

CLARK COUNTY
DEPARTMENT OF AIR QUALITY AND
ENVIRONMENTAL MANAGEMENT
500 South Grand Central Parkway, Box 555210, Las Vegas, Nevada 89155
Part 70 Operating Permit
Source: 593
Issued in accordance with the
Clark County Air Quality Regulations (AQR)

ISSUED TO: Georgia-Pacific Gypsum LLC

SOURCE LOCATION:

11401 US Highway 91
Apex, Nevada
T18S, R63E, Sections 34 & 35
Hydrographic Basin Number: 216

COMPANY ADDRESS:

P.O. Box 337350
Las Vegas, NV 89033

NATURE OF BUSINESS:

SIC: 3275: Gypsum Products
NAICS: 327420 Gypsum Products Manufacturing

RESPONSIBLE OFFICIAL:

Name: Mark A. Warren
Title: Plant Manager
Phone: (702) 643-8100 x 301
Fax Number: (702) 643-2049

Permit Issuance Date: November 3, 2009 Expiration Date: November 2, 2014
Permit Revision Date: December 9, 2011

**ISSUED BY: CLARK COUNTY DEPARTMENT OF AIR QUALITY AND ENVIRONMENTAL
MANAGEMENT**



Tina Gingras
Assistant Director, Clark County DAQEM

EXECUTIVE SUMMARY

Georgia-Pacific Gypsum LLC (G-P) 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 unclassified nonattainment area for 8-hour ozone (regulated through NO_x and VOC) and PSD for PM₁₀, PM_{2.5}, CO, and SO_x. G-P is a major source for CO and NO_x and a minor source for PM₁₀, PM_{2.5}, SO_x, and VOC.

Wallboard and plaster are manufactured using crushers, screens, calciners, aggregate dryers, impeller mills, mixers, storage bins, conveyors, and a board dryer. The products of the manufacturing are wallboard and alpha and beta plaster. All manufacturing and support processes at the site are grouped under the Standard Industrial Classification 3275: Gypsum Products (NAICS 327420: Gypsum Products Manufacturing). G-P 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. This Part 70 Operating Permit (OP) Revision is issued based on the application submitted on April 6, 2011.

The following table summarizes the source potential to emit (PTE) for each regulated air pollutant from all emission units addressed by this Part 70 OP. The source-wide PTE is not an emission limitation:

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

Pollutant	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC
Source Total	61.20	9.94	99.87	256.37	2.52	30.72

Pursuant to AQR 19.4.2, all terms and conditions in Sections I through IV and Attachments 1 and 2 in this permit are federally enforceable unless explicitly denoted otherwise.

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I. ACRONYMS

Table I-1: List of Acronyms

Acronym	Term
AQR	Clark County Air Quality Regulations
ATC	Authority to Construct
ATC/OP	Authority to Construct/Operating Permit
BCC	Clark County Board of County Commissioners
BHP	Brake Horse Power
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
DAQEM	Clark County Department of Air Quality & Environmental Management
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	Greenhouse Gases
HAP	Hazardous Air Pollutant
HP	Horse Power
MMcf	Million cubic feet
MPH	Miles per hour
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 _x	Sulfur Oxides
TCS	Toxic Chemical Substance
TPH	Tons Per Hour
TSD	Technical Support Document
VE	Visible Emissions
VOC	Volatile Organic Compound
Δp	Pressure Differential

II. GENERAL CONDITIONS

A. General Requirements

1. The Permittee must comply with all conditions of the Part 70 Operating Permit. Any permit noncompliance may constitute a violation of the AQRs, Nevada law, and the Act, and is grounds for any of the following: enforcement action; permit termination; revocation and re-issuance; revision; or denial of a permit renewal application. *[AQR 12.5.2.6(g)(1)]*
2. If any term or condition of this permit becomes invalid as a result of a challenge to a portion of this permit, the other terms and conditions of this permit shall not be affected and shall remain valid. *[AQR 12.5.2.6(f)]*
3. The Permittee shall pay all permit fees pursuant to AQR Section 18. *[AQR 12.5.2.6(h)]*
4. The permit does not convey any property rights of any sort, or any exclusive privilege. *[AQR 12.5.2.6(g)(4)]*
5. The Permittee shall not hinder, obstruct, delay, resist, interfere with, or attempt to interfere with the Control Officer, or any individual to whom authority has been duly delegated for the performance of any duty by the AQR. *[AQR 5.1.1]*
6. The Permittee shall allow the Control officer, or an authorized representative, upon presentation of credentials and other documents as may be required by law, to enter the Permittee's premises where a Part 70 source is located or emissions related activity is conducted and to: *[AQR 12.5.2.8(b)]*
 - a. Have access to and copy any records that must be kept under the conditions of the permit;
 - b. Inspect any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit;
 - c. Sample or monitor substances or parameters for the purpose of assuring compliance with the permit or applicable requirements; and
 - d. Document alleged violations using devices such as cameras or video equipment.
7. The Permittee owning, operating, or in control of any equipment or property who shall cause, permit, or participate in, any violation of the AQR shall be individually and collectively liable to any penalty or punishment imposed by and under the AQR. *[AQR 8.1]*
8. Any Permittee who fails to submit any relevant facts or who has submitted incorrect information in a permit application shall, upon becoming aware of such failure or incorrect submittal, promptly submit such supplementary facts or corrected information. *[AQR 12.5.2.2]*

B. Modification, Revision, Renewal Requirements

1. No person shall begin actual construction of a New Part 70 source, or modify or reconstruct an existing Part 70 source that falls within the preconstruction review applicability criteria, without first obtaining an Authority to Construct Permit from the Control Officer *[AQR 12.4.1.1(a)]*
2. The permit may be revised, revoked, reopened and reissued, or terminated for cause. The filing of a request by the Permittee for a permit revision, revocation, reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *[AQR 12.5.2.6(g)(3)]*
3. A permit, permit revision, or renewal may be approved only if all of the following conditions have been met: *[AQR 12.5.2.10(a)]*
 - a. The Control Officer has received a complete application for a permit, permit revision, or permit renewal, except that a complete application need not be received before a Part 70 general permit is issued pursuant to Section 12.5.2.20;
 - b. Except for revisions qualifying as administrative or minor permit revisions under Section 12.5.2.13 or paragraphs (a) and (b) of Section 12.5.2.14, the Control Officer has complied with the applicable requirements for public participation in Section 12.5.2.17;
 - c. The Control Officer has complied with the requirements for notifying and responding to EPA and affected states under paragraph (b) of Section 12.5.2.18;
 - d. The conditions of the permit provide for compliance with all applicable requirements and the requirements of Section 12.5; and
 - e. EPA has received a copy of the proposed permit or permit revision and any notices required under paragraphs (a) and (b) of Section 12.5.2.18, and has not objected to issuance of the permit under paragraph (c) of Section 12.5.2.18 within the time period specified therein.
4. The Permittee shall not build, erect, install or use any article, machine, equipment or process, the use of which conceals an emission, which would otherwise constitute a violation of an applicable requirement. *[AQR 80.1 and 40 CFR 60.12]*
5. No permit revisions shall be required under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes for changes that are provided for in the permit. *[AQR 12.5.2.6(i)]*
6. Permit expiration terminates the Permittee's right to operate unless a timely and complete renewal application has been submitted. *[AQR 12.5.2.11(b)]*
7. For purposes of permit renewal, a timely application is a complete application that is submitted at least six (6) months and not greater than eighteen (18) months prior to the date of permit expiration. If a source submits a timely application under this provision, it may continue operating under its current Part 70 Operating Permit until

final action is taken on its application for a renewed Part 70 Operating Permit. [AQR 12.5.2.1(a)(2)]

