

TECHNICAL SUPPORT DOCUMENT

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

SUBMITTED BY

GEORGIA PACIFIC GYPSUM CORPORATION  
LAS VEGAS WALLBOARD AND PLASTER PLANTS

for a

GYPSUM FACILITY

operation located at

11401 US Highway 93  
North Las Vegas, Nevada 89124

Part 70 Operating Permit Number: A00593  
SIC Code – 3275; Nonmetallic Mineral Processing



Clark County  
Department of Air Quality Management  
Permitting Section  
October 24, 2003

*This Technical Support Document (TSD) accompanies the Part 70 Operating Permit (OP) issued by the Clark County Department of Air Quality Management (DAQM) to Georgia Pacific Gypsum Corporation - Las Vegas Wallboard and Plaster Plants.*

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## I. EXECUTIVE SUMMARY

Georgia Pacific Gypsum Corporation's Apex facility, located at 11401 U.S. Highway 93, North Las Vegas, Nevada, produces gypsum wallboard and gypsum plaster. The facility is located in Hydrographic Area 216, an attainment area for all criteria pollutants.

The facility emits particulate matter (PM<sub>10</sub>) as well as carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), oxides of sulfur (SO<sub>x</sub>), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs). The PM<sub>10</sub> emissions result primarily from the material handling operations while emissions of other pollutants occur from fuel burning equipment as combustion byproducts.

Gypsum products are produced from gypsum rock. The facility operates two different gypsum plants, a Wallboard Plant and a Plaster Plant, each of which utilizes different processes. A detailed description of all existing processes in the facility is included in Section III of this TSD. The following table summarizes the facility total potential to emit.

Air Pollutant	Potential to Emit (tons/year)
Particulate Matter $\leq 10 \mu\text{m}$ (PM <sub>10</sub> )	89.45
Nitrogen Oxides (NO <sub>x</sub> )	102.52
Carbon Monoxide (CO)	254.40
Sulfur Oxides (SO <sub>x</sub> )	2.67
Volatile Organic Compounds (VOCs) including HAPs	78.35
Hazardous Air Pollutants (HAPs)	7.53

This facility is permitted as a major stationary source for NO<sub>x</sub> and CO, and a non-major stationary source for PM<sub>10</sub>, HAP, VOC, and SO<sub>2</sub>. The facility is located in a Prevention of Significant Deterioration (PSD) area. Lowest achievable emission rate (LAER) is applicable for NO<sub>x</sub> and CO. Best Available Control Technology (BACT) is applicable to all other criteria pollutant emissions from this stationary source.

This Technical Support Document (TSD) accompanies the Part 70 Operating Permit (OP) prepared by DAQM for the Georgia Pacific Gypsum Corporation's Apex facility. DAQM prepared this document in accordance with the latest DAQM guidelines, policies, and supervisory and managerial instructions, verbal and/or written, issued before October 22, 2009.

Based on information submitted by the applicant and a technical review performed by DAQM staff, DAQM proposes the issuance of a Part 70 Operating Permit to Georgia Pacific Gypsum's Apex facility.

**II. LIST OF ABBREVIATIONS**

**Table II-1: List of Abbreviations**

Act	Clean Air Act of 1990 and Amendments
APC	Air Pollution Control
AQD	Air Quality Division
APCR	Air Quality Division Regulations of the District Board of Health of Clark County
AQR	Clark County Air Quality Regulations (previously known as APCR)
ATC	Authority to Construct
BACT	best available control technology
Btu	British thermal unit
CCHD	Clark County Health District or District Board of Health of Clark County
CEMS	continuous emission monitoring system
CFR	Code of Federal Regulations
CO	carbon monoxide
DAQM	Clark County Department of Air Quality Management
DBHCC	District Board of Health of Clark County or Clark County Health District
dscf	dry standard cubic foot
EF	emission factor
EPA	Environmental Protection Agency
E.U.	emission unit
file	all files at DAQM
g/dscm	grams per dry standard cubic meter
gr/dscf	grains per dry standard cubic foot
HAP	hazardous air pollutant as defined by AQR 0.69
hr	Hour
HVAC	heating, venting and air conditioning
ID	identification number
lb	Pound
MACT	maximum achievable control technology
MMBtu	million British thermal units
Mcf	thousand cubic feet
N/A	not applicable
NEI	Net Emission Increase
NO <sub>x</sub>	oxides of nitrogen
NRS	Nevada Revised Statutes
NSPS	New Source Performance Standard from 40 CFR Part 60
NSR Permit	New Source Review Permit, often referred to as an Authority to Construct
OP	Operating Permit
PCD	pollution control device
PM	particulate matter
PM <sub>10</sub>	particulate matter less than ten microns in size
PSD	Prevention of Significant Deterioration
PTE	potential to emit
ppm	part per million
ppmv	parts per million by volume

ppmvd	parts per million by volume, dry
Rev.	Revised
SCC	Source Classification Code
scf	standard cubic foot
SIC	Standard Industrial Classification
SIP	State Implementation Plan (for Clark County, Nevada)
SO <sub>2</sub>	sulfur dioxide
tpy	tons per year
TSD	Technical Support Document
VLP	Various locations permit
VMT	vehicle miles traveled
VOCs	volatile organic compounds

### III. INTRODUCTION

#### A. General

##### COMPANY INFORMATION

Georgia Pacific Gypsum Corporation  
55 Park Place – 19<sup>th</sup> Floor  
Atlanta, GA 30303

##### FACILITY INFORMATION

Georgia Pacific Gypsum Corporation  
11401 U.S. Highway 93  
North Las Vegas, NV 89033  
Phone (702) 643-8100  
Fax (702) 643-2049

Responsible Official for Facility: Tom Brooks, Plant Manager  
Responsible Person for Emissions: Russell Harms, Environmental Engineer

##### MAILING ADDRESS

Georgia Pacific Gypsum Corporation  
11401 U.S. Highway 93  
P.O. Box 337350  
North Las Vegas, NV 89033

#### B. Location Description

The facility is located approximately 20 miles northeast of Las Vegas near Apex, Nevada. Hydrographic Area 216 is an attainment area for all regulated air pollutants. The legal description of the property location is: the N  $\frac{1}{2}$  NE  $\frac{1}{4}$ , the S  $\frac{1}{2}$  NE  $\frac{1}{4}$ , and the N  $\frac{1}{2}$  SE  $\frac{1}{4}$  of Section 34 and the W  $\frac{1}{2}$  NW  $\frac{1}{4}$  of Section 35, Township 18 South, Range 63 East. In general, it is located on the west side of the U.S. Highway 93, approximately two miles south of Apex.

Georgia Pacific Gypsum Corporation operates two gypsum plants at its Apex facility, a Wallboard Plant and a Plaster Plant. The Wallboard Plant, which was originally built in 1987, is operating under a 1999 NSR Authority To Construct/Operating Permit (ATC/OP) (Modification Three, 09/08/99). The Plaster Plant, which was constructed in 2001-02, is operating under a 2003 NSR Operating Permit (Modification Four, 02/05/03). Both plants are covered by Standard Industrial Classification Code (SIC) 3275. This facility is permitted as a major stationary source for NO<sub>x</sub> and CO, and a non-major stationary source for PM<sub>10</sub>, HAP, VOC, and SO<sub>2</sub>.

