

TECHNICAL SUPPORT DOCUMENT

TECHNICAL INFORMATION PRESENTED IN REVIEW OF AN
APPLICATION FOR A PART 70 OPERATING PERMIT RENEWAL

SUBMITTED BY

GEORGIA-PACIFIC GYPSUM LLC

for

GEORGIA-PACIFIC GYPSUM LLC

**Part 70 Operating Permit Number: 593
(Renewal)**

SIC Code - 3275: Gypsum Manufacturing



Clark County Department of Air Quality

November, 2015

I. EXECUTIVE SUMMARY

Georgia-Pacific Gypsum LLC is a gypsum wallboard and plaster manufacturing operation located twenty miles north of the City of Las Vegas, Nevada, along U.S. Highway 91, in Apex, Nevada, Hydrographic Area 216 (Apex Valley – Garnet Valley). Apex Valley (Garnet Valley) is designated as attainment area for PM₁₀, PM_{2.5}, CO, Ozone, and SO_x. The source is a major Part 70 source for CO and NO_x. Regulated air pollutants PM₁₀, PM_{2.5}, SO_x, and VOC are below the major source thresholds.

The source operates crushers, screens, calciners, aggregate dryers, impeller mills, mixers, storage bins, conveyors, and a board dryer to manufacture wallboard and two grades of plaster, designated as alpha and beta. All manufacturing and support processes at the site fall under SIC Code 3275: Gypsum Products and NAICS Code 327420: Gypsum Products Manufacturing.

The source is subject to 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants, 40 CFR 60, Subpart UUU – Standards of Performance for Calciners and Dryers in Mineral Industries, and 40 CFR 63, Subpart ZZZZ – National Emissions Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines. The potential emissions for the source are shown in Table 1:

Table 1: Source-Wide PTE (tons per year)

PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC	HAP	GHG
68.04	38.21	100.52	245.50	2.52	29.33	9.12	93,393.8

Clark County Department of Air Quality has been delegated authority to implement the requirement of the Part 70 operating permit program.

TABLE OF CONTENTS

- I. EXECUTIVE SUMMARY2**
- II. ACRONYMS4**
- III. SOURCE INFORMATION.....5**
 - A. General.....5
 - B. Description of Process.....5
 - C. Permitting History.....6
- Emission Information.....8**
 - A. Source-Wide Potential to Emit.....8
 - B. Control Technology.....8
 - C. Emission Units and PTE.....9
 - Net Emissions Increase.....17
 - D. Performance Testing.....18
 - E. Emissions Monitoring.....20
- V REGULATORY REVIEW23**
 - A. Local Regulatory Requirements23
 - B. Federally Applicable Regulations26
- IV. COMPLIANCE30**
 - A. Compliance Certification30
 - B. Compliance Summary31
 - C. Compliance Summary: Federal Air Quality Regulations33
 - D. Summary of Monitoring for Compliance.....34
- V. ADMINSTRATIVE REQUIREMENTS42**
- VI. PUBLIC PARTICIPATION43**
- VII. MODELING43**

II. ACRONYMS

Table II-1: List of Acronyms

Acronym	Term
Air Quality	Clark County Department of Air Quality
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct
BCC	Clark County Board of County Commissioners
CAM	Compliance Assurance Monitoring
CAO	Field Corrective Action Order
CE	Control Efficiency
CF	Control Factor
CFR	United States Code of Federal Regulations
CO	Carbon Monoxide
CPI	Urban Consumer Price Index
EF	Emission Factor
EPA	United States Environmental Protection Agency
EU	Emission Unit
g/dscm	Grams/dry standard cubic meter
gr/dscf	Grains/dry standard cubic foot
GHG	Green House Gases
HAP	Hazardous Air Pollutant
HP	Horse Power
MMcf	Million cubic feet
msf	Thousand square feet
NAC	Nevada Administrative Code
NAICS	North American Industry Classification System
NCA #1	Nevada Cogeneration Associates #1
NEI	Net Emission Increase
NO _x	Nitrogen Oxides
NOV	Notice of Violation
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standards
NSR	New Source Review
OP	Operating Permit
PEP	Potential to Emit Particulate
PM _{2.5}	Particulate Matter less than 2.5 microns
PM ₁₀	Particulate Matter less than 10 microns
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTE	Potential to Emit
scf	Standard Cubic Feet
SCC	Source Classification Codes
SIC	Standard Industrial Classification
SIP	State Implementation Plan
SO ₂	Sulfur Dioxide
TCS	Toxic Chemical Substance
TSD	Technical Support Document
VE	Visible Emissions
VMT	Vehicle Miles Traveled
VOC	Volatile Organic Compound
Δp	Pressure Differential

III. SOURCE INFORMATION

A. General

Permittee	Georgia-Pacific Gypsum LLC
Mailing Address	P.O Box 337350, Las Vegas, Nevada 89033
Contact	Craig Corey, Plant Manager
Phone Number	(702) 643-8100 X 321702
Fax Number	(702) 643-2049
Source Location	Twenty miles North of the City of Las Vegas, Nevada
Hydrographic Area	216
Township, Range, Section	T18S, R63E, Sections 34 & 35
SIC Code	3275 – Gypsum Products
NAICS Code	327420 – Gypsum Products Manufacturing

B. Description of Process

The major raw material for gypsum wallboard and plaster production is gypsum rock. The rock is mined off-site and trucked to the plant where it is stockpiled prior to being loaded into feed hoppers.

Wallboard Process Description:

A belt conveyor carries the raw gypsum rock from the feed hopper to the primary crusher. The crushed rock is then fed into the 200 ton rock bin. Material from the rock bin is then transferred to the secondary crusher.

From the secondary crusher, material is conveyed to five impact (IMP) mills that pulverize, dry, and calcine the gypsum rock into a stucco powder. The stucco is blended and transferred to storage bins. Stucco from the storage bins is blended and conveyed to the pin mixer. As it is conveyed, small amounts of various other raw materials are added such as sugar, boric acid, and chopped fiberglass. The combination and amounts of each additive vary with the type of board being produced. At the pin mixer, water and foaming agents are combined with the stucco to form a slurry mixture.

The slurry is sandwiched between continuous sheets of facing and backing material and solidifies while moving down the forming line. At the end of the forming line, the board is cut to length and the free water in the board is evaporated in a three-zone board dryer.

Two methods are used for supplying heat energy to the five calciners and board dryers. Under the primary scenario, heat for the board dryer is supplied by turbine exhaust gas from Nevada Cogeneration Associates #1 (NCA #1) turbine exhaust gas and natural gas combustion only as needed. Under the alternative scenario, the heat for the dryers and calciners is supplied by natural gas combustion. Upon exiting the dryer, the board is trimmed, packaged, and stored for subsequent transport and sale.

Plaster Process Description:

Gypsum plaster manufacturing uses the same raw materials as wallboard. The gypsum is fed into one of two different feed hoppers depending on the type of stucco to be produced. The first

type, referred as beta stucco, is a more conventional type of stucco. The second type, referred to as alpha stucco, is produced with different process equipment and has different qualities than conventional beta stucco.

Material fed into beta rock hoppers is screened and crushed before it is conveyed to storage bins. From there it is conveyed to one of two roller mills which grind the rock into a fine powder. Each roller mill has a natural gas fired burner that can be used to provide added heat for drying the gypsum, if necessary. The milled product is referred to as landplaster and it is conveyed to storage bins after milling. This material serves as feed to one of two kettles that have natural gas fired burners which are used to heat the fine gypsum indirectly in a batch and calcine process. The product is referred to as beta stucco, and it is conveyed to storage bins. This material can also be put in bulk tank trucks and sold as beta stucco. From the storage bins, beta stucco is screened and milled into a very fine powder and conveyed to one of six final product storage bins.

Material fed into the alpha rock hoppers is coarsely sized gypsum rock. This material is screened before it is conveyed to one of two storage bins. Alpha stucco is produced by calcining this material in a batch process using a high pressure direct steam autoclaves. Steam supply for the autoclaves is produced by a small boiler. From the autoclaves, the calcined gypsum is dried in indirectly heated pan dryers. It is then crushed and finely ground and screened to produce alpha stucco. The final product is conveyed to storage bins.

Plaster products require varying amounts of alpha and beta stucco as well as small amounts of other raw materials. Each is conveyed to one of two weigh hoppers to produce batches of different plaster products. The hoppers dump into mixers which gently blend the different materials. From each mixer, plaster can be loaded into bulk tank trucks or bulk bags. It can also be conveyed to one of two bag packing machines which automatically fill 50-100 pound bags and palletized them.

C. Permitting History

Georgia-Pacific Gypsum LLC is regulated by Clark County Department of Air Quality, and has a Title V permit. The facility is a major source for NO_x and CO. The initial Part 70 Operating Permit was issued October 27, 1998, and the most recent renewal was issued on November 3, 2009. Revisions made to the Operating Permit since the last renewal are described in Table III-C-1

Table III-C-1: Permit Revisions Since Last Operating Permit Renewal

Issuance Date	Description
12/09/2011	Updated the throughputs of VOC additives and inks; removed HAP emissions from the Operating Permit; incorporated ATC Modification 8 to the Operating Permit, to install rates, make, model numbers, and serial numbers; removed AQR Section 49 performance testing for the Alpha boiler; changed performance testing protocol review language; and changed the language related to dust suppression logging.
05/22/2013	Replaced two existing ball mills, for the wallboard plant, with identical units.
02/03/2014	Removed the CAM applicability for three baghouses (EUs: E149, E150, and E151).

Changes made with the current permitting action, as requested in the renewal and supplemental applications, are described in Table III-C-2.

Table III-C-2: Revisions Made with Current Permitting Action.

Condition/ EU/Table	Description
Changes Requested on Application submitted on 4/25/2014	
III-B-3(o)	Condition revised to remove <i>“unless the manufacturer’s specifications are more stringent”</i>
Table III-C-2	Δp values changed to <i>“0.5-1.0 and 5.0-6.0”</i> inches of water
III-D-1	Condition revised to remove references to EPA Methods 9 and 22 and to add: <i>“Subsequent and recurring testing must be conducted no later than 45 days after the anniversary date of the prior test.”</i>
Table III-D-1	Removed testing requirements for EPA Methods 9 and 22. Table III-D-1 lists testing that is required at five-year intervals. The Permittee is required to perform a Method 9 opacity test on a daily basis.
III-D-2(a)	Changed testing frequency for NCA#1 exhaust gas to five years.
EU: D14	Removed from emission unit list and listed separately as insignificant activity.
EU: E187	Ball Mill never installed, so it has been removed from OP.
EU: E03	Wallboard production limits divided into two components, traditional and specialty. Each process has different emission factors. Total wallboard production remains unchanged.
EUs: F01 and F03	Emission factor to calculate particulate emissions has been updated for PM ₁₀ , specifically. The previous emission factor that used was for total PM.
EUs: C01 thru C05	Emission factor to calculate particulate emissions has been updated for PM ₁₀ , specifically. The previous emission factor that used was for total PM.
EU: E03	Emission factors to calculate particulate emissions has been updated based on performance testing conducted at a Georgia-Pacific manufacturing facility in Tacoma, WA. The Permittee proposed short term emission limits for CO and NO _x of 32.50 lbs/hour and 11.18 lbs/hour, respectively, for performance testing purposes.
Various EUs	Emission factors for combustion HAPs have been revised to include all individual HAPs.
EU: E145	The PTE been revised to reflect burner limits of 30 & 100 ppm for NO _x and CO.
EUs: G33 and G34	Emission factors for VOC and SO ₂ are revised to reflect AP-42 values. PTE calculations revised to reflect 500 hours/year.
EUs: F01, E179, and E122 – E127	Throughput increase.
G25	Throughput decrease.
Various EUs	GHG emissions quantified.
Changes Requested Following Source Review of Draft Permit	
EUs: F02, E01, & E161	Emission units removed from facility
EU: E152	Alpha Impact Mill #1 removed from facility. All other units associated with this EU remain on site
EUs: D09 & D10	EU: D10 has been combined with EU: D09 as both bins feed the same bucket
EU: E179	The Permittee is adding one autoclave. Therefore, the description has been revised from <i>“Autoclave System #1 - #8”</i> to <i>“Autoclave System #1 - #9.”</i>
EU: A02	Increase stockpile area from 2.5 acres to 5 acres.
E03	Add short term emission limit of 6.41 lbs/hour to board dryer.