C. Reporting/Notifications/Providing Information Requirements

1. The Permittee shall submit all compliance certifications to the Control Officer. [AQR 12.5.2.8(e)(4)]
2. Any application form, report, or compliance certification submitted pursuant to the permit or AQRs shall contain certification by a responsible official of truth, accuracy, and completeness. This certification and any other certification required under AQR 12.5 shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. [AQR 12.5.2.6(l)]
3. The Permittee shall furnish to the Control Officer, within a reasonable time, any information that the Control Officer may request in writing to determine whether cause exists for revising, revoking and reissuing, or terminating the permit, or to determine compliance with the permit. Upon request, the Permittee shall also furnish to the Control Officer copies of records required to be kept by the permit or, for information claimed to be confidential, the Permittee may furnish such records directly to the Administrator along with a claim of confidentiality. [AQR 12.5.2.6(g)(5)]
4. Upon request of the Control Officer, the Permittee shall provide such information or analyses as will disclose the nature, extent, quantity or degree of air contaminants which are or may be discharged by such source, and type or nature of control equipment in use, and the Control Officer may require such disclosures be certified by a professional engineer registered in the state. In addition to such report, the Control Officer may designate an authorized agent to make an independent study and report as to the nature, extent, quantity or degree of any air contaminants which are or may be discharged from the source. An authorized agent so designated is authorized to inspect any article, machine, equipment, or other contrivance necessary to make the inspection and report. [AQR 4.4]
5. The Permittee shall submit annual emissions inventory reports based on the following: [AQR 18.6.1]
 - a. The annual emissions inventory must be submitted to DAQEM by March 31 of each calendar year; and
 - b. The report shall include the emission factors and calculations used to determine the emissions from each permitted emission unit, even when an emission unit is not operated.
6. The Permittee shall make all production, emission and monitoring calculations available to the Control Officer for inspection within 30 days from the end of each month. [AQR 12.5.2.8]
7. The Permittee who has been issued a permit under Section 12.5 shall post such permit in a location which is clearly visible and accessible to the facility's employees and representatives of the department. [AQR 12.5.2.6(m)]

D. Compliance Requirements

1. The Permittee shall not use as a defense in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit. *[AQR 12.5.2.6(g)(2)]*
2. Any person who violates any provision of AQR, including, but not limited to, any application requirement; any permit condition; any fee or filing requirement; any duty to allow or carry out inspection, entry or monitoring activities or any requirements by DAQEM is guilty of a civil offense and shall pay civil penalty levied by the Air Pollution Control Hearing Board and/or the Hearing Officer of not more than \$10,000. Each day of violation constitutes a separate offense. *[AQR 9.1]*
3. Any person aggrieved by an order issued pursuant to AQR Section 9 is entitled to review as provided in Chapter 233B of NRS. *[AQR 9.12]*
4. The Permittee of any stationary source or emission unit that fails to demonstrate compliance with the emissions standards or limitations shall submit a compliance plan to the Control Officer pursuant to AQR Section 10. *[AQR 10.1]*
5. The Permittee shall comply with the requirements of 40 CFR 61, Subpart M, of the National Emission Standard for Asbestos for all demolition and renovation projects. *[AQR 13.1(b)(8)]*
6. Permittee shall submit compliance certification with terms and conditions contained in the Operating Permit, including emission limitations, standards, or work practices, as follows: *[AQR 12.5.2.8(e)]*
 - a. the Permittee shall submit compliance certifications annually in writing to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) and the Administrator at USEPA Region IX (Director, Air and Toxics Divisions, 75 Hawthorne St., San Francisco, CA 94105). A compliance certification for each year will be due on January 30th of the following year;
 - b. annual submission of compliance certification, or more frequently if specified in the applicable requirement or by the Control Officer;
 - c. a means for monitoring the compliance of the source with its emission limitations, standards, and work practices;
 - d. compliance certification shall include all of the following:
 - i. the identification of each term or condition of the permit that is the basis of the certification;
 - ii. the identification of the methods or other means used by the owner or operator for determining the compliance status with each term and condition during the certification period;
 - iii. the status of compliance with the terms and conditions of the permit for the period covered by the certification, including whether compliance during the period was continuous or intermittent;

- iv. such other facts as the Control Officer may require to determine the compliance status of the source.
7. The Permittee shall report to the Control Officer any upset, breakdown, malfunction, emergency or deviation which cause emissions of regulated air pollutants in excess of any limits set by regulation or by this permit. The report shall be in two parts as specified below: *[AQR 12.5.2.6(d)(4)(B) and AQR 25.6.1]*
 - a. within twenty-four (24) hours of the time the Permittee learns of the event, the report shall be communicated by phone (702) 455-5942, fax (702) 383-9994, or email.
 - b. within seventy-two (72) hours of the notification required by paragraph (a) above, the detailed written report containing the information required by AQR Section 25.6.3 shall be submitted.
8. The Permittee shall report to the Control Officer deviations that do not result in excess emissions, with the quarterly reports. Such reports shall include the probable cause of deviations and any corrective actions or preventative measures taken. *[AQR 12.5.2.6(d)(4)(B)]*

E. Performance Testing Requirements

1. Upon request of the Control Officer, the Permittee shall test or have tests performed to determine the emissions of air contaminants from any source whenever the Control Officer has reason to believe that an emission in excess of that allowed by the DAQEM regulations is occurring. The Control Officer may specify testing methods to be used in accordance with good professional practice. The Control Officer may observe the testing. All tests shall be conducted by reputable, qualified personnel. *[AQR 4.5]*
2. Upon request of the Control Officer, the Permittee shall provide necessary holes in stacks or ducts and such other safe and proper sampling and testing facilities, exclusive of instruments and sensing devices, as may be necessary for proper determination of the emission of air contaminants. *[AQR 4.6]*
3. The Permittee shall submit for approval a performance testing protocol which contains testing, reporting, and notification schedules, test protocols, and anticipated test dates to the Control Officer (500 Grand Central Parkway, Box 555210, Las Vegas, NV 89155) not less than 45 nor more than 90 days prior to the anticipated date of the performance test unless an alternative timeline is approved by the Control Officer. *[AQR 12.5.2.8]*
4. The Permittee shall submit to EPA for approval any alternative test methods that are not already approved by EPA. *[40 CFR 60.8(b)]*
5. The Permittee shall submit a report describing the results of each performance test to the Control Officer within 60 days from the end of the performance test. *[AQR 12.5.2.8]*

III. EMISSION UNITS AND APPLICABLE REQUIREMENTS

A. Emission Units

The stationary source covered by this Part 70 OP is defined to consist of the emission units and associated appurtenances summarized in Table III-A-1 through 4. [NSR ATC/OP Modification 5, Revision 0 (05/16/2006); NSR ATC/OP Modification 6, Revision 0 (10/13/2006); NSR ATC Modification 7, Revision 1 (07/13/2009); and NSR ATC Modification 8, Revision 0 (05/05/2010)]

Table III-A-1: List of Emission Units - Wallboard Plant

EU	Rate	Description	Make	Model	Serial
A03		Rock/Recycle Feeder System			
B01		Crushing Area Conveyor			
		Bucket Elevator - Cemco Feed			
		Bucket Elevator - Rock Tank			
		Bucket Elevator -Rock Supply			
B02	80 TPH	Primary Crusher	Universal	N/A	N/A
B03		200 Ton Rock Bin			
F01	80 TPH	End Trim/Bundler	N/A	N/A	N/A
F02	43 TPH	Re-cut Machine	N/A	N/A	N/A
F03	5 TPH	Riser Machine	N/A	N/A	N/A
D17		Milling Area Conveyors System			
B04	80 TPH	Secondary Crusher	Cemco	N/A	N/A
C01	10 TPH	Imp Mill #1 - Gypsum Processing	Delta	N/A	N/A
	7.5 MMBtu/hr	Imp Mill #1 - Heated by exhaust gas (NCA #1)			
C02	10 TPH	Imp Mill #2 - Gypsum Processing	Delta	N/A	N/A
	7.5 MMBtu/hr	Imp Mill #2 - Heated by exhaust gas (NCA #1)			
C03	10 TPH	Imp Mill #3 - Gypsum Processing	Delta	N/A	N/A
	7.5 MMBtu/ hr	Imp Mill #3 - Heated by exhaust gas (NCA #1)			
C04	10 TPH	Imp Mill #4 - Gypsum Processing	Delta	N/A	N/A
	7.5 MMBtu/hr	Imp Mill #4 - Heated by exhaust gas (NCA #1)			
C05	10 TPH	Imp Mill #5 - Gypsum Processing	Delta	N/A	N/A
	7.5 MMBtu/hr	Imp Mill #5 - Heated by exhaust gas (NCA #1)			
D01a		Stucco Area Conveyor System			
D01b		Stucco Area Conveyor System			
D01c		Stucco Area Conveyor System			
		Bucket Elevator - Stucco Transfer			
D01d		Stucco Area Conveyor System			
D01e		Stucco Area Conveyor System			
		Bucket Elevator - Stucco Tank			
		Bucket Elevator - Stucco Supply			