Georgia Pacific received a Title V Part 70 permit on October 27, 1998. This permit expires on October 27, 2003.

Georgia Pacific submitted an application for a Title V Part 70 permit renewal on January 10, 2003. The proposed Title V permit renewal is based on Georgia Pacific's application, revisions to the application thereafter, and the information provided by the facility for its 1999 NSR Authority ATC/OP and 2003 NSR OP.

#### C. Description of Process

## 1) Product Description

Georgia Pacific Gypsum Corporation operates a Gypsum Wallboard Plant and a Gypsum Plaster Plant at its Apex facility. Processes at the facility will be discussed, per each respective plant, below.

A listing of each emission unit and its potential to emit are shown on attached tables. Tables IV-B-1 and IV-B-2 contain a listing of all emission units and their PM<sub>10</sub> PTE, based on the most up-to-date emission factors. PM<sub>10</sub> emission units are identified in the table. Tables IV-B-3 through IV-B-12 list other facility processes, emission units, and emission limitations.

## 2) Wallboard Plant

The major raw material for gypsum wallboard production is gypsum rock. The rock had originally been mined at a location approximately 25 miles north and trucked to the plant where it is stored in a stockpile. Today, the rock is mined approximately 90 miles from the facility prior to being trucked to the site and loaded into a feed hopper. A belt conveyor carries the material from this 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 C01 through C05) that grind, 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 combinations and amounts of each additive vary with the type of board being produced. At the pin mixer water and foaming agents are mixed with the stucco forming a slurry.

This slurry is poured between a board facing and backing in a continuous process. The slurry, now sandwiched between the board facing and backing, undergoes an exothermic reaction 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 calciners (IMP mills) and board dryer (E03). Under the primary scenario, the heat for the board dryer is supplied by turbine exhaust gas from Nevada Cogeneration Associates #1 (NCA #1) and heat for the calciners is supplied by a combination of NCA #1 turbine exhaust gas and natural gas combustion. Under the alternative scenario, the heat for the dryers and calciners is supplied solely by natural gas combustion.

Upon exiting the dryer, the board is trimmed and packaged for subsequent transport and sale.

## 3) Gypsum Plaster Plant

The major raw material for the gypsum plaster production is gypsum rock. The gypsum is fed into one of two different feed hoppers depending on the type of stucco to be produced. The first type, referred to 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 the beta 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 heat for drying 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 kettle calciners or it can be put in bulk tank trucks or bulk bags for sale as is. The kettles have natural gas fired burners, which are used to heat the fine gypsum indirectly in a batch process and to calcine it. 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 is. 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 and it is screened before it is conveyed to storage bins. Alpha stucco is produced by calcining this material directly in a steam pressure vessel known as an autoclave. It is a batch process. Steam for the autoclaves is produced by a small boiler. From the autoclaves, the calcined gypsum is dried in indirectly heated pan dryers. It must then be 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 palletize them.

## D. Permitting History

This section contains a discussion of the permitting history of Georgia Pacific Gypsum Corporation. Georgia Pacific has been issued a number of permits by DAQM and its predecessor, Clark County Health District (CCHD).

### 1) Georgia Pacific's Permitting History

A list of the issued Authority to Construct (ATCs) and Section 16 Permits, with dates, follows:

<u>NSR Permit Issued</u>	<u>Issuance Date</u>
Authority to Construct	11/17/86
Section 16 Permit	02/05/88
Authority to Construct	07/13/92
Section 16 Permit	09/18/92
Authority to Construct Modification #1	11/19/93
Section 16 Permit	11/19/93
Section 16 Permit	12/07/94
Section 16 Permit	09/21/95
Authority to Construct Modification #2	09/27/96
Section 16 Permit Modification #2	02/14/97
Authority to Construct/Operating Permit Modification #3	09/08/99
Authority to Construct Modification #4 (Plaster Plant)	02/28/00
Operating Permit Modification #4 (Plaster Plant only)	02/05/03

### 2) Summarization of Georgia Pacific's Permitting History from 1986-1998

The Clark County Health District (CCHD) received an application for construction of a Gypsum Wallboard Plant and mining operation from Georgia Pacific Gypsum Corporation on September 4, 1986. Upon submission of all necessary information, the proposed ATC was published as a Notice of Proposed Action on November 14, 1986. No written comments were received from the public or governmental agencies. On November 17, 1986, CCHD issued an ATC for a Wallboard Plant at Apex, NV and the mining operation (Weiser Quarry) which is located approximately 25 miles NE of Apex near the Valley of Fire State Park. The Section 16 Permit followed the ATC and was issued on November 17, 1986, containing the same conditions.

Sometime in the early 1990s, Georgia Pacific submitted an application to CCHD for a modification which would increase the production capacity, add new emission units, facilitate use of turbine exhaust gases from an adjacent facility (NCA #1), and separate the mining operation from the existing ATC. A Notice of Proposed Action was published on June 1, 1992. Only one general response was received from the public. EPA commented on the draft ATC suggesting some changes. The applicant and NCA #1 made suggestions for minor changes to the ATC.

The magnitude of the change and the resulting net emission increases were a result of an increase in production capacity, the addition of new emission units, and the usage of gases from an adjacent facility (NCA #1). The changes are listed below.

**Table III-D-1: Net Emission Increase in 1992 (tons per year)**

<b>Pollutant</b>	<b>PTE before Change</b>	<b>PTE after Change</b>	<b>Net Increase</b>
PM <sub>10</sub>	25.40	35.20	9.80
NO <sub>x</sub>	49.90	63.90	14.00
SO <sub>2</sub>	0.30	1.50	1.20
CO	11.80	227.10	215.30
VOC	1.40	8.00	6.60

CCHD applied a BACT analysis to the applicable emission units for regulated air pollutants. Subsequently, CCHD issued an ATC on July 13, 1992 and a Section 16 Permit on September 18, 1992.

In 1993, Georgia Pacific requested a modification to its previous ATC, due to source emission test data that indicated a higher level of emissions. The earlier emission factors that were used were found to be too low. A Technical Support Document (TSD) was prepared and a Best Available Control Technology was applied to the IMP mills' emission modification. The modification involved an increase of carbon monoxide emissions for the IMP mills. The carbon monoxide emission limit in the ATC Condition Three showed an increase from 227 to 242 tons per year. In Condition Four, it changed in Mode One from 3.35 to 4.03 pounds per hour and in Mode Two from 0.05 to 2.10 pounds per hour. CCHD issued both the ATC Modification One and the Section 16 Permit on November 11, 1993.

CCHD issued a Section 16 Permit to Georgia Pacific on December 7, 1994. CCHD found that it had incorrectly stated Georgia Pacific's CO emission limits. On September 21, 1995, CCHD issued a Section 16 Permit to reflect the corrected total controlled emissions from the stationary source.

In 1996, Georgia Pacific applied for a major modification to a major stationary source. The modification was to increase the production capacity of the facility. The amount of gypsum processed increased from 864 to 1,037 tons per day, and from 315,360 to 378,432 tons per year. This was a production increase of 173 tons per day and 63,072 tons per year. The regulated emissions limits in the ATC reflect these changes. A TSD was prepared for an ATC Modification in April, 1996 and the ATC was publicly noticed on July 14, 1996. The TSD considered only the maximum emission potentials regardless of operating scenario. Production limits were based on the tons per year of wallboard produced. CCHD issued the ATC Modification Two on September 27, 1996 and a Section 16 permit on February 14, 1997.