D. Operating Scenario

The manufacturing of the wallboard and plasters process starts by pulverizing and drying the gypsum rock to produce landplaster. The landplaster is calcined to remove the chemically bonded water from the gypsum to produce stucco, which is the principal component in gypsum wallboard and alpha and beta plaster.

IV. Emission Information

A. Source-Wide Potential to Emit

Table IV-A-1 reflects the sum of the PTEs of all permitted emission units. The source is a major source for NO_x and CO; and a minor source for PM₁₀, PM_{2.5}, SO_x, VOC, and HAP.

Table IV-A-1: Source-Wide PTE (tons per year)

PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	VOC	HAP	GHG
68.04	38.21	100.52	245.50	2.52	29.33	9.12	93,393.80

B. Control Technology

There are no new emission units being added with this permitting action. As a result, there are no addition control methods to be evaluated. All control devices/systems in use have been approved with previous permitting actions and remain enforceable. Only a brief description of each is provided in this document.

The implementation of baghouses, with a minimum control efficiency of 99.0 percent, is the primary control method used throughout the facility. Tables IV-C-1 and IV-C-4 identify the emission unit/baghouse relationships.

There are no emissions associated with the nine autoclaves (EU: E179) due to the fact that they are fully enclosed with a capture efficiency of 100 percent.

The Permittee shall only use low VOC inks for the printing process.

The diesel-powered emergency generator and fire pump are each equipped with a turbocharger and aftercooler and shall only combust low sulfur fuel.

C. Emission Units and PTE

1. Wallboard Plant

Table IV-C-1: Wallboard Plant (Non-Combustion Units)

EU	Description	Throughput		EF (lbs/ton)		CF	Control Method	PTE (tons/yr)		
		tons/hr	tons/yr	PM _{2.5}	PM ₁₀			PM _{2.5}	PM ₁₀	
A03	Rock/Recycle Feeder System	5	43,800	0.01	0.02	0.01	BH-W01	0.01	0.01	
B01	Crushing Area Conveyor	80	700,800	0.11	0.20	0.01		0.45	0.76	
	Bucket Elevator - Cemco Feed	50	438,000	0.01	0.01	0.01				
	Bucket Elevator - Rock Tank	50	438,000	0.01	0.01	0.01				
	Bucket Elevator - Rock Supply	50	438,000	0.01	0.01	0.01				
B02	Primary Crusher	80	700,800	0.07	0.13	0.01			0.25	0.46
B03	200 Ton Rock Bin	80	700,800	0.02	0.04	0.01			0.07	0.14
F01	End Trim/Bundler	60	525,600	0.31	0.57	0.01		0.81	1.50	
F03	Riser Machine	5	43,800	0.31	0.57	0.01	BH-W01	0.07	0.12	
B04	Secondary Crusher	80	700,800	0.07	0.13	0.01			0.25	0.46
C01	Imp Mill No. 1	10	87,600	51	93	0.001	BH-W02	2.23	4.07	
C02	Imp Mill No. 2	10	87,600	51	93	0.001	BH-W03	2.23	4.07	
C03	Imp Mill No. 3	10	87,600	51	93	0.001	BH-W04	2.23	4.07	
C04	Imp Mill No. 4	10	87,600	51	93	0.001	BH-W05	2.23	4.07	
C05	Imp Mill No. 5	10	87,600	51	93	0.001	BH-W06	2.23	4.07	
D01a	Stucco Area Conveyor	50	438,000	0.03	0.05	0.01	BH-W07	0.07	0.11	
D01b	Stucco Area Conveyor	50	438,000	0.03	0.05	0.01	BH-W08	0.07	0.11	
D01c	Stucco Area Conveyor	50	438,000	0.03	0.05	0.01	BH-W09	0.09	0.13	
	Bucket Elevator - Stucco Transfer	50	438,000	0.01	0.01	0.01				
D01d	Stucco Area Conveyor System	50	438,000	0.03	0.05	0.01	BH-W10	0.07	0.11	
D01e	Stucco Area Conveyor	50	438,000	0.03	0.05	0.01	BH-W13	0.11	0.15	
	Bucket Elevator - Stucco Tank	50	438,000	0.01	0.01	0.01				
	Bucket Elevator - Stucco Supply	50	438,000	0.01	0.01	0.01				
	Bucket Elevator - Stucco Recirculating	50	438,000	0.01	0.01	0.01				
D06	Stucco Blender #2	50	438,000	0.01	0.01	0.01		0.02	0.02	
D03	North Stucco Storage Bin	50	438,000	0.06	0.16	0.01	BH-W11	0.13	0.35	
D04	South Stucco Storage Bin	50	438,000	0.06	0.16	0.01	BH-W12	0.13	0.35	

EU	Description	Throughput		EF (lbs/ton)		CF	Control Method	PTE (tons/yr)	
		tons/hr	tons/yr	PM _{2.5}	PM ₁₀			PM _{2.5}	PM ₁₀
D07	Pin Mixer	50	438,000	0.01	0.01	0.01	BH-W14	0.02	0.02
D08	Vermiculite Bin	2	17,520	0.06	0.16	0.01		0.01	0.01
	Bucket Elevator - Vermiculite	2	17,520	0.01	0.01	0.01		0.01	0.01
D09	Landplaster Bin #1	2	17,520	0.06	0.16	0.01		0.01	0.01
	Landplaster Bin #2	2	17,520	0.06	0.16	0.01		0.01	0.01
	Bucket Elevator - Land Plaster	2	17,520	0.01	0.01	0.01		0.01	0.01
D11	Ball Mill #1	5	43,800	0.07	0.13	0.01		0.02	0.03
D12	Ball Mill #2	5	43,800	0.07	0.13	0.01		0.02	0.03
D13	Interior Baghouse Conveyors	50	438,000	0.11	0.20	0.01		0.24	0.44
D17	Milling Area Conveyors	50	438,000	0.11	0.20	0.01		BH-W01	0.24
D19	Stucco Sifter	50	438,000	0.04	0.08	0.01	BH-W13	0.09	0.18
Total								14.40	26.29

Table IV-C-2: Wallboard Plant (Forming Line)

EU	Description	VOC & HAP Compounds	Annual Throughput	Content		PTE (tons/year)	
				VOC	HAP	VOC	HAP
E02	Forming Line	Board Additives	1,344,824 lbs/yr	2.0%	0.90%	13.45	6.05
		Edge Adhesive	600,000 lbs/yr	0.10%	0.10%	0.30	0.30
		Silicone	460,000 lbs/yr	3.5%	0.10%	8.05	0.23
		Gold paint	10,000 lbs/yr	1.0%	0.10%	0.05	0.01
		Wallboard Plant Ink	10,000 lbs/yr	21.6%	20.0%	1.08	1.00
Total						22.93	7.59

Table IV-C-3: Wallboard Plant (External Combustion Units)

EU	Description	Rating	Pollutant	EF (lbs/MMBtu)	PTE (tons/yr)	Total PTE (tons/yr)	
C01 through C05	Imp Mill #1, Imp Mill #2, Imp Mill #3, Imp Mill #4, and Imp Mill #5	7.5 MMBtu/hr (per unit)	PM _{2.5}	Quantified with plant PM emissions. See Table IV-C-1			
			PM ₁₀				
			NO _x	0.127 (per unit)	4.16 (per unit)	20.80	
			CO	0.473 (per unit)	15.55 (per unit)	77.75	
			SO ₂	0.003 (per unit)	0.08 (per unit)	0.40	
			VOC	0.009 (per unit)	0.30 (per unit)	1.50	
			HAP	0.0019 (per unit)	0.06 (per unit)	0.30	
					TR¹	WB¹	
E03	Board Dryer (2 products)	TR & WB: Zones 1 & 2: 30 MMBtu/hr Zone 3: 15 MMBtu/hr NCA Gas: 272,000 lbs/hr	PM _{2.5}	TR: 0.041 lbs/msf	6.03	6.92	12.95
				WB: 0.173 lbs/msf			
	1. Toughrock (TR) 6,900 hrs/yr		PM ₁₀	TR: 0.046 lbs/msf	6.78	9.09	15.87
				WB: 0.227 lbs/msf			
2. Wallboard (WB) 1,860 hrs/yr	NO _x	0.26 lbs/ton	38.57	10.40	48.97		

EU	Description	Rating	Pollutant	EF (lbs/MMBtu)	PTE (tons/yr)		Total PTE (tons/yr)
		TR: 296,680 msf/yr	CO	8.13E-05 lbs/lb	112.11	30.23	142.34
			SO ₂	0.01 lbs/ton	1.48	0.40	1.88
		WB: 80,000 msf/yr	VOC	2.6E-06 lbs/lb	2.44	0.66	3.10
			HAP	1.9 lbs/MMscf	0.48	0.13	0.61

¹TR = Toughrock and WB = Wallboard.

