	-
12b	-	-	-	-	0.00	0.00	-	-
Total Change	**-**	**-**	**-**	**-**	**0.00**	**0.00**		

Table Y. Equipment Parameters*

Process Equipment Number	Pollutant (CO, NOx, SO2, PM10, etc.)	UTM Location of Source	Control Equipment	Control Efficiency	Stack Height & Diameter in feet	Stack Temp.	Stack Velocity & Exit Direction
Existing Equipment – N/A*							
					H- D-		V- Exit-
					H- D-		V- Exit-
					H- D-		V- Exit-
					H- D-		V- Exit-
New Equipment							
					H- D-		V- Exit-
					H- D-		V- Exit-
					H- D-		V- Exit-
					H- D-		V- Exit-

*There are no proposed changes to existing point source locations or parameters as a result of this permit modification.

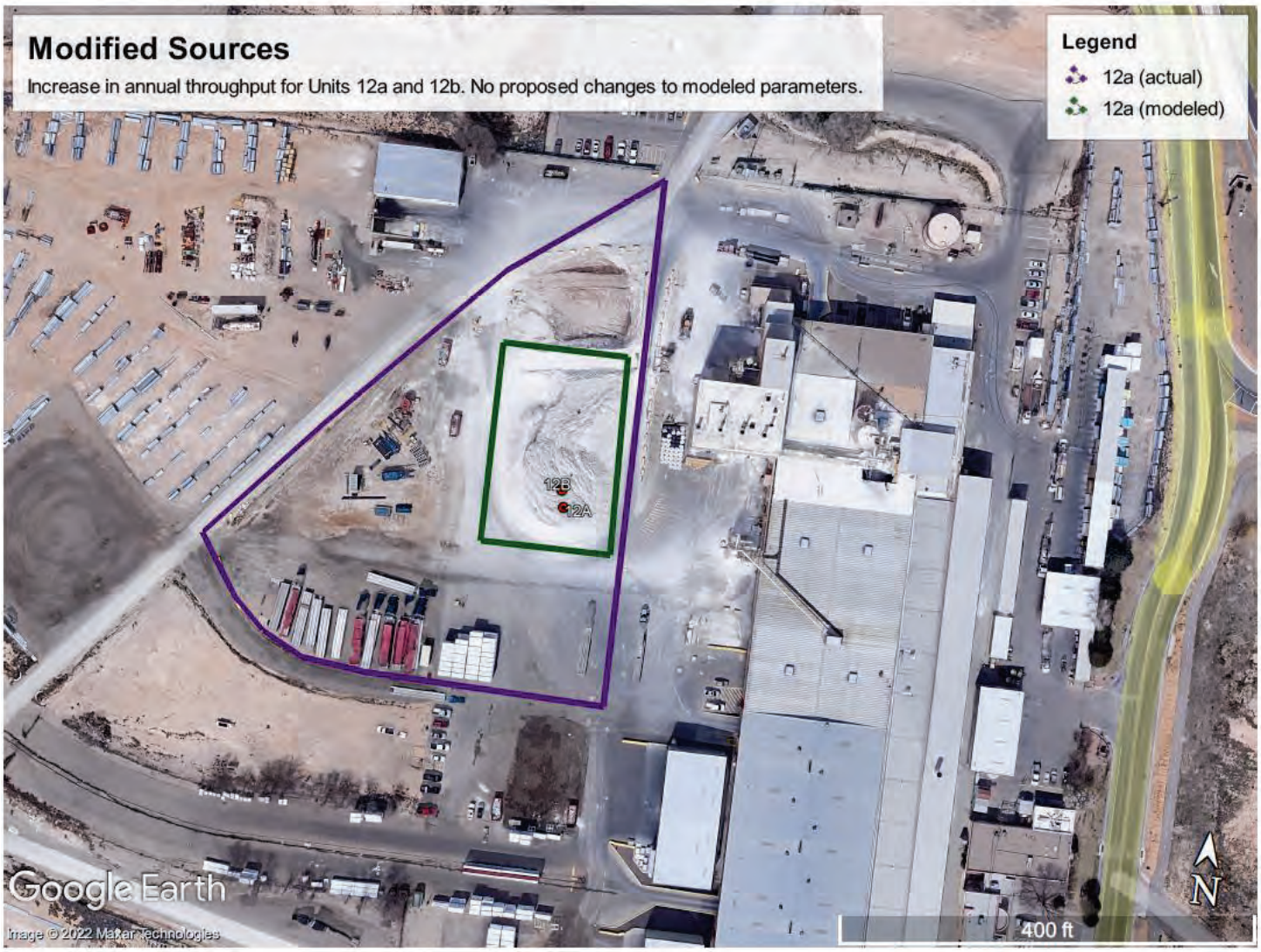
Table Z. Fugitive Sources (crushers, screens, piles, haul roads, etc.)*

Process Equipment Number	Pollutant (CO, NOx, SO2, PM10, etc.)	UTM Location of Source	Control Method	Control Efficiency	Dimensions (height, width, length)	Material Involved	Type of Transport Into/Out of Property
12a	PM_{10}, $PM_{2.5}$	354,712.00 m E, 3,893,257.00 m N	Wet Suppression	Unchanged			
12b	PM_{10}, $PM_{2.5}$	354,711.00 m E, 3,893,262.00 m N	N/A	Unchanged			

*There are no proposed changes to the existing source parameters for 12a and 12b.

Appendix A

Site Plan



Appendix B

Supporting Information

Table 1 – Unit-by-Unit Emission Increases

Unit	Description	Current Permitted Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Area Source													
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	0.71	0.051	0.072
Volume Source													
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.0020	0.0030	0.00030
Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.50**	**0.71**	**0.054**	**0.073**

Unit	Description	Proposed Emissions											
		NO_x		CO		SO_2		VOC		PM_{10}		$PM_{2.5}$	
		lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
Area Source													
12a	Stockpile	-	-	-	-	-	-	-	-	0.48	1.67	0.051	0.18
Volume Source													
12b	Stockpile Loader	-	-	-	-	-	-	-	-	0.020	0.048	0.0030	0.0073
Total		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.50**	**1.72**	**0.054**	**0.19**

Mike Celente

From: Stonesifer, Jeff W. <JStonesifer@cabq.gov>
Sent: Friday, January 6, 2023 3:14 PM
To: Mike Celente; Carey Slater
Cc: Adam Erenstein; Joseph Marini; Albrecht, Christopher P.; Tumpane, Kyle; Munoz-Dyer, Carina G.
Subject: American Gypsum modeling waiver request for an increase in annual production

Mr. Slater,

The Air Quality Program (AQP) has reviewed the request for a waiver from air dispersion modeling for American Gypsum's plan to increase annual throughput for the stockpile. The waiver is approved. Please submit the application to modify your permit as soon as you are ready to do so. The AQP will need the original paper application as well as a paper copy and an electronic version.

When you submit the application, the AQP needs the calculations for sources 12a and 12b. Please also include an explanation of why, per Table 1 in Appendix B, the tons per year (TPY) emission rate for source 12a only increases by a factor of 2.4, while the TPY emission rate for source 12b increases by a factor of 24. The second paragraph on the first page states the annual throughput will increase by the same amount for both units:

> *The most recent permit modification authorized a process rate of 200 tph and 39,600 tpy for Units 12a and 12b. American Gypsum is proposing to keep the hourly rate as permitted, but is proposing an increase of annual throughput for these units to 963,600 tpy.*

Have a great weekend,

JEFF STONESIFER
senior environmental health scientist | environmental health department
o 505.767.5624
m 505.250.2689
cabq.gov/environmentalhealth/

CAUTION: This email originated from outside of the Trinity Consultants organization. Do not click links or open attachments unless you recognize the sender's name, sender's email address and know the content is safe.

APPENDIX A. APPLICATION FORMS

Application for Air Pollutant Sources in Bernalillo County Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC) – Updated February 2022

Permit Application Checklist

Permit Application Review Fee Checklist

City of Albuquerque – Environmental Health Department
Air Quality Program

Please mail this application to **P.O. Box 1293, Albuquerque, NM 87103**
or hand deliver between 8:00 am – 5:00 pm Monday – Friday to:
3rd Floor, Suite 3023 – One Civic Plaza NW, Albuquerque, NM 87102
(505) 768-1972 aqd@cabq.gov

Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)

Submittal Date: February 17, 2023

Owner/Corporate Information ☒ **Check here and leave this section blank if information is exactly the same as Facility Information below.**

Company Name:			
Mailing Address:	City:	State:	Zip:
Company Phone:	Company Contact:		
Company Contact Title:	Phone:	E-mail:	

Stationary Source (Facility) Information: **Provide a plot plan (legal description/drawing of the facility property) with overlay sketch of facility processes, location of emission points, pollutant type, and distances to property boundaries.**

Facility Name: **Albuquerque Plant**			
Facility Physical Address: **4600 Paseo Del Norte**	City: **Albuquerque**	State: **NM**	Zip: **87109**
Facility Mailing Address (if different): **N/A**	City: **N/A**	State: **N/A**	Zip: **N/A**
Facility Contact: **Carey Slater**	Title: **Plant Manager**		
Phone: **(505) 346-2142**	E-mail: **Carey.Slater@americangypsum.com**		
Authorized Representative Name[1]: **N/A**	Authorized Representative Title: **N/A**		

Billing Information ☐ **Check here if same contact and mailing address as corporate** ☒ **Check here if same as facility**

Billing Company Name:			
Mailing Address:	City:	State:	Zip:
Billing Contact:	Title:		
Phone:	E-mail:		

Preparer/Consultant(s) Information ☐ **Check here and leave section blank if no Consultant used or Preparer is same as Facility Contact.**

Name: **Michael Celente**	Title: **Managing Consultant**		
Mailing Address: **9400 Holly Ave NE, Bldg 3, Suite B**	City: **Albuquerque**	State: **NM**	Zip: **87122**
Phone: **(505) 266-6611**	Email: **mcelente@trinityconsultants.com**		

1. See 20.11.41.13(E)(13) NMAC.

Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)

General Operation Information (if any question does not pertain to your facility, type N/A on the line or in the box)

Permitting action being requested (please refer to the definitions in 20.11.40 NMAC or 20.11.41 NMAC):			
☐ New Permit	☒ Permit Modification Current Permit #: **#0752-M3-1TR**	☐ Technical Permit Revision Current Permit #:	☐ Administrative Permit Revision Current Permit #:
☐ New Registration Certificate	☐ Modification Current Reg. #:	☐ Technical Revision Current Reg. #:	☐ Administrative Revision Current Reg. #:

UTM coordinates of facility (Zone 13, NAD 83): **354,737 m E, 3,893,360 m N (Front Gate)**	
Facility type (*i.e.*, a description of your facility operations): **Gypsum Wallboard Manufacturing Plant**	
Standard Industrial Classification (SIC Code #): **3275**	North American Industry Classification System (NAICS Code #): **327420**
Is this facility currently operating in Bernalillo County? **Yes**	If **YES**, list date of original construction: **1959** If **NO**, list date of planned startup: **N/A**
Is the facility permanent? **Yes**	If **NO**, list dates for requested temporary operation: From **N/A** Through **N/A**
Is the facility a portable stationary source? **No**	If **YES**, is the facility address listed above the main permitted location for this source? **N/A**
Is the application for a physical or operational change, expansion, or reconstruction (*e.g.*, altering process, or adding, or replacing process or control equipment, etc.) to an existing facility? **Yes**	
Provide a description of the requested changes: **Existing Units 12a and 12b (dump truck to stockpile and stockpile loader, respectively) annual process rates will each increase from 39,600 tpy to 919,800 tpy for Unit 12a and 39,600 tpy to 963,600 tpy for Unit 12b**	
What is the facility's operation? ☒ Continuous ☐ Intermittent ☐ Batch	

Estimated percent of production/operation:	Jan-Mar: **25%**	Apr-Jun: **25%**	Jul-Sep: **25%**	Oct-Dec: **25%**
Requested operating times of facility:	**24** hours/day	**7** days/week	**4** weeks/month	**12** months/year

Will there be special or seasonal operating times other than shown above? This includes monthly- or seasonally-varying hours. **No**
If **YES**, please explain: **N/A**
List raw materials processed: **Gypsum Ore**
List saleable item(s) produced: **Gypsum Wallboard**

USE INSTRUCTIONS: For the forms on the following pages, please do not alter or delete the existing footnotes or page breaks. If additional footnotes are needed then add them to the end of the existing footnote list for a given table. Only update the rows and cells within tables as necessary for your project. Unused rows can be deleted from tables. If multiple scenarios will be represented then the Uncontrolled and Controlled Emission Tables, and other tables as needed, can be duplicated and adjusted to indicate the different scenarios.

Regulated Emission Sources Table

(*E.g.*, Generator-Crusher-Screen-Conveyor-Boiler-Mixer-Spray Guns-Saws-Sander-Oven-Dryer-Furnace-Incinerator-Haul Road-Storage Pile, etc.) Match the Units listed on this Table to the same numbered line if also listed on Emissions Tables & Stack Table.

Unit Number and Description[1]		Manufacturer	Model #	Serial #	Manufacture Date	Installation Date	Modification Date[2]	Process Rate or Capacity (Hp, kW, Btu, ft^3, lbs, tons, yd^3, etc.)[3]	Fuel Type
Existing Equipment As Permitted (To Be Modified)*									
12a	**Dump Truck to Stockpile** **Front-End Loader** **Front-End Loader Traffic** **Haul Truck Traffic**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**200 tph 39,600 tpy**	**N/A**
12b	**Stockpile Loader (Front-End Loader to Trucks)**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**200 tph 39,600 tpy**	**N/A**
Equipment after Modification*									
12a	**Dump Truck to Stockpile** **Front-End Loader** **Front-End Loader Traffic** **Haul Truck Traffic**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**200 tph 919,800 tpy**	**N/A**
12b	**Stockpile Loader (Front-End Loader to Trucks)**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**N/A**	**200 tph 963,600 tpy**	**N/A**

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Unit numbers must correspond to unit numbers in the previous permit unless a complete cross reference table of all units in both permits is provided.
2. To determine whether a unit has been modified, evaluate if changes have been made to the unit that impact emissions or that trigger modification as defined in 20.11.41.7(U) NMAC. If not, put N/A.
3. Basis for Equipment Process Rate or Capacity (*e.g.*, Manufacturer's Data, Field Observation/Test, etc.) **Facility Design**
   Submit information for each unit as an attachment.