On February 14, 1996, Georgia Pacific also submitted a Part 70 Permit Application. The application was amended on January 22, 1998. CCHD prepared a TSD for Georgia Pacific's Part 70 Permit. The TSD evaluated, among other things, 40 CFR Part 60, Subparts A, OOO, and UUU. CCHD issued the Part 70 Permit on October 27, 1998.

### **3) Summarization of Georgia Pacific's Permitting History from 1998-2003**

Georgia Pacific requested, on September 21, 1998, that a Various Location Permit (VLP) be issued for it to operate a unit with a production throughput of 12,000 tons for a four-month period. Subsequently, Georgia Pacific sought an ATC, Modification Three, to reflect current operating conditions, to add its VLP to its stationary source, and to archive its VLP since said equipment was

to be used at other Georgia Pacific properties located in Utah and California. On September 8, 1999, CCHD issued Georgia Pacific an ATC/OP Modification Three.

On February 28, 2000, Clark County Health District issued Georgia Pacific an ATC, Modification Four, to construct a 440,000-square-foot industrial plaster processing plant on the west side of the Wallboard Plant. The ATC action was a non-major modification for a major source in the PSD area, and required public notice and EPA approval. Once approval was gained, Georgia Pacific commenced construction.

In the spring of 2002, DAQM found that Georgia Pacific had not taken reasonable precautions to control fugitive dust emissions associated with the Wallboard Plant operation. In June 2002, Georgia Pacific submitted a Dust Control Plan to DAQM.

In the fall of 2002, Georgia Pacific sought an Operating Permit for its newly constructed and totally enclosed Plaster Plant. A TSD was prepared in October 2002 supporting the conversion of the ATC to an OP. The TSD analysis denoted that a total of 59 PM<sub>10</sub> point source emission units had been installed including two calcining kettles, flash dryers, mixers and other plaster manufacturing specific equipment. Baghouses and the maintenance of a negative internal pressure within the building satisfied Best Achievable Control Technology (BACT) for this plant. Ten combustion emission sources were added, for a total of 61 MMBtu/hr, all burning only natural gas. BACT requirements for each combustion source were met. Fugitive PM<sub>10</sub> sources include vehicular traffic on paved and unpaved roads, rock feeding and stockpiles. BACT requirements were met through paving, watering and enclosing the rock feeders in three-sided, roofed buildings.

On February 5, 2003, DAQM issued Georgia Pacific an OP Modification Four for its Plaster Plant, with planned production of approximately 189,000 tons per year.

The magnitude of the change and the resulting net emission increases were:

**Table III-D-2: Net Increase in 2003 (tons per year)**

<b>Pollutant</b>	<b>PTE before Change</b>	<b>PTE after Change</b>	<b>Net Increase</b>
PM <sub>10</sub>	41.23	86.78	45.55
NO <sub>x</sub>	73.11	102.52	29.41
SO <sub>2</sub>	2.47	2.62	0.15
CO	229.67	254.40	24.73
VOC	77.06	78.68	1.62
HAP	7.50	7.51	0.01

Georgia Pacific has subsequently operated the Wallboard Plant under ATC/OP Modification Three (09/08/99) and the Plaster Plant under an OP Modification Four (02/05/03).

Georgia Pacific submitted an application for a Part 70 permit renewal on January 10, 2003. The application was deemed complete sixty (60) days after the submission per AQR 19.3.1.2. No application shield was associated with their permit, which will expire on October 27, 2003. Georgia Pacific submitted some minor modifications to its originally submitted application on February 25, 2003. Subsequently, Georgia Pacific submitted its Compliance Assurance Monitoring Plan on September 8, 2003. These modifications are being considered with this Title V renewal.

Lastly, the facility's actual emissions in tons per year for 2002 are compared below to its potential to emit in tons per year. Please note that these numbers only account for actual totals from the Wallboard Plant since the Plaster Plant has only been permitted to operate since February of 2003.

**Table III-D-3: Georgia Pacific Actual 2002 Emissions**

<b>Pollutant</b>	<b>PM<sub>10</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>VOC</b>	<b>HAP (formaldehyde)</b>	<b>HAP (acetaldehyde)</b>
<b>Actual 2002 tons/year</b>	<b>41.14</b>	<b>35.97</b>	<b>157.69</b>	<b>1.02</b>	<b>8.94</b>	<b>0.12</b>	<b>0.01</b>
<b>PTE tons/year (09/21/03)</b>	<b>89.45</b>	<b>102.52</b>	<b>254.40</b>	<b>2.67</b>	<b>78.35</b>	<b>7.53</b>	

**E. Operating Scenario**

Georgia Pacific has presented only a primary operating scenario in its Title V Part 70 renewal application.

**F. Proposed Exemptions**

Georgia Pacific Gypsum Corporation has not proposed any exemptions.

#### IV. EMISSIONS INFORMATION

##### A. Total Facility Potential To Emit

The total facility PTEs are listed in Table IV-A-1. [Authority: NSR-OP Section II-A, Table II-A-1 (02/05/03)]

**Table IV-A-1: Summary of Total Facility Potential to Emit**

Pollutant	PM <sub>10</sub>	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	Total HAP
lbs/hour	21.26	25.93	58.89	0.86	18.01	1.82
tons/year	89.45	102.52	254.40	2.67	78.35	7.53

##### B. Emission Units and PTE

The following tables summarize the current PTE for each emission unit. The EU# is the DAQM emission unit number.

##### Facility-Wide PM<sub>10</sub> Emissions

Tables IV-B-1 and IV-B-2 show the non-fugitive particulate emissions from the Wallboard and Plaster plants. The particulate emissions from the dust collectors were estimated by applying the proposed maximum concentration of particulate matter to the flow rate of gas through the collector. A sample calculation is as follows: PM<sub>10</sub> emission rate = 0.01 gr/cf x 1,000 cf/min x 60 min/hr / 7,000 gr/lb = 0.086 lb/hr. Based on 8,760 hours per year the PM<sub>10</sub> emission rate in tons per year = 0.01 gr/cf x 1,000 cf/min x 60 min/hr / 7,000 gr/lb = 0.086 lb/hr x 8,760 hrs/yr / 2000 = 0.38 tons/yr. The IMP Mills in the Wallboard Plant, the West and East Roller Mills in the Plaster Plant, and the units vented to Baghouses 13 and 14 in the Plaster Plant use dry standard cubic feet per minute (DCFM), instead of actual cubic feet per minute (ACFM), due in large part to the fact that moisture level is raised to the point to where the DCFM does not equal the ACFM. For those emission units utilizing DCFM, an example calculation of the PM<sub>10</sub> emissions in lb/hr is: PM<sub>10</sub> emission rate = 0.01 gr/cf x 1,000 cf/min (DCFM) x 60 min/hr / 7,000 gr/lb = 0.086 lb/hr. An example calculation of the PM<sub>10</sub> emission in tons per year is: PM<sub>10</sub> emission rate = 0.01 gr/cf x 1,000 cf/min (DCFM) X 60 min/hr / 7,000 gr/lb = 0.086 lb/hr x 8,760 hr per year/2000 = 0.38 tons per year. Baghouses, operating at 99 percent efficiency, are the control devices utilized in both the Wallboard and Plaster plants.