Plaster Plant

Table IV-C-4: Plaster Plant (Non-Combustion Units)

EU	Description	Throughput		EF (lbs/ton)		CF	Control Method	PTE (tons/yr)	
		tons/hr	tons/yr	PM _{2.5}	PM ₁₀			PM _{2.5}	PM ₁₀
E101	Roll Crusher	50	438,000	0.07	0.13	0.01	BH-01	0.16	0.28
E102	Rock Conveyor System	100	876,000	0.03	0.05	0.01		0.12	0.22
E164	Alpha Rock Screen	50	438,000	0.04	0.08	0.01		0.10	0.18
E174	North Beta Rock Grizzly Feed Screen	50	438,000	0.04	0.08	0.01		0.10	0.18
E175	South Beta Rock Grizzly Feed Screen	50	438,000	0.04	0.08	0.01		0.10	0.18
E103	West Beta Rock Bin	50	438,000	0.06	0.16	0.01	BH-02	0.13	0.35
E104	East Beta Rock Bin	50	438,000	0.06	0.16	0.01	BH-03	0.13	0.35
E105	West Roller Mill	25	219,000	1.33	2.4	0.005	BH-04	0.73	1.31
E106	East Roller Mill	25	219,000	1.33	2.4	0.005	BH-05	0.73	1.31
E108	West LP Bin	25	219,000	0.06	0.16	0.01	BH-06	0.10	0.18
E109	East LP Bin	25	219,000	0.06	0.16	0.01	BH-07	0.10	0.18
E110	West Kettle (w/out combustion added)	15	131,400	14.3	26	0.001	BH-08	0.94	1.71
E111	East Kettle (w/out combustion added)	15	131,400	14.3	26	0.001	BH-09	0.94	1.71
E142	Alpha Rock Conveyors	50	438,000	0.03	0.05	0.01	BH-13	0.06	0.12
	Bucket Elevator - Alpha Basket	20	175,200	0.01	0.01	0.01			
E143	South Alpha Rock Bin	50	438,000	0.06	0.16	0.01		0.13	0.35
E144	North Alpha Rock Bin	50	438,000	0.06	0.16	0.01		0.13	0.35
E176	South Alpha Rock Bin Grizzly Feed Screen	50	438,000	0.04	0.08	0.01		0.10	0.18
E177	North Alpha Rock Bin Grizzly Feed Screen	50	438,000	0.04	0.08	0.01		0.10	0.18
E178	Alpha Rock Elevator Screen	50	438,000	0.04	0.08	0.01		0.10	0.18
E149	Pan Dryer #1	2	17,520	0.02	0.04	0.01		BH-35	0.01
E150	Pan Dryer #2	2	17,520	0.02	0.04	0.01	BH-36	0.01	0.01
E151	Pan Dryer #3	2	17,520	0.02	0.04	0.01	BH-37	0.01	0.01

EU	Description	Throughput		EF (lbs/ton)		CF	Control Method	PTE (tons/yr)	
		tons/hr	tons/yr	PM _{2.5}	PM ₁₀			PM _{2.5}	PM ₁₀
E179	Autoclave System #1 – #9	8	70,080	Enclosed Batch Process			0	0	
E152	Alpha Air Separator	6	52,560	0.04	0.08	0.01	BH-14	0.02	0.03
	Bucket Elevator - Alpha Reheater Feed	6	52,560	0.01	0.01	0.01			
	Bucket Elevator - Alpha Reheater Discharge	6	52,560	0.01	0.01	0.01			
E162	Alpha Crusher #2	6	52,560	0.07	0.13	0.01		0.02	0.03
E160	Alpha Hammer Mill	6	52,560	0.07	0.13	0.01		0.02	0.03
E154	Alpha Hummer Screen	6	52,560	0.04	0.08	0.01		0.01	0.02
E157	South Alpha Storage Bin	6	52,560	0.006	0.16	0.01		0.02	0.04
E158	North Alpha Storage Bin	6	52,560	0.006	0.16	0.01		0.02	0.04
G11	Alpha Surge Bin	6	52,560	0.006	0.16	0.01		0.02	0.04
G25	Bucket Elevator - Alpha Surge Bin	6	52,560	0.01	0.01	0.01		0.01	0.01
G28	Bucket Elevator - Alpha Storage Bin	6	52,560	0.01	0.01	0.01		0.01	0.01
E156	Alpha Reject Screens	6	52,560	0.04	0.08	0.01	BH-10 and BH-33	0.01	0.02
E107	LP Bulk Loadout Bin w/ Enclosed Screw Conveyor	30	262,800	0.06	0.16	0.01		0.17	0.46
	LP Bulk Loadout	16	140,160	0.06	0.16	0.01			
	Ag Gyp Packer	20	175,200	0.06	0.16	0.01			
E173	LP Bin Airvy System	30	262,800	0.06	0.16	0.01	0.08	0.21	
G13	LP Bulk Bagging	12	105,120	0.02	0.04	0.01	BH-11	0.01	0.02
E113	Reject Bin	20	175,200	0.06	0.16	0.01		0.05	0.14
E166	Stucco Sweeco Screen	20	175,200	0.04	0.08	0.01	BH-12	0.04	0.07
E114	Stucco Bulk Loadout Bin	25	219,000	0.06	0.16	0.01		0.14	0.36
	Stucco Bulk Loadout	25	219,000	0.06	0.16	0.01			
E115	West Hummer Screen	25	219,000	0.04	0.08	0.01	BH-15	0.05	0.09
E117	West Stucco Bin	25	219,000	0.06	0.16	0.01		0.10	0.23
	West Air Separator	15	131,400	0.04	0.08	0.01			
E119	West Beta IMPACT Mill #1	10	87,600	0.07	0.13	0.01		0.03	0.06
G14	West Beta IMPACT Mill #2	10	87,600	0.07	0.13	0.01		0.04	0.07
	Bucket Elevator - East Finish Stucco	20	175,200	0.01	0.01	0.01			
E118	East Stucco Bin	25	219,000	0.06	0.16	0.01	BH-16	0.07	0.18

EU	Description	Throughput		EF (lbs/ton)		CF	Control Method	PTE (tons/yr)	
		tons/hr	tons/yr	PM _{2.5}	PM ₁₀			PM _{2.5}	PM ₁₀
E116	East Hummer Screen	25	219,000	0.04	0.08	0.01		0.04	0.09
E120	East Beta IMPACT Mill #1	10	87,600	0.07	0.13	0.01		0.03	0.06
G16	East Beta IMPACT Mill #2	10	87,600	0.07	0.13	0.01		0.04	0.07
	Bucket Elevator - West Finish Stucco	20	175,200	0.01	0.01	0.01			
E122	Split Finish Bin #1 South	10	87,600	0.06	0.16	0.01	BH-17	0.03	0.07
E123	Split Finish Bin #1 North	10	87,600	0.06	0.16	0.01	BH-18	0.03	0.07
E124	Split Finish Bin #2 South	10	87,600	0.06	0.16	0.01	BH-19	0.03	0.07
E125	Split Finish Bin #2 North	10	87,600	0.06	0.16	0.01	BH-20	0.03	0.07
E126	Split Finish Bin #3 South	10	87,600	0.06	0.16	0.01	BH-21	0.03	0.07
E127	Split Finish Bin #3 North	10	87,600	0.06	0.16	0.01	BH-22	0.03	0.07
E128	South Alpha Bin	20	175,200	0.06	0.16	0.01	BH-23	0.05	0.14
E130	Cement Bin	20	175,200	0.06	0.16	0.01	BH-24	0.05	0.14
E129	North Alpha Bin	20	175,200	0.06	0.16	0.01	BH-25	0.05	0.14
E172	HiVAC Vacuum System	50	438,000	0.04	0.08	0.01	BH-32	0.09	0.18
E140	MP Bulk Bagging	12	105,120	0.02	0.04	0.01	BH-28	0.09	0.23
	MP Bulk Load Out Bin	30	262,800	0.06	0.16	0.01			
E139	FP Bulk Load Out Bin	30	262,800	0.06	0.16	0.01	BH-29	0.08	0.21
E168	FP Bulk Bagging	12	105,120	0.02	0.04	0.01	BH-30	0.01	0.02
E112	Stucco Conveyors	50	438,000	0.11	0.20	0.01		0.29	0.48
	Bucket Elevator – West Hot Pit	50	438,000	0.01	0.01	0.01			
	Bucket Elevator – East Hot Pit	50	438,000	0.01	0.01	0.01			
G15	West Beta IMPACT Mill #3	15	131,400	0.07	0.13	0.01		0.05	0.09
G17	East Beta IMPACT Mill #3	15	131,400	0.07	0.13	0.01	0.05	0.09	
E133	South Bag Packer	30	262,800	0.02	0.04	0.01	BH-31	0.18	0.42
	South Weigh Hopper	30	262,800	0.01	0.02	0.01			
	South Mixer	30	262,800	0.02	0.04	0.01			
	South MP Bulk Loadout	30	262,800	0.06	0.16	0.01			
	South Bag Packer Feed Hopper	30	262,800	0.01	0.02	0.01			
	South Additive Feeder Belt	30	262,800	0.02	0.04	0.01			

EU	Description	Throughput		EF (lbs/ton)		CF	Control Method	PTE (tons/yr)	
		tons/hr	tons/yr	PM _{2.5}	PM ₁₀			PM _{2.5}	PM ₁₀
E134	North Bag Packer	30	262,800	0.02	0.04	0.01		0.20	0.45
	North Weigh Hopper	30	262,800	0.01	0.02	0.01			
	North Mixer	30	262,800	0.02	0.04	0.01			
	North MP Bulk Loadout	30	262,800	0.06	0.16	0.01			
	North Bag Packer Feed Hopper	30	262,800	0.01	0.02	0.01			
	Bucket Elevator - Mixed Product	30	262,800	0.01	0.01	0.01			
	North Additive Feeder Belt	30	262,800	0.02	0.04	0.01			
G18	Hamilton Surge Bin	30	262,800	0.06	0.16	0.01	BH-34	0.08	0.21
G19	Hamilton Bulk Loadout Bin	30	262,800	0.06	0.16	0.01		0.08	0.21
G21	Hamilton Bulk Loadout	30	262,800	0.06	0.16	0.01		0.13	0.32
	Hamilton Rotary Screens	30	262,800	0.04	0.08	0.01			
E188	Microsizer	30	262,800	0.04	0.08	0.01	BH-19 and BH-21	0.05	0.11
E189	Screw Conveyor	20	175,200	0.01	0.01	0.01	BH-31	0.01	0.01
E190	Screw Conveyor	20	175,200	0.01	0.01	0.01	BH-29 and BH-34	0.01	0.01
Total								7.81	15.79

Table IV-C-5: Plaster Plant (External Combustion Units)

EU	Description	Rating	Pollutant	EF (lbs/MMscf)	PTE (tons/yr)	Total PTE (tons/yr)
E105 and E106	West Roller Mill and East Roller Mill	5.7 MMBtu/hr (per unit)	PM _{2.5}	Quantified with plant PM emissions. See Table IV-C-4		
			PM ₁₀			
			NO _x	100	2.43 (per unit)	4.86
		5,576 scf/hr (per unit)	CO	84	2.04 (per unit)	4.08
			SO ₂	0.6	0.01 (per unit)	0.02
			VOC	5.5	0.13 (per unit)	0.26
			HAP	1.9	0.05 (per unit)	0.09
E110 and E111	West Kettle – Flue Gas and East Kettle – Flue Gas	20.0 MMBtu/hr (per unit)	PM _{2.5}	7.6	0.65 (per unit)	1.30
			PM ₁₀	7.6	0.65 (per unit)	1.30
			NO _x	100	8.54 (per unit)	17.08
		19,493 scf/hr (per unit)	CO	84	7.17 (per unit)	14.34
			SO ₂	0.6	0.05 (per unit)	0.10
			VOC	5.5	0.47 (per unit)	0.94
			HAP	1.9	0.17 (per unit)	0.34
E145	Alpha Boiler	12.0 MMBtu/hr and 11,696 scf/hr	PM _{2.5}	7.6	0.39	0.39
			PM ₁₀	7.6	0.39	0.39
			NO _x	0.0366	1.92	1.92
			CO	0.0742	3.90	3.90
			SO ₂	0.6	0.03	0.03
			VOC	5.5	0.28	0.28
			HAP	1.9	0.10	0.10
E146, E147, E148, and E153	Paratherm Boiler #1 Paratherm Boiler #2 Paratherm Boiler #3 and Alpha Multiscrew Heater	1.2 MMBtu/hr and 1,170 scf/hr	PM _{2.5}	7.6	0.04 (per unit)	0.16
			PM ₁₀	7.6	0.04 (per unit)	0.16
			NO _x	100	0.51 (per unit)	2.04
			CO	84	0.43 (per unit)	1.72
			SO ₂	0.6	0.01 (per unit)	0.04
			VOC	5.5	0.03 (per unit)	0.12
			HAP	1.9	0.01 (per unit)	0.04
E159	Alpha Duct Burner	1.0 MMBtu/hr and 975 scf/hr	PM _{2.5}	7.6	0.03	0.03
			PM ₁₀	7.6	0.03	0.03
			NO _x	100	0.43	0.43
			CO	84	0.36	0.36
			SO ₂	0.6	0.01	0.01
			VOC	5.5	0.02	0.02
			HAP	1.9	0.01	0.01