*** Only facility emission sources proposed to be modified as part of this modification are included in this application. Equipment not included in this table is proposed to remain unchanged as part of this revision. Please refer to Permit #0752-M3.**

Emissions Control Equipment Table*

Control Equipment Units listed on this Table should either match up to the same Unit number as listed on the Regulated Emission Sources, Controlled Emissions and Stack Parameters Tables (if the control equipment is integrated with the emission unit) or should have a distinct Control Equipment Unit Number and that number should then also be listed on the Stack Parameters Table.

Control Equipment Unit Number and Description		Controlling Emissions for Unit Number(s)	Manufacturer	Model # | Serial #	Date Installed	Controlled Pollutant(s)	% Control Efficiency[1]	Method Used to Estimate Efficiency	Rated Process Rate or Capacity or Flow
Ex. 8b	Baghouse	3,4,5	Best Baghouses	C-12010 | A16925	11/12/2019	PM_{10}, $PM_{2.5}$	99%	Manufacturer's Data	1,500 ACFM
				|					
				|					
				|					
				|					
				|					
				|					
				|					
				|					
				|					
				|					

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Control Equipment % Efficiency (*e.g.*, Manufacturer's Data, Field Observation/Test, AP-42, etc.). **N/A**
   Submit information for each unit as an attachment.

*** Not applicable as there are no proposed changes to any emissions control equipment**

Exempted Sources and Exempted Activities Table

See 20.11.41 NMAC for exemptions.

Unit Number and Description	Manufacturer	Model #	Serial #	Manufacture Date	Installation Date	Modification Date[1]	Process Rate or Capacity (Hp, kW, Btu, ft^3, lbs, tons, yd^3, etc.)[2]	Fuel Type
N/A – No exempted sources or activities are included as part of this technical revision application.								
							/	
							/	
							/	

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. To determine whether a unit has been modified, evaluate if changes have been made to the unit that impact emissions or that trigger modification as defined in 20.11.41.7(U) NMAC. Also, consider if any changes that were made alter the status from exempt to non-exempt. If not, put N/A.
2. Basis for Equipment Process Rate or Capacity (*e.g.*, Manufacturer's Data, Field Observation/Test, etc.) **N/A**
   Submit information for each unit as an attachment.

Uncontrolled Emissions Table

(Process potential under physical/operational limitations during a 24 hr/day and 365 day/year = 8760 hrs)

Regulated Emission Units listed on this Table should match up to the same numbered line and Unit as listed on the Regulated Emissions and Controlled Tables. List total HAP values per Emission Unit if overall HAP total for the facility is ≥ 1 ton/yr.

Unit Number*	Nitrogen Oxides (NO_x)		Carbon Monoxide (CO)		Nonmethane Hydrocarbons/Volatile Organic Compounds (NMHC/VOCs)		Sulfur Dioxide (SO_2)		Particulate Matter ≤ 10 Microns (PM_{10})		Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)		Hazardous Air Pollutants (HAPs)		Method(s) used for Determination of Emissions (AP-42, Material Balance, Field Tests, etc.)
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	
12a	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**1.16**	**4.10**	**0.12**	**0.43**	**-**	**-**	**AP-42**
12b	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**-**	**0.020**	**0.048**	**0.0030**	**0.0073**	**-**	**-**	**AP-42**
Total from Other Sources**	**23.43**	**93.03**	**12.75**	**53.72**	**0.30**	**1.21**	**1.27**	**5.21**	**3309.94**	**14478.14**	**1004.61**	**4397.70**	**-**	**-**	**Varies**
Totals of Uncontrolled Emissions	**23.43**	**93.03**	**12.75**	**53.72**	**0.30**	**1.21**	**1.27**	**5.21**	**3311.12**	**14482.29**	**1004.73**	**4398.14**	**-**	**-**	

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

*A permit is required and this application along with the additional checklist information requested on the Permit Application checklist must be provided if:

(1) any one of these process units or combination of units, has an uncontrolled emission rate greater than or equal to (≥) 10 lbs/hr or 25 tons/yr for any of the above pollutants, excluding HAPs, based on 8,760 hours of operation; or

(2) any one of these process units or combination of units, has an uncontrolled emission rate ≥ 2 tons/yr for any single HAP or ≥ 5 tons/yr for any combination of HAPs based on 8,760 hours of operation; or

(3) any one of these process units or combination of units, has an uncontrolled emission rate ≥ 5 tons/yr for lead (Pb) or any combination of lead and its compounds based on 8,760 hours of operation; or

(4) any one of the process units or combination of units is subject to an Air Board or federal emission limit or standard.

* If all of these process units, individually and in combination, have an uncontrolled emission rate less than (<) 10 lbs/hr or 25 tons/yr for all of the above pollutants (based on 8,760 hours of operation), but > 1 ton/yr for any of the above pollutants, then a source registration is required. A Registration is required, at minimum, for any amount of HAP emissions. Please complete the remainder of this form.

**** Other permitted sources include all emission units from Permit #0752-M3 which remain unchanged as part of this modification. Refer to the permit for individual emission rates.**

Controlled Emissions Table

(Based on current operations with emission controls OR requested operations with emission controls)

Regulated Emission Units listed on this Table should match up to the same numbered line and Unit as listed on the Regulated Emissions and Uncontrolled Tables. List total HAP values per Emission Unit if overall HAP total for the facility is ≥ 1 ton/yr.

Unit Number	Nitrogen Oxides (NO_X)		Carbon Monoxide (CO)		Nonmethane Hydrocarbons/Volatile Organic Compounds (NMHC/VOCs)		Sulfur Dioxide (SO_2)		Particulate Matter ≤ 10 Microns (PM_{10})		Particulate Matter ≤ 2.5 Microns ($PM_{2.5}$)		Hazardous Air Pollutants (HAPs)		Control Method	% Efficiency[1]
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr		
12a	-	-	-	-	-	-	-	-	**0.48**	**1.67**	**0.051**	**0.18**	-	-	**1) Front-End Loader to Truck (Wet Material) 2) Haul Road (Water Sprays)**	1) 50% 2) 60%
12b	-	-	-	-	-	-	-	-	**0.020**	**0.048**	**0.0030**	**0.0073**	-	-	**Wet Material**	**0%**
Total from Other Sources**	**23.43**	**93.03**	**12.75**	**53.72**	**0.30**	**1.21**	**1.27**	**5.21**	**17.92**	**70.32**	**5.96**	**24.74**	-	-	**Varies**	**Varies**
Totals of Controlled Emissions	**23.43**	**93.03**	**12.75**	**53.72**	**0.30**	**1.21**	**1.27**	**5.21**	**18.42**	**72.04**	**6.01**	**24.93**	-	-		

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Control Method % Efficiency (*e.g.*, Manufacturer's Data, Field Observation/Test, AP-42, etc.). **Manufacturer Guarantee**
   Submit information for each unit as an attachment.

**** Other permitted sources include all emission units from Permit #0752-M3 which remain unchanged as part of this technical revision. Refer to the permit for individual emission rates.**

Hazardous Air Pollutants (HAPs) Emissions Table

Report the Potential Emission Rate for each HAP from each source on the Regulated Emission Sources Table that emits a given HAP. Report individual HAPs with ≥ 1 ton/yr total emissions for the facility on this table. Otherwise, report total HAP emissions for each source that emits HAPs and report individual HAPs in the accompanying application package in association with emission calculations. If this application is for a Registration solely due to HAP emissions, report the largest HAP emissions on this table and the rest, if any, in the accompanying application package.

Unit Number	Total HAPs															
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
N/A – There are no HAP emissions which are being modified as part of this application. HAP emissions are not listed out in Permit #0752-M3.																
Totals of HAPs for all units:																

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

Use Instructions: Copy and paste the HAPs table here if need to list more individual HAPs.

Purchased Hazardous Air Pollutant Table*

Product Categories (Coatings, Solvents, Thinners, etc.)	Hazardous Air Pollutant (HAP), or Volatile Hazardous Air Pollutant (VHAP) Primary To The Representative As Purchased Product	Chemical Abstract Service (CAS) Number of HAP or VHAP from Representative As Purchased Product	HAP or VHAP Concentration of Representative As Purchased Product (pounds/gallon, or %)	Concentration Determination (CPDS, SDS, etc.)[1]	Total Product Purchases For Category	(-)	Quantity of Product Recovered & Disposed For Category	(=)	Total Product Usage For Category
N/A – There are no Purchased HAPs to report as part of this technical revision.									
2.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
3.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
4.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
5.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
6.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
7.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
8.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
9.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
.					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr
TOTALS					lb/yr gal/yr	(-)	lb/yr gal/yr	(=)	lb/yr gal/yr

NOTE: To add extra rows in Word, click anywhere in the second-to-last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

NOTE: Product purchases, recovery/disposal and usage should be converted to the units listed in this table. If units cannot be converted please contact the Air Quality Program prior to making changes to this table.

1. Submit, as an attachment, information on one (1) product from each Category listed above which best represents the average of all the products purchased in that Category. CPDS = Certified Product Data Sheet; SDS = Safety Data Sheet

*** A Registration is required, at minimum, for any amount of HAP or VHAP emission.**
Emissions from purchased HAP usage should be accounted for on previous tables as appropriate.
A permit may be required for these emissions if the source meets the requirements of 20.11.41 NMAC.

Material and Fuel Storage Table

(*E.g.*, Tanks, barrels, silos, stockpiles, etc.)

Storage Equipment		Product Stored	Capacity (bbls, tons, gals, acres, etc.)	Above or Below Ground	Construction (Welded, riveted) & Color	Installation Date	Loading Rate[1]	Offloading Rate[1]	True Vapor Pressure	Control Method	Seal Type	% Eff.[2]
N/A – There are no proposed changes to material and fuel storage as part of this technical revision.												

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

1. Basis for Loading/Offloading Rate (*e.g.*, Manufacturer's Data, Field Observation/Test, etc.). **N/A**
   Submit information for each unit as an attachment.
2. Basis for Control Method % Efficiency (*e.g.*, Manufacturer's Data, Field Observation/Test, AP-42, etc.). **N/A**
   Submit information for each unit as an attachment.

Stack Parameters Table*

If any equipment from the Regulated Emission Sources Table is also listed in this Stack Table, use the same numbered line for the emission unit on both tables to show the association between the Process Equipment and its stack.

Unit Number and Description		Pollutant (CO, NOx, PM_{10}, etc.)	UTM Easting (m)	UTM Northing (m)	Stack Height (ft)	Stack Exit Temp. (°F)	Stack Velocity (fps)	Stack Flow Rate (acfm)	Stack Inside Diameter (ft)	Stack Type
Ex. 1.	Generator	CO, NOx, PM_{10}, $PM_{2.5}$, SO_2	349430.28	3884014.64	18	900 °F	150 fps	4524 acfm	0.8	Rain Cap
Ex. 2.	Spray Gun	PM_{10}, xylene, toluene	348540.1	3882928.5	9.2	Ambient	50 fps	589 acfm	0.5	Vertical
										Select
										Select
										Select
										Select
										Select

NOTE: To add extra rows in Word, click anywhere in the last row. A plus (+) sign should appear on the bottom right corner of the row. Click the plus (+) sign to add a row. Repeat as needed.

*** Not applicable as there are no proposed changes to stack parameters**

Application for Air Pollutant Sources in Bernalillo County
Source Registration (20.11.40 NMAC) and Construction Permits (20.11.41 NMAC)

Certification

NOTICE REGARDING SCOPE OF A PERMIT: The Environmental Health Department's issuance of an air quality permit only authorizes the use of the specified equipment pursuant to the air quality control laws, regulations and conditions. Permits relate to air quality control only and are issued for the sole purpose of regulating the emission of air contaminants from said equipment. Air quality permits are not a general authorization for the location, construction and/or operation of a facility, nor does a permit authorize any particular land use or other form of land entitlement. It is the applicant's/permittee's responsibility to obtain all other necessary permits from the appropriate agencies, such as the City of Albuquerque Planning Department or Bernalillo County Department of Planning and Development Services, including but not limited to site plan approvals, building permits, fire department approvals and the like, as may be required by law for the location, construction and/or operation of a facility. For more information, please visit the City of Albuquerque Planning Department website at https://www.cabq.gov/planning and the Bernalillo County Department of Planning and Development Services website at https://www.bernco.gov/planning.

NOTICE REGARDING ACCURACY OF INFORMATION AND DATA SUBMITTED: Any misrepresentation of a material fact in this application and its attachments is cause for denial of a permit or revocation of part or all of the resulting registration or permit, and revocation of a permit for cause may limit the permitee's ability to obtain any subsequent air quality permit for ten (10) years. Any person who knowingly makes any false statement, representation, or certification in any application, record, report, plan or other document filed or required to be maintained under the Air Quality Control Act, NMSA 1978 §§ 74-2-1 to 74-2-17, is guilty of a misdemeanor and shall, upon conviction, be punished by a fine of not more than ten thousand dollars ($10,000) per day per violation or by imprisonment for not more than twelve months, or by both.

I, the undersigned, hereby certify that I have knowledge of the information and data represented and submitted in this application and that the same is true and accurate, including the information and date in any and all attachments, including without limitation associated forms, materials, drawings, specifications, and other data. I also certify that the information represented gives a true and complete portrayal of the existing, modified existing, or planned new stationary source with respect to air pollution sources and control equipment. I understand that there may be significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations. I also understand that the person who has applied for or has been issued an air quality permit by the Department is an obligatory party to a permit appeal filed pursuant to 20.11.81 NMAC. Further, I certify that I am qualified and authorized to file this application, to certify the truth and accuracy of the information herein, and bind the source. Moreover, I covenant and agree to comply with any requests by the Department for additional information necessary for the Department to evaluate or make a final decision regarding the application.