**Table IV-B-1: Emission Units<sup>1</sup> and PTE for the Wallboard Plant for PM<sub>10</sub>**

EU#	Description	SCC	Prod. Rate (tons/hr)	Control Device	ACFM	DCFM	Grain Loading	PM <sub>10</sub> Emission (lbs/hr)	Annual Hours	PM <sub>10</sub> Emission (tons/yr)
A03	Rock/Recycle Feeder System	30501509	5	BH-W01	18,000	18,000	0.01	1.54	8,760	6.76
B01	Crushing Area Conveyor	30501504	80	BH-W01						
B02	Primary Crusher A	30501505	80	BH-W01						
B03	200 Ton Rock Bin	30501509	80	BH-W01						
F01	End Trim/Bundler	30501521	43	BH-W01						
F02	Re-Cut Machine	30501521	5	BH-W01						
F03	Riser Machine	30501521	5	BH-W01						
B04	Secondary Crusher	30501506	80	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
C01	Impact Mill #1	30501513	10	BH-W02	11,500	6,000	0.02	1.03	8,760	4.51
C02	Impact Mill #2	30501513	10	BH-W03	11,500	6,000	0.02	1.03	8,760	4.51
C03	Impact Mill #3	30501513	10	BH-W04	11,500	6,000	0.02	1.03	8,760	4.51
C04	Impact Mill #4	30501513	10	BH-W05	11,500	6,000	0.02	1.03	8,760	4.51
C05	Impact Mill #5	30501513	10	BH-W06	11,500	6,000	0.02	1.03	8,760	4.51
D01	Stucco Area Conveyors	30501518	50	BH-W07	300	300	0.01	0.03	8,760	0.13
				BH-W08	300	300	0.01	0.03	8,760	0.13
				BH-W09	300	300	0.01	0.03	8,760	0.13
				BH-W13	2,000	2,000	0.01	0.16	8,760	0.70
D03	North Storage Bin	30501514	50	BH-W10	300	300	0.011	0.03	8,760	0.13
D04	South Storage Bin	30501514	50	BH-W11	300	300	0.011	0.03	8,760	0.13
D05	Stucco Area Hopper	30501514	N/A	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
D06	Stucco Blender #2	30501518	50	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
D07	Pin Mixer	30501516	50	BH-W012	4,000	4,000	0.0175	0.60	8,760	2.63
D08	Vermiculite Bin	30501599	2	BH-W012						
D09	Landplaster Bin #1	30501510	2	BH-W012						
D10	Landplaster Bin #2	30501510	2	BH-W012						
D11	Ball Mill #1	30501515	5	BH-W012						
D12	Ball Mill #2	30501515	5	BH-W012						
D13	Interior Baghouse Conveyors	30501504	50	BH-W012						
D14	Interior Baghouse Hopper	30501514	N/A	BH-W012						
D15	Fiberglass Feed Hopper	30501599	N/A	BH-W012						
D16	Concrete Basin	30501599	N/A	BH-W012						
D17	Milling Area Conveyors	30501518	50	BH-W012						
E01	Paper Heaters	30501599	N/A	None	N/A	N/A	N/A	< 0.01	8,760	0.01

EU#	Description	SCC	Prod. Rate (tons/hr)	Control Device	ACFM	DCFM	Grain Loading	PM <sub>10</sub> Emission (lbs/hr)	Annual Hours	PM <sub>10</sub> Emission (tons/yr)
E03	Board Dryer	30501520	43	None	N/A	N/A	N/A	1.73	8,760	7.58
H01	Diesel Gypsum Grinder	30501502	45	None	N/A	N/A	N/A	0.15	8,760	0.65
H02	Stacker pt batch drop	30501504	45	None	N/A	N/A	N/A	0.05	8,760	0.24
<b>Total</b>								<b>9.54</b>		<b>41.77</b>

<sup>1</sup> Where emission units are vented to a common control device, each of those units is limited to the specified emission rate but at no time shall these units in any combined operation exceed that emission rate.

The original Part 70 permit application included calculations of emissions from the board drying kiln that were based on data obtained from other Georgia Pacific operations in the eastern United States. The maximum emissions assumed a worst-case scenario of producing a Georgia Pacific specialty product known as Dens that used a fiberglass mat instead of the traditional paper for the face and back of the wallboard product. The tests performed on those other Georgia Pacific facilities were limited, and as a result, the 1998 Title V Operating Permit required Georgia Pacific to obtain particulate emission data from their Las Vegas drying kiln. The testing showed that particulate emissions while running the Dens were much lower than anticipated (and similar tests run at a Georgia Pacific facility in Sigurd, Utah also returned similar results). Georgia Pacific submitted this data to Clark County Health District in 1999.

Subsequently, Georgia Pacific developed a new particulate emissions factor for the type of products run at the Las Vegas facility. The production rate during the test was 37.2 Msf/hr, which results in an emission factor of 0.04 lb/Msf. Georgia Pacific then applies this factor to the maximum production rate of 43.2 Msf/hr to arrive at the new particulate emission rate of 1.73 lb/hr. Georgia Pacific's new particulate emissions factor for the drying kiln has been utilized in this Title V Operating Permit.

**Table IV-B-2: Emission Units<sup>1</sup> and PTE for the Plaster Plant for PM<sub>10</sub>**

EU#	Description	SCC	Prod. Rate (tons/hr)	Control Device	ACFM	DCFM	Grain Loading	PM <sub>10</sub> Emission (lbs/hr)	Annual Hours	PM <sub>10</sub> Emission (tons/yr)
E 101	Roll Crusher	30501506	50	BH-01	3,150	3,150	0.01	0.27	8,760	1.18
E 102	Rock Conveyors	30501504	50	BH-01						
E 164	Alpha Rock Screen	30501507	50	BH-01						
E 103	West Beta Rock Bin	30501509	150	BH-02	1,000	1,000	0.01	0.09	8,760	0.38
E 104	East Beta Rock Bin	30501509	150	BH-03	1,000	1,000	0.01	0.09	8,760	0.38
E 105	West Roller Mill 150 HP	30501502	25	BH-04	10,000	8,548	0.01	0.73	8,760	3.21
E 106	East Roller Mill 150 HP	30501502	25	BH-05	10,000	8,548	0.01	0.73	8,760	3.21
E 107	Loadout Bin(screw conv. enc)	30501510	35	BH-10	1,000	1,000	0.01	0.09	8,760	0.38
E 165	LP Bulk Loadout	30501517	5	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 108	West LP Bin	30501599	35	BH-06	1,000	1,000	0.01	0.09	8,760	0.38