Table IV-C-6: Plaster Plant (Inks)

EU	Description	VOC & HAP Compounds	Annual Throughput	Content		PTE (tons/year)	
				VOC	HAP	VOC	HAP
G32	Plaster Mill Ink	Plaster Mill Ink	158 lbs/yr	21.6%	20.0%	0.02	0.02

2. Internal Combustion

Table IV-C-7: Description of Internal Combustion Units

EU	Description/ Manufacturer	Model No.	Serial No.	SCC	Pollutants	EF (lbs/ton)	PTE (tons/yr)
G33	Diesel-Powered Emergency Generator; Perkins; 59 hp	9182454	26434001T	20100102	PM _{2.5}	2.20E-03	0.03
					PM ₁₀	2.20E-03	0.03
					NO _x	3.10E-02	0.46
					CO	6.68E-03	0.10
					SO ₂	2.05E-03	0.03
					VOC	2.51E-03	0.04
					HAP	4.52E-05	0.01
G34	Diesel-Powered Fire Pump; Caterpillar; 660 hp	3412	28S20760	20200102	PM _{2.5}	7.00E-04	0.12
					PM ₁₀	7.00E-04	0.12
					NO _x	2.40E-02	3.96
					CO	5.50E-03	0.91
					SO ₂	1.21E-05	0.01
					VOC	7.05E-04	0.12
					HAP	3.05E-05	0.01

3. Fugitive Emissions

Table IV-C-8: Fugitive Emission Units

EU	Description	SCC	Annual Throughput	EF	Control	PTE (tons/yr)	
						PM _{2.5}	PM ₁₀
A01	Wallboard Trucks	30502504	2,978 VMT	7.57 lbs/VMT	0.02	0.09	0.58
	Wallboard Trucks (weighed)		4,643 VMT		0.02		
FE100	Rock Trucks (weighed)	30502504	964 VMT	7.57 lbs/VMT	0.02	0.40	2.66
	Rock Trucks (south route)		6,220 VMT		0.02		
	Bulk Plaster Trucks		3,592 VMT		0.02		
	Bulk Plaster Trucks (loop)		2,891 VMT		0.02		
	Plaster Trucks (flatbed)		7,446 VMT		0.02		
	Rock Trucks (unpaved)		2,803 VMT		0.10		
FE200	Loaders	30502504	1,840 VMT	7.57 lbs/VMT	0.10	0.10	0.70
FE300	Batch Dumping – Beta Rock	30501503	262,800 tons	6.62E-03 lbs/ton	0.15	0.02	0.13
FE141	Batch Dumping – Alpha Rock	30501503	63,875 tons		0.15	0.03	0.01
FE200a	Truck Dumping	30501503	689,850 tons		0.35	2.25	
FE200b	Batch Dumping – Board Rock	30501503	438,000 tons		0.15	0.03	0.22
A02	Stockpiles	30501508	5 Acres	1.66 lbs/acre-day			1.51

4. Greenhouse Gas

Table IV-C-9: Plant Wide GHG Emissions

EU	Description	Rating (MMBtu/hr)	CO ₂ (kg)	CH ₄ (kg)	N ₂ O (kg)	Total CO ₂ e (tons/yr)
External Combustion Units			53.06 kg/MMBtu	0.001 kg/MMBtu	0.0001 kg/MMBtu	
C01- C05	Imp Mills 1 – 5	7.5 (per unit)	3,843 (per unit)	0.07 (per unit)	0.01 (per unit)	19,234.85

EU	Description	Rating (MMBtu/hr)	CO ₂ (kg)	CH ₄ (kg)	N ₂ O (kg)	Total CO ₂ e (tons/yr)
E03	Board Dryer	75.0	38,427	0.72	0.07	38,466.69
E105, E106	Roller Mills (East & West)	5.7 (per unit)	2,920 (per unit)	0.06 (per unit)	0.01 (per unit)	5,846.04
E110, E111	Kettles (East & West)	20.0 (per unit)	10,247 (per unit)	0.19 (per unit)	0.02 (per unit)	20,515.18
E145	Alpha Boiler	12.0	6,148	0.12	0.01	6,151.25
E146-E148	Paratherm Boilers 1 – 3	1.2 (per unit)	615 (per unit)	0.01 (per unit)	0.01 (per unit)	1,846.92
E153	Multiscrew Heater	1.2	615	0.01	0.01	615.64
E159	Alpha Duct Burner	1.0	512	0.01	0.01	512.53
Internal Combustion Units			73.96 kg/MMBtu	0.003 kg/MMBtu	0.0006 kg/MMBtu	
G33	Generator	59 hp	23	0.01	0.01	23.08
G34	Fire Pump	660 hp	181	0.01	0.01	181.62
Total						93,393.80

Table IV-C-10: Insignificant Activities

Description
Interior Baghouse Hopper
Concrete Basin
Fiberglass Feed Hopper

Net Emissions Increase

Table IV-D-1: Net Emissions Increase

	PM ₁₀	PM _{2.5}	NO _x	CO	SO ₂	VOC
PTE for Current Permitting Action	68.04	38.21	100.52	245.50	2.52	29.33
PTE from Permit Revision Issued 02/03/2014	62.13	9.94	99.87	256.37	2.52	30.72
PTE from Permit Revision Issued 12/09/2011	61.20	9.94	99.87	256.37	2.52	30.72
PTE from Renewal Permit Issued 11/03/2009	61.11		99.87	256.37	2.52	30.72
Total Source NEI	6.93	38.21	0.65	-10.87	0	-1.39
Minor NSR Significant Levels	7.5	5.0	20	50	20	20

It should be noted that the large NEI value calculated for PM_{2.5} in Table IV-D-1 does not correlate with a significant increase for this pollutant. When the Title V renewal permit was issued in 2009, PM_{2.5} was not a pollutant of concern and, therefore, was not tabulated. In April, 2006, the source submitted an application for a minor revision that included PTE calculations for PM_{2.5}, but those calculations were limited to emissions from internal and external combustion units only. The PTE for PM_{2.5} remained unchanged when the permit was revised in February, 2014. The application for this permitting action, submitted in April, 2014, expanded the PM_{2.5} PTE calculations to include all emission units throughout the entire facility. This permitting action represents the first time that facility-wide emissions for PM_{2.5} have been calculated for this source. This results in an artificially high NEI value for PM_{2.5}.

D. Performance Testing

The Part 70 OP issued in October 2003 included performance testing requirements. Performance testing on identified emission units or control devices for the Wallboard and Plaster Plants shall be conducted either annually or every five years, as listed in Table IV-E-1, and within 60 days of the anniversary date of the previous performance test. The performance testing is subject to Air Quality’s “Guidelines for Source Testing”. The required performance testing will be performed using the methods listed in Table IV-D-1:

Table IV-E-1: Performance Testing Protocol Requirements

EU	Description	NSPS/AQR Applicability	Compliance Standard	Performance Test	Frequency
A03, B01-B04, D17, F01-F03	Baghouse: BH-W01	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
C01	Baghouse: BH-W02	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
C02	Baghouse: BH-W03	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
C03	Baghouse: BH-W04	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
C04	Baghouse: BH-W05	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
C05	Baghouse: BH-W06	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
D01e, D06	Baghouse: BH-W13	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
E101, E102, E164, E174, & E175	Baghouse: BH-01	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
E103	Baghouse: BH-02	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
E104	Baghouse: BH-03	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
E105	Baghouse: BH-04	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
E106	Baghouse: BH-05	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
E110	Baghouse: BH-08	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
		Subpart UUU	0.092 g/dscm (0.040 gr/dscf)		
E111	Baghouse: BH-09	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5/202	Every 5 years
		Subpart UUU	0.092 g/dscm (0.040 gr/dscf)		
E142-E144, E149-151, &	Baghouse: BH-13	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years

EU	Description	NSPS/AQR Applicability	Compliance Standard	Performance Test	Frequency
E176-E178		Subpart UUU	0.092 g/dscm (0.040 gr/dscf)	Method 5 or Method 17	Every 5 years
E152, E154, E157, E158, E160-E162, G11, G25 & G28	Baghouse: BH-14	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
E115, E117, E119 & G14.	Baghouse: BH-15	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
E116, E118, E120, & G16	Baghouse: BH-16	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
E140 & E169	Baghouse: BH-28	Subpart OOO Section 34	7 percent opacity	Method 9	Annual
			0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
E139	Baghouse: BH-29	Subpart OOO	No visible emissions	Method 22	Annual
E112, E168, G15 & G17	Baghouse: BH-30	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
E131-E138, E170 & E171	Baghouse: BH-31	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years
G18- G19, & G21	Baghouse: BH-34	Subpart OOO Section 34	0.05 g/dscm (0.022 gr/dscf)	Method 5 or Method 17	Every 5 years

5. Initial performance testing for the Alpha boiler (EU: E145) was completed on October 18, 2002. Any additional required testing will be performed using the following methods:

Table IV-E-2: Performance Testing Protocol Requirements for the Alpha Boiler (EU: E145)

Test Point	Pollutant	Method
Boiler Exhaust Outlet Stack	NO _x	EPA Method 7E
Boiler Exhaust Outlet Stack	CO	EPA Method 10
Stack Gas Parameters	--	EPA Methods 1, 2, 3A, and 4

All performance tests on the Alpha boiler (EU: E145) must conform to 40 CFR 60 Subpart Dc and Air Quality performance Testing guidelines.

6. The Permittee shall test the NCA #1 exhaust gas to demonstrate compliance with the following provisions:

NO_x and CO

- a. the exhaust gas from NCA #1 shall be tested for NO_x and CO every five years;
- b. all exhaust gas performance test(s) shall be conducted while the emission unit (EU: E03) is operating between 80 percent and 100 percent of the design capacity; and

each subsequent exhaust gas performance testing shall be conducted during the six (6) months prior to the previous performance test.