Signed this 31ST day of JANUARY, 20 23

CAREY W SLATER
Print Name

PLANT MANAGER
Print Title

Signature

Role: ☐ Owner ☐ Operator ☒ Other Authorized Representative

City of Albuquerque
Environmental Health Department
Air Quality Program

Construction Permit (20.11.41 NMAC)
Application Checklist

This checklist must be returned with the application

Any person seeking a new air quality permit, a permit modification, or an emergency permit under 20.11.41 NMAC (Construction Permits) shall do so by filing a written application with the Albuquerque-Bernalillo County Joint Air Quality Program, which administers and enforces local air quality laws for the City of Albuquerque ("City") and Bernalillo County ("County"), on behalf of the City Environmental Health Department ("Department").

The Department will rule an application administratively incomplete if it is missing or has incorrect information. The Department may require additional information that is necessary to make a thorough review of an application, including but not limited to technical clarifications, emission calculations, emission factor usage, additional application review fees if any are required by 20.11.2 NMAC, and new or additional air dispersion modeling.

If the Department has ruled an application administratively incomplete three (3) times, the Department will deny the permit application. Any fees submitted for processing an application that has been denied will not be refunded. If the Department denies an application, a person may submit a new application and the fee required for a new application. The applicant has the burden of demonstrating that a permit should be issued.

The following are the minimum elements that shall be included in the permit application before the Department can determine whether an application is administratively complete and ready for technical review. It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.

At all times before the Department has made a final decision regarding the application, an applicant has a duty to promptly supplement and correct information the applicant has submitted in an application to the Department. The applicant's duty to supplement and correct the application includes but is not limited to relevant information acquired after the applicant has submitted the application and additional information the applicant otherwise determines is relevant to the application and the Department's review and decision. While the Department is processing an application, regardless of whether the Department has determined the application is administratively complete, if the Department determines that additional information is necessary to evaluate or make a final decision regarding the application, the Department may request additional information and the applicant shall provide the requested additional information.

NOTICE REGARDING PERMIT APPEALS: A person who has applied for or has been issued an air quality permit by the Department shall be an obligatory party to a permit appeal filed pursuant to 20.11.81 NMAC.

NOTICE REGARDING SCOPE OF A PERMIT: The Department's issuance of an air quality permit only authorizes the use of the specified equipment pursuant to the air quality control laws, regulations and conditions. Permits relate to air quality control only and are issued for the sole purpose of regulating the emission of air contaminants from said equipment. Air quality permits are not a general authorization for the location, construction and/or operation of a facility, nor does a permit authorize any particular land use or other form of land entitlement. It is the applicant's/permittee's responsibility to obtain all other necessary permits from the appropriate agencies, such as the City Planning Department or County Department of Planning and Development Services, including but not limited to site plan approvals, building permits, fire department approvals and the like, as may be required by law for the location, construction and/or operation of a facility. For more information, please visit the City Planning Department website at https://www.cabq.gov/planning and the County Department of Planning and Development Services website at https://www.bernco.gov/planning.

The Applicant shall:

20.11.41.13(A) NMAC – Pre-Application Requirements:

Item	Completed	NA[1]	Waived[2]
(1) Request a pre-application meeting with the Department using the pre-application meeting request form.	☒	☐	☐
(2) Attend the pre-application meeting. Date of Pre-application meeting: 12/14/2022	☒	☐	☐

1. *Not Applicable*
2. *It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.*

20.11.41.13(B) NMAC – Applicant's Public Notice Requirements:

Item	Included in Application	NA[1]	Waived[2]
(1) Provide public notice in accordance with the regulation, including by certified mail or electronic copy to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located.	☒	☐	☐
• Contact list of representative(s) of neighborhood associations and recognized coalitions cannot be more than three months old from the application submittal date.	☒	☐	☐
• Provide notice using the Notice of Intent to Construct form.	☒	☐	☐
(2) In accordance with the regulation, post and maintain in a visible location a weather proof sign provided by the Department.	☒	☐	☐

1. *Not Applicable; For emergency permits, the public notice requirements in 20.11.41.24 NMAC shall apply instead.*
2. *It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.*

The Permit Application shall include:

20.11.41.13(E) NMAC – Application Contents

Item	Included In Application	NA[1]	Waived[2]
(1) A complete permit application on the most recent form provided by the Department.	☒	☐	☐
(2) The application form includes:			
a. The owner's name, street and post office address, and contact information;	☒	☐	☐
b. The facility/ operator's name, street address and mailing address, if different from the owner;	☒	☐	☐
c. The consultant's name, and contact information, if applicable;	☒	☐	☐
d. All information requested on the application form is included (*i.e.*, the form is complete).	☒	☐	☐
(3) Date application is submitted.	☒	☐	☐
(4) Sufficient attachments for the following:			
a. Ambient impact analysis using an atmospheric dispersion model approved by the U.S. Environmental Protection Agency, and the Department to demonstrate compliance with the applicable ambient air quality standards. *See* 20.11.01 NMAC. If you are modifying an existing source, the modeling must include the	☐	☐	☒

Item	Included In Application	NA[1]	Waived[2]
emissions of the entire source to demonstrate the impact the new or modified source(s) will have on existing plant emissions.			
b. The air dispersion model has been executed pursuant to a protocol that was approved in advance by the Department.	☐	☐	☒
c. Air dispersion modeling approved protocol date:	☐	☐	☒
d. Basis or source for each emission rate (including manufacturer's specification sheet, AP-42 section sheets, test data, or corresponding supporting documentation for any other source used).	☒	☐	☐
e. All calculations used to estimate potential emission rates and controlled/proposed emissions.	☒	☐	☐
f. Basis for the estimated control efficiencies and sufficient engineering data for verification of the control equipment operation, including if necessary, design, drawing, test report and factors which affect the normal operation.	☒	☐	☐
g. Fuel data for each existing and/or proposed piece of fuel burning equipment.	☒	☐	☐
h. Anticipated maximum production capacity of the entire facility and the requested production capacity after construction and/or modification.	☒	☐	☐
i. Stack and exhaust gas parameters for all existing and proposed emission stacks.	☒	☐	☐
(5) An operational and maintenance strategy detailing:	☒	☐	☐
a. steps the applicant will take if a malfunction occurs that may cause emission of a regulated air contaminant to exceed a limit that is included in the permit;	☒	☐	☐
b. the nature of emission during routine startup or shutdown of the source and the source's air pollution control equipment; and	☒	☐	☐
c. the steps the application will take to minimize emissions during routine startup or shutdown.	☒	☐	☐
(6) A map, such as a 7.5'-topographic quadrangle map published by the U.S. Geological Survey or a map of equivalent or greater scale, detail, and precision, including a City or County zone atlas map that shows the proposed location of each process equipment unit involved in the proposed construction, modification, or operation of the source, as applicable.	☒	☐	☐
(7) An aerial photograph showing the proposed location of each process equipment unit involved in the proposed construction, modification, relocation or technical revision of the source except for federal agencies or departments involved in national defense or national security as confirmed and agreed by the Department in writing.	☒	☐	☐
(8) A complete description of all sources of regulated air contaminants and a process flow diagram depicting the process equipment unit or units at the facility, both existing and proposed, that are proposed to be involved in routine operations and from which regulated air contaminant emissions are expected to be emitted.	☒	☐	☐
(9) A full description of air pollution control equipment, including all calculations and the basis for all control efficiencies presented, manufacturer's specifications sheets, and site layout and assembly drawings; UTM (universal transverse mercator) coordinates shall be used to identify the location of each emission unit.	☒	☐	☐
(10) A description of the equipment or methods proposed by the applicant to be used for emission measurement.	☒	☐	☐
(11) The maximum and normal operating time schedules of the source after completion of construction or modification, as applicable.	☒	☐	☐
(12) Any other relevant information as the Department may reasonably require, including without limitation:	☒	☐	☐
a. Applicants shall provide documentary proof that the proposed air quality permitted use of the facility's subject property is allowed by the zoning designation of the City or County zoning laws, as applicable. Sufficient documentation includes: (i) a zoning certification from the City Planning Department or County Department of Planning and Development Services, as applicable, if the property is subject to City or County zoning jurisdiction; or (ii) a zoning verification from both planning	☒	☐	☐

Item	Included In Application	NA[1]	Waived[2]
departments if the property is not subject to City or County zoning jurisdiction.[3] A zone atlas map shall not be sufficient.			
(13) The signature of the applicant, operator, owner or an authorized representative, certifying to the accuracy of all information as represented in the application and attachments, if any.	☒	☐	☐
(14) A check or money order for the appropriate application fee or fees required by 20.11.2 NMAC (Fees).	☒	☐	☐

1. *Not Applicable*
2. *It is not necessary to include an element if the Department has issued a written waiver regarding the element and the waiver accompanies the application. However, the Department shall not waive any federal requirements.*
3. *For emergency permit applications, applicants are not required to submit documentation for the subject property's zoning designation.*

City of Albuquerque

Environmental Health Department
Air Quality Program

Permit Application Review Fee Instructions

All source registration, authority-to-construct, and operating permit applications for stationary or portable sources shall be charged an application review fee according to the fee schedule in 20.11.2 NMAC. These filing fees are required for both new construction, reconstruction, and permit modifications applications. Qualified small businesses as defined in 20.11.2 NMAC may be eligible to pay one-half of the application review fees and 100% of all applicable federal program review fees.

Please fill out the permit application review fee checklist and submit with a check or money order payable to the "City of Albuquerque Fund 242" and either:

1. be delivered in person to the Albuquerque Environmental Health Department, 3rd floor, Suite 3023 or Suite 3027, Albuquerque-Bernalillo County Government Center, south building, One Civic Plaza NW, Albuquerque, NM or,

2. mailed to Attn: Air Quality Program, Albuquerque Environmental Health Department, P.O. Box 1293, Albuquerque, NM 87103.

The department will provide a receipt of payment to the applicant. The person delivering or filing a submittal shall attach a copy of the receipt of payment to the submittal as proof of payment Application review fees shall not be refunded without the written approval of the manager. If a refund is requested, a reasonable professional service fee to cover the costs of staff time involved in processing such requests shall be assessed. Please refer to 20.11.2 NMAC (effective January 10, 2011) for more detail concerning the "Fees" regulation as this checklist does not relieve the applicant from any applicable requirement of the regulation.

City of Albuquerque

Environmental Health Department
Air Quality Program

Permit Application Review Fee Checklist Effective January 1, 2023 – December 31, 2023

Please completely fill out the information in each section. Incompleteness of this checklist may result in the Albuquerque Environmental Health Department not accepting the application review fees. If you should have any questions concerning this checklist, please call 768-1972.

I. COMPANY INFORMATION:

Company Name	American Gypsum Company, LLC	
Company Address	4600 Paseo Del Norte	
Facility Name	Albuquerque Plant	
Facility Address	4600 Paseo Del Norte	
Contact Person	Carey Slater	
Contact Person Phone Number	505-346-2142	
Are these application review fees for an existing permitted source located within the City of Albuquerque or Bernalillo County?	**Yes**	**No**
If yes, what is the permit number associated with this modification?	**Permit #0752-M3-1TR**	
Is this application review fee for a Qualified Small Business as defined in 20.11.2 NMAC? (See Definition of Qualified Small Business on Page 4)	**Yes**	**No**

II. STATIONARY SOURCE APPLICATION REVIEW FEES:

If the application is for a new stationary source facility, please check all that apply. If this application is for a modification to an existing permit please see Section III.

Check All That Apply	Stationary Sources	Review Fee	Program Element
	Air Quality Notifications		
	AQN New Application	$641.00	2801
	AQN Technical Amendment	$352.00	2802
	AQN Transfer of a Prior Authorization	$352.00	2803
X	*Not Applicable*	*See Sections Below*	
	Stationary Source Review Fees (Not Based on Proposed Allowable Emission Rate)		
	Source Registration required by 20.11.40 NMAC	$ 657.00	2401
	A Stationary Source that requires a permit pursuant to 20.11.41 NMAC or other board regulations and are not subject to the below proposed allowable emission rates	$1,314.00	2301
X	*Not Applicable*	*See Sections Below*	
	Stationary Source Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)		
	Proposed Allowable Emission Rate Equal to or greater than 1 tpy and less than 5 tpy	$986.00	2302
	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	$1,971.00	2303
	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	$3,942.00	2304
	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	$5,913.00	2305
	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	$7,884.00	2306
	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	$9,855.00	2307
X	*Not Applicable*	*See Section Above*	

Federal Program Review Fees (In addition to the Stationary Source Application Review Fees above)			
	40 CFR 60 - "New Source Performance Standards" (NSPS)	$1,314.00	2308
	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	$1,314.00	2309
	40 CFR 63 - (NESHAPs) Promulgated Standards	$1,314.00	2310
	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	$13,140.00	2311
	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	$6,570.00	2312
	20.11.60 NMAC, Non-Attainment Area Permit	$6,570.00	2313
X	*Not Applicable*	*Not Applicable*	

III. MODIFICATION TO EXISTING PERMIT APPLICATION REVIEW FEES:

If the permit application is for a modification to an existing permit, please check all that apply. If this application is for a new stationary source facility, please see Section II.

Check All That Apply	Modifications	Review Fee	Program Element
Modification Application Review Fees (Not Based on Proposed Allowable Emission Rate)			
	Proposed modification to an existing stationary source that requires a permit pursuant to 20.11.41 NMAC or other board regulations and are not subject to the below proposed allowable emission rates	$1,314	2321
X	*Not Applicable*	*See Sections Below*	
Modification Application Review Fees (Based on the Proposed Allowable Emission Rate for the single highest fee pollutant)			
	Proposed Allowable Emission Rate Equal to or greater than 1 tpy and less than 5 tpy	$986.00	2322
	Proposed Allowable Emission Rate Equal to or greater than 5 tpy and less than 25 tpy	$1,971.00	2323
	Proposed Allowable Emission Rate Equal to or greater than 25 tpy and less than 50 tpy	$3,942.00	2324
	Proposed Allowable Emission Rate Equal to or greater than 50 tpy and less than 75 tpy	$5,913.00	2325
X	Proposed Allowable Emission Rate Equal to or greater than 75 tpy and less than 100 tpy	$7,884.00	2326
	Proposed Allowable Emission Rate Equal to or greater than 100 tpy	$9,855.00	2327
	Not Applicable	*See Section Above*	
Major Modifications Review Fees (In addition to the Modification Application Review Fees above)			
	20.11.60 NMAC, Permitting in Non-Attainment Areas	$6,570	2333
	20.11.61 NMAC, Prevention of Significant Deterioration	$6,570	2334
X	*Not Applicable*	*Not Applicable*	
Federal Program Review Fees (This section applies only if a Federal Program Review is triggered by the proposed modification) (These fees are in addition to the Modification and Major Modification Application Review Fees above)			
	40 CFR 60 - "New Source Performance Standards" (NSPS)	$1,314.00	2328
	40 CFR 61 - "Emission Standards for Hazardous Air Pollutants (NESHAPs)	$1,314.00	2329
	40 CFR 63 - (NESHAPs) Promulgated Standards	$1,314.00	2330
	40 CFR 63 - (NESHAPs) Case-by-Case MACT Review	$13,140.00	2331
	20.11.61 NMAC, Prevention of Significant Deterioration (PSD) Permit	$6,570.00	2332
	20.11.60 NMAC, Non-Attainment Area Permit	$6,570.00	2333
X	*Not Applicable*	*Not Applicable*	

IV. ADMINISTRATIVE AND TECHNICAL REVISION APPLICATION REVIEW FEES:

If the permit application is for an administrative or technical revision of an existing permit issued pursuant to 20.11.41 NMAC, please check one that applies.