EU#	Description	SCC	Prod. Rate (tons/hr)	Control Device	ACFM	DCFM	Grain Loading	PM <sub>10</sub> Emission (lbs/hr)	Annual Hours	PM <sub>10</sub> Emission (tons/yr)
E 139	FP Bulk Loadout Bin	30501514	20	BH-29	1,000	1,000	0.01	0.09	8,760	0.38
E 168	FP Bulk Bagging	30501517	9	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 169	MP Bulk Bagging	30501517	9	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 140	MP Bulk Loadout Bin	30501514	20	BH-28	1,000	1,000	0.01	0.09	8,760	0.38
E 145	Alpha Boiler	20200202	12 MMBtu/hr	None	None	None	None	0.09	8,760	0.39
E 146	ParaTherm Boiler #1	20200202	1.2 MMBtu/hr	None	None	None	None	0.01	8,760	0.04
E 147	ParaTherm Boiler #2	20200202	1.2 MMBtu/hr	None	None	None	None	0.01	8,760	0.04
E 148	ParaTherm Boiler #3	20200202	1.2 MMBtu/hr	None	None	None	None	0.01	8,760	0.04
E 142	Alpha Rock Conveyors	30501504	50	BH-13	8,500	6,916	0.01	0.59	8,760	2.60
E 143	South Alpha Rock Bin	30501509	50	BH-13						
E 144	North Alpha Rock Bin	30501509	50	BH-13						
E 149	Pan Dryer #1	30501599	2	BH-13						
E 150	Pan Dryer #2	30501599	2	BH-13						
E 151	Pan Dryer #3	30501599	2	BH-13						
E 153	Alpha Multiscrew Reheater	30501599	6	BH-13						
E 161	Alpha Cemco Crusher	30501599	6	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 162	Alpha Tube Mill	30501515	6	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 163	Alpha Entoleter #2	30501599	6	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 152	Alpha Entoleter #1	30501599	6	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 156	Alpha Reject Screens	30501599	6	Enclosed	N/A	N/A	N/A	N/A	8,760	N/A
E 160	Alpha Hammermill	30501599	6	BH-14	9,000	7,092	0.01	0.61	8,760	2.66
E 154	Alpha Hummer Screen Tyler HW-40	30501599	6	BH-14						
E 155	Alpha Air Separator	30501599	6	BH-14						
E 157	South Alpha Storage Bin	30501514	20	BH-14						
E 158	North Alpha Storage Bin	30501514	20	BH-14						
E 159	Alpha Duct Burner	20200202	1.0 MMBtu/hr	BH-14						
E 172	HiVac Vacuum System	30501599	50	BH-32	1,000	1,000	0.01	0.09	8,760	0.38
E 173	LP Bin Airvey System	30501599	50	BH-33 and BH-10	2,000	2,000	0.01	0.18	8,760	0.76
<b>Total</b>								<b>7.15</b>		<b>31.43</b>

<sup>1</sup> Where emission units are vented to a common control device, each of those units is limited to the specified emission rate but at no time shall these units in any combined operation exceed that emission rate.



**HAP Emissions**

HAP emissions for the Wallboard Plant were overestimated when the initial Title V Part 70 was issued to Georgia Pacific. Potential emissions were based on factors developed from stack tests conducted at the Wallboard Plant. At that time, it was estimated that substantial sums of acetaldehyde and formaldehyde would be emitted. Indeed, Georgia Pacific's original permit allowed for the facility to emit up to 25 tons per year of formaldehyde. However, the facility has annually emitted substantially less. For instance, in 2002, Georgia Pacific's facility emitted 0.20 tons of formaldehyde. On September 3, 2003, Georgia Pacific specifically stipulated via letter that the facility would not emit more than 5 tons per year of formaldehyde. Additionally, Georgia Pacific's original permit allowed for it to emit 0.01 tons per year of ethylene glycol. The facility eliminated the existence of ethylene glycol when it removed the use of the ink that contained this HAP. Finally, Georgia Pacific's original permit allowed for the facility to emit up to 2.50 tons per year of acetaldehyde. On October 8, 2003, Georgia Pacific specifically stipulated via letter that the facility would not emit more than 0.50 tons per year and 0.11 pounds per hour of acetaldehyde. Thus, the above numbers differ from the original permit with regards to HAP totals.

Georgia Pacific requested, in their 2003 Title V renewal application, that the formaldehyde and acetaldehyde emission limits be removed altogether. However, Georgia Pacific still emits small amounts of acetaldehyde and formaldehyde. Thus, the emission limits below are utilized.

**Table IV-B-3: Facility-Wide HAP Emissions Limitations**

Facility-Wide HAPs	lbs/hour	tons/yr
Acetaldehyde (Wallboard Plant)	0.11	0.50
Formaldehyde (Wallboard Plant)	0.14	5.00
Other (Plaster Plant)	0.57	2.03
<b>Total</b>	<b>28.54</b>	<b>9.13</b>

**Facility Fugitive Emissions**

Fugitive emissions for Georgia Pacific emanate from paved roads, unpaved roads, hauling vehicles, storage piles, and batch dumping piles. A summation of PM<sub>10</sub> fugitive emissions follows.

**Table IV-B-4: Total Facility Fugitive PM<sub>10</sub> Emissions**

Description	lbs/hr	lbs/day	tons/yr
Facility Paved Roads Emissions	3.14	53.32	9.72
Facility Unpaved Roads and Loaders	1.04	25.00	4.57
Facility Batch Dumping/Storage Piles	0.39	10.79	1.96
<b>Total</b>	<b>4.57</b>	<b>89.11</b>	<b>16.25</b>

**Table IV-B-5: Facility Paved Roads Emissions<sup>1</sup>**

EU#	Segment	Length (mi)	Weight	Silt Loading	Trips	VMT	lbs/day	tons/yr
FE 100	Rock Trucks	0.157	42	8.2	60	9.42	19.75	3.60
FE 100	Plaster Trucks	0.42	37.5	8.2	40	16.80	29.72	5.42

A 01	Wallboard Trucks	0.08	29	8.2	40	3.20	3.5	0.70
<b>Total</b>							<b>53.32</b>	<b>9.72</b>

<sup>1</sup>lb/VMT= 0.016 (sL/2)<sup>0.65</sup> (W/3)<sup>1.5</sup> where: sL=silt loading (g/m<sup>2</sup>), W=average weight

**Table IV-B-6: Facility Unpaved Roads/Loaders Emissions<sup>1</sup>**

EU#	Segment	Length (mi)	Silt Content	Speed	Weight	Moisture	lb/VMT	Trips	VMT	lbs/day	tons/yr
FE 100	Rock Trucks	0.225	10	10	42	0.50	3.27	30	6.75	3.27	0.60
FE 200	Loaders	0.038	10	10	30	0.50	2.86	200	7.60	21.73	3.97
<b>Total</b>										<b>25.00</b>	<b>4.57</b>

<sup>1</sup>lb/VMT= 2.6 (s/12)<sup>0.8</sup> (W/3)<sup>0.4</sup> (S/15)/(M/0.2)<sup>0.3</sup> where S=silt content (%), W=average weight (tons), S=speed (mph), M=moisture (%)

**Table IV-B-7: Facility Batch Dumping/Storage Piles Emissions<sup>1</sup>**

EU#	Feeder	Rate (ton/day)	Moisture	Wind Speed (mph)	lb/ton	Percent Controlled	Controlled lbs/day	Controlled tons/yr
FE 300	Rock	400	0.5	4.5	0.0068	85	0.41	0.07
FE 141	Alpha Rock	100	0.5	4.5	0.0068	85	0.10	0.02
FE 100	Trucks	1,300	0.5	4.5	0.0068	0	8.84	1.61
A 02 <sup>2</sup>	Storage Piles	N/A	0.5	4.5	0.0068	85	1.44	0.26
<b>Total</b>							<b>10.79</b>	<b>1.96</b>

<sup>1</sup>lb/ton= (0.35)(0.0032)(U/5)<sup>1.3</sup>(M/2)<sup>1.4</sup> where: U=wind speed (mph), M=moisture content (%)

<sup>2</sup>These figures have been utilized in all permits issued since the early 1990s.