Table IV-E-3: Performance Testing Protocol Requirements for NCA #1 Exhaust Gas

Test Point	Pollutant/ Parameter	Method
Exhaust Gas from NCA #1	NO _x	Pounds per hour and/or ppmvd @ reference conditions
Exhaust Gas from NCA #1	CO	Pounds per hour and/or ppmvd @reference conditions

- 7. The Permittee shall test each exhaust stack of the Board Dryer (EU: E03), simultaneously, to demonstrate compliance with the following provisions:

PM, NO_x and CO

- a. the exhaust gas from all stacks shall be tested for PM, NO_x, CO, and flow as shown in Table IV-E-4, every five years;
- b. all exhaust gas performance test(s) shall be conducted while the emission unit (EU: E03) is operating between 80 percent and 100 percent of the design capacity; and
- c. each subsequent exhaust gas performance test shall be conducted within the six (6) months prior to the five year anniversary date of the previous performance test.

Table IV-E-4: Performance Testing Protocol Requirements for Board Dryer Exhaust Stacks

Test Point	Pollutant/ Parameter	Method
All Exhaust Stacks from Board Dryer	PM	EPA Method 5/202
All Exhaust Stacks from Board Dryer	NO _x	Chemiluminescence Analyzer (EPA Method 7E)
All Exhaust Stacks from Board Dryer	CO	EPA Method 10 analyzer
All Exhaust Stacks from Board Dryer	Stack Gas Parameters	EPA Methods 1, 2, 3 or 3a, 4

E. Emissions Monitoring

Compliance Assurance Monitoring is intended to provide for monitoring to assess compliance with emission limitations. CAM requirements apply only to those emission units that have some type of emission limitations, use a control device to comply with the limitation, and have a pre-control potential emission that exceeds the major source threshold for the particular pollutant controlled. Certain specific exemptions may apply for emission units subject to other regulatory programs. In some cases, a device used

as a control device for some processes may in fact be integral to another process in other case and exempt for that reason as well. CAM requirements include the development of a monitoring program for a selection of parameters indicative of control device operability and performance and, therefore, compliance with an applicable emission limitation.

The control devices at the source include a number of baghouses used to control PM₁₀ emissions. Since the pollutant of concern is PM₁₀, only those emission units with pre-control emissions exceeding 100 tons per year are subject to the CAM rule. Table IV-F-1 lists the emission units at the source that are subject to the CAM rule.

Table IV-F-1: Emission Units Subject to CAM

EU	Description	Control Device	PM ₁₀ Pre-control Emission (tpy)
A03, B01-B04, D17, & F01-F03,	Rock/Recycle Feeder System, Crushing Area Conveyor, Primary Crushing, 200 Ton Rock Bin, End Trim/Bundler, Re-cut Machine, Riser Machine, Milling Area Conveyors, Secondary Crusher, Bucket Elevator – Cemco Feed, Bucket Elevator – Rock Tank and Bucket Elevator – Rock Supply	Baghouse: BH-W01	400.0
C01	IMP Mill #1	Baghouse: BH-W02	4,380
C02	IMP Mill #2	Baghouse: BH-W03	4,380
C03	IMP Mill #3	Baghouse: BH-W04	4,380
C04	IMP Mill #4	Baghouse: BH-W05	4,380
C05	IMP Mill #5	Baghouse: BH-W06	4,380
E101, E102, E164, E174, & E175	Roll Crusher, Rock Conveyors, Alpha Rock Screen, North Beta Rock Grizzly Feed Screen, and South Beta Rock Grizzly Feed Screen	Baghouse: BH-01	103.0
E105	West Roller Mill	Baghouse: BH-04	284.0
E106	East Roller Mill	Baghouse: BH-05	284.0
E110	West Kettle (w/out combustion added)	Baghouse: BH-08	171.0
E111	East Kettle (w/out combustion added)	Baghouse: BH-09	171.0
E142-E144, E149-E151, E176-E178,	Alpha Rock Conveyors, South Alpha Rock Bin, North Alpha Rock Bin, South Alpha Bin Grizzly Feed Screen, North Alpha Rock Bin Grizzly Feed Screen, Alpha Rock Elevator Screen, Pan Dryer #1, Pan Dryer #2, Pan Dryer #3, and Bucket Elevator – Alpha Basket	Baghouse: BH-13	136.0

There are a number of other baghouses used for emission and moisture control throughout the Wallboard and Plaster Plants, however none of the uncontrolled rates for any of these baghouses exceed the one hundred ton per year emission limit. Daily measurements of pressure differential (Δp) for PM₁₀ and visible emissions for opacity were selected as CAM indicators. The Δp between inlet and outlet of the baghouse is an accepted standard indicator of satisfactory baghouse performance. For opacity reading, the absence of visible emissions demonstrates compliance. The key elements of the monitoring approach are presented in Table IV-F-2.

Table IV-F-2: Monitoring Approach

CAM Element	Indicator 1	Indicator 2
Indicator	Pressure differential (Δp) for PM ₁₀	Visual emissions for opacity.
Measurement Approach	The Δp will be measured daily; the time of reading and the Δp will be recorded.	Visible emission (VE) from the baghouse exhaust will be monitored and documented on a daily basis during routine conditions.
Indicator Range: Excursion	An excursion is defined as a pressure drop less than ½ inches and greater than 6 inches of water for EUs: A03, B01-B04, C01-C05, D17, E101, E102, E105, E106, E110, E111, E142-E144, E149-E151, E164, E174-178, & F01-F03. Excursions trigger an inspection, correction action, and a reporting requirement.	An excursion is defined as the presence of visible emissions. Excursions trigger an inspection, corrective action, and a reporting requirement. In addition, if VE's are observed, the equipment will be shut down.
Action Threshold	The action threshold for Δp is between 1-5 inches of water. Action thresholds trigger an inspection and corrective action, or documentation that the system is operating normally	Not applicable
QIP Thresholds	None selected	More than three (3) excursions within a quarterly reporting period
Performance Criteria Data Representativeness	Pressure taps are located on the high pressure and low pressure sides of the bag filters. A differential pressure gauge measures and displays the Δp with a minimum accuracy of ± 0.25 inches of water column.	Observations are made at the baghouse exhaust.
Verification of Operational Status	Not applicable	Not applicable
QA/QC Practices and Criteria	The Δp gauge will be calibrated or replaced annually	The VE observer will be familiar with baghouse operations and visible emissions.
Monitoring Frequency	Daily	Daily
Data Collection Procedures	Δp is manually recorded daily	The VE observation is documented by the observer and recorded daily.
Averaging Period	Not applicable	Not applicable

V REGULATORY REVIEW

A. Local Regulatory Requirements

Air Quality has determined that the following public law, statues, and associated regulations are applicable:

1. Nevada Revised Statutes (NRS), Chapter 445B;
2. Portions of the AQR included in the State Implementation Plan (SIP) for Clark County, Nevada. SIP requirements are federally enforceable. All requirements from Authority to Construct permits and Section 16 Operation Permits issued by DAQEM are federally enforceable because these permits were issued pursuant to SIP-included sections of this AQR: and
3. Portions of the AQR not included in the SIP. These locally applicable requirements are locally enforceable only.

The Nevada Revised Statutes and the Clean Air Act Amendments are public laws that establish the general authority for the Regulations mentioned.

The Air Quality Part 70 (Title V) Program received Final Approval on November 30, 2001 with publication of that approval appearing in the Federal Register December 5, 2001 Vol. 66, No. 234. AQR Section 19 – Part 70 Operation Permit details the Clark County Part 70 Operation Permit Program. These regulations may be accessed on the Internet at:
http://www.clarkcountynv.gov/depts/AirQuality/Pages/Rules_CurrentRulesandRegulations.aspx

Local regulations contain sections that are federally enforceable and sections that are locally enforceable only. Locally enforceable only rules have not been approved by EPA for inclusion into the State Implementation Plan (SIP). Requirements and conditions that appear in the Part 70 OP which are related only to non-SIP rules notated as locally enforceable only.

Table V-A-1: AQR Section 12 Summary Table for This Source

	PM ₁₀	NO _x	CO	SO ₂	VOC	HAP
Air Quality Area	PSD	PSD	PSD	PSD	PSD	N/A
Source PTE (tpy)	68.04	100.52	245.50	2.52	29.33	9.12
Major Source	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 10/25 tpy
Major Stationary Source	≥ 250 tpy	≥ 250 tpy	≥ 250 tpy	≥ 250 tpy	≥ 250 tpy	≥ 10/25 tpy

Discussion: The source is a major source of CO and NO_x and minor for all the other regulated pollutants.

Table V-A-2: Clark County Department of Air Quality– Air Quality Regulations and SIP status

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit
0. Definitions	applicable definitions	yes	entire source
1. Definitions	“Affected Facility”, “Dust”, “Existing Gasoline Station”, “Fumes”, “Mist”, “New Gasoline Stations”, “New Source”, “Single Source”, “Standard Conditions”, “Uncombined Water”.	Yes	entire source
4. Control Officer	all subsections 4.7.3 and 4.12.1 through 4.12.3 in SIP	partial	entire source
5. Interference with Control Officer	all subsections	yes	entire source
6. Injunctive Relief	all subsections	yes	entire source
7. Hearing Board and Hearing Officer	all subsections	no	entire source
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire source
9. Civil Penalties	all subsections	no	entire source
10. Compliance Schedule	when applicable; applicable subsections	yes	entire source
12.0. Applicability, General Requirements and Transition Procedures	all subsections	yes	entire source
12.2 Prevention of Significant Deterioration in Attainment Areas	all subsections	yes	entire source
12.3 Permit Requirements for Major Sources in Nonattainment Areas	all subsections	yes	entire source
12.4 Authority to Construct Permit Requirements for Part 70 Sources	all subsections	yes	entire source
12.5 Part 70 Operating Permit Requirements	all subsections	yes	entire source
12.6 Confidentiality	all subsections	yes	entire source

12.7 Emission Reduction Credits	all subsections	yes	entire source
12.9 Annual Emission Inventory Requirements	all subsections	yes	entire source
12.10 Continuous Monitoring Requirements for Stationary Sources	all subsections	yes	entire source
13. Emission Standards for Hazardous Pollutants	Delegated Program CCAQR Section 13.2(b)(82): Subpart ZZZZ National Emission Standards for Hazardous Air Pollutant for Stationary Reciprocating Internal Combustion Engines	no	Diesel Engines
14. New Source Performance Standards	Delegated Program CCAQR Section 14.1(b)(3): Subpart Da Standards of Performance for Electric Utility Steam Generating Units for Which Construction Commenced After September 18, 1978	no	Duct Burners
	CCAQR Section 14.1(b)(5): Subpart Dc Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units	no	Auxiliary Boilers
	CCAQR Section 14.1(b)(40): Subpart GG Standards of Performance for Gas Turbines	no	CTG units
18. Permit and Technical Service Fees	all subsections 18.1 through 18.5.2 and 18.6 through 18.12 in SIP	partial	entire source
21. Acid Rain Permits	all subsections	no	entire source
22. Acid Rain Continuous Emission Monitoring	all subsections	no	entire source
24. Sampling and Testing - Records and Reports	§ 24.1 Requirements for installation and maintenance of sampling and testing facilities § 24.2 Requirements for emissions record keeping § 24.3 Requirements for the record format § 24.4 Requirements for the retention of records by the emission sources (Note: Repealed from SIP on Oct 17, 2014)	no	entire source