Check One	Revision Type	Review Fee	Program Element
	Administrative Revisions	$ 250.00	2340
	Technical Revisions	$ 500.00	2341
X	*Not Applicable*	*See Sections II, III or V*	

V. PORTABLE STATIONARY SOURCE RELOCATION FEES:

If the permit application is for a portable stationary source relocation of an existing permit, please check one that applies.

Check One	Portable Stationary Source Relocation Type	Review Fee	Program Element
	No New Air Dispersion Modeling Required	$ 500.00	2501
	New Air Dispersion Modeling Required	$ 750.00	2502
X	*Not Applicable*	*See Sections II, III or V*	

VI. Please submit a check or money order in the amount shown for the total application review fee.

Section Totals	Review Fee Amount
Section II Total	$
Section III Total	$ 7,884
Section IV Total	$
Section V Total	$
Total Application Review Fee	**$ 7,884**

I, the undersigned, a responsible official of the applicant company, certify that to the best of my knowledge, the information stated on this checklist, give a true and complete representation of the permit application review fees which are being submitted. I also understand that an incorrect submittal of permit application reviews may cause an incompleteness determination of the submitted permit application and that the balance of the appropriate permit application review fees shall be paid in full prior to further processing of the application.

Signed this 31ST **day of** JANUARY **20** 23

CAREY W SLATER — **Print Name**

PLANT MANAGER — **Print Title**

Signature

Definition of Qualified Small Business as defined in 20.11.2 NMAC:
"Qualified small business" means a business that meets all of the following requirements:

(1) a business that has 100 or fewer employees;
(2) a small business concern as defined by the federal Small Business Act;
(3) a source that emits less than 50 tons per year of any individual regulated air pollutant, or less than 75 tons per year of all regulated air pollutants combined; and
(4) a source that is not a major source or major stationary source.

Note: Beginning January 1, 2011, and every January 1 thereafter, an increase based on the consumer price index shall be added to the application review fees. The application review fees established in Subsection A through D of 20.11.2.18 NMAC shall be adjusted by an amount equal to the increase in the consumer price index for the immediately-preceding year. Application review fee adjustments equal to or greater than fifty cents ($0.50) shall be rounded up to the next highest whole dollar. Application review fee adjustments totaling less than fifty cents ($0.50) shall be rounded down to the next lowest whole dollar. The department shall post the application review fees on the city of Albuquerque environmental health department air quality program website.

APPENDIX B. PRE-PERMIT APPLICATION MEETING

Pre-Permit Application Meeting Request Form

Pre-Permit Application Meeting Checklist

Pre-Permit Application Meeting Request Form

Air Quality Program- Environmental Health Department

Please complete appropriate boxes and email to aqd@cabq.gov or mail to:

Environmental Health Department
Air Quality Program
P.O. Box 1293
Room 3047
Albuquerque, NM 87103

Name:	**Albuquerque Plant (Permit #0752-M3)**
Company/Organization:	American Gypsum Company LLC
Point of Contact: **(phone number and email):** **Preferred form of contact (circle one):** Phone E-mail ☑	Contact: Carey Slater, Plant Manager Phone: (505) 346-2142 Email: Carey.Slater@americangypsum.com Contact: Michael Celente, Senior Consultant Phone: (505) 266-6611 Email: mcelente@trinityconsultants.com
Preferred meeting date/times:	As soon as practicable for the EHD.
Description of Project:	AMG is proposing a permit modification to authorize an increase in annual throughputs for Unit 12a and 12b as well as the addition of new dust collectors and air conveyors to the site. The permitted hourly value of 200 tph for Units 12a and 12b will remain unchanged, but the annual value of 39,600 tpy will be modified. Two new air conveyors will be controlled by dust collectors which have efficiencies in excess of 99.9%.

City of Albuquerque

Environmental Health Department
Air Quality Program

Pre-Permit Application Meeting Checklist

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. Prior to submitting an application, the applicant shall contact the department in writing and request a pre-application meeting for information regarding the contents of the application and the application process. This checklist is provided to aid the applicant and **a copy must be submitted with the application.**

Applications that are ruled incomplete because of missing information will delay any determination or the issuance of the permit. The Department reserves the right to request additional relevant information prior to ruling the application complete in accordance with 20.11.41 NMAC.

Name: Albuquerque Plant
Contact: Carey Slater, Plant Manager
Company/Business: American Gypsum Company

☑ Fill out and submit a Pre-Permit Application Meeting Request form
⇒ Available online at http://www.cabq.gov/airquality

☑ Emission Factors and Control Efficiencies
Notes: Will remain same as previous permit modification application.

☑ Air Dispersion modeling guidelines and protocol
Notes: Request for modeling to be waived.

☑ Department Policies
Notes: No zoning requirement for existing, permitted sites.

☑ Air quality permit fees
Notes: 2023 fees will be used.

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Section
Phone: (505) 768-1972 Email: aqd@cabq.gov

☑ Public notice requirements

- ☑ Replacement Part 41 Implementation
  - ☑ *20.11.41*.13 B. Applicant's public notice requirements
    - ☑ Providing public notice to neighborhood association/coalitions
      - Neighborhood association: Alameda North Valley Association, Vista Del Norte Alliance
      - Coalition: Neighborhood Coalition D4C, North Valley Coalition

      Notes: To be provided by the department in the month the application is submitted.

    - ☑ Posting and maintaining a weather-proof sign
      Notes:

☑ Regulatory timelines

- 30 days to rule application complete
- 90 days to issue completed permit
- Additional time allotted if there is significant public interest and/or a significant air quality issue
  - Public Information Hearing
  - Complex permitting action

Notes:

City of Albuquerque- Environmental Health Department
Air Quality Program- Permitting Section
Phone: (505) 768-1972 Email: aqd@cabq.gov

Dust collet

City of Albuquerque
Environmental Health Department
Air Quality Program

Construction Permit (20.11.41 NMAC)
Pre-Permit Application Meeting Agenda

Phone: (505) 768-1972 Email: aqd@cabq.gov

Any person seeking a new permit, a permit modification, or an emergency permit under 20.11.41 NMAC (Construction Permits) shall do so by filing a written application with the Albuquerque-Bernalillo County Joint Air Quality Program, which administers and enforces local air quality laws for the City of Albuquerque ("City") and Bernalillo County ("County"), on behalf of the City Environmental Health Department ("Department").

Prior to submitting an application, per 20.11.41.13(A) NMAC, the applicant (or their consultant) shall contact the Department in writing and submit a Pre-Permit Application Meeting Request Form to request a pre-application meeting. The Pre-Permit Application Meeting Request Form is available at https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms. The purpose of the pre-application meeting is for the Department to provide the applicant with information regarding the contents of the application and the application process

This template is provided to aid the Department in ensuring that in the pre-permit application meeting all information regarding the contents of the application and the application process are communicated to the applicant. This is because applications that are ruled incomplete because of missing information will delay any determination or the issuance of the permit. The Department reserves the right to request additional relevant information prior to ruling the application complete in accordance with 20.11.41 NMAC.

This template will be customized and presented at the beginning of the each meeting. Bracketed items in yellow will be added based on the information in the applicant's Pre-permit Application Meeting Request form.

Pre-application Meeting for American Gypsum
Meeting Agenda

December 14, 2022
2:00pm Via Zoom

Invitees:

- Carey Slater, American Gypsum
- Joseph Marina, American Gypsum
- Mike Celente, Trinity Consultants
- Jeff Stonesifer, City of Albuquerque, Air Quality Program
- Kyle Tumpane, City of Albuquerque, Air Quality Program
- Carina Munoz-Dyer, City of Albuquerque, Air Quality Program

I. Discuss Project:

AMG is proposing a permit modification to authorize an increase in annual throughputs for Unit 12a and 12b as well as the addition of new dust collectors and air conveyors to the site.
The permitted hourly value of 200 tph for Units 12a and 12b will remain unchanged, but the annual value of 39,600 tpy will be modified.
Two new air conveyors will be controlled by dust collectors which have efficiencies in excess of 99.9%.

a. Facility Location:
4600 Paseo del Norte NE, Albuquerque, New Mexico 87109
b. Facility Description
Gypsum wallboard manufacturing plant
c. Main Processes
Gypsum wallboard manufacturing
d. Equipment
Only increase annual throughput to Units 12 and 12b (Dump Truck to Stockpile and Stockpile Loader, respectively)
e. Proposed Schedule
No change

Notes from meeting:
According to American Gypsum, two existing screw conveyors will be turned into air blow conveyors and routed to one of the dust collectors that has an emission rate based on grains per cubic feet, and the emissions from the existing dust collector will not change. No new equipment will be introduced. Therefore, the modification will only be for the increase in annual emission from Units 12 and 12b.

American Gypsum will be submitting a modeling waiver request justifying that modeling is not needed because the modeling completed in M3 was done using a conservative hourly emission rate, and that short term emission rate was used to model the annual emission, which is an overestimate, and the proposed annual emission will be below what was modeled before.

AQP Comments:
Zoning verification is not required
AQP will not accept applications after 4pm.

II. Discuss the requirement for a zoning certification or verifications for new permits only
    a. For projects on property subject to City or County zoning laws (*i.e.*, **not** located on federal land, **not** located on State of New Mexico land, **not** located on Tribal land.
        i. City Planning Form: https://www.cabq.gov/planning/code-enforcement-zoning
        ii. County Planning Form: https://www.bernco.gov/planning/planning-and-land-use/applications-forms/
    b. If the project's property is not subject to City or County zoning jurisdiction, a zoning verification from both planning departments is required.
        i. City Planning Form: https://www.cabq.gov/planning/code-enforcement-zoning
        ii. County Planning Form: https://www.bernco.gov/planning/planning-and-land-use/applications-forms/
    c. The zoning certification or verifications **must** be obtained from the appropriate Planning Department, either City of Albuquerque or Bernalillo County. For more information, please visit the City's Planning Department website at https://www.cabq.gov/planning or Bernalillo County's Planning Department website at the https://www.bernco.gov/planning/.

III. If permit modification or revision, review current permit:
    a. Review Process Equipment Table and Emissions Table and discuss changes
    b. Request information about the replacement or new equipment (for example, if it is an engine, we need to know if it is new, what year, fuel type, etc…) to give them an idea of the changes that will be needed
    c. Discuss possible changes in permit conditions

IV. Air Dispersion modeling process, procedures and options:
    a. When modeling is required and possibility of waivers
    b. Protocol process, purpose, and time frame
    c. Preliminary review, purpose, and time frame
    d. Full review and time frame
    e. Peer reviews
    f. Assumptions in the modeling become permit conditions
    g. NED data should be used instead of DEM data for assigning elevations to receptors, sources, buildings, etc.

V. Applicant's public notice requirements
    a. During the same month application package will be submitted, ask Department for memo of neighborhood associations/coalitions within ½ mile of facility
    b. Fill out and send Notice of Intent to Construct form to neighborhood associations/coalitions listed in memo: https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms
    c. Post and maintain a weather-proof sign. Signs are available in the downtown Program office. The Public Notice Sign Guidelines Checklist can be found here: https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms

VI. Regulatory timelines
    a. 30 days to rule application complete
    b. 90 days after ruled complete for permitting decision
    c. 30-day public comment period
    d. Public interest in application:

i. 30-day review of technical analysis
ii. 90-day extension for permitting decision

e. Request for Public Information Hearing - 90-day extension for permitting decision
f. Complex technical issues in application - 90-day extension for permitting decision
g. If application ruled incomplete it stops timeline

VII. Department Policies

a. One original hard copy must be submitted along with a duplicate copy. The duplicate copy can be electronically. If submitted electronically, submit as one entire PDF with all application contents.
b. Applications will be ruled incomplete if any parts from Permit Application Checklist are missing
c. Review fees paid in full are part of the application package
d. Discuss payment format (by check, credit card or online)
e. Use the most recent Permit Application Checklist, found under Part 41 Implementation on this page: https://www.cabq.gov/airquality/air-quality-permits/air-quality-application-forms
f. After three tries, permit application denied and application must start over including repayment of fees

VIII. Additional Questions?

APPENDIX C. PUBLIC NOTICE REQUIREMENTS

Notice of Intent to Construct

Email Documentation of NOI Sent to Neighborhood Associations and Coalitions

Public Notice Sign Guidelines

Pictures of Posted Public Notice Sign

Timothy M. Keller.
Mayor

Public Participation

List of Neighborhood Associations and Neighborhood Coalitions
MEMORANDUM

To: American Gypsum
From: Angela Lopez, Environmental Health Department/Air Quality Permitting Supervisor
Subject: Determination of Neighborhood Associations and Coalitions within 0.5 mile of 4600 Paseo del Norte NE in Bernalillo County, NM
Date: January 19, 2023

DETERMINATION:

On January 19, 2023, I used the City of Albuquerque Zoning Advanced Map Viewer (http://coagiswcb.cabq.gov/) to verify which City of Albuquerque Neighborhood Associations (NA), Homeowner Associations (HOA) and Neighborhood Coalitions (NC) are located within 0.5 mile of 4600 Paseo del Norte, NE in Bernalillo County, NM.