EU	Rate	Description	Make	Model	Serial
		Bucket Elevator - Stucco Recirculating			
D18	50 TPH	Hammermill	N/A	N/A	N/A
D06	50 TPH	Stucco Blender #2	N/A	N/A	N/A
D03		North Stucco Storage Bin			
D04		South Stucco Storage Bin			
D07	50 TPH	Pin Mixer	N/A	N/A	N/A
D08		Vermiculite Bin			
		Bucket Elevator - Vermiculite			
D09		Landplaster Bin #1			
D10		Landplaster Bin #2			
		Bucket Elevator - Land Plaster			
D11	5 TPH	Ball Mill #1	N/A	N/A	N/A
D12	5 TPH	Ball Mill #2	N/A	N/A	N/A
D13		Interior Baghouse Conveyors System			
D14		Interior Baghouse Hopper			
		Concrete Basin			
		Fiberglass Feed Hopper			
E01	1.75 MMBtu/hr	Paper Heaters	N/A	N/A	N/A
E02		Forming Line			
E03	Zone 1: 30.0 MMBtu/hr Zone 2: 30.0 MMBtu/hr Zone 3: 15.0 MMBtu/hr	Board Dryer: Natural Gas Heaters and/or Heat supplied by NCA #1: [includes emissions from EU: E02]	COE	N/A	N/A

N/A – Not Available

Table III-A-2: List of Emission Units - Plaster Plant

EU	Rate	Description	Make	Model	Serial
E101	50 TPH	Roll Crusher	Williams	N/A	20047
E102		Rock Conveyor System			
E164	50 TPH	Alpha Rock Screen	Simplicity	N/A	238-nuz6s-ss13
E174	50 TPH	North Beta Rock Grizzly Feed Screen	N/A	N/A	N/A
E175	50 TPH	South Beta Rock Grizzly Feed Screen	N/A	N/A	N/A
E103		West Beta Rock Bin			
E104		East Beta Rock Bin			
E108		West LP Bin			
E109		East LP Bin			
E105	25 TPH	West Roller Mill - Gypsum Processing	Williams	N/A	20030
	5.7 MMBtu/hr	West Roller Mill - Combustion			

EU	Rate	Description	Make	Model	Serial
E106	25 TPH	East Roller Mill - Gypsum Processing	Williams	N/A	20023
	5.7 MMBtu/hr	East Roller Mill - Combustion			
E110	15 TPH	West Kettle - Gypsum Processing	ABB Alstom	N/A	N/A
	20.0 MMBtu/hr	West Kettle - Combustion			
E111	15 TPH	East Kettle - Gypsum Processing	ABB Alstom	N/A	N/A
	20.0 MMBtu/hr	East Kettle - Combustion			
E142		Alpha Rock Conveyors			
		Bucket Elevator - Alpha Basket			
E143	50 TPH	South Alpha Rock Bin			
E144	50 TPH	North Alpha Rock Bin			
E176	50 TPH	South Alpha Rock Bin Grizzly Feed Screen	N/A	N/A	N/A
E177	50 TPH	North Alpha Rock Bin Grizzly Feed Screen	N/A	N/A	N/A
E178	50 TPH	Alpha Rock Elevator Screen	N/A	N/A	N/A
E149	2 TPH	Pan Dryer #1	N/A	N/A	N/A
E150	2 TPH	Pan Dryer #2	N/A	N/A	N/A
E151	2 TPH	Pan Dryer #3	N/A	N/A	N/A
E179	1 TPH	Autoclave System #1 through #8	N/A	N/A	N/A
E152	N/A	Alpha IMPACT Mill #1	N/A	N/A	N/A
		Alpha Air Separator	Raymond		
		Bucket Elevator - Alpha Reheater Feed			
		Bucket Elevator - Alpha Reheater Disch.			
E161	6 TPH	Alpha Crusher #1	Cemco	N/A	N/A
E162	6 TPH	Alpha Crusher #2	Cemco	N/A	N/A
E160	6 TPH	Alpha Hammermill	Jeffery	30ABF	10034404
E154	6 TPH	Alpha Hummer Screen	Tycan	N/A	N/A
E157		South Alpha Storage Bin			
E158		North Alpha Storage Bin			
G11		Alpha Surge Bin			
G25		Bucket Elevator - Alpha Surge Bin			
G28		Bucket Elevator - Alpha Storage Bin			
E156	6 TPH	Alpha Reject Screens	Sweeco	N/A	N/A
E107		LP Bulk Loadout Bin w/ Enclosed Screw Conveyor			
		LP Bulk Loadout			
		Ag Gyp Packer			
E173		LP Bin Airvey System			
G13		LP Bulk Bagging			

EU	Rate	Description	Make	Model	Serial
E113		Reject Bin			
E166	20 TPH	Stucco Sweeco Screen	Sweeco	N/A	N/A
E114		Stucco Bulk Loadout Bin			
		Stucco Bulk Loadout			
E115	25 TPH	West Hummer Screen	Tycan	4X15	17577
E117		West Stucco Bin			
		West Air Separator			
E119	10 TPH	West Beta IMPACT Mill #1	Entoleter	533	N/A
G14	10 TPH	West Beta IMPACT Mill #2	Entoleter	533	N/A
		Bucket Elevator - East Finish Stucco			
E118		East Stucco Bin			
E116	25 TPH	East Hummer Screen	Tycan	4X15	17576
E120	10 TPH	East Beta IMPACT Mill #1	Entoleter	533	N/A
G16	10 TPH	East Beta IMPACT Mill #2	Entoleter	533	N/A
		Bucket Elevator - West Finish Stucco			
E122		Split Finish Bin #1 South			
E123		Split Finish Bin #1 North			
E124		Split Finish Bin #2 South			
E125		Split Finish Bin #2 North			
E126		Split Finish Bin #3 South			
E127		Split Finish Bin #3 North			
E128		South Alpha Bin			
E130		Cement Bin			
E129		North Alpha Bin			
E172		HiVAC Vacuum System			
E140		MP Bulk Bagging			
		MP Bulk Load Out Bin			
E139		FP Bulk Load Out Bin			
E168		FP Bulk Bagging			
E112		Stucco Conveyors System			
		Bucket Elevator - West Hot Pit			
		Bucket Elevator - East Hot Pit			
G15	15 TPH	West Beta IMPACT Mill #3	Entoleter	N/A	N/A
G17	15 TPH	East Beta IMPACT Mill #3	Entoleter	N/A	N/A
E187	0.05 TPH	Ball Mill	N/A	N/A	N/A
E133	30 TPH	South Bag Packer	Scott	STPPDG96 9SS	1019
		South Weigh Hopper			
		South Additive Feeder Belt			
		South Mixer			
		South MP Bulk Loadout			
		South Bag Packer Feed Hopper			

EU	Rate	Description	Make	Model	Serial
E134		North Bag Packer			
		North Weigh Hopper			
		North Additive Feeder Belt			
	30 TPH	North Mixer	Scott	STPPDG96 9SS	1018
		North MP Bulk Loadout			
		North Bag Packer Feed Hopper			
		Bucket Elevator - Mixed Product			
G18		Hamilton Surge Bin			
G19		Hamilton Bulk Loadout Bin			
G21		Hamilton Bulk Loadout			
	30 TPH	Hamilton Rotary Screens	Kemtec	N/A	N/A
E145	12.0 MMBtu/hr	Alpha Boiler	Cleaver Brooks	CB1700500 150	OL099776
E146	1.2 MMBtu/hr	Boiler #1	Parather m	FT-0120-C	3103-C
E147	1.2 MMBtu/hr	Boiler #2	Parather m	FT-0120-C	3105-C
E148	1.2 MMBtu/hr	Boiler #3	Parather m	FT-0120-C	3104-C
E153	1.2 MMBtu/hr	Alpha Multiscrew Heater	N/A	N/A	N/A
E159	1.0 MMBtu/hr	Alpha Duct Burner	N/A	N/A	N/A
G32		Plaster Mill Ink			

N/A – Not Available

Table III-A-3: List of Emission Units - Emergency IC Engines

EU	Rate	Description	Make	Model	Serial
G33	59 hp	Perkins - Emergency	Perkins	9182454	26434001 T
G34	660 hp	Caterpillar - Fire Pump	Caterpillar	3412	28S20760