25.1 Upset/Breakdown, Malfunctions (1981)	§ 25.1 Requirements for the excess emissions caused by upset/breakdown and malfunctions	no	entire source
25.2 Upset/Breakdown, Malfunctions (1981)	§ 25.2 Reporting and Consultation	yes	entire source
26. Emission of Visible Air Contaminants (1981)	§ 26.1 Limit on opacity (\leq an average of 20 percent for a period of more than 6 consecutive minutes)	yes	entire source
27. Particulate Matter from Process Weight Rate	all subsections	yes	entire source
28. Fuel Burning Equipment	Emission Limitations for PM	yes	entire source
29. Sulfur Contents of Fuel Oil	Repealed by County	yes	entire source
30. Incinerators	Repealed by County	yes	entire source
40. Prohibitions of Nuisance Conditions	§ 40.1 Prohibitions	no	entire source
41. Fugitive Dust	§ 41.1 Prohibitions	yes	entire source
42. Open Burning	§ 42.2	no	entire source
43. Odors In the Ambient Air	§ 43.1 Prohibitions coded as Section 29	no	entire source
52. Gasoline Dispensing Facilities	Repealed by County	yes	entire source
60. Evaporation and Leakage	all subsections Repealed by County and from SIP in 2011	no	entire source
70. Emergency Procedures	all subsections	yes	entire source
80. Circumvention	all subsections	yes	entire source

B. Federally Applicable Regulations

Air Quality has determined that the following federal regulations are applicable:

8. Clean Air Act, as amended (CAAA), Authority: 42 U.S.C. § 7401, et seq
9. Title 40 of the Code of Federal Regulations (CFR)

40 CFR PART 52 – APPROVAL AND PROMULGATION OF IMPLEMENTATION PLANS:

Subpart A – General Provisions

40 CFR § 52.21 – Prevention of Significant Deterioration of Air Quality

Discussion: Hydrographic Area 216 (Garnet Valley) is designated as attainment or unclassified for all criteria pollutants. Georgia-Pacific is subject to this regulation because at least one criteria pollutant (carbon monoxide) exceeds the 250 tpy major source threshold.

40 CFR PART 60 – STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES:

Subpart A – General Provisions

40 CFR § 60.7 – Notification and record keeping

Discussion: This regulation requires sources to notify Air Quality of modifications, opacity testing, records of malfunctions of process equipment and/or continuous monitoring devices, CEMS data, and performance test data. These requirements are found in the Part 70 OP. Air Quality requires records to be maintained for five years, a more stringent requirement than the two (2) years required by § 60.7.

40 CFR § 60.8 – Performance test

Discussion: These requirements are found in the Part 70 OP. Notice of intent to test, the applicable test methods, acceptable test method operating conditions, and the requirement for three runs are outlined in this regulation. Air Quality requirements for initial performance testing are identical to § 60.8. Air Quality also requires periodic performance testing on emission units based upon throughput or usage. More discussion is in this document under the compliance section.

40 CFR § 60.11 – Compliance with standards and maintenance requirements

Discussion: Georgia-Pacific is subject to three NSPS standards: Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants and Subpart UUU – Standards of Performance for Calciners and Dryers in Mineral Industries. Compliance requirements for these standards are discussed in corresponding sections.

40 CFR § 60.12 – Circumvention

Discussion: These requirements are found in the Part 70 OP. This is also SIP-approved local rule § 80.1.

40 CFR § 60.13 – Monitoring requirement

Discussion: The Part 70 OP contains the monitoring conditions. In addition, the CAM plan approved for the monitoring procedures follows the requirements outlined, including the span time and recording time.

Subpart Dc – Standards of Performance for Small Industrial-Commercial-Institutional Steam Generating Units

40 CFR § 60.40c – Applicability and Delegation of Authority

Discussion: The Alpha boiler (EU: E145) is rated at 12.0 MMBtu per hour; therefore, Subpart Dc is applicable to this emission unit.

40 CFR § 60.42c – Standard for Sulfur Dioxide

Discussion: This section does not pertain to boilers that exclusively fire natural gas.

40 CFR § 60.43c – Standard for Particulate Matter

Discussion: This section does not pertain to boilers that exclusively fire natural gas.

40 CFR § 60.48c – Reporting and Recordkeeping Requirements

Discussion: These are addressed in the Part 70 Operating Permit.

Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plants

40 CFR § 60.670 – Applicability and designation of affected facility

Discussion: The facility is currently subject to the standards based on 60.670(a)(1), which became effective on August 1, 1985.

40 CFR § 60.672 – Standard for Particulate Matter

Discussion: These requirements are addressed in the Part 70 operating permit.

40 CFR § 60.675 – Test Methods and Procedures

Discussion: The source is subject to the requirements of particulate matter standards and emissions limits, including PM limit and opacity limits, as described in Tables 2 and 3 of the Subpart. These requirements are found in the Part 70 OP.

40 CFR § 60.676 – Reporting and Recordkeeping

Discussion: The Permittee shall submit to the Administrator and to the Control Officer information required by this subsection. Specific record keeping and reporting requirements are identified in the Part 70 OP.

Subpart UUU – Standards of Performance for Calciners and Dryers in Mineral Industries

40 CFR § 60.730 – Applicability and Designation of Affected Facility

Discussion: The facility is currently subject to the standards based on 60.730(a), which became effective on September 28, 1992.

40 CFR § 60.732 – Standards for Particulate Matter

Discussion: No emissions shall be discharged into the atmosphere from any affected facility that (a) Contains particulate matter in excess of 0.092 grams per day standard cubic meter (g/dscm) [0.040 grains per dry standard cubic foot (gr/dscm)] for calciners and for calciners and dryers installed in series and particulate matter in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and (b) Exhibits greater than ten percent opacity, unless the emissions are discharged from an affected facility using a wet scrubber control device. These requirements are identifies in the Part 70 OP.

40 CFR § 60.734 – Monitoring of Emissions and Operations

Discussion: Daily opacity observation is required as per this subpart. The requirement is found in the OP.

40 CFR § 60.735 – Recordkeeping and Reporting Requirements

Discussion: Recordkeeping of daily opacity observations is required. These requirements are found in the Part 70 OP.

40 CFR § 60.736 – Test Methods and Procedures

Discussion: The Permittee shall determine compliance with the PM standards using test methods described in this subsection. These requirements are found in the Part 70 OP.

40 CFR PART 64 – COMPLIANCE ASSURANCE MONITORING

40 CFR § 64.2 – Applicability

Discussion: Georgia-Pacific currently has several emission units that are subject to an emission limitation or standard that uses a control device to achieve compliance. Such emission units process with PM₁₀ emissions as none of the combustion emission units are required to have a control device. Therefore, only emission units with pre-control emissions exceeding 100 tons per year for PM₁₀ are subject to the CAM rule. Based on the applicability criteria outlined in 40 CFR 64.2(a), the CAM Rule is applicable to EUs: A03, B01 through B04, D17, F01 through F03, C01 through C05, E101, E102, E105, E106, E110, E111, E142 through E144, E149 through E151, and E174 through E178. These units are controlled by baghouses and the pre-controlled emissions exceed the major source threshold. The Board Dryer (EU: E03) has a PTE of more than 100 tons per of CO, but does not have a CO control device and therefore CAM is not applicable.

Daily measurements of pressure differential between inlet and outlet of the baghouse (Δp) for PM₁₀ and visible emission for opacity were selected as CAM indicators. For opacity readings, the absence of visible emissions demonstrates compliance. The key elements of the monitoring approach are presented in Section IV-E of this TSD.

40 CFR PART 72 – ACID RAIN PERMITS REGULATIONS

Subpart A – Acid Rain Program General Provisions

40 CFR § 72.6 – Applicability

Discussion: The provisions of this regulation do not apply to the source because the source has no affected units per the applicability criteria listed in 40 CFR 72.6.

40 CFR PART 73 – SULFUR DIOXIDE ALLOWANCE SYSTEM

40 CFR § 73.2 – Applicability

Discussion: The provisions of this regulation do not apply to the source based on 40 CFR Part 73.6.

40 CFR PART 75 – CONTINUOUS EMISSIONS MONITORING

Discussion: G-P is not subject to the Acid Rain emission limitations of 40 CFR Part 72; therefore, the facility is not subject to the monitoring requirements 40 CFR Part 75.

V. COMPLIANCE

A. Compliance Certification

19.3.3.9 Requirement for compliance certification:

- (a) Regardless of the date of issuance of this Part 70 OP, the schedule for the submittal of reports to the Air Quality Compliance Reporting Supervisor shall be as follows:

Required Report	Applicable Period	Due Date ¹
Semi-annual Report for 1st half of the year.	January, February, March, April, May, June	July 30 each year
Semi-annual Report for 2nd half of the year. Any additional annual records required.	July, August, September, October, November, December	January 30 each year
Annual Compliance Certification Report	12 Months	30 days after the Operating Permit issuance anniversary date
Annual Emission Inventory Report	Calendar Year	March 31 each year
Excess Emission Notification	As Required	Within 24 hours of the onset of the event
Excess Emission Report	As Required	As soon as practicable but not to exceed 72 hours from notification
Deviation Report	As Required	Along with semi-annual reports
Performance Testing	As Required	Within 60 days from the end of the test

¹Each report shall be received by Air Quality on or before the due date listed. If the due date falls on a Saturday, Sunday or a Federal or Nevada holiday, then the submittal is due on the next regularly scheduled business day.

- (b) A statement of methods used for determining compliance, including a description of monitoring, recordkeeping, and reporting requirements and test methods.
- (c) A schedule for submission of compliance certifications during the permit term.
- (d) A statement indicating the source’s compliance status with any applicable enhanced monitoring and compliance certification requirements of the Act.