I then used the City of Albuquerque Office (COA) of Neighborhood Coordination's Monthly Master NA List dated January 2023 and the Bernalillo County (BC) Monthly Neighborhood Association January 2023 Excel file to determine the contact information for each NA and NC located within 0.5 mile of 4600 Paseo del Norte, NE in Bernalillo County, NM.

The table below contains the contact information, which will be used in the City of Albuquerque Environmental Health Department's public notice. Duplicates have been deleted.

COA/BC Association or Coalition	Name	Email or Mailing Address*
Alameda North Valley Association	Steve Wentworth Deborah Potter	anvanews@aol.com
Neighborhood Coalition D4C	Mildred Griffee Mark Reynolds Association Email	mgriffee@noreste.org reynolds@unm.edu sect.dist4@gmail.com
North Valley Coalition	Peggy Norton Doyle Kimbrough Association Email	peggynorton@yahoo.com newmexmba@aol.com nvcabq@gmaiI.com
Vista Del Norte Alliance	James Souter Janelle Johnson Association Email	jamessouter@msn.com tuscanylandscape@me.com vistadelnorte@me.com

If email address is not listed, provide public notice via certified mail and include a copy of each mail receipt with the application submittal.

SUBJECT: Public Notice of Proposed Air Quality Construction Permit Application

Dear Neighborhood Association/Coalition Representative(s),

Why did I receive this public notice?
You are receiving this notice in accordance with New Mexico Administrative Code (NMAC) 20.11.41.13.B(1) which requires any applicant seeking an Air Quality Construction Permit pursuant to 20.11.41 NMAC to provide public notice by certified mail or electronic mail to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located.

What is the Air Quality Permit application review process?
The City of Albuquerque, Environmental Health Department, Air Quality Program (Program) is responsible for the review and issuance of Air Quality Permits for any stationary source of air contaminants within Bernalillo County. Once the application is received, the Program reviews each application and rules it either complete or incomplete. Complete applications will then go through a 30-day public comment period. Within 90 days after the Program has ruled the application complete, the Program shall issue the permit, issue the permit subject to conditions, or deny the requested permit or permit modification. The Program shall hold a Public Information Hearing pursuant to 20.11.41.15 NMAC if the Director determines there is significant public interest and a significant air quality issue is involved.

What do I need to know about this proposed application?

Applicant Name	American Gypsum Company, LLC
Site or Facility Name	Albuquerque Plant
Site or Facility Address	4600 Paseo Del Norte, Albuquerque, NM 87109
New or Existing Source	EXISTING
Anticipated Date of Application Submittal	FEBRUARY 17, 2023
Summary of Proposed Source to Be Permitted	In this permit modification, AMG is seeking a modification to their existing permit (#752-M3) associated with the facility. The annual process rates for existing Units 12a and 12b will each increase from 39,600 tpy to 919,800 tpy for Unit 12a and 39,600 tpy to 963,600 tpy for Unit 12b. All other sources will remain unchanged. Emissions from all units are provided with this application to accurately capture total emissions at the facility.

What emission limits and operating schedule are being requested?
See attached Notice of Intent to Construct form for this information.

How do I get additional information regarding this proposed application?
For inquiries regarding the proposed source, contact:
- Carey Slater
- Carey.Slater@americangypsum.com
- (505) 346-2142

For inquiries regarding the air quality permitting process, contact:
- City of Albuquerque Environmental Health Department Air Quality Program
- aqd@cabq.gov
- (505) 768-1972

NOTICE FROM THE APPLICANT

Notice of Intent to Apply for Air Quality Construction Permit

You are receiving this notice because the New Mexico Air Quality Control Act (20.11.41.13B NMAC) requires any owner/operator proposing to construct or modify a facility subject to air quality regulations to provide public notice by certified mail or electronic mail to designated representatives of recognized neighborhood associations and coalitions within 0.5-mile of the property on which the source is or is proposed to be located.

This notice indicates that the owner/operator intends to apply for an Air Quality Construction Permit from the Albuquerque – Bernalillo County Joint Air Quality Program. Currently, no application for this proposed project has been submitted to the Air Quality Program. Applicants are required to include a copy of this form and documentation of mailed notices with their Air Quality Construction Permit Application.

Proposed Project Information

Applicant's name and address:
Nombre y domicilio del solicitante: American Gypsum Company, 4600 Paseo Del Norte, Albuquerque, NM 87109

Owner / operator's name and address:
Nombre y domicilio del propietario u operador: Carey Slater, 4600 Paseo Del Norte, Albuquerque, NM 87109

Contact for comments and inquires:
Datos actuales para comentarios y preguntas:

Name *(Nombre)*: Carey Slater
Address *(Domicilio)*: 4600 Paseo Del Norte, Albuquerque, NM 87109
Phone Number *(Número Telefónico)*: (505) 346-2142
E-mail Address *(Correo Electrónico)*: carey.slater@americangypsum.com

Actual or estimated date the application will be submitted to the department:
Fecha actual o estimada en que se entregará la solicitud al departamento: February 2023

Description of the source:
Descripción de la fuente: Manufacturer of wallboard from gypsum

Exact location of the source or proposed source:
Ubicación exacta de la fuente o fuente propuesta: 354,737 m E, 3,893,360 m N

Nature of business:
Tipo de negocio: Gypsum Wallboard Manufacturing

Process or change for which the permit is requested:
Proceso o cambio para el cuál de solicita el permiso: In this permit modification AMG is seeking a modification to their existing permit (#0752-M3) associated with the facility. The annual process rates for existing Units 12a and 12b will each increase from 39,600 tpy to 919,800 tpy for Unit 12a and 39,600 tpy to 963,600 tpy for Unit 12b. All other sources will remain unchanged. Emissions for all units are provided with this application to accurately capture total emissions from the facility.

Maximum operating schedule:
Horario máximo de operaciones: 8,760 hours per year

Normal operating schedule:
Horario normal de operaciones: 8,760 hours per year

Preliminary estimate of the maximum quantities of each regulated air contaminant the source will emit:
Estimación preliminar de las cantidades máximas de cada contaminante de aire regulado que la fuente va a emitir:

Air Contaminant *Contaminante de aire*	**Proposed Construction Permit** *Permiso de Construcción Propuesto*		**Net Changes (for permit modification or technical revision)** *Cambio Neto de Emisiones (para modificación de permiso o revisión técnica)*	
	pounds per hour *libras por hora*	tons per year *toneladas por año*	pounds per hour *libras por hora*	tons per year *toneladas por año*
CO	12.75	53.72	N/A	N/A
NOx	23.43	93.03	N/A	N/A
VOC	1.27	5.21	N/A	N/A
SO2	0.30	1.21	N/A	N/A
PM10	18.42	72.04	N/A	+1.01
PM2.5	6.01	24.93	N/A	+0.11
HAP	N/A	N/A	N/A	N/A

Questions or comments regarding this Notice of Intent should be directed to the Applicant. Contact information is provided with the Proposed Project Information on the first page of this notice. To check the status of an Air Quality Construction Permit application, call 311 and provide the Applicant's information, or visit www.cabq.gov/airquality/air-quality-permits.

The Air Quality Program will issue a Public Notice announcing a 30-day public comment period on the permit application for the proposed project when the application is deemed complete. The Air Quality Program does not process or issue notices on applications that are deemed incomplete. More information about the air quality permitting process is attached to this notice.

Air Quality Construction Permitting Overview

This is the typical process to obtain an Air Quality Construction Permit for Synthetic Minor and Minor sources of air pollution from the Albuquerque – Bernalillo County Joint Air Quality Program.

Step 1: Pre-application Meeting: The Applicant and their consultant must request a meeting with the Air Quality Program to discuss the proposed action. If air dispersion modeling is required, Air Quality Program staff discuss the modeling protocol with the Applicant to ensure that all proposed emissions are considered.

> **Notice of Intent from the Applicant:** Before submitting their application, the Applicant is required to notify all nearby neighborhood associations and interested parties that they intend to apply for an air quality permit or modify an existing permit. The Applicant is also required to post a notice sign at the facility location.

Step 2: Administrative Completeness Review and Preliminary Technical Review: The Air Quality Program has 30 days from the day the permit is received to review the permit application to be sure that it is administratively complete. This means that all application forms must be signed and filled out properly, and that all relevant technical information needed to evaluate any proposed impacts is included. If the application is not complete, the permit reviewer will return the application and request more information from the Applicant. Applicants have three opportunities to submit an administratively complete application with all relevant technical information.

> **Public Notice from the Department:** When the application is deemed complete, the Department will issue a Public Notice announcing a 30-day public comment period on the permit application. This notice is distributed to the same nearby neighborhood associations and interested parties that the Applicant sent notices to, and published on the Air Quality Program's website.
>
> During this 30-day comment period, individuals have the opportunity to submit written comments expressing their concerns or support for the proposed project, and/or to request a Public Information Hearing. If approved by the Environmental Health Department Director, Public Information Hearings are held after the technical analysis is complete and the permit has been drafted.

Step 3: Technical Analysis and Draft Permit: Air Quality Program staff review all elements of the proposed operation related to air quality, and review outputs from advanced air dispersion modeling software that considers existing emission levels in the area surrounding the proposed project, emission levels from the proposed project, and meteorological data. The total calculated level of emissions is compared to state and federal air quality standards and informs the decision on whether to approve or deny the Applicant's permit.

Draft Permit: The permit will establish emission limits, standards, monitoring, recordkeeping, and reporting requirements. The draft permit undergoes an internal peer review process to determine if the emissions were properly evaluated, permit limits are appropriate and enforceable, and the permit is clear, concise, and consistent.

> **Public Notice from the Department:** When the technical analysis is complete and the permit has been drafted, the Department will issue a second Public Notice announcing a 30-day public comment period on the technical analysis and draft permit. This second Public Notice, along with the technical analysis documentation and draft permit, will be published on the Air Quality Program's website, and the public notice for availability of the technical analysis and draft permit will only be directly sent to those who requested further information during the first comment period.

During this second 30-day comment period, residents have another opportunity to submit written comments expressing their concerns or support for the proposed project, and/or to request a Public Information Hearing.

Possible Public Information Hearing: The Environmental Health Department Director may decide to hold a Public Information Hearing for a permit application if there is significant public interest and a significant air quality issue. If a Public Information Hearing is held, it will occur after the technical analysis is complete and the permit has been drafted.

Step 4: Public Comment Evaluation and Response: The Air Quality Program evaluates all public comments received during the two 30-day public comment periods and Public Information Hearing, if held, and updates the technical analysis and draft permit as appropriate. The Air Quality Program prepares a response document to address the public comments received, and when a final decision is made on the permit application, the comment response document is published on the Air Quality Program's website and distributed to the individuals who participated in the permit process. If no comments are received, a response document is not prepared.

Step 5: Final Decision on the Application: After public comments are addressed and the final technical review is completed, the Environmental Health Department makes a final decision on the application. If the permit application meets all applicable requirements set forth by the New Mexico Air Quality Control Act and the federal Clean Air Act, the permit is approved. If the permit application does not meet all applicable requirements, it is denied.

Notifications of the final decision on the permit application and the availability of the comment response document is published on the Air Quality Program's website and distributed to the individuals who participated in the permit process.

The Department must approve a permit application if the proposed action will meet all applicable requirements and if it demonstrates that it will not result in an exceedance of ambient air quality standards. Permit writers are very careful to ensure that estimated emissions have been appropriately identified or quantified and that the emission data used are acceptable.

The Department must deny a permit application if it is deemed incomplete three times, if the proposed action will not meet applicable requirements, if estimated emissions have not been appropriately identified or quantified, or if the emission data are not acceptable for technical reasons.

For more information about air quality permitting, visit www.cabq.gov/airquality/air-quality-permits

Mike Celente

From: Mike Celente
Sent: Thursday, February 16, 2023 11:13 PM
To: anvanews@aol.com; mgriffee@noreste.org; reynolds@unm.edu; sect.dist4@gmail.com; peggynorton@yahoo.com; newmexmba@aol.com; nvcabq@gmail.com; jamessouter@msn.com; tuscanylandscape@me.com; vistadelnorte@me.com
Subject: Public Notice of Proposed Air Quality Construction Permit Application - American Gypsum Company, LLC - Albuquerque Plant Permit Modification (#0752-M3)
Attachments: American_Gypsum_Notice_of_Intent_to_Construct 2023 0216.pdf

Dear Neighborhood Association/Coalition Representative(s),

Why did I receive this public notice?
You are receiving this notice in accordance with New Mexico Administrative Code (NMAC) 20.11.41.13.B(1) which requires any applicant seeking an Air Quality Construction Permit pursuant to 20.11.41 NMAC to provide public notice by certified mail or electronic mail to the designated representative(s) of the recognized neighborhood associations and recognized coalitions that are within one-half mile of the exterior boundaries of the property on which the source is or is proposed to be located.

What is the Air Quality Permit application review process?
The City of Albuquerque, Environmental Health Department, Air Quality Program (Program) is responsible for the review and issuance of Air Quality Permits for any stationary source of air contaminants within Bernalillo County. Once the application is received, the Program reviews each application and rules it either complete or incomplete. Complete applications will then go through a 30-day public comment period. Within 90 days after the Program has ruled the application complete, the Program shall issue the permit, issue the permit subject to conditions, or deny the requested permit or permit modification. The Program shall hold a Public Information Hearing pursuant to 20.11.41.15 NMAC if the Director determines there is significant public interest and a significant air quality issue is involved.

What do I need to know about this proposed application?

Applicant Name	American Gypsum Company, LLC
Site or Facility Name	Albuquerque Plant
Site or Facility Address	4600 Paseo Del Norte, Albuquerque, NM 87109
New or Existing Source	EXISTING
Anticipated Date of Application Submittal	FEBRUARY 17, 2023
Summary of Proposed Source to Be Permitted	In this permit modification, AMG is seeking a modification to their existing permit (#752-M3) associated with the facility. The annual process rates for existing Units 12a and 12b will each increase from 39,600 tpy to 919,800 tpy for Unit 12a and 39,600 tpy to 963,600 tpy for Unit 12b. All other sources will remain unchanged. Emissions from all units are provided with this application to accurately capture total emissions at the facility.