Table III-A-4: List of Emission Units - Fugitive Emissions

EU	Rate	Description	Make	Model	Serial
A01		Wallboard Trucks			
FE100		Rock Trucks (weighted)			
		Rock Trucks (South Route)			
		Bulk Plaster Trucks (Plaster Loop)			
		Bulk Plaster Trucks (North Road)			
		Plaster Trucks (Flatbed)			
		Rock Trucks (Unpaved Road)			
FE200		Loaders			

FE300	720 tons/day	Batch Dumping Beta Rock			
FE141	175 tons/day	Batch Dumping Alpha Rock			
FE200a	1,890 tons/day	Truck Dumping			
FE200b	1,200 tons/day	Batch Dumping Board Rock			
A02	2.5 acres	Stockpile Area			

B. Emission Limitations and Standards

1. Emission Limits

- a. The Permittee shall not allow actual emissions from each emission unit to exceed the PTE listed in Tables III-B-1 through 4, on a 12-month rolling total basis. [NSR ATC/OP Modification 5, Revision 0 (05/16/2006), NSR ATC/OP Modification 6, Revision 0 (10/13/2006), NSR ATC Modification 7, Revision 1 (07/13/2009), and NSR ATC Modification 8, Revision 0 (05/05/2010)]

Table III-B-1: PTE - Particulate Emissions (tons per year)

Wallboard Plant					
EU	PM ₁₀	EU	PM ₁₀	EU	PM ₁₀
A03	0.01	C03	4.38	D04	0.35
B01	0.77	C04	4.38	D07	0.02
B02	0.46	C05	4.38	D08	0.01
B03	0.14	D01a	0.11	D09	0.01
F01	1.41	D01b	0.11	D10	0.01
F02	0.16	D01c	0.13	D11	0.03
F03	0.16	D01d	0.11	D12	0.03
D17	0.44	D01e	0.18	D13	0.44
B04	0.46	D18	0.28	D14	0.00
C01	4.38	D06	0.02		
C02	4.38	D03	0.35		
Plaster Plant					
EU	PM ₁₀	EU	PM ₁₀	EU	PM ₁₀
E101	0.28	E161	0.03	E122	0.35
E102	0.22	E162	0.03	E123	0.35
E164	0.18	E160	0.03	E124	0.35
E174	0.18	E154	0.02	E125	0.35
E175	0.18	E157	0.04	E126	0.35
E103	0.35	E158	0.04	E127	0.35
E104	0.35	G11	0.04	E128	0.14
E108	0.18	G25	0.01	E130	0.14
E109	0.18	G28	0.01	E129	0.14
E105	1.42	E156	0.02	E172	0.18
E106	1.42	E107	0.46	E140	0.23
E110	1.71	E173	0.21	E139	0.14
E111	1.71	G13	0.02	E168	0.02
E142	0.12	E113	0.14	E112	0.48
E143	0.35	E166	0.07	G15	0.09
E144	0.35	E114	0.35	G17	0.09
E176	0.18	E115	0.09	E187	0.01
E177	0.18	E117	0.23	E133	0.42
E178	0.18	E119	0.06	E134	0.43

E149	0.01	G14	0.07	G18	0.21
E150	0.01	E118	0.18	G19	0.21
E151	0.01	E116	0.09	G21	0.32
E179	0.00	E120	0.06		
E152	0.06	G16	0.07		
Fugitive Emissions					
EU	PM ₁₀	EU	PM ₁₀	EU	PM ₁₀
A01	0.11	FE300	0.13	FE200b	0.22
FE100	2.23	FE141	0.03	A02	0.76
FE200	0.70	FE200a	2.35		

Table III-B-2: PTE - Combustion Emissions (tons per year)

Wallboard Plant						
EU	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC
C01	0.18	0.18	4.17	15.54	0.10	0.30
C02	0.18	0.18	4.17	15.54	0.10	0.30
C03	0.18	0.18	4.17	15.54	0.10	0.30
C04	0.18	0.18	4.17	15.54	0.10	0.30
C05	0.18	0.18	4.17	15.54	0.10	0.30
E01	0.04	0.04	0.73	0.61	0.01	0.04
E03	7.57	7.57	49.20	153.70	1.89	4.56
Plaster Plant						
EU	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC
E105	0.01	0.01	2.38	2.00	0.01	0.13
E106	0.01	0.01	2.38	2.00	0.01	0.13
E110	0.48	0.48	8.34	7.01	0.05	0.46
E111	0.48	0.48	8.34	7.01	0.05	0.46
E145	0.29	0.29	5.01	4.20	0.03	0.28
E146	0.03	0.03	0.50	0.42	0.01	0.03
E147	0.03	0.03	0.50	0.42	0.01	0.03
E148	0.03	0.03	0.50	0.42	0.01	0.03
E153	0.03	0.03	0.50	0.42	0.01	0.03
E159	0.02	0.02	0.42	0.35	0.01	0.02
IC Engines						
EU ²	PM ₁₀	PM _{2.5}	NO _x	CO	SO _x	VOC
G33	0.01	0.01	0.03	0.01	0.01	0.01
G34	0.01	0.01	0.24	0.05	0.01	0.06

Table III-B-3: PTE - Forming Line Emissions (tons per year)

EU	Raw Materials	Throughput (lbs/yr)	VOC%	VOC PTE (tons/yr)
E02	Other VOC Board Additives	1,344,824	2.00%	13.45
	Edge Adhesive (TR)	300,000	0.10%	0.15
	Edge Adhesive (DAP/DGG)	300,000	0.10%	0.15
	Silicone	460,000	3.50%	8.05
	Gold Paint	10,000	1.00%	0.05
	Wallboard Plant Ink	10,000	21.6%	1.08

Table III-B-4: PTE - Ink Emissions (tons per year)

EU	Description	Throughput (lbs/yr)	VOC PTE (tons/yr)
G32	Plaster Mill Ink	158	0.02

- b. The Permittee shall not allow actual emissions from the Alpha Boiler to exceed the concentration limits listed in Table III-B-5. [AQR 12.5.2.6]

Table III-B-5: Concentration Limits – Combustion Emissions (pounds per hour)

EU	Description	NO _x	CO
E145	Alpha Boiler	1.14	0.96

- c. The Permittee shall not discharge into the atmosphere, from any emission unit, any air contaminant in excess of an average of 20 percent opacity for a period of more than 6 consecutive minutes. [AQR 26.1.1]
- d. The Permittee shall not allow visible emissions from the exhaust stacks from the Impeller Mills (EUs: C01 through C05), Paper Heater (EU: E01), Board Dryer (EU: E03), Roller Mills (EUs: E105 and E106), Kettle Calciners (EUs: E110 and E111), Alpha Boiler (EU: E145), the Paratherm boilers (EUs: E146 through E148), Alpha Multiscrew Heater (EU: E153), and Alpha Duct Burner (EU: E159) to exceed 20 percent opacity when viewed in accordance with EPA Method 9. [AQR 19.4.1.1]
- e. The Permittee shall not allow the baghouses in the Wallboard Plant: BH-W01 through BH-W06, BH-W13 and baghouses in the Plaster Plant: BH-01 through BH-05, BH-08, BH-09, BH-13 through BH-16, BH-28, BH-30, BH-31, and BH-34 to exhibit visible emissions greater than seven (7) percent opacity. [40 CFR 60.672(a)(2)]
- f. The Permittee shall not allow the baghouses in the Wallboard Plant: BH-W01 through BH-W06, BH-W13 and baghouses in the Plaster Plant: BH-01 through BH-05, BH-08, BH-09, BH-13 through BH-16, BH-28, BH-30, BH-31, and BH-34 to discharge into the atmosphere emissions from any stack which contains particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf). [40 CFR 60.672(a)(1)]
- g. The Permittee shall not allow the baghouses in the Wallboard Plant: BH-W07 through BH-W12, and BH-W14 and baghouses in the Plaster Plant: BH-06, BH-07, BH-10 through BH-12, BH-17 through BH-25, BH29, BH-32, and BH-33 that are enclosed in buildings, to exhibit any visible fugitive emissions or discharge into the atmosphere from any opening from the building, except from a vent as defined in 40 CFR 60.671. [40 CFR 60.672(2)(1) & (2)]
- h. The Permittee shall not allow the autoclave calciners (EU: E179) to exhibit any visible emissions. [NSR ATC Modification 7, Revision 1, Condition IV-B(1)(b) (07/13/2009)]