B. Compliance Summary

Table VI-B-1: AQR Applicable to Georgia-Pacific Gypsum LLC

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 0	Definitions	Applicable – G-P will comply with all applicable definitions.	G-P will meet all applicable test methods should new definitions apply.	G-P complies with applicable requirements
AQR Section 4	Control Officer	Applicable – The Control Officer or his representative may enter into G-P property, with or without prior notice, at any reasonable time for purpose of establishing compliance.	G-P will allow the Control Officer to enter the property as required.	G-P complies with applicable requirements.
AQR Section 12.5.2.1	40 CFR Part 70 Permit Applications	Applicable – G-P is a major stationary source	Complete application for permit renewal must be submitted at least six months and not greater than eighteen months prior to the date of permit expiration.	G-P complies with applicable requirements.
AQR Section 12.5.2.3	Permit Applications: Standard Requirements	Applicable – G-P is a major stationary source	The application must include a source description to include identifying information, source processes and products, emission units, PTE, compliance plan, and schedule of certified compliance reporting.	G-P complies with applicable requirements.
AQR Section 12.9	Annual Emissions Inventory Requirement	Applicable – G-P is a major stationary source	Every major stationary source shall complete and submit to the Control Officer an annual emissions inventory.	G-P complies with applicable requirements.
AQR Section 14.1(b)(1) Subpart A	New Source Performance Standards (NSPS) General Provisions	Applicable – G-P is an affected facility under the regulations. Section 14 is locally enforceable; however, the NSPS standards referenced are federally enforceable.	Applicable monitoring, recordkeeping and reporting requirements.	G-P complies with applicable requirements.
AQR Section 14.1(b)(5): Subpart Dc	Standards of Performance for New Stationary Sources – Standards of Performance for Small Industrial – Commercial – Institutional Steam Generating Units	Applicable – G-P has an emission unit that a maximum design heat input capacity of 100 MMBtu/hr or less, but greater than or equal to 10 MMBtu/hr.	Applicable performance test, opacity tests, monitoring, recordkeeping and reporting requirements.	G-P complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
AQR Section 14.1 (b)(68): Subpart OOO	Standards of Performance for New Stationary Sources – Standards of Performance for Nonmetallic Mineral Processing Plants	Applicable – G-P operates emission units processing more than 25 tons per hour of the nonmetallic mineral material.	Applicable performance tests, opacity tests, monitoring, recordkeeping, and reporting requirement.	G-P complies with applicable requirements.
AQR Section 14.1(b)(74): Subpart UUU	Standards of Performance for New Stationary Sources – Standards of Performance for Calciners and Dryers in Mineral Industries	Applicable – G-P operates calciners and dryers.	Applicable performance tests, opacity tests, monitoring, recordkeeping, and reporting requirement.	G-P complies with applicable requirements.
AQR Section 18	Permit and Technical Service Fees	Applicable – G-P will be required to pay all required/applicable permit and technical service fees.	G-P is required to pay all required/applicable permit and technical service fees.	G-P complies with applicable requirements.
AQR Section 25	Upset/Breakdown, Malfunctions	Applicable – Any upset, breakdown, emergency condition, or malfunction which causes emissions of regulated air pollutants in excess of any permit limits shall be reported to the Control Officer. Section 12.1 is locally and federally enforceable.	Any upset, breakdown, emergency condition, or malfunction in which emissions exceed any permit limit shall be reported to the Control Officer within one (1) hour of onset of such event.	G-P complies with applicable requirements.
AQR Section 26	Emission of Visible Air Contaminants	Applicable – Opacity for the G-P combustion units shall not exceed 20 percent for more than three (3) minutes in any 60-minute period.	Compliance determined by EPA Method 9.	G-P complies with applicable requirements.
AQR Section 27	Particulate Matter from Process Weight Rate	Applicable – The PM ₁₀ hourly emission rate for the fuel burning equipment is below the thresholds established in Section 28 requirements.	Applicable, monitoring, recordkeeping and reporting requirements.	G-P complies with applicable requirements.
AQR Section 28	Fuel Burning Equipment	Applicable – The PM emission rate for the fuel burning equipment is below those established based on Section 28 requirements.	Maximum allowable PM emission rate determined from determined from equation in Section 28.	G-P complies with applicable requirements.
AQR Section 40	Prohibitions of Nuisance Conditions	Applicable – No person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other materials which cause a nuisance.	G-P air contaminant emissions are controlled by pollution control devices or good combustion in order not to cause a nuisance.	G-P complies with applicable requirements.
AQR Section 41	Fugitive Dust	Applicable – G-P shall take necessary actions to abate fugitive dust from becoming airborne.	G-P utilizes appropriate best practices to not allow airborne fugitive dust.	G-P complies with applicable requirements.
AQR Section 42	Open Burning	Applicable – In event G-P burns combustible material in any open areas, such burning activity will have been approved by the Control Officer in advance. Section 42 is a	G-P will contact DAQEM and obtain approval of the Control Officer in advance for applicable burning activities as identified in the rule.	G-P complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
		locally enforceable rule only.		
AQR Section 43	Odors in the Ambient Air	Applicable – An odor occurrence is a violation if the Control Officer is able to detect the odor twice within a period of an hour, if the odor causes a nuisance, and if the detection of odors is separated by at least 15 minutes. Section 43 is a local enforceable rule only.	G-P is a predominantly mineral processing facility and is not expected to cause odors.	G-P complies with applicable requirements.
AQR Section 45	Idling of Diesel Powered Motor Vehicles	Applicable – a person shall not idle the engine of a diesel truck or diesel bus for more than 15 consecutive minutes.	G-P will utilize appropriate best practices to not allow the idling of an engine of a diesel truck or diesel bus for more than 15 consecutive minutes.	G-P complies with applicable requirements.
AQR Section 70.4	Emergency Procedures	Applicable – G-P submitted an emergency standby plan for reducing or eliminating air pollutant emissions in the Section 16 Operating Permit Application.	G-P submitted an emergency standby plan and received the Section 16 Operating Permit.	G-P complies with applicable requirements.

C. Compliance Summary: Federal Air Quality Regulations

Table VI-C-1: Federal Air Quality Regulations Applicable to Georgia-Pacific Gypsum LLC

Citation	Title	Applicability	Applicable Test Method	Compliance Status
40 CFR 52.21	Approval and Promulgation of Implementation Plans: Subpart A – General Provision	Applicable – G-P will comply with all applicable definitions.	G-P has and will continue to meet BACT AQIA and Additional impact analysis through applicable monitoring and record keeping of emission data.	G-P is in compliance with applicable state SIP requirements including monitoring and record keeping of emissions data.
40 CFR 52.1470	Approval and Promulgation of Implementation Plans: Subpart DD – Nevada [SIP Rules]	Applicable – G-P is classified as a Title V source, and SIP rules apply.	Applicable monitoring and record keeping of emissions data.	G-P is in compliance with applicable state SIP requirements including monitoring and recordkeeping of emission data.
40 CFR 60, Subpart A	Standards of Performance for New Stationary Sources – General Provisions	Applicable – G-P is an affected facility under this regulation.	Applicable monitoring, recordkeeping, and reporting requirements.	G-P complies with applicable requirements.
40 CFR 60, Subpart Dc	New Source Performance Standards – Standards of Performance for Small Industrial-Commercial-Institutional Steam	Applicable- G-P Alpha boiler (EU: E145) is applicable to this regulation, therefore; it is an affected facility under this regulation.	Applicable monitoring, recordkeeping, and reporting requirements are applicable for the Alpha boiler.	G-P complies with applicable requirements.

Citation	Title	Applicability	Applicable Test Method	Compliance Status
	Generation Units			
40 CFR 60, 000	New Source Performance Standards – Standards of Performance for Nonmetallic Mineral Processing Plants	Applicable – G-P is an affected facility under this regulation.	Applicable monitoring, recordkeeping, and reporting requirements.	G-P complies with applicable requirements.
40 CFR 60, Subpart UUU	New Source Performance Standards – Standards of Performance for Calciners and Dryers in Mineral Industries	Applicable – G-P is an affected facility under this regulation.	Applicable monitoring, recordkeeping, and reporting requirements.	G-P complies with applicable requirements.
40 CFR 60	Appendix A, Method 5 or equivalent, (Particulate Matter)	Applicable – Emissions from stacks are subject to particulate matter standards.	Particulate matter is determined by EPA Method 5.	G-P complies with applicable requirements.
40 CFR 60	Appendix A, Method 9 or equivalent, (Opacity)	Applicable – Emissions from stacks are subject to opacity standards.	Opacity determined by EPA Method 9.	G-P complies with applicable requirements.
40 CFR 64	Compliance Assurance Monitoring	Applicable – G-P has PM ₁₀ emissions that have an emission standard and use an active control device.	G-P monitors pressure differential and opacity to demonstrate compliance with PM ₁₀ emission limitations.	G-P complies with applicable requirements.
40 CFR 68	Chemical Accident Prevention Provisions	Not Applicable – G-P does not store or handle any chemicals that are subject to 40 CFR Part 68.	G-P adheres to source management programs.	G-P complies with applicable requirements.
40 CFR 70	Federally Mandated Operating Permits	Applicable – G-P is a major stationary source and under Part 70. The initial Title V permit application was submitted as required. Renewal applications are due between 6 and 18 months prior to expiration. Revision applications will be submitted within 12 months or commencing operation of any new emission units.	G-P reviewed the renewal to the initial permit dated October 24, 2003. This renewal application was submitted prior to the April 24, 2008. Applications for new units will be submitted within 12 months of startup.	G-P complies with applicable requirements.

D. Summary of Monitoring for Compliance

Table VI-D-1: Summary of Monitoring for Compliance

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
A03, B01-B04, D17, and F01-F03,	Primary and Secondary Crusher, End Trim Bundler, and Re-cut Machine (BH-W01)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart 000	Baghouse shall have 99.0 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouse or stack discharge. Annual Method 9 on stack of control device for opacity.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
				than 0.05 g/dscm (0.022 gr/dscf)	Annual Method 5 or Method 17 for particulate concentration. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
C01, C02, C03, C04, & C05	Impact Mills No. 1 through No. 5 (Baghouses BH-W02 through BH-W06)	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouses shall have 99.9 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf) Heated by NCA #1 exhaust emissions or natural gas only.	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouses or stacks discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration. Compliance for PM ₁₀ , SO ₂ , VOC and HAPs shall be based on sole use of natural gas as fuel and emission factors. Recording is required for compliance demonstration.
D01a, D01b, D01c, & D01d.	Conveyor Systems (BH-W07 through BH-W10)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Annual visual observations (Method 22) emissions from building. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
D01e & D06.	Hammermill & conveyor system (BH-W13)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouse or stack discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration. Weekly moisture testing with

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
					ASTM Method C 566-97. Recording is required for compliance demonstration.
D03 & D04	Stucco Storage Bin (BH-W11 & BH-W12)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Annual visual observations (Method 22) emissions from building. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
D07-D16	Landplaster Blending, Landplaster storage, and Ball Mills (BH-W14)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Annual visual observations (Method 22) emissions from building. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
E02 & E03	Wall Board Dryer	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Section 12.5	Less than 20 percent opacity except for three (3) minutes in any 60-minute period. Heated by NCA #1 exhaust emissions or natural gas only.	Daily visual observations (Method 22) of stack discharge. Every five years the NCA #1 shall be tested for NO _x , CO, and flow. Recording is required for compliance demonstration
E101, E164, E174, & E175	Roll Crusher, Screens, & Conveyors (BH-01)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouse or stack discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
E103 & E104	Beta Rock Bins (BH-02 & BH-03)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	<p>Baghouse shall have 99.0 percent control efficiency.</p> <p>Less than seven percent opacity except for three minutes in any 60-minute period.</p> <p>Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)</p>	<p>Daily monitoring of pressure drop across baghouse with the pressure differential gauge.</p> <p>Daily visual observations (Method 22) of baghouse or stack discharge.</p> <p>Annual Method 9 on stack of control device for opacity.</p> <p>Annual Method 5 or Method 17 for particulate concentration.</p> <p>Weekly moisture testing with ASTM Method C 566-97.</p> <p>Recording is required for compliance demonstration</p>
E105 & E106	Roller Mills (BH-04 & BH-05)	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Sections 12.5 and 26 40 CFR 60, Subpart OOO	<p>Baghouses shall have 99.5 percent control efficiency.</p> <p>Less than seven percent opacity except for three minutes in any 60-minute period.</p> <p>Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)</p> <p>Heated by natural gas only.</p>	<p>Daily monitoring of pressure drop across baghouse with the pressure differential gauge.</p> <p>Daily visual observations (Method 22) of baghouses or stacks discharge.</p> <p>Annual Method 9 on stack of control device for opacity.</p> <p>Annual Method 5 or Method 17 for particulate concentration.</p> <p>Compliance for PM₁₀, SO₂, VOC and HAPs shall be based on sole use of natural gas as fuel and emission factors.</p> <p>Recording is required for compliance demonstration.</p>
E108 & E109	LP Bins (BH-06 & BH-07)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	<p>Baghouse shall have 99.0 percent control efficiency.</p> <p>No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671</p>	<p>Daily monitoring of pressure drop across baghouse with the pressure differential gauge.</p> <p>Annual visual observations (Method 22) emissions from building.</p> <p>Weekly moisture testing with ASTM Method C 566-97.</p> <p>Recording is required for compliance demonstration.</p>
E110 & E111	Kettles (BH-08 & BH-09)	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Section 12.5 40 CFR 60, Subpart UUU	<p>Baghouses shall have 99.9 percent control efficiency.</p> <p>Less than ten percent</p>	<p>Daily monitoring of pressure drop across baghouse with the pressure differential gauge.</p> <p>Daily visual observations</p>