What emission limits and operating schedule are being requested?
See attached Notice of Intent to Construct form for this information.

How do I get additional information regarding this proposed application?
For inquiries regarding the proposed source, contact:
- Carey Slater
- Carey.Slater@americangypsum.com
- (505) 346-2142

For inquiries regarding the air quality permitting process, contact:
- City of Albuquerque Environmental Health Department Air Quality Program
- aqd@cabq.gov
- (505) 768-1972

Michael Celente, M.S.
Managing Consultant

P 505.266.6611
9400 Holly Ave NE, Building 3, Suite B | Albuquerque, NM 87122
Email: mcelente@trinityconsultants.com

Connect with us: LinkedIn / Facebook / Twitter / YouTube / trinityconsultants.com

Stay current on environmental issues. Subscribe today to receive Trinity's free *EHS Quarterly*.

City of Albuquerque

Environmental Health Department
Air Quality Program

Public Notice Sign Guidelines

Any person seeking a permit under 20.11.41 NMAC, Authority-to-Construct Permits, shall do so by filing a written application with the Department. *Prior to submitting an application, the applicant shall post and maintain a weather-proof sign provided by the department. The applicant shall keep the sign posted until the department takes final action on the permit application; if an applicant can establish to the department's satisfaction that the applicant is prohibited by law from posting, at either location required, the department may waive the posting requirement and may impose different notification requirements.* **A copy of this form must be submitted with your application.**

Applications that are ruled incomplete because of missing information will delay any determination or the issuance of the permit. The Department reserves the right to request additional relevant information prior to ruling the application complete in accordance with 20.11.41 NMAC.

Name: Albuquerque Plant_____
Contact: _Carey Slater (505) 342-2142___
Company/Business: _American Gypsum Company, LLC_____

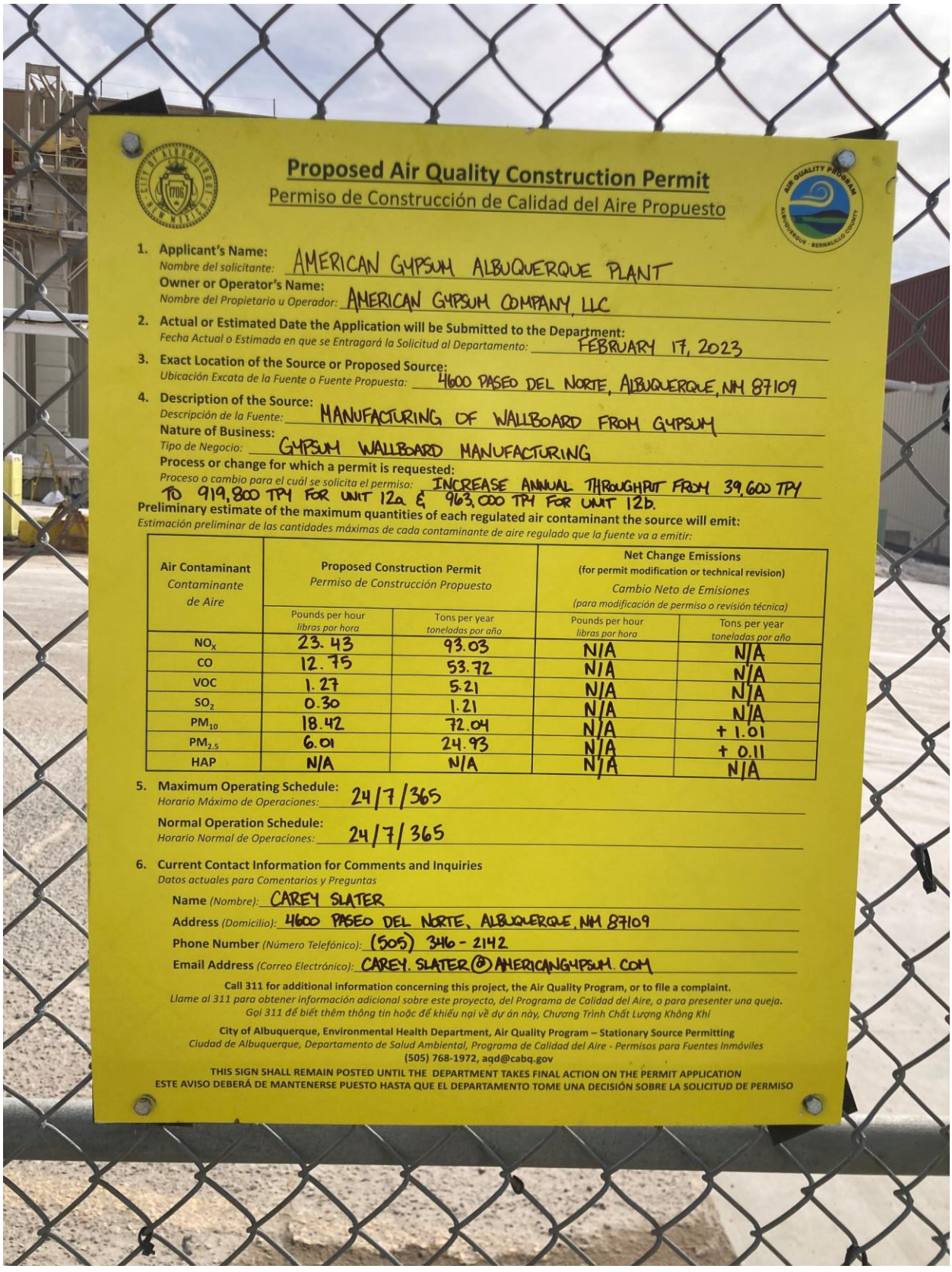
☐ ☑ The sign must be posted at the more visible of either the proposed or existing facility entrance (or, if approved in advance and in writing by the department, at another location on the property that is accessible to the public)

- ☐ ☑ The sign shall be installed and maintained in a condition such that members of the public can easily view, access, and read the sign at all times.
- ☐ ☑ The lower edge of the sign board should be mounted a minimum of 2' above the existing ground surface to facilitate ease of viewing

☐ ☑ Attach a picture of the completed, properly posted sign to this document

☐ ☐ **Check here if the department has waived the sign posting requirement.**
Alternative public notice details:

Ver. 11/13



Proposed Air Quality Construction Permit

Permiso de Construcción de Calidad del Aire Propuesto

1. **Applicant's Name:**
   Nombre del solicitante: AMERICAN GYPSUM ALBUQUERQUE PLANT
   Owner or Operator's Name:
   Nombre del Propietario u Operador: AMERICAN GYPSUM COMPANY, LLC
2. **Actual or Estimated Date the Application will be Submitted to the Department:**
   Fecha Actual o Estimada en que se Entragará la Solicitud al Departamento: FEBRUARY 17, 2023
3. **Exact Location of the Source or Proposed Source:**
   Ubicación Excata de la Fuente o Fuente Propuesta: 4600 PASEO DEL NORTE, ALBUQUERQUE, NM 87109
4. **Description of the Source:**
   Descripción de la Fuente: MANUFACTURING OF WALLBOARD FROM GYPSUM
   Nature of Business:
   Tipo de Negocio: GYPSUM WALLBOARD MANUFACTURING
   Process or change for which a permit is requested:
   Proceso o cambio para el cuál se solicita el permiso: INCREASE ANNUAL THROUGHPUT FROM 39,600 TPY TO 919,800 TPY FOR UNIT 12a & 963,000 TPY FOR UNIT 12b.

Preliminary estimate of the maximum quantities of each regulated air contaminant the source will emit:
Estimación preliminar de las cantidades máximas de cada contaminante de aire regulado que la fuente va a emitir:

Air Contaminant *Contaminante de Aire*	Proposed Construction Permit *Permiso de Construcción Propuesto*		Net Change Emissions (for permit modification or technical revision) *Cambio Neto de Emisiones (para modificación de permiso o revisión técnica)*	
	Pounds per hour *libras por hora*	Tons per year *toneladas por año*	Pounds per hour *libras por hora*	Tons per year *toneladas por año*
NO_x	23.43	93.03	N/A	N/A
CO	12.75	53.72	N/A	N/A
VOC	1.27	5.21	N/A	N/A
SO_2	0.30	1.21	N/A	N/A
PM_{10}	18.42	72.04	N/A	+ 1.01
$PM_{2.5}$	6.01	24.93	N/A	+ 0.11
HAP	N/A	N/A	N/A	N/A

5. **Maximum Operating Schedule:**
   Horario Máximo de Operaciones: 24/7/365
   Normal Operation Schedule:
   Horario Normal de Operaciones: 24/7/365
6. **Current Contact Information for Comments and Inquiries**
   Datos actuales para Comentarios y Preguntas
   Name *(Nombre):* CAREY SLATER
   Address *(Domicilio):* 4600 PASEO DEL NORTE, ALBUQUERQUE, NM 87109
   Phone Number *(Número Telefónico):* (505) 346-2142
   Email Address *(Correo Electrónico):* CAREY.SLATER@AMERICANGYPSUM.COM

Call 311 for additional information concerning this project, the Air Quality Program, or to file a complaint.
Llame al 311 para obtener información adicional sobre este proyecto, del Programa de Calidad del Aire, o para presenter una queja.
Gọi 311 để biết thêm thông tin hoặc để khiếu nại về dự án này, Chương Trình Chất Lượng Không Khí

City of Albuquerque, Environmental Health Department, Air Quality Program – Stationary Source Permitting
Ciudad de Albuquerque, Departamento de Salud Ambiental, Programa de Calidad del Aire - Permisos para Fuentes Inmóviles
(505) 768-1972, aqd@cabq.gov

THIS SIGN SHALL REMAIN POSTED UNTIL THE DEPARTMENT TAKES FINAL ACTION ON THE PERMIT APPLICATION
ESTE AVISO DEBERÁ DE MANTENERSE PUESTO HASTA QUE EL DEPARTAMENTO TOME UNA DECISIÓN SOBRE LA SOLICITUD DE PERMISO


CE
URS: 7-3
OURS
RIES MUST CHECK IN
URS
BEYOND THIS POINT
NOTICE
NO FIREARMS OR WEAPONS ALLOWED ON THIS PROPERTY

APPENDIX D. FACILITY LOCATION AND AERIAL PHOTOGRAPH

Appendix Figure D-1: Facility Location

Appendix Figure D-2: Aerial Photographs of Process Locations


Alameda Blvd NW
528
Alameda Blvd NE
Corona Ave NE
Paseo Del Norte Blvd NE
El Pueblo Rd NE
423
North Valley
Las Lomitas Dr NE
American Gypsum Albuquerque Plant
Tiburon St NE
San Antonio Dr NE
25
47
Burlison Dr NE
McKinney Dr NE
Chappell Rd NE
Jefferson St NE
Montano Rd NE
Alexander Blvd NE
Montgomery
Ruler
Line
Path
Polygon
Circle
3D path
3D polygon
Measure the circumference or area of a circle on the ground
Radius:
3.00
Kilometers
Area:
28,386,332.00
Square Meters
Circumference:
18.89 Kilometers
Mouse Navigation
Save
Clear

Point Sources 1

Location of point source stacks

Point Sources 2

Location of point source stacks

Stockpile (12a)

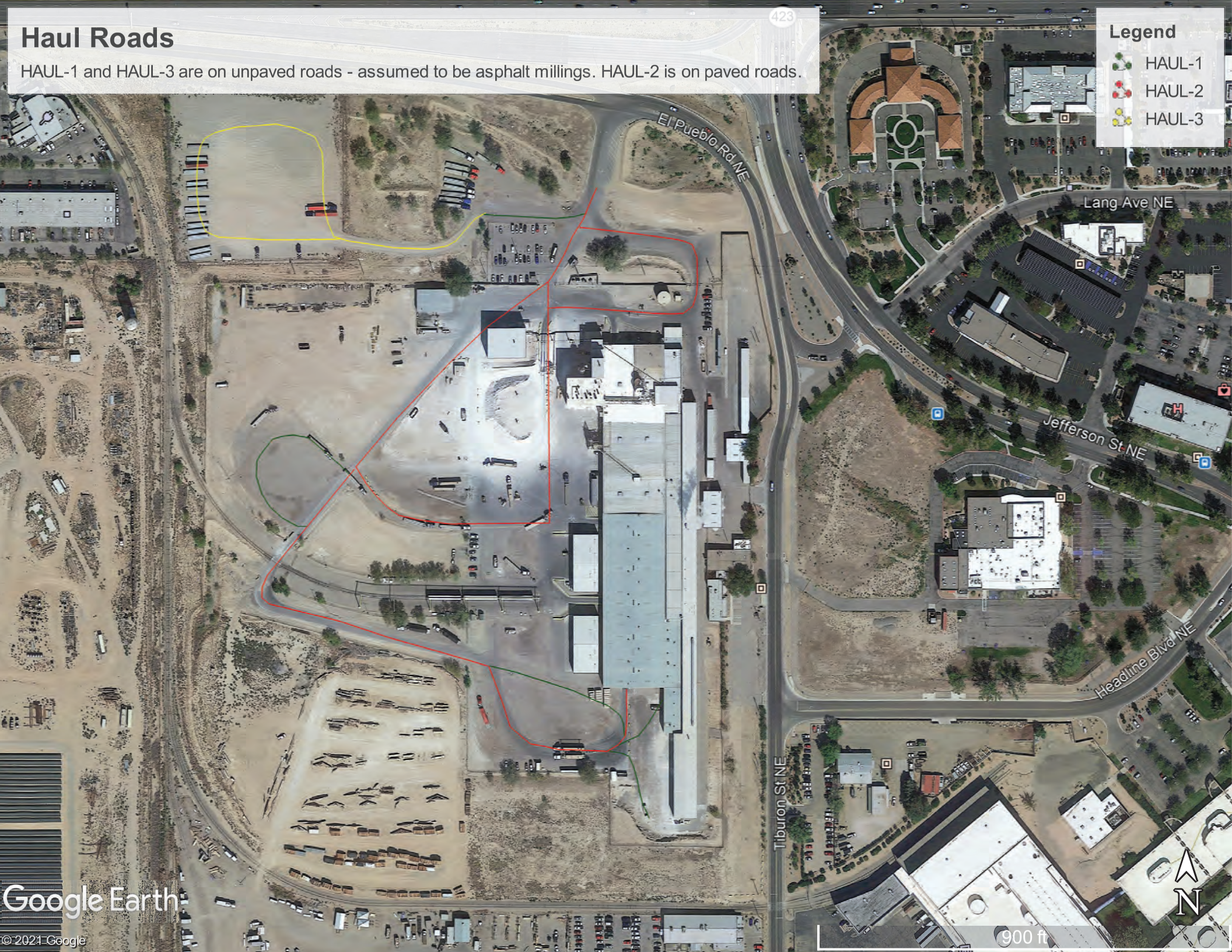
Proposed stockpile actual size vs. area of stockpile disturbed in 1 hour (to be included in model as area source)

Volume Sources

Location of volume sources

Haul Roads

HAUL-1 and HAUL-3 are on unpaved roads - assumed to be asphalt millings. HAUL-2 is on paved roads.