2. Production Limits

- a. The Permittee shall limit processing of gypsum rock at the Wallboard Plant to 1,200 tons per day and 438,000 tons per rolling 12-month period. [NSR ATC Modification 6, Revision 0, Condition III-A-4 (10/13/06)]
- b. The Permittee shall limit the use of VOC containing materials for the Wallboard Plant to the throughput listed in Table III-B-3. [AQR 12.5.2.6(a) (Effective 07/01/2010)]
- c. The Permittee shall limit the maximum production of the Plaster Plant to 332,880 tons per rolling 12-month period. [AQR 19.4.1.1]
- d. The Permittee shall limit the use of NCA #1 turbine exhaust gas to 400,000 pounds per hour and 1,752,000 tons per rolling 12-month period. [AQR 19.4.1.1]
- e. The Permittee shall limit operation of the Perkins diesel emergency generator and the Caterpillar diesel fire pump (EUs: G33 and G34) to one hour per day and a total of 30 hours per rolling 12-month period each for testing and maintenance purpose. These limits do not

apply during emergencies. *[NSR ATC/OP Modification 5, Revision 0, Condition III-A-2, (5/16/2006) and AQR 19.4.1.1]*

3. Emission Controls

- a. The Permittee shall combust only natural gas when using the Board Dryer (EU: E03) and the Imp Mills (EUs: C01 through C05) when exhaust gas from NCG #1 is not being used as the heat source. *[NSR ATC/OP Modification 5, Revision 0, Condition III-A-6 and III-B-23 (5/16/2006)]*
- b. The Permittee shall only combust natural gas in the Paper Heaters, Roller Mills, Kettles, Alpha boiler, Paratherm boilers, Alpha Multiscrew Heater, and Alpha Duct Burner (EUs: E01, E105, E106, E110, E111, E145 through E148, E153, and E159). *[NSR ATC/OP Modification 5, Revision 0, Condition III-B-23 (5/16/2006)]*
- c. The Permittee shall maintain and operate the Alpha boiler (EU: E145) with burners that have a manufacturer's maximum emission rate of no more than 30 ppm NO_x, corrected to 3 percent oxygen. *[AQR 12.5.2.6 (07/01/10)]*
- d. The Permittee shall maintain and operate the Alpha boiler (EU: E145) with burners that have a manufacturer's maximum emission rate of no more than 100 ppm CO, corrected to 3 percent oxygen. *[AQR 12.5.2.6 (07/01/10)]*
- e. The Permittee shall operate the baghouse on all gypsum handling equipment, Imp Mills, Pin Mixer, Hammermill, Ball Mills, Roller Mills, Kettles, and Pan Dryers at all times processing equipment is operating (EUs: C01 through C05, D07, D11, D12, E105, E106, E110, E111, and E149 through E151). *[40 CFR 60, Subpart 000 and 40 CFR 60, Subpart UUU]*
- f. The Permittee shall operate the baghouses on the Imp Mills (EUs: C01 through C05) and Kettles (EUs: E110 and E111) to maintain a total particulate control efficiency of at least 99.9 percent on each baghouse. *[AQR 19.4.1.1]*
- g. The Permittee shall operate the baghouses on the Roller Mills (EUs: E105 and E106) to maintain a total particulate control efficiency of at least 99.5 percent on each baghouse. *[AQR 19.4.1.1]*
- h. The Permittee shall operate the baghouses and filter drum on all remaining gypsum handling equipment to maintain a total particulate control efficiency of at least 99.0 percent on each baghouse. *[AQR 19.4.1.1/AQR 12.5.2.6]*
- i. The Permittee shall insure no fugitive emissions are generated from a baghouse. *[AQR 19.4.1.1]*
- j. The Permittee shall insure the pressure drop across each baghouse is maintained within the limits specified by the manufacturer. A copy of the manufacturer's specifications shall be kept on site. *[AQR 19.4.1.1]*
- k. The Permittee shall maintain a water spray system in good operating condition, as verified by a daily inspection on the days when the plant is operating, and be used at as necessary during the processing of the material. This shall include not be limited to transfer points and stacker points excluding washed product processing. The Permittee shall investigate and correct any problems before resuming operations. The Control Officer at any time may require additional water sprays at pertinent locations if an inspection indicates that the specified opacity limits are being exceeded. *[AQR 19.4.1.1]*
- l. The Permittee shall control fugitive dust emissions from conveyors, storage piles, transfer points, screens, and non-metallic mineral processing equipment not connected to baghouse controls by water sprays at emission points and/or maintenance of at least 0.5 percent moisture by weight in materials less than ¼ inch in diameter. *[AQR 19.4.1.1]*

- m. The Permittee shall not cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance. [AQR 40.1]
- n. The Permittee shall operate the Caterpillar fire pump with a turbocharger and aftercooler (EU: G34). [AQR 19.4.1.1]
- o. The Permittee shall operate and maintain each diesel emergency generator and fire pump in accordance with the manufacturer's specifications. [AQR 14.4.1.1]
- p. The Permittee shall maintain each emergency generator (EUs: G33 and G34) as follows, unless the manufacturer's specifications are more stringent: [40 CFR 63.6603]
 - i. Change oil and filter every 500 hours of operation or annually, whichever comes first;
 - ii. Inspect air cleaners every 1,000 hours of operation or annually, whichever comes first; and
 - iii. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.
- q. The Permittee shall combust only low sulfur diesel fuel (0.05 percent or less sulfur by weight) in diesel engines (EUs: G33 and G34). [AQR 19.4.1.1]
- r. The Permittee shall not test the generator and fire pump during carbon monoxide air quality episodes such as alerts, warnings or emergencies declared by the Control Officer. [AQR 70.1]
- s. The Permittee shall take continual measures to control fugitive dust (e.g. wet, chemical or organic suppression, or enclosures) from aggregate processing operations, material transfer points, stockpiles, truck loading stations, and haul roads throughout the source. The Control Officer may at any time require additional water sprays or other controls at pertinent locations if an inspection indicates that opacity limits are being exceeded. [AQR 19.4.1.1]
- t. The Permittee shall not cause or allow the discharge of fugitive dust in excess of 100 yards from the point of origin or beyond the lot line of the property on which the emissions originate whichever is less [AQR 19.4.1.1]
- u. The Permittee shall sweep and/or rinse as necessary paved roads accessing or located on the site to remove all observable deposits and so as not to exhibit opacity greater than 20 percent as determined by observations based on EPA Method 9, or an instantaneous opacity greater than 50 percent. [AQR 19.4.1.1]
- v. The Permittee shall not exceed silt loading on paved roads of 0.33 ounces per square foot regardless of the average number of vehicles per day. [AQR 19.4.1.1]
- w. The Permittee shall insure that all unpaved roads accessing or located on the site will be treated with chemical or organic dust suppressant and watered as necessary, or paved, or graveled, or have an alternate, Control Officer-approved control measure applied so as not to exhibit opacity greater than 20 percent or an instantaneous opacity greater than 50 percent. In addition, silt content shall not exceed six (6) percent or silt loading shall not exceed 0.33 ounces per square foot (depending on the control method chosen) regardless of the average number of vehicles per day. [AQR 19.4.1.1]
- x. The Permittee shall not allow mud or dirt to be tracked out onto a paved road where such mud or dirt extends 50 feet or more in cumulative length from the point of origin, nor shall any trackout be allowed to accumulate to a depth greater than 0.25 inches. Notwithstanding the preceding, all accumulations of mud or dirt on curbs, gutters, sidewalks or paved roads including trackout less than 50 feet in length and/or less than 0.25 inches in depth shall be cleaned of all observable deposits and maintained to eliminate emissions of fugitive dust. [AQR 19.4.1.1]
- y. The Permittee shall ensure that all loaded trucks, regardless of ownership, shall be properly covered to prevent visible emissions. [AQR 19.4.1.1]

- z. Where a stationary source, or a portion thereof, is to be closed or idled for a period of 30 days or more, the Permittee shall insure that long-term stabilization of disturbed areas shall be implemented within ten (10) days following the cessation of active operations. Long-term stabilization includes, but is not limited to, one or more of the following: applying water to form a crust, applying palliatives, applying gravel, paving, denying unauthorized access or other effective control measure to prevent fugitive dust from becoming airborne. [AQR 19.4.1.1]