### Combustion Units

Calculation of emissions of various pollutants associated with the combustion of natural gas are based on emission factors from AP-42 Section 1.11.

At the Wallboard Plant, the board drying kiln and IMP mills receive hot exhaust gas from the NCA #1 Cogeneration facility, which is adjacent to the Georgia Pacific facility. Exhaust from NCA #1's three natural gas fired turbines is directed to the Georgia Pacific facility for use as heat for drying wallboard in the board drying kiln and to calcine gypsum in the IMP mills. Maximum emissions in this normal mode of operation represent the worst-case scenario.

The VOC emissions are primarily due to the addition of an organic based surfactant solution to the gypsum slurry in the processing operation. The purpose of the solution is to make the product lighter. The surfactant solution contains up to 15 percent alcohol (isopropyl alcohol) to keep the material from "gelling" at low temperatures. The VOC is released in the drying process.

As with previously issued permits, VOC emissions associated with the board-drying kiln are based on a material balance. Even though improvements in the process may result in less VOC emissions, Georgia Pacific's VOC emissions limitations will remain unchanged at this time. Additionally, a small amount of VOC is associated with the combustion of natural gas,

which is either burned in Georgia Pacific equipment or the equipment operated by NCA #1.

An example of the material balance utilized by the agency to calculate VOC emissions is as follows. For instance, VOC emissions from turbine exhaust gas could be: 157,616 lb/hr x 0.0000026 lb/lb x 2,000 lbs/ton = x tons per year. The VOC emissions from the combustion of natural gas could be: 8421 Mcf/hr x 0.0053 lb/Mcf x 279 hr/yr / 2000 lbs/yr = y tons per year. Then, to obtain the overall allowable tons per year, x tons per year is added to y tons per year and weighted accordingly.

The following tables yield the combustion PTE rates in pounds per hour and tons per year for the Wallboard and Plaster Plants.

**Table IV-B-8: Wallboard Plant Combustion Units PTE pounds per hour<sup>1</sup>**

EU#	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	HAP
C01	0.95	3.50	0.02	0.07	0.02
C02	0.95	3.50	0.02	0.07	0.02
C03	0.95	3.50	0.02	0.07	0.02
C04	0.95	3.50	0.02	0.07	0.02
C05	0.95	3.50	0.02	0.07	0.02
E01	0.17	0.04	<0.01	<0.01	< 0.01
E03	11.00	35.00	0.43	17.00	0.20
H01	3.28	0.71	0.22	0.26	0.09
<b>Total</b>	<b>19.20</b>	<b>53.25</b>	<b>0.76</b>	<b>17.62</b>	<b>0.40</b>

<sup>1</sup>PM<sub>10</sub> emissions accounted for in Table IV-B-1.

**Table IV-B-9: Wallboard Plant Combustion Units PTE tons per year (8,760 hours)<sup>1</sup>**

EU#	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	HAP
C01	4.20	15.00	0.08	0.30	0.10
C02	4.20	15.00	0.08	0.30	0.10
C03	4.20	15.00	0.08	0.30	0.10
C04	4.20	15.00	0.08	0.30	0.10
C05	4.20	15.00	0.08	0.30	0.10
E01	0.75	0.16	<0.01	0.04	0.01
E03	49.00	154.00	1.90	75.00	0.91
H01	2.36	0.51	0.16	0.19	0.06
<b>Total</b>	<b>73.11</b>	<b>229.67</b>	<b>2.47</b>	<b>76.73</b>	<b>1.48</b>

<sup>1</sup>PM<sub>10</sub> emissions accounted for in Table IV-B-1.

**Table IV-B-10: Plaster Plant Combustion Units PTE pounds per hour<sup>1</sup>**

EU#	Unit Rate	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	HAP
E 110	20 MMBtu/hr	1.94	1.63	0.01	0.11	0.04
E 111	20 MMBtu/hr	1.94	1.63	0.01	0.11	0.04
E 145	12 MMBtu/hr	1.17	0.98	0.01	0.06	0.02
E 105	5.7 MMBtu/hr	0.55	0.46	< 0.01	0.03	0.01
E 106	5.7 MMBtu/hr	0.55	0.46	< 0.01	0.03	0.01
E 146	1.2 MMBtu/hr	0.12	0.10	< 0.01	0.01	< 0.01
E 147	1.2 MMBtu/hr	0.12	0.10	< 0.01	0.01	< 0.01
E 148	1.2 MMBtu/hr	0.12	0.10	< 0.01	0.01	< 0.01
E 153	1.2 MMBtu/hr	0.12	0.10	< 0.01	0.01	< 0.01
E 159	1.0 MMBtu/hr	0.10	0.08	< 0.01	0.01	< 0.01
<b>Total</b>		<b>6.73</b>	<b>5.64</b>	<b>0.10</b>	<b>0.39</b>	<b>0.17</b>

<sup>1</sup>PM<sub>10</sub> emissions accounted for in Table IV-B-2.

**Table IV-B-11: Plaster Plant Combustion Units PTE tons per year (8,760 hours)**

EU#	Unit	NO <sub>x</sub>	CO	SO <sub>2</sub>	VOC	HAP
E 110	20 MMBtu/hr	8.50	7.14	0.05	0.47	0.16
E 111	20 MMBtu/hr	8.50	7.14	0.05	0.47	0.16
E 145	12 MMBtu/hr	5.10	4.29	0.03	0.28	0.10
E 105	5.7 MMBtu/hr	2.42	2.04	0.01	0.13	0.04
E 106	5.7 MMBtu/hr	2.42	2.04	0.01	0.13	0.04
E 146	1.2 MMBtu/hr	0.51	0.43	< 0.01	0.03	0.01
E 147	1.2 MMBtu/hr	0.51	0.43	< 0.01	0.03	0.01
E 148	1.2 MMBtu/hr	0.51	0.43	< 0.01	0.03	0.01
E 153	1.2 MMBtu/hr	0.51	0.43	< 0.01	0.03	0.01
E 159	1.0 MMBtu/hr	0.43	0.36	< 0.01	0.02	0.01
	<b>Total</b>	<b>29.41</b>	<b>24.73</b>	<b>0.20</b>	<b>1.62</b>	<b>0.55</b>

**C. Air Pollution Control Equipment**

**Table IV-C-1: Wallboard Plant with Control Equipment**

Emission Unit	Pollutant	Control Device
Plant and Storage Area Vehicle Traffic	PM <sub>10</sub>	Paving/Water Spray
Plant Materials Piles	PM <sub>10</sub>	Water Spray
Primary Crusher	PM <sub>10</sub>	Baghouse (BH-W01)
Secondary Crusher	PM <sub>10</sub>	Enclosure
Impact Mills #1 through #5	PM <sub>10</sub>	Baghouse (BH-W02, BH-W03, BH-W04, BH-W05, BH-W06)
	SO <sub>2</sub>	None
	NO <sub>x</sub>	None
	VOC	None
	CO	None
Stucco Area Conveyors	PM <sub>10</sub>	Baghouse (BH-W07, BH-W08, BH-W09, BH-W13)
Stucco Blenders	PM <sub>10</sub>	Enclosure
Pin Mixer	PM <sub>10</sub>	Baghouse (BH-W012)
Board Dryer	PM <sub>10</sub>	None
	SO <sub>2</sub>	None
	NO <sub>x</sub>	None
	VOC	None
	CO	None
End Trim/Bundler	PM <sub>10</sub>	Baghouse (BH-W01)
Riser Machine	PM <sub>10</sub>	Baghouse (BH-W01)