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
				opacity except for three minutes in any 60-minute period. Stack emissions less than 0.092 g/dscm (0.040 gr/dscf) Heated by natural gas only.	(Method 22) of baghouses or stacks discharge. Annual Method 5 or Method 17 for particulate concentration. Compliance for PM ₁₀ , SO ₂ , VOC and HAPs shall be based on sole use of natural gas as fuel and emission factors. Recording is required for compliance demonstration.
E142- E144, E149- E151, E176- E178	Pan Dryers, Screens, Bins, and Conveyor System (BH-13)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO 40 CFR 60, Subpart UUU	Baghouses shall have 99.9 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf) Less than ten percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.092 g/dscm (0.040 gr/dscf) Heated by natural gas only.	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouses or stacks discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration. Recording is required for compliance demonstration.
E179	Autoclaves	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart UUU	The autoclaves shall exhibit no visible emissions based on the permit. However, Subpart UUU has a less stringent limit of 10% opacity.	Annual Method 9 for opacity. Recording is required for compliance demonstration.
E152, E154, E157, E158, E160- E162, G11 G25 & G28	Alpha Impact Mill, Alpha Crushers, Alpha Hammermill, Screen, and Storage Bins (BH-14)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouse or stack discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
					Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration
E107, E156, E165 & E173.	Loadout, Alpha Reject Screens, LP Bin Airvy System, & Ag. Gyp. Packer (BH-10 & BH-33)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Annual visual observations (Method 22) emissions from building. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
E113 & G13	LP Bulk Bagging & Reject Bin (BH-11)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Annual visual observations (Method 22) emissions from building. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
E114 & E166	Stucco Sweeco Screen, Stucco Loadout Bin, & Bulk Loadout (BH-12)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Annual visual observations (Method 22) emissions from building. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
E115- E120, G14, & G16.	East & West Hummer Screens, Stucco Bins, Beta Impact Mills, and Bucket Elevators (BH-15 & BH-16)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouse or stack discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration.

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
					Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration
E122- E130, E139, & E172	South & North Split Finish Bins, Alpha Bins, & Cement Bin, and HiVAC Vacuum System, & FP Bulk Loadout Bin (BH-17, BH-18, BH-19, BH-20, BH-21, BH-22, BH-23, BH-24, BH-25, BH-29, & BH-32)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. No visible fugitive emissions from a building shall be discharged except emissions from a vent as defined in §60.671	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Annual visual observations (Method 22) emissions from building. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.
E140 & E169	MP Bulk Bagging & Load Out Bin (BH-28)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouse or stack discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration
E112, E168, G15 & G17	FP Bulk Bagging, Stucco Conveyors, East & West Impact Mill #3, & East & West Hot Pit Bucket Elevators (BH-30)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart OOO	Baghouse shall have 99.0 percent control efficiency. Less than seven percent opacity except for three minutes in any 60-minute period. Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)	Daily monitoring of pressure drop across baghouse with the pressure differential gauge. Daily visual observations (Method 22) of baghouse or stack discharge. Annual Method 9 on stack of control device for opacity. Annual Method 5 or Method 17 for particulate concentration. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration
E131-	North & South	PM ₁₀	AQR Section 12.5	Baghouse shall have	Daily monitoring of pressure

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
E138, E170, E171, & G31	Packers, Weigh Hoppers, Mixers, MP Bulk Loadouts, & Bag Packer Feed Hoppers (BH-31)		40 CFR 60, Subpart 000	<p>99.0 percent control efficiency.</p> <p>Less than seven percent opacity except for three minutes in any 60-minute period.</p> <p>Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)</p>	<p>drop across baghouse with the pressure differential gauge.</p> <p>Daily visual observations (Method 22) of baghouse or stack discharge.</p> <p>Annual Method 9 on stack of control device for opacity.</p> <p>Annual Method 5 or Method 17 for particulate concentration.</p> <p>Weekly moisture testing with ASTM Method C 566-97.</p> <p>Recording is required for compliance demonstration</p>
G18, G19, G21	Hamilton System (BH-34)	PM ₁₀	AQR Section 12.5 40 CFR 60, Subpart 000	<p>Baghouse shall have 99.0 percent control efficiency.</p> <p>Less than seven percent opacity except for three minutes in any 60-minute period.</p> <p>Stack emissions less than 0.05 g/dscm (0.022 gr/dscf)</p>	<p>Daily monitoring of pressure drop across baghouse with the pressure differential gauge.</p> <p>Daily visual observations (Method 22) of baghouse or stack discharge.</p> <p>Annual Method 9 on stack of control device for opacity.</p> <p>Annual Method 5 or Method 17 for particulate concentration.</p> <p>Weekly moisture testing with ASTM Method C 566-97.</p> <p>Recording is required for compliance demonstration</p>
E145	Alpha Boiler	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Section 12.5 40 CFR 60, Subpart Dc	<p>Annual and short-term emission limits.</p> <p>Less than 20 percent opacity except for three (3) minutes in any 60-minute period.</p> <p>Heated by natural gas only.</p>	<p>Daily visual observations (Method 22) of stack discharge.</p> <p>Two times each year a burner efficiency test shall be performed.</p> <p>Annual Method 9 for particulate concentration.</p> <p>Every five years stack testing for NO_x and CO by EPA Methods as outlined in Part 70 Permit.</p> <p>Compliance for PM₁₀, SO₂, VOC and HAPs shall be based on sole use of natural gas as fuel and emission factors.</p> <p>Recording is required for</p>

EU	Process Description	Monitored Pollutants	Applicable Subsection Title	Requirements	Compliance Monitoring
					compliance demonstration.
E146- E148, E153,& E159	Paratherm Boilers, Alpha Multiscrew Heater, & Alpha Duct Burner	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Sections 12.5 and 26	Less than 20 percent opacity except for three (3) minutes in any 60-minute period. Heated by natural gas only.	Daily visual observations (Method 22) of stack discharge. Recording is required for compliance demonstration.
G33 & G34	Diesel Emergency Generator & Diesel Fire Pump	PM ₁₀ , CO, NO _x , SO ₂ , VOC, HAPs	AQR Sections 12.5 and 26	Less than 20 percent opacity except for three (3) minutes in any 60-minute period. Sole use of low-sulfur (<0.05 percent) diesel fuel.	Recording is required for compliance demonstration.
A01, FE100, And FE200,	Haul Roads: Paved and Unpaved	PM ₁₀	AQR Sections 12.5 91, and 93	Less than 20 percent opacity except for three (3) minutes in any 60-minute period. Treated with chemical or organic dust suppressant and watered. Sweeping with certified PM10-efficient equipment.	Recording is required for compliance demonstration.
A02, FE141, FE200a, FE200b, & FE300	Batch Dumping & Stockpile Area	PM ₁₀	AQR Section 12.5	Less than ten percent opacity except for three minutes in any 60-minute period. Treated with moisture to suppressant fugitive emissions.	Annual Method 9 for particulate concentration. Weekly moisture testing with ASTM Method C 566-97. Recording is required for compliance demonstration.

VI. ADMINSTRATIVE REQUIREMENTS

AQR Section 12.5 requires that Air Quality identify the original authority for each term or condition in the Part 70 Operating Permit. Such reference of origin or citation is denoted by *[italic text in brackets]* after each Part 70 Permit condition.

Air Quality proposes to issue the Part 70 Operating Permit conditions on the following basis:

Legal:

On December 5, 2001 in Federal Register Volume 66, Number 234 FR30097 the EPA fully approved the Title Operating Permit Program submitted for the purpose of complying with the Title V requirements of the 1990 CAAA and implementing 40 CFR 70.

Factual:

Georgia-Pacific Gypsum LLC has supplied all the necessary information for Air Quality to draft Part 70 Operating Permit conditions encompassing all applicable requirements and corresponding compliance.

Conclusion:

Air Quality has determined that Georgia-Pacific Gypsum LLC will continue to determine compliance through the use of performance testing, semi-annual reporting, daily recordkeeping, coupled with annual certifications of compliance. Air Quality proceeds with the preliminary decision that a Part 70 Operating Permit should be issued as drafted to Georgia-Pacific Gypsum LLC for a period not to exceed five years.

VII. PUBLIC PARTICIPATION

The source is subject to public notice in accordance with AQR 12.5.2.17.

VIII. MODELING

Georgia Pacific Gypsum is a major source in the Hydrographic Area 216 (Garnet Valley). Permitted emission units include gypsum products manufacturing. Since minor source baseline dates for PM₁₀ (December 31, 1980), NO₂ (January 24, 1991) and SO₂ (December 31, 1980) have been triggered, Prevention of Significant Deterioration (PSD) increment analysis is required.

Air Quality modeled the source using AERMOD to track the increment consumption. The average of 2013 and 2014 actual emissions were used in the model. Stack data submitted by the applicant were supplemented with information available for similar emission units. Five years (1999 to 2003) of meteorological data from the McCarran station and Desert Rock station were used in the model. United States Geological Survey (USGS) National Elevation Dataset (NED) terrain data was used to calculate elevations. Table VII-1 shows the location of the maximum impact and the potential PSD increment consumed by the source at that location. The impacts are below the PSD increment limits.

Table VII-1: PSD Increment Consumption

Pollutant	Averaging Period	PSD Increment Consumption by the Source (µg/m ³)	Location of Maximum Impact	
			UTM X (m)	UTM Y (m)
SO ₂	3-hour	3.94 ¹	686788	4024144
SO ₂	24-hour	1.73 ¹	686818	4024218
SO ₂	Annual	0.61	686700	4024300
PM ₁₀	24-hour	19.41 ¹	686383	4024329
PM ₁₀	Annual	8.40	686718	4024408
NO _x	Annual	16.11	686818	4024218

¹ Second High Concentration