C. Monitoring

1. The Permittee shall demonstrate compliance with the minimum moisture content (0.5 percent for screens, crushers, conveyors, storage piles, transfer points, and nonmetallic mineral processing equipment not connected to baghouse controls or part of the wet process) by conducting moisture testing and recording the results at least once each week on materials less than ¼ inches in diameter in accordance with ASTM Standard C 566-97: Standard Test Method for Total Moisture Content of Aggregate by Drying. [AQR 12.8 and 19.4.1.3]
2. On-site personnel familiar with EPA Method 9 shall perform visible emissions checks on all operations at least once per day, or more if meteorological conditions warrant it. [AQR 12.8 and AQR 19.4.1.3]
3. If the observer, during the visible emissions check, does not see any plume that, on an instantaneous basis, appears to exceed the opacity standard, then the observer shall keep a record of the name of the observer, the date on which the observation was made, the location, and the results of the observation. [AQR 19.4.1.3]
4. If the observer sees a plume that, on an instantaneous basis, appears to exceed the opacity standard, then the Permittee shall have a certified VE observer take an EPA Method 9 observation of the plume and record the results. [AQR 19.4.1.3]
5. If Method 9 readings cannot be obtained, the observer shall also indicate in the log: a) the reason why a Method 9 could not be performed, b) the color of the emissions, c) whether the emissions were light or heavy, d) the cause of the abnormal emissions, and e) any corrective action taken. [AQR 19.4.1.3]
6. The Permittee shall conduct daily monitoring of the pressure drop across each baghouse cell with the installation and operation of a pressure differential (Magnehelic) gauge per manufacturer's specifications. A copy of the manufacturer's specifications shall be kept on site. [AQR 12.8 and AQR 19.4.1.3]
7. The Permittee shall make annual visual inspections of the baghouse interior for air leaks. Defective baghouse compartments shall be sealed off and repairs completed within five (5) working days of the discovery of the malfunction. Should the malfunction cause the baghouse to be ineffective in controlling particulate emissions, the processing of material shall cease until such repairs to the baghouse are completed. [AQR 12.8 and AQR 19.4.1.3]
8. The Permittee shall operate each emergency generator and fire pump (EUs: G33 and G34) with a non-resettable hour meter and monitor the duration of operation for testing and maintenance, and separately for emergencies. [40 CFR 63.6625(f)]
9. The Permittee shall investigate any occurrence of visible fugitive dust. Corrective actions shall be immediately taken to correct causes of fugitive dust in excess of allowable opacity limits. [AQR 19.4.1.3]
10. Compliance Assurance Monitoring:
 - a. Only emission units depicted in Table III-C-1 with pre-control emission exceeding 100 tons per year of PM₁₀ are subject to the CAM rule. [AQR 19.4.1.3]:

Table III-C-1: Emission Units Subject to CAM

EU	Description	Control Device
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
C01	IMP Mill #1	Baghouse: BH-W02
C02	IMP Mill #2	Baghouse: BH-W03
C03	IMP Mill #3	Baghouse: BH-W04
C04	IMP Mill #4	Baghouse: BH-W05
C05	IMP Mill #5	Baghouse: BH-W06
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
E105	West Roller Mill	Baghouse: BH-04
E106	East Roller Mill	Baghouse: BH-05
E110	West Kettle (w/out combustion added)	Baghouse: BH-08
E111	East Kettle (w/out combustion added)	Baghouse: BH-09
E142-E144, E149-E151, E176-E178, & G24	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

- b. Daily measurements of pressure differential between inlet and outlet of the baghouse (Δp) for PM_{10} and visible emissions 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 Table III-C-2. [AQR 19.4.1.3]:

Table III-C-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 $\frac{1}{2}$ inches and greater than 6 inches of water for the baghouses connected to EUs: A03, B01-B04, C01-C05, D17, E101, E102, E105, E106, E110, E111, E142-E144, E149-E151, E164, E174-178, F01-F03, G02-G04, & G24. 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

CAM Element	Indicator 1	Indicator 2
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

D. Testing

1. The Permittee shall demonstrate compliance with the opacity standards and particulate emission standards expressed in g/dscm or gr/dscf, as listed in Table III-D-1, by conducting performance tests on emission units listed in Table III-D-1 in accordance with 40 CFR 60 Reference Method 9 (Standards for Opacity) or Method 22, and Reference Method 5 or Method 17. [AQR 12.8 and AQR 19.4.1.3]
2. Regardless of the date of issuance of this permit, Performance Testing shall be performed as delineated in Table III-D-1. [AQR 12.8 (10/07/04), AQR 12.5.2.8 (07/01/10) and AQR 19.4.13]:

Table III-D-1: Performance Testing Protocol Requirements

EU	Description	Performance Test	Frequency
A03, B01-B04, D17, & F01-F03	Baghouse: BH-W01	Method 9	Annual
		Method 5 or Method 17	Every 5 years
C01	Baghouse: BH-W02	Method 9	Annual
		Method 5 or Method 17	Every 5 years
C02	Baghouse: BH-W03	Method 9	Annual
		Method 5 or Method 17	Every 5 years
C03	Baghouse: BH-W04	Method 9	Annual
		Method 5 or Method 17	Every 5 years
C04	Baghouse: BH-W05	Method 9	Annual
		Method 5 or Method 17	Every 5 years
C05	Baghouse: BH-W06	Method 9	Annual
		Method 5 or Method 17	Every 5 years
D01a	Baghouse: BH-W07	Method 22	Annual
D01b	Baghouse: BH-W08	Method 22	Annual
D01c	Baghouse: BH-W09	Method 22	Annual

EU	Description	Performance Test	Frequency
D01d	Baghouse: BH-W10	Method 22	Annual
D03	Baghouse: BH-W11	Method 22	Annual
D04	Baghouse: BH-W12	Method 22	Annual
D01e, D06, & D18	Baghouse: BH-W13	Method 9	Annual
		Method 5 or Method 17	Every 5 years
D07-D14	Baghouse: BH-W14	Method 22	Annual
E101, E102, E164, E174, & E175	Baghouse: BH-01	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E103	Baghouse: BH-02	Method 9	Annual
E104	Baghouse: BH-03	Method 9	Annual
E105	Baghouse: BH-04	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E106	Baghouse: BH-05	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E108	Baghouse: BH-06	Method 22	Annual
E109	Baghouse: BH-07	Method 22	Annual
E110	Baghouse: BH-08	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E111	Baghouse: BH-09	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E107, E156, & E173	Baghouse: BH-10 & BH-33	Method 22	Annual
E113 & G13	Baghouse: BH-11	Method 22	Annual
E114 & E166	Baghouse: BH-12	Method 22	Annual
E142-E144, E149-151, & E176-E178	Baghouse: BH-13	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E152, E154, E157, E158, E160-E162, G11, & G25- G28	Baghouse: BH-14	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E115, E117, E119, & G14	Baghouse: BH-15	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E116, E118, E120, & G16	Baghouse: BH-16	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E122	Baghouse: BH-17	Method 22	Annual

EU	Description	Performance Test	Frequency
E123	Baghouse: BH-18	Method 22	Annual
E124	Baghouse: BH-19	Method 22	Annual
E125	Baghouse: BH-20	Method 22	Annual
E126	Baghouse: BH-21	Method 22	Annual
E127	Baghouse: BH-22	Method 22	Annual
E128	Baghouse: BH-23	Method 22	Annual
E130	Baghouse: BH-24	Method 22	Annual
E129	Baghouse: BH-25	Method 22	Annual
E140	Baghouse: BH-28	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E139	Baghouse: BH-29	Method 22	Annual
E112, E168, G15, & G17	Baghouse: BH-30	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E133 & E34	Baghouse: BH-31	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E172	Baghouse: BH-32	Method 22	Annual
G18, G19, & G21	Baghouse: BH-34	Method 9	Annual
		Method 5 or Method 17	Every 5 years
E179	Enclosed Batch Process	Method 9	Annual
E187	Enclosed/Filter Drum	Method 22	Annual
E145	Alpha Boiler	Method 7E	Every 5 years
		Method 10	Every 5 years
		Methods 1, 2, 3A, & 4	Every 5 years

3. The NCA #1 exhaust gas and Board Dryer (EU: E03) in the Wallboard Plant shall continue to demonstrate compliance with the following provisions:

NO_x and CO

- a. the exhaust gas from Nevada Cogeneration Associates #1 (NCA #1) shall be tested for NO_x, CO, and flow every thirty-six (36) months,
- 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,
- c. each subsequent exhaust gas performance testing shall be conducted during the six (6) months after the pervious performance test, and
- d. stack emissions from the board dryer (EU: E03) shall be combined during stack testing and do not have to be tested individually to determine compliance with the board dryer emission limitations.