**Table IV-C-2: Plaster Plant with Control Equipment**

Emission Unit	Pollutant	Control Device
Plant and Storage Area Vehicle Traffic	PM <sub>10</sub>	Paving/Water Spray
Plant Materials Piles	PM <sub>10</sub>	Water Spray
Roll Crusher	PM <sub>10</sub>	Baghouse (BH-01)
Rock Bin	PM <sub>10</sub>	Baghouse (BH-02, BH-03)
Roller Mill	PM <sub>10</sub>	Baghouse (BH-04, BH-05)
Loadout Bin	PM <sub>10</sub>	Enclosure, Baghouse (BH-10)
LP Bin	PM <sub>10</sub>	Baghouse (BH-06, BH-07)

Emission Unit	Pollutant	Control Device
Kettle	PM <sub>10</sub>	Baghouse (BH-08, BH-09)
Stucco Conveyors	PM <sub>10</sub>	Baghouse (BH-30)
Reject Bin	PM <sub>10</sub>	Baghouse (BH-11)
Stucco Bulk Loadout Bin	PM <sub>10</sub>	Baghouse (BH-12)
Stucco Bulk Loadout	PM <sub>10</sub>	Enclosure
West Stucco Bin	PM <sub>10</sub>	Baghouse (BH-15)
East Stucco Bin	PM <sub>10</sub>	Baghouse (BH-16)
Split Finish Bin	PM <sub>10</sub>	Baghouse (BH-17, BH-18, BH-19, BH-20, BH-21, BH-22)
Alpha Bin	PM <sub>10</sub>	Baghouse (BH-23, BH-25)
Cement Bin	PM <sub>10</sub>	Baghouse (BH-24)
Hopper	PM <sub>10</sub>	Baghouse (BH-31)
Bulk Bagging	PM <sub>10</sub>	Enclosure
Bulk Loadout Bin	PM <sub>10</sub>	Baghouse (BH-28)
Alpha Boiler	PM <sub>10</sub>	None
	SO <sub>2</sub>	None
	NO <sub>x</sub>	None
	VOC	None
	CO	None
ParaTherm Boiler #1	PM <sub>10</sub>	None
	SO <sub>2</sub>	None
	NO <sub>x</sub>	None
	VOC	None
	CO	None
ParaTherm Boiler #2	PM <sub>10</sub>	None
	SO <sub>2</sub>	None
	NO <sub>x</sub>	None
	VOC	None
	CO	None
ParaTherm Boiler #3	PM <sub>10</sub>	None
	SO <sub>2</sub>	None
	NO <sub>x</sub>	None
	VOC	None
	CO	None
Pan Dryers	PM <sub>10</sub>	Baghouse (BH-13)
Alpha series	PM <sub>10</sub>	Enclosure, Baghouse (BH-13, BH-14)
Vacuum System	PM <sub>10</sub>	Baghouse (BH-32)
Airvey System	PM <sub>10</sub>	Baghouse (BH-10, BH-33)

#### D. Performance Testing

The purpose of performance testing is to ensure equipment and/or processes are operated so as not to exceed the permitted emission limits. Performance testing is a compliance tool for both the agency and the owner/operator.

For this facility, performance testing is required for PM<sub>10</sub>, CO, and NO<sub>x</sub>. Pursuant to this Title V Part 70 permit as well as its current NSR ATC/OP (09/08/99) and NSR OP (02/05/03), Georgia Pacific has and must continue to demonstrate the following:

## 1) Generally

Performance tests shall be conducted in accordance with 40 CFR 60, Appendix A. *[Authority: NSR- ATC/OP Section III-E, Compliance, Condition 1, (09/08/99); NSR – OP Section III-E, Compliance, Condition 5b, (02/05/03), 2003 Title 5, Part 70, Section G]*

Pursuant to Section 10 (as revised) of AQR, the owner/operator of any stationary source or emission unit that fails to demonstrate compliance with the emission standard or limitation during any subsequent performance test, shall submit a compliance plan to Compliance Reporting, DAQM, within 90 days from the end of the performance test. *[Authority: NSR- ATC/OP Section III-E, Compliance, Condition 6, (09/08/99), 2003 Title 5, Part 70, Section G]*

Pursuant to Subsection 4.5 (as revised) of AQR, additional performance testing may be required by the Control Officer. *[Authority: NSR - OP Section III-E, Compliance, Condition 7, (02/05/03), 2003 Title 5, Part 70, Section G]*

## 2) PM<sub>10</sub>

Georgia Pacific has done and is required to do initial performance tests on new and/or modified baghouses to demonstrate compliance with the opacity standards contained within this document. Subsequent opacity performance tests have and shall be conducted annually on all baghouses controlling emissions from process equipment that is operating. *[Authority: NSR - ATC/OP Section III-E, Compliance, Condition 1, (09/08/99), 2003 Title 5, Part 70, Section G]*

Testing has and shall be performed at no less than 80 percent of maximum production capacity, unless a lower level is approved by DAQM. *[Authority: NSR- ATC/OP Section III-E, Compliance, Condition 3, (09/08/99), 2003 Title 5, Part 70, Section G]*

The owner/operator has been and is still responsible for complying with all applicable tests for all emission units subject to Subpart OOO. These units are identified in Table V-3. In conducting the performance tests required in 40 CFR §60.8, the owner/operator has and shall continue to determine compliance with the particulate matter standards in §60.672(a) as follows:

- 1) Method 5 or Method 17 has and shall be used to determine the particulate matter concentration; and
- 2) Method 9 and the procedures in §60.11 have and shall be used to determine opacity.

*[Authority: NSR- OP Section III-E, Compliance, Condition 6, (02/05/03), 2003 Title 5, Part 70, Section G]*

For emission units subject to Subpart UUU, 40 CFR § 60.736, identified in Table V-3, test methods and procedures have and shall apply as follow:

- a) the owner/operator has and shall determine compliance with the particulate matter standards in §60.732;
- b) Method 5 has and shall be used to determine the particulate matter concentration;
- c) the sampling time and volume for each test run has and shall be at least 2 hours and 1.70 dscm; and
- d) Method 9 and the procedures in §60.11 has and shall be used to determine opacity from stack emissions.

*[Authority: NSR- OP Section III-E, Compliance, Condition 7, (02/05/03), 2003 Title V, Part 70, Section G, 2003 Title V, Part 70, Section G]*

**3) NO<sub>x</sub> and CO**

The Wallboard Plant has and will continue to demonstrate compliance with the following provisions:

- a) the exhaust gas from Nevada Cogeneration Associates #1 has and must be tested for NO<sub>x</sub>, CO and flow annually;
- b) all exhaust gas performance test(s) has and shall be conducted while the emission unit is operating between 80 percent and 100 percent of the design capacity; and
- c) each subsequent exhaust gas performance testing done at the plant has and shall be conducted during the six months prior to the anniversary date of the initial performance test.