APPENDIX E. ZONING REQUIREMENTS

Per the attached email received from the EHD on February 11, 2023, American Gypsum is concurrently seeking a zoning certification for the Albuquerque Plant. The certification will be provided to the EHD upon receipt.

City of Albuquerque
Environmental Health Department
Air Quality Program

Construction Permit (20.11.41 NMAC)
Zoning Requirement Cover Letter

This Cover Letter Must Be Returned With The Application Along With All Required Attachments

The Albuquerque-Bernalillo County Joint Air Quality Program, which administers and enforces local air quality laws for the City of Albuquerque ("City") and Bernalillo County ("County"), on behalf of the City Environmental Health Department ("Department").

Any person seeking a new air quality permit or a permit modification under 20.11.41 NMAC (Construction Permits) shall provide documentary proof that the proposed air quality permitted use of the facility's subject property is allowed by the zoning designation of the City or County zoning laws, as applicable. Sufficient documentation may include (i) a zoning certification from the City Planning Department or County Department of Planning and Development Services, as applicable, if the applicant is subject to City or County zoning jurisdiction; or (ii) a zoning verification from both planning departments if the applicant is not subject to City or County zoning jurisdiction. A zone atlas map shall not be sufficient. At this time, applicants are not required to submit documentation for the subject property's zoning designation when applying for an emergency permit, a new portable stationary source, a relocation of a portable stationary source, or a technical or administrative revision to an existing permit.

The Department will rule an application administratively incomplete if it is missing or has incorrect information. If the Department has ruled an application administratively incomplete three (3) times, the Department will deny the permit application. Any fees submitted for processing an application that has been denied will not be refunded. If the Department denies an application, a person may submit a new application and the fee required for a new application. The applicant has the burden of demonstrating that a permit should be issued.

The Department may require additional information that is necessary to make a thorough review of an application. At all times before the Department has made a final decision regarding the application, an applicant has a duty to promptly supplement and correct information the applicant has submitted in an application to the Department. The applicant's duty to supplement and correct the application includes, but is not limited to, relevant information acquired after the applicant has submitted the application and additional information the applicant otherwise determines is relevant to the application and the Department's review and decision. While the Department is processing an application, regardless of whether the Department has determined the application is administratively complete, if the Department determines that additional information is necessary to evaluate or make a final decision regarding the application, the Department may request additional information and the applicant shall provide the requested additional information.

NOTICE REGARDING SCOPE OF A PERMIT: The Department's issuance of an air quality permit only authorizes the use of the specified equipment pursuant to the air quality control laws, regulations and conditions. Permits relate to air quality control only and are issued for the sole purpose of regulating the emission of air contaminants from said equipment. Air quality permits are not a general authorization for the location, construction and/or operation of a facility, nor does a permit authorize any particular land use or other form of land entitlement. It is the applicant's/permittee's responsibility to obtain all other necessary permits from the appropriate agencies, such as the City Planning Department or County Department of Planning and Development Services, including but not limited to site plan approvals, building permits, fire department approvals and the like, as may be required by law for the location, construction and/or operation of a facility. For more information, please visit the City Planning Department website at https://www.cabq.gov/planning and the County Department of Planning and Development Services website at https://www.bernco.gov/planning.

Corporate and Facility Information: This information shall match the information in the permit application**.**

Air Quality Permit Applicant Company Name: **American Gypsum Company LLC**			
Facility Name: **Albuquerque Plant**			
Facility Physical Address: **4600 Paseo Del Norte**	City: **Albuquerque**	State: **NM**	Zip: **87109**
Facility Legal Description: **TR OF LAND IN E1/2 NW1/4 & W1/2 NE1/4 SEC 23 T11N R3E (EXCLPORT OUT TO R/W) CONT 43.3900**			

General Operation Information: This information shall match the information in the permit application.

Permitting action being requested (please refer to the definitions in 20.11.41 NMAC): ☐
New Permit ☒ Permit Modification, Current Permit #: **#0752-M3-1TR**

Attachment Information: The location information provided to the City Planning Department or County Department of Planning and Development Services, as applicable, and reflected in the zoning certification or verifications, as applicable, shall be the same as the Facility location information provided to the Department in the air quality construction permit application.

☒ Zoning Certification Provided by: Choose an item. *This is a use-specific certification.* **City Planning Form**: https://www.cabq.gov/planning/code-enforcement-zoning **County Planning Form**: https://www.bernco.gov/planning/planning-and-land-use/applications-forms/	☐ City Zoning Verification ☐ County Zoning Verification **City Planning Form**: https://www.cabq.gov/planning/code-enforcement-zoning **County Planning Form**: https://www.bernco.gov/planning/planning-and-land-use/applications-forms/

Mike Celente

From: Lopez, Angela <angelalopez@cabq.gov>
Sent: Saturday, February 11, 2023 12:32 PM
To: Mike Celente; Adam Erenstein; Jaimy Karacaoglu
Cc: Albrecht, Christopher P.; Georgitsis, Barbara A.; McKinstry, Michael W.
Subject: Re: Construction Permit Zoning Requirements

Hello Mike,

Thank you for reminding me of our previous decision on the zoning verification for American Gypsum. Please submit the zoning verification for American Gypsum and this can be done concurrently to prevent a delay in the submittal of American Gypsum permit modification application.

Angela Lopez

From: Mike Celente <MCelente@trinityconsultants.com>
Sent: Saturday, February 11, 2023 11:41 AM
To: Lopez, Angela; Adam Erenstein; Jaimy Karacaoglu
Cc: Albrecht, Christopher P.; Georgitsis, Barbara A.; McKinstry, Michael W.
Subject: RE: Construction Permit Zoning Requirements

[EXTERNAL] Forward to phishing@cabq.gov and delete if an email causes any concern.

Hi Angela,

Thanks for the update. I see that your email states "from now on". American Gypsum has not completed the zoning verification per your attached email, and we are planning on submitting this week. Does this mean that a zoning verification is now required, or does this requirement only apply to future applications from this point?

If zoning is now required for this facility, can that process run concurrently to application review? Thanks!

Best,
Mike

Michael Celente, M.S.
Managing Consultant

P 505.266.6611
9400 Holly Ave NE, Building 3, Suite B | Albuquerque, NM 87122
Email: mcelente@trinityconsultants.com

Connect with us: LinkedIn / Facebook / Twitter / YouTube / trinityconsultants.com

Stay current on environmental issues. Subscribe today to receive Trinity's free *EHS Quarterly*.

From: Lopez, Angela <angelalopez@cabq.gov>
Sent: Friday, February 10, 2023 4:50 PM
To: Adam Erenstein <AErenstein@trinityconsultants.com>; Mike Celente <MCelente@trinityconsultants.com>; Jaimy Karacaoglu <Jaimy.Karacaoglu@trinityconsultants.com>
Cc: Albrecht, Christopher P. <CAlbrecht@cabq.gov>; Georgitsis, Barbara A. <bgeorgitsis@cabq.gov>; McKinstry, Michael W. <mmckinstry@cabq.gov>
Subject: Construction Permit Zoning Requirements

Hello,

First, I apologize to you and your clients for the recent case-by-case determinations regarding the zoning requirement for existing permitted sources. From now on, there will no longer be any case-by-case determinations for existing permitted sources. As do all new sources, existing sources must follow the zoning requirement and obtain zoning verification/certification.

Currently, the only sources that are immune or not applicable to the zoning requirement are the University of New Mexico (UNM), the University of New Mexico Hospital (UNMH), the Department of Energy (DOE), and Kirtland Air Force Base (KAFB). So basically, all state and federal properties are immune or not applicable to the zoning requirement.

If you have any questions, please don't hesitate to contact me.

Sincerely,

ANGELA LOPEZ
senior environmental health scientist | environmental health department
small business assistance program
o 505.768.1962
cabq.gov/environmentalhealth/

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CITY OF ALBUQUERQUE PLANNING DEPARTMENT
CODE ENFORCEMENT DIVISION

REQUEST FOR ZONAL CERTIFICATION

A zoning certification letter is written confirmation provided by the City of Albuquerque referencing the zoning designation of a particular piece of property, listing certain compliance information, and whether or not the existing development on the property is considered a permitted use.

A completed certification letter includes the assigned address, legal description and zoning designation of the subject site; if applicable, reference to the overlay district, sector plan, development plan, project number and/or pertinent special exceptions(variance, conditional use approvals, etc.), and either a statement confirming zoning compliance or a brief description of any outstanding zoning code violations affecting the site.

A certification letter does not include reference to the zoning designations of abutting or nearby properties; copies of site plans, special exceptions, certificates of occupancy, or other approvals; or reference to building codes, fire codes, subdivision requirements, flood plain standards or similar development prerequisites.

There is a $200 fee plus a 2% Technolgy Fee for each separate parcel, even if the property includes multiple contiguous parcels held in single ownership. A minimum processing period of thirty (30) business days from receipt of the completed application and full payment can be expected; but depending upon the related research, necessary site inspections, and similar service demands, some certification letters may take up to 45 business days to complete.

Please return this completed application form and related fee by mail or in person to:
City of Albuquerque – Code Enforcement Division, 600 2nd St. NW, Suite 500, Albuquerque, New Mexico 87102

APPLICATION FOR ZONAL CERTIFICATION

PROPERTY TO BE CERTIFIED

ADDRESS: 4600 Paseo Del Norte NE Albuquerque NM, 87109

LOT(S)*: A BLOCK: 0000

SUBDIVISION: American Gypsum Company

UNIFORM PROPERTY CODE*: 101706325338020199

There is a $165 research/administration fee, $35 application fee and a 2% Technology Fee ($204 total) for each separate parcel included in the property, even if there are multiple parcels held in single ownership and/or assigned the same UPC number.

APPLICANT

NAME: Carey Slater

COMPANY / ORG.: American Gypsum Company, LLC

ADDRESS: 4600 Paseo Del Norte, Albuquerque, NM 87109

PHONE: (505) 346-2142 EMAIL: Carey.Slater@americangypsum.com

LETTER SHOULD BE ADDRESSED TO: ■ SAME AS APPLICANT

NAME:

COMPANY/ORG.:

ADDRESS:

PHONE: EMAIL:

(continued on next page)

CITY OF ALBUQUERQUE PLANNING DEPARTMENT
CODE ENFORCEMENT DIVISION

APPLICATION FOR ZONAL CERTIFICATION

GENERAL PROPERTY INFORMATION

PROPERTY TYPE (retail, multi-family residential, office, etc.): Non-Residential General Manufacturing (NR-GM)

SITE AREA (acres or sq. ft.): 43.39 APPROX. AGE(S) OF EXISTING DEVELOPMENT: 64

TOTAL NUMBER OF BUILDINGS: 18 Including All Structures

USE FOR EACH BUILDING (e.g., 5 multi-family, 1 office, 2 laundry, 1 garage, etc.): All 14 are Non-Residential General Manufacturing Additional structures are also NR-GM

FOR MULTI-FAMILY RESIDENTIAL DEVELOPMENT: N/A total number of units N/A total number of baths

_____ efficiency units

_____ 1 bedroom units

_____ 2 bedroom units

_____ 3 or more bedroom units

NUMBER OF STORIES (note if basements are present): Up to 10 Stories in Some Structures

GROSS FLOOR AREA (if multiple buildings, list for each): Refer to Attached Site Plan (Drawing #1576-CC-121). Total Square footage is over 215,000 SF

TOTAL NUMBER OF SIGNS (both free-standing and building-mounted): 1

TOTAL NUMBER OF PARKING SPACES: 68

61 standard spaces

5 handicap accessible spaces

2 motorcycle spaces

I HEREBY AUTHORIZE CITY CODE ENFORCEMENT STAFF TO INSPECT THE SUBJECT PROPERTY FOR THE PURPOSE OF DETERMINING THE STATUS OF THE EXISTING USE AND RELATED ZONING REQUIREMENTS. FURTHER, I UNDERSTAND THAT ANY AND ALL VIOLATIONS NOTED AS A RESULT OF THIS INSPECTION ARE SUBJECT TO IMMEDIATE CORRECTION.

BY: _____ DATE: 2/17/2023
OWNER / AGENT SIGNATURE

OFFICIAL USE ONLY

ACCEPTED BY: _____ DATE: _____

ZONE: _____ ZAP: _____ ASSIGNED TO: _____

Technology Fee 2%

Fee: 441008 - 4919000 $200

Tech Fee: 445048 - 4910000 $ 4

Total: $204

*Applications are not processed until all fees have been paid.

THIS DOCUMENT CONTAINS PROPRIETARY INFORMATION BELONGING TO INDUSTRIAL ALLY, ITS AFFILIATED COMPANIES, AND THEIR CLIENTS AND SHALL BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS SUPPLIED. IT SHALL NOT BE COPIED, REPRODUCED, OR OTHERWISE USED NOR SHALL SUCH INFORMATION BE FURNISHED IN WHOLE OR IN PART TO OTHERS. EXCEPT IN ACCORDANCE WITH THE TERMS OF ANY AGREEMENT UNDER WHICH IT WAS SUPPLIED OR WITH THE PRIOR WRITTEN CONSENT OF THE COMPANY, AND SHALL BE RETURNED UPON REQUEST.