Table III-D-2: 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
Exhaust Gas from NCA #1	Flow	Pounds per hour

E. Record Keeping

1. For all inspections, visible emission checks, and testing required under monitoring, logs, reports, and records shall include at least the date and time, the name of the person performing the action, the results or findings, and the type of corrective actions taken (if require). [AQR 19.4.1.3]
2. All records and logs (or a copy thereof) required by this permit shall be kept on-site for a minimum of five (5) years from the date the measurement or data was entered. [AQR 19.4.1.3]
3. Records and data required by this permit shall be maintained by the Permittee and may, at the Permittee's expense, be audited at any time by a third party selected by the Control Officer. [AQR 19.4.1.3]
4. Should this stationary source, as defined in 40 CFR 68.3, become subject to the accidental release prevention regulations in Part 68, then the Permittee shall submit a risk management plan (RMP) by the date specified in section 68.10 and shall certify compliance with the requirements of part 68 as part of the annual compliance certification as required by 40 CFR Part 70 or 71. [AQR 19.4.1.3]
5. All records associated with acquisition of aggregate material used in the manufacturing process shall be kept by the Permittee and made available to the Control Officer for inspection upon request. [AQR 19.4.1.3]
6. Records and logs shall contain, at minimum, the following information [AQR 19.4.1.3]:

Wallboard Plant - Records requiring quarterly reporting:

- a. daily, monthly and annual production (based on a 12-month rolling total) of gypsum processed for the Wallboard Plant;
- b. monthly and annual (based on a 12-month rolling total) records of usage of all VOC-containing materials used in the manufacturing of wallboard;
- c. monthly and annual (based on a 12-month rolling total) hours of operation for each natural gas-fired emission units;
- d. monthly and annual (based on a 12-month rolling total) hours of operation for each emission unit that uses NCA #1 cogeneration exhaust gas;
- e. hourly and annual (based on a 12-month rolling total) pounds of NCA #1 cogeneration exhaust gas used by the Permittee;

Plaster Plant - Records requiring quarterly reporting:

- f. monthly and annual production (based on a 12-month rolling total) of industrial plaster in the Plaster Plant;
- g. monthly hours of operation for each natural gas-fired emission unit;

Emergency Generator and Fire Pump - Records requiring quarterly reporting:

- h. records of the maintenance conducted on the emergency generator and fire pump in order to demonstrate that the Permittee operated the maintained the generator and fire pump in accordance to the maintenance plan (EUs: G33 and G34). [40 CFR 63.6655(e)]
- i. date and duration of operation of emergency generator and fire pump for testing and maintenance, and separately for emergencies (EUs: G33 and G34). [40 CFR 63 Subpart ZZZZ]

Fugitive Emissions - Records requiring quarterly reporting:

- j. length of the on-site haul road(s);

Records maintained onsite or reported as required:

- k. log of control device inspections, maintenance, and repairs;
 - l. log of daily pressure drop across each baghouse cell;
 - m. result of daily visible emission checks of the operations;
 - n. results of daily visual observations of baghouse;
 - o. results of boiler-tune ups for the Alpha boiler;
 - p. sulfur content of diesel fuel;
 - q. results of weekly moisture sampling;
 - r. MSDS records of all VOC-containing materials used in the manufacturing of wallboard.
 - s. log of dust control measures applied to the paved haul roads, unpaved haul roads, and storage piles; and
 - t. results of performance testing.
- 7. The Permittee shall maintain records of any malfunction of the air pollution control equipment; or any periods during which a monitoring device is inoperative. [40 CFR 60.7(b)]
 - 8. The Permittee shall have a standard operating procedures (SOP) manual for baghouses. The procedures specified in the manual for maintenance shall, at a minimum, include a preventative maintenance schedule that is consistent with the baghouse manufacturer's instructions for routine and long-term maintenance. A copy of the maintenance schedule shall be kept on site. [AQR 19.4.1.1]
 - 9. Sulfur content of diesel fuel shall be certified by the supplier with each fuel delivery. [AQR 19.4.1.3]

F. Reporting

- 1. All report submissions shall be addressed to the attention of the Control Officer. [AQR 14.3, 21.4, and 22.4]
- 2. All reports shall contain the following: [AQR 19.4.1.3(c) and 19.3.4]
 - a. a certification statement on the first page, i.e., "I certify that, based on information and belief formed after reasonable inquiry, the statements contained in this document are true, accurate and complete." (A sample form is available from DAQEM); and
 - b. a certification signature from a responsible official of the company and the date certification.
- 3. The Permittee is responsible for submitting quarterly reports to DAQEM. [AQR 19.4.1.3]
- 4. Each quarterly report shall [AQR 19.4.1.3]:
 - a. include quarterly summaries of items listed in Conditions III-E-6 (a through l)
 - b. be based on the calendar quarter (including partial calendar quarters); and

- c. be submitted within 30 days after the end of the calendar quarter.
5. Regardless of the date of issuance of this permit, the schedule for the submittal of reports to the Control Officer shall be as follows [AQR 12.8 and AQR 19.4.1.3]:

Table III-F-1: Required Submission Dates for Various Reports

Required Report	Applicable Period	Due Date ¹
Quarterly Report for 1 st Calendar Quarter	January, February, March	April 30 each year
Quarterly Report for 2 nd Calendar Quarter	April, May, June	July 30 each year
Quarterly Report for 3 rd Calendar Quarter	July, August, September	October 30 each year
Quarterly Report for 4 th Calendar Quarter, any additional annual records required	October, November, December	January 30 each year
Annual Compliance Certification Report	12 Months	January 30 each year
Annual Emission Inventory Report	Calendar Year	March 31 each year
Notification of Malfunctions, Startup, Shutdowns or Deviations with Excess Emission	As Required	Within 24 hours of the Permittee learns of the event
Report of Malfunctions, Startup, Shutdowns or Deviations with Excess Emission	As Required	Within 72 hours of the notification
Deviation Report without Excess Emissions	As Required	Along with quarterly reports
Performance Testing	As Required	Within 60 days from the end of the test

¹If 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.

6. When requested by the Control Officer, the Permittee may be required to submit additional reports to verify compliance with permit conditions, permit requirements and requirements of applicable regulations. [AQR 4.4 and AQR 19.4.1.3]

IV. OTHER REQUIREMENTS

1. The Permittee shall not use, sell, or offer for sale any fluid as a substitute material for any motor vehicle, residential, commercial, or industrial air conditioning system, refrigerator freezer unit, or other cooling or heating device designated to use a CFC or HCFC compound as a working fluid, unless such fluid has been approved for sale in such use by the Administrator. The Permittee shall keep record of all paperwork relevant to the applicable requirements of 40 CFR 82 on site. [40 CFR 82]

ATTACHMENT 1

APPLICABLE REGULATIONS

REQUIREMENTS SPECIFICALLY IDENTIFIED AS APPLICABLE:

1. NRS, Chapter 445B.
2. Applicable AQR Sections:

Citation	Title
AQR Section 0	Definitions
AQR Section 4	Control Officer
AQR Section 11	Ambient Air Quality Standards
AQR Section 12.1	General application requirements for construction of new and modified sources of air pollution
AQR Section 12.2.5	Requirements for specific air pollutants: PM ₁₀ emission sources located in the PSD Area.
AQR Section 12.2.10	Requirements for specific air pollutants: CO sources located in the PSD Area.
AQR Section 12.2.13	Requirements for specific air pollutants: VOC sources located in PSD Area.
AQR Section 12.2.15	Requirements for specific air pollutants: NO _x sources located in a PSD Area.
AQR Section 12.2.16	Requirements for specific air pollutants: SO ₂ sources located in the PSD area.
AQR Section 12.2.19	Requirements for specific air pollutants: TCS sources in Clark County
AQR Section 12.5	Air Quality Models
AQR Section 12.5 (Effective 07/01/2010)	Part 70 Operating Permit Requirements
AQR Section 13.2(a)(1) Subpart A	National Emission Standards for Hazardous Air Pollutants General Provisions
AQR Section 13.2.85 Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
AQR Section 14.1.1 Subpart A	New Source Performance Standards (NSPS) General Provisions
AQR Section 14.1.15 Subpart Dc	Standards of Performance for Small Industrial – Commercial - Institutional Steam Generating Units
AQR Section 14.1.94 Subpart OOO	New Source Performance Standards – Standards of Performance for Nonmetallic Mineral Processing Plants
AQR Section 14.1.101 Subpart UUU	Standards of Performance for New Stationary Sources (NSPS) – Calciners and Dryers in Mineral Industries
AQR Section 16	DAQEM Operating Permits
AQR Section 18	Permit and Technical Service Fees
AQR Section 19	40 CFR Part 70 Operating Permits
AQR Section 25	Upset/Breakdown, Malfunctions
AQR Section 26	Emissions of Visible Air Contaminants
AQR Section 27	Particulate Matter from Process Weight Rate
AQR Section 28	Fuel Burning Equipment
AQR Section 29	Sulfur Content of Fuel Oil
AQR Section 40	Prohibition of Nuisance Conditions
AQR Section 41	Fugitive Dust
AQR Section 42	Open Burning
AQR Section 43	Odors in the Ambient Air
AQR Section 45	Idling of Diesel Powered Motor Vehicles

Citation	Title
AQR Section 55	Preconstruction review for New or Modified Stationary Sources in the 8-Hour Ozone Nonattainment Area
AQR Section 70	Emergency Procedures
AQR Section 80	Circumvention

1. Nevada Revised Statutes (NRS), Chapter 445B
2. Clean Air Act, as amended (CAAA), Authority: 42 U.S.C. § 7401, et seq
3. Title 40 of the Code of Federal Regulations (40 CFR) Applicable 40 CFR Subsections:

Citation	Title
40 CFR Part 52.21	Prevention of Significant Deterioration (PSD)
40 CFR Part 52.1470	SIP Rules
40 CFR Part 60, Subpart A	Standards of Performance for New Stationary Sources (NSPS) – General Provisions
40 CFR Part 60, Subpart Dc	Standards of Performance for Small Industrial-Commercial-institutional Steam Generating Units
40 CFR Part 60, Subpart OOO	New Source Performance Standards – Standards of Performance for Nonmetallic Mineral Processing Plants
40 CFR Part 60, Subpart UUU	Standards of Performance for New Stationary Sources (NSPS) – Calciners and Dryers in Mineral Industries
40 CFR Part 60	Appendix A, Method 9 or equivalent, (Opacity)
40 CFR Part 63, Subpart ZZZZ	National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines
40 CFR Part 64	Compliance Assurance Monitoring
40 CFR Part 70	Federally Mandated Operating Permits
40 CFR Part 82	Protection of Stratospheric Ozone

ATTACHMENT 2

EMISSION UNITS CONTROLLED BY BAGHOUSES

List of Emission Units Controlled by Baghouse

EU	Description	Pollutant	Control Technology
A03, B01-B04, D17, & F01-F03	Feeder System, Crushing Conveyor, Primary & Secondary Crusher, 200 Ton Rock Bin, Bucket Elevators, Milling Conveyor, End Trim/Bundler, Re-cut and Riser Machine	PM	Enclosed Process connected to Baghouse: BH-W01
C01, C02, C03, C04, & C05	Imp Mill No.1 through Imp Mill No.5	PM	Enclosed Process connected to Baghouses: BH-W02, BH-W03, BH-W04, BH-05, & BH-W06
D01a, D01b, & D01d	Stucco Area Conveyors	PM	Enclosed Process connected to Baghouses: BH-W07, BH-W08, BH-W10, & BH-W33
D01c	Stucco Area Conveyor and Bucket Elevator	PM	Enclosed Process connected to Baghouse:

EU	Description	Pollutant	Control Technology
			BH-W09
D01e, D06, & D18	Stucco Area conveyor, Bucket Elevators, Hammermill, & Stucco Blenders #2	PM	Enclosed Process connected to Baghouse: BH-W13
D03 & D04	North and South Stucco Storage Bin	PM	Enclosed Process connected to Baghouses: BH-W11 & BH-W12
D07-D14	Pin Mixer, Vermiculite Bin, Landplaster Bins #1 & #2, Ball Mills #1 & #2, Interior Baghouse Conveyors, Interior Baghouse Hopper, Fiberglass Feed Hopper, Concrete Basin, & Bucket Elevators.	PM	Enclosed Process connected to Baghouse: BH-W14
E101, E102, E164, E174, & E175	Roll Crusher, Rock Conveyor, Alpha Rock Screen, North & South Beta Rock Grizzly Feed Screen	PM	Enclosed Process connected to Baghouse: BH-01
E103 & E104	West & East Beta Rock Bin	PM	Enclosed Process connected to Baghouses: BH-02 & BH-03
E105 & E106	West & East Roller Mill	PM	Enclosed Process connected to Baghouses: BH-04 & BH-05
E108 & E109	West & East LP Bin	PM	Enclosed Process connected to Baghouses: BH-06 & BH-07
E110 & E111	West & East Kettle	PM	Enclosed Process connected to Baghouses: BH-08 & BH-09
E142-E144, E149-151, & E176-E178	Alpha Rock Conveyors, South & North Rock Bins, South & North Rock Bin Grizzly Feed Screen, Alpha Rock Elevator Screen, Pan Dryers #1 through #3, & Bucket Elevator	PM	Enclosed Process connected to Baghouse: BH-13
E152, E154, E157, E158, E160-E162, G11, & G25-G28	Alpha Impact Mill #1, Alpha Crushers #1 & #2, Alpha Hammermill, Alpha Hummer Screen, Alpha Air Separator, South & North Alpha Storage Bin, Alpha Surge Bin, & Bucket Elevators	PM	Enclosed Process connected to Baghouse: BH-14
E107, E156, & E173	Alpha Reject Screens, LP Bulk Loadout Bin, LP Bulk Loadout, Ag Gyp Packer, & LP bin Airvey System	PM	Enclosed Process connected to Baghouse: BH-10 & BH-33
E113 & G13	LP Bulk Bagging & Reject Bin	PM	Enclosed Process connected to Baghouse: BH-11
E114 & E166	Stucco Sweeco Screen, Stucco Bulk Loadout Bin, & Stucco Bulk Loadout	PM	Enclosed Process connected to Baghouse: BH-12
E115, E117, E119, &	West Hummer Screen, West Stucco Bin,	PM	Enclosed Process

EU	Description	Pollutant	Control Technology
G14	West Air Separator, West Beta Impact Mills #1 & #2, & Bucket Elevator		connected to Baghouse: BH-15
E116, E118, E120, & G16	East Stucco Bin, East Hummer Screen, East Beta Impact Mill #1 & #2, & Bucket Elevator	PM	Enclosed Process connected to Baghouse: BH-16
E122 through E127	North & South Split Finish Bins #1 through #3	PM	Enclosed Process connected to Baghouses: BH-17, BH-18, BH-19, BH-20, BH-21, & BH-22
E128 & E129	North & South Alpha Bin	PM	Enclosed Process connected to Baghouses: BH23 & BH-25
E130	Cement Bin	PM	Enclosed Process connected to Baghouse: BH-24
E172	HiVAC Vacuum System	PM	Enclosed Process connected to Baghouse: BH-32
E140	MP Bulk Bagging & MP Bulk Load Out Bin	PM	Enclosed Process connected to Baghouse: BH-28
E139	FP Bulk Load Out Bin	PM	Enclosed Process connected to Baghouse: BH-29
E112, E168, G15, & G17	FP Bulk Bagging, Stucco conveyors, West & East Impact Mills #3, & Bucket Elevators – West & East Hot Pit	PM	Enclosed Process connected to Baghouse: BH-30
E133 & E134	South & North Bag Packers, South & North Weigh Hoppers, South & North Mixers, South & North MP Bulk Loadouts, South & North Bag Packer Feed Hoppers, & Bucket Elevator	PM	Enclosed Process connected to Baghouse: BH-31
G18, G19, & G21	Hamilton Surge Bin, Hamilton Bulk Loadout Bin, Hamilton Bulk Loadout, & Hamilton Rotary Screens	PM	Enclosed Process connected to Baghouse: BH-34
E179	Autoclaves System 1 through 8	PM	Enclosed Batch Process
E187	Ball Mill	PM	Enclosed/ Filter Drum