SITE DATA

LEGAL DESCRIPTION

LOT 'A' LAND OF AMERICAN GYPSUM COMPANY

AREA

1,949,631 SF / 44.5739 ACRES PER JULY 2014 BOUNDARY SURVEY
1,890,068.4 SF / 43.39 ACRES PER ABQ GIS
APPROX 28 ACRES REMAIN UNDEVELOPED
EXISTING STRUCTURES ON SITE OCCUPY 218,556 SF
TOTAL STRUCTURE AREA PROPOSED 233,696 SF
350,504 SF OF EXISTING ASPHALT PAVING

ZONING

ZONED "IP" PER 1987 ANNEXATION AGREEMENT

USE

MANUFACTURING, DISTRIBUTION, AND WAREHOUSING OF GYPSUM PRODUCTS

PROPOSED STRUCTURES

15,140 SF GYPSUM RECEIVING, HANDLING, AND MILL OPERATIONS

PARKING CRITERIA

GROSS FLOOR AREA	= 233,696 SF
HEAVY MANUFACTURING REQUIREMENT	= 1 SPACE / 5,000 SF
TOTAL REQUIRED	= 47 SPACES
TOTAL PROVIDED	= 68 SPACES

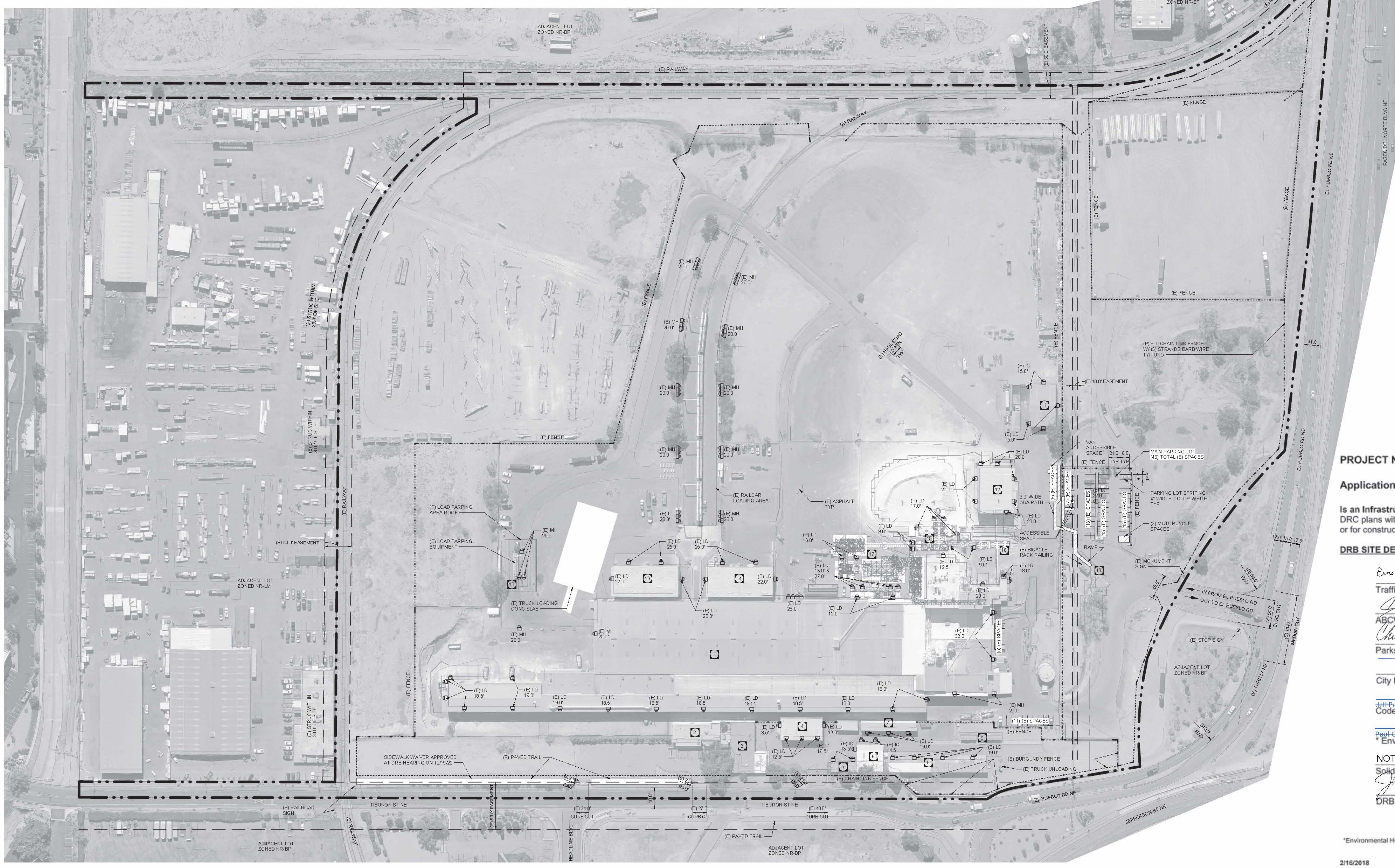
INCLUDES (4) ACCESSIBLE SPACES
INCLUDES (1) VAN ACCESSIBLE SPACE

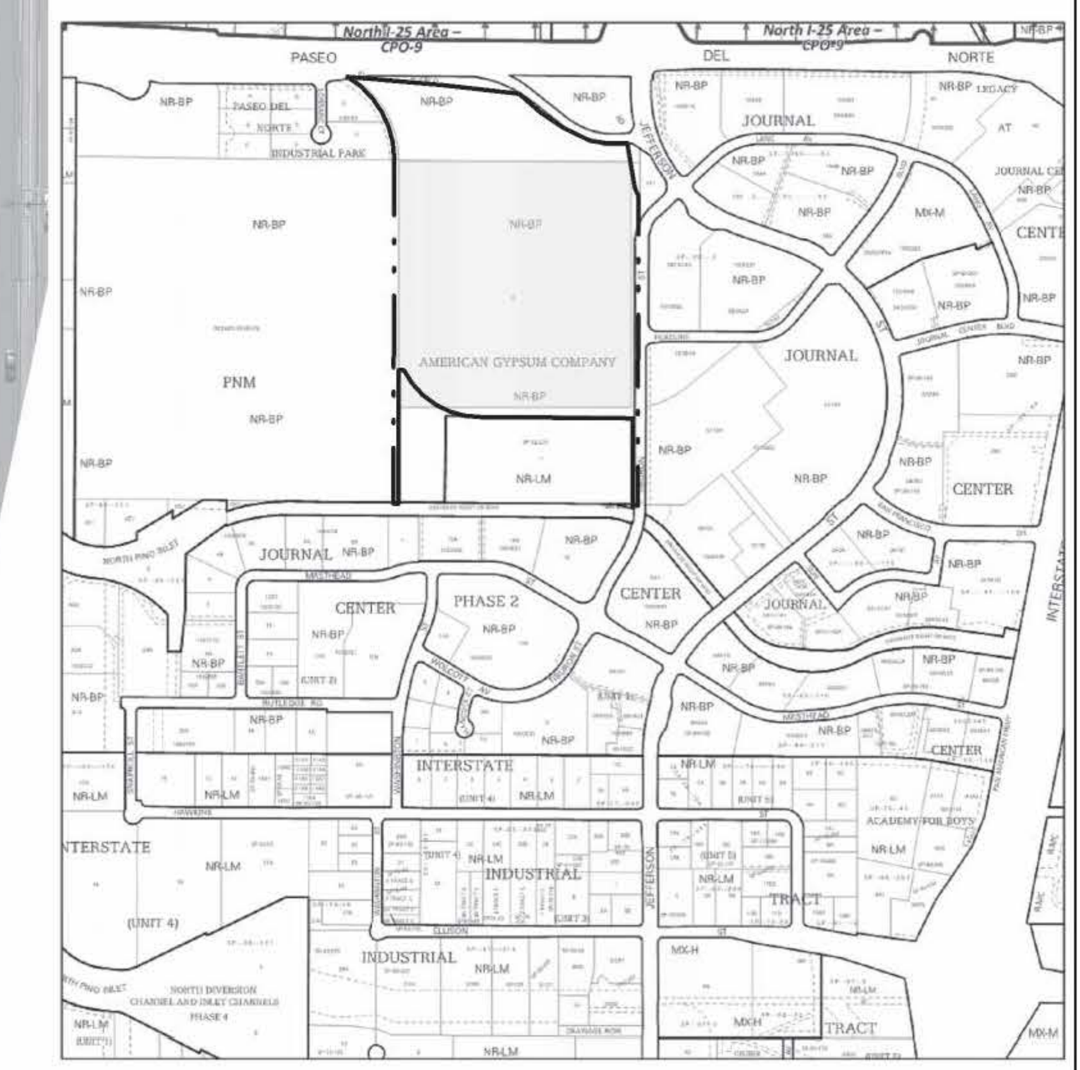
MOTORCYCLE PARKING REQUIRED AND PROVIDED = 2 SPACES

BICYCLE RACK RAILING @ GUARDSHACK FOR 20-30 SPACES

STRUCTURES

No.	Structure	No.	Structure
1	(E) MAIN BUILDING DRYWALL MANUFACTURING, OFFICES, & WAREHOUSE 175,786 SF	10	(E) GUARD SHACK 220 SF
2	(E) OFFICE BUILDING 3,433 SF	11	(E) MAINTENANCE SHOP 3,880 SF
3	(E) OFFICE BUILDING 4,343 SF	12	(E) MANUFACTURING BUILDING 5,670 SF
4	(E) WAREHOUSE 3,200 SF	13	(E) OPEN STORAGE SHED 7,000 SF
5	(E) OPEN STORAGE SHED 675 SF	14	(E) OPEN STORAGE SHED 7,000 SF
6	(E) OPEN STORAGE SHED 2,067 SF	15	(P) GYPSUM RECEIVING EQUIPMENT & STRUC 2,860 SF
7	(E) OPEN STORAGE SHED 1,455 SF	16	(P) GYPSUM HANDLING EQUIPMENT & STRUC 820 SF
8	(E) OPEN STORAGE SHED 3,423 SF	17	(P) MILL OPERATIONS EQUIPMENT & STRUC 11,460 SF
9	(E) OPEN STORAGE SHED 404 SF	18	(P) LOAD TARPING AREA ROOF 6,000 SF





VICINITY MAP

NTS

PROJECT NUMBER: PR-2022-006939

Application Number: SI-2022-01744, VA-2022-00271

Is an Infrastructure List required? ( ) Yes ( ) No If yes, then a set of approved DRC plans with a work order is required for any construction within Public Right-of-Way or for construction of public improvements.

DRB SITE DEVELOPMENT PLAN APPROVAL:

Signature	Date
Ernest Armijo — Traffic Engineering, Transportation Division	Jan 11, 2023
[signature] — ABCWUA	Jan 11, 2023
[signature] — Parks and Recreation Department	Jan 12, 2023
[signature] — City Engineer/Hydrology	Jan 11, 2023
Jeff Palmer (Jan 10, 2023 18:59 MST) — Code Enforcement	Jan 10, 2023
Paul Olson (Jan 12, 2023 08:33 MST) — * Environmental Health Department (conditional)	Jan 12, 2023
NOT REQUIRED — Solid Waste Management	Date
[signature] — DRB Chairperson, Planning Department	Jan 13, 2023

*Environmental Health, if necessary

2/16/2018

SITE DEVELOPMENT PLAN

N

1" = 100'-0"

LEGEND

(E)	EXISTING	LD X.X'	LED LIGHTING HEIGHT ABOVE GRADE
(P)	PROPOSED	IC X.X'	INCANDESCENT LIGHTING HEIGHT ABOVE GRADE
	PROPERTY LINE	MH X.X'	METAL HALIDE LIGHTING HEIGHT ABOVE GRADE
	EASEMENT		
	FENCE		

AMERICAN GYPSUM IS REGULATED BY THE AIR QUALITY DIVISION AND THEY REVIEW AND APPROVE AIR QUALITY RELATED ISSUES UNDER THEIR REGULATORY PROCESS.

FOR PERMIT ONLY
NOT FOR CONSTRUCTION

NOTE: "THIS SEAL APPLIES ONLY TO THIS DOCUMENT. I DISCLAIM ANY RESPONSIBILITY FOR ALL OTHER DOCUMENTS OR INSTRUMENTS RELATING TO OR INTENDED TO BE USED FOR ANY PART OR PARTS OF THIS PROJECT OR ANY OTHER PROJECT."

DANA ALWINDAWY — NEW MEXICO — 26595 — PROFESSIONAL ENGINEER

Dana Alwindawy

DATE: 11/08/22
NAME: DANA ALWINDAWY
DISCIPLINE: STRUCTURAL
LICENSE NO: 26595

REV	DATE	DESCRIPTION	BY	CHK	APP
4	11/08/22	REVISED PER CITY COMMENTS	JJB	KL	KL
3	10/24/22	REVISED PER CITY COMMENTS	JJB	KL	KL
2	10/18/22	REVISED PER CITY COMMENTS	JJB	KL	KL
1	10/14/22	REVISED PER CITY COMMENTS	JJB	KL	KL
0	09/12/22	ISSUED FOR PERMIT	JJB	KL	KL

AMERICAN GYPSUM

AMERICAN GYPSUM
4600 Paseo Del Norte Blvd NE,
Albuquerque, NM 87113

DESIGNED: MCW	DATE: 06/15/22
DRAWN: APV	DATE: 06/15/22
CHECKED: MCW	DATE: 06/15/22
SMACC APPR: WEH	DATE: 08/04/21

Industrial Ally
Engineering and Construction Services
1422 Elbridge Payne Rd. Suite 120
Chesterfield, MO 63017

INDUSTRIAL ALLY PROJECT NUMBER: 1576

VERTICAL GRINDING / CALCINING MILL
OVERALL PLANT
CIVIL
SITE DEVELOPMENT PLAN

IA DRAWING NUMBER
1576-CC-121

CLIENT DRAWING NUMBER

REV. 4

DWG. SCALE: 1" = 100'-0"

11/7/2022 5:15:39 PM

DRAWING FORMAT: ARCH D - 24"x36"