*[Authority: NSR- ATC/OP Section III-E, Compliance, Conditions 2, 3, 5, and 9, (09/08/99) 2003 Title 5, Part 70, Section G]*

**Table IV-D-1: Protocol Requirements**

Test Point	Pollutant/Parameter	Units
Exhaust Gas From NCA #1	NO <sub>x</sub>	Pounds per hour and ppmvd @ reference conditions
Exhaust Gas From NCA #1	CO	Pounds per hour and ppmvd @ reference conditions
Exhaust Gas From NCA #1	Flow	Pounds per hour

**Table IV-D-2: Required Performance Test**

Test Point	Pollutant/Parameter	Units
Exhaust Gas From NCA #1	NO <sub>x</sub>	pounds per hour and ppmvd @ reference conditions
Exhaust Gas From NCA #1	CO	pounds per hour and ppmvd @ reference conditions
Exhaust Gas From NCA #1	Flow	pounds per hour

**Table IV-D-3: Subsequent Performance Testing Requirements**

Test Point	Pollutant/Parameter	Units
Exhaust Gas From NCA #1	NO <sub>x</sub>	pounds per hour and ppmvd @ reference conditions
Exhaust Gas From NCA #1	CO	pounds per hour and ppmvd @ reference conditions
Exhaust Gas From NCA #1	Flow	pounds per hour

The Plaster Plant has and will continue to comply with the following performance testing protocol requirements:

**Table IV-D-4: Performance Testing-Protocol Requirements**

Test Point	Pollutant(s)	Method
Boiler Exhaust Outlet Stack	NO <sub>x</sub>	Chemiluminescence Analyzer (EPA Method 7E)
Boiler Exhaust Outlet Stack	CO	EPA Method 10 analyzer
Stack Gas Parameters	-	EPA Methods 1, 2, 3, and 4

*[Authority: NSR- OP Section III-E, Compliance, Condition 5, (02/05/03), 2003 Title V, Part 70, Section G]*

**V. REQUIREMENTS APPLICABLE TO SOURCE**

**A. Overview of Requirements**

DAQM has determined that the following public law, statutes and associated regulations, ordered by hierarchical authority, are requirements:

1. Clean Air Act, as amended (CAAA), Authority: 42 U.S.C. § 7401, et seq.;
2. Title 40 of the Code of Federal Regulations (CFR), including Part 70 and others;
3. Nevada Revised Statutes (NRS), Chapter 445, Sections 401 through 601;
4. Portions of the AQR that are 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 Operating Permits issued by DAQM are federally enforceable since these permits were issued pursuant to SIP-included sections of the AQR; and
5. Portions of the AQR that are not included in the SIP. These requirements are locally enforceable only.

The requirements will be discussed under the following subheadings and in the following order:

- B. Part 70 Operating Permit Requirements
- C. Local Requirements
- D. SIP Requirements
- E. Federal Requirements
- F. Authority to Construct Conditions
- G. Section 16 Operating Permit Conditions

Please note that no discussion will be accorded to the Nevada Revised Statutes (NRS) or the Clean Air Act Amendments (CAAA) because these public laws establish the general authority for the Regulations mentioned.

DAQM has included the more relevant text from the requirements in this document for convenience. These “in part” sections or subsections are marked with a “p” for partial. Please refer to the appropriate regulation for the complete text.

**B. Part 70 Operating Permit Program Requirements**

AQR SECTION 19 - PART 70 OPERATING PERMITS [Rev. 05/24/01] AQR Section 19 details Part 70 Operating Permit Program requirements. Section 19 and 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.

**DISCUSSION:**

Please reference pages 19-1 through 19-28 of the AQR. The requirements of Section 19 are incorporated into the conditions of the Part 70 OP. These regulations may be accessed on the Internet at:

[http://www.co.clark.nv.us/Air\\_Quality/index.htm](http://www.co.clark.nv.us/Air_Quality/index.htm)

**C. Local Requirements**

Locally applicable requirements are portions of the AQR that are locally enforceable only. These rules have not been approved by EPA for inclusion into the State Implementation Plan (SIP). Full text of these regulations may be accessed on the internet at:

[http://www.co.clark.nv.us/Air\\_Quality/index.htm](http://www.co.clark.nv.us/Air_Quality/index.htm)

or viewed at the Department of Air Quality offices. Requirements and conditions that appear in the Part 70 OP which are related only to non-SIP rules will be notated as locally enforceable only.

AQR SECTION 0 – DEFINITIONS [Rev. 12/04/01] pages 0-1 through 0-49

AQR SECTION 12 – PRECONSTRUCTION REVIEW FOR NEW OR MODIFIED STATIONARY SOURCES [Rev. 12/04/01]  
AQR Pages 12-1 through 12-71

**DISCUSSION:**

On August 29, 2001, the Ninth District Circuit Court remanded review of Sections 12 and 0 back to the EPA, negating SIP approval of these sections. However, conditions in ATC/OPs issued when Section 12 was federally enforceable are still federally enforceable.

AQR SECTION 12 - PRECONSTRUCTION REVIEW FOR NEW OR MODIFIED STATIONARY SOURCES [Rev., 12/22/98] *(in part)*

Note: Section 12 requirements for the air pollutants emitted by this facility are summarized in the following tables. Please see AQR Section 12 for the related text.

**Table V-1: Section 12 Requirements in a Prevention of Significant Deterioration (PSD) Area**

<b>Pollutant</b>	<b>PM<sub>10</sub></b>	<b>NO<sub>x</sub></b>	<b>CO</b>	<b>SO<sub>2</sub></b>	<b>VOC</b>	<b>HAP</b>
<i>Major Source</i>	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 100 tpy	≥ 10 tpy for each HAP, or ≥ 25 tpy for combined HAP
<i>Notice of Proposed Action</i>	Yes, If PTE ≥ 15 tpy or NEI ≥ 15 tpy	Yes, If PTE or NEI ≥ 40 tpy	Yes, If PTE ≥ 70 tpy or NEI ≥ 70 tpy	Yes, If PTE or NEI ≥ 40 tpy	Yes, If PTE or NEI ≥ 40 tpy	Yes, If PTE or NEI ≥ 10 tpy
<i>Control Technology</i>	BACT	BACT	BACT	BACT	BACT	No Control or BACT
<i>Permitting 'de minimus'</i>	1 tpy	2 tpy	2 tpy	1 tpy	2 tpy	1 tpy
<i>Continuous Emissions Monitoring</i>	Yes, Opacity per NSPS	Yes, if PTE ≥ 100 tpy & NEI ≥ 40 tpy	Yes, if PTE ≥ 100 tpy & NEI ≥ 100 tpy	Yes, if PTE ≥ 100 tpy & NEI ≥ 40 tpy	No	No
<i>Pre Construction Ambient Air Monitoring</i>	Yes, If PTE ≥ 100 tpy & NEI ≥ 15 tpy & impact ≥ 10 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 14 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 & NEI ≥ 100 tpy & impact ≥ 575 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 13 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy	Significantly high levels of listed HAPs
<i>Post Construction Ambient Air Monitoring</i>	Yes, If PTE ≥ 100 tpy & NEI ≥ 15 tpy & impact ≥ 16 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 14 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 & NEI ≥ 100 tpy & impact ≥ 2000 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy & impact ≥ 50 µg/m <sup>3</sup>	Yes, If PTE ≥ 100 tpy	Significantly high levels of listed HAPs
<i>Additional Impact Analysis</i>	Yes, If PTE ≥ 100 tpy & NEI ≥ 15 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 100 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy	Yes, If PTE ≥ 100 tpy & NEI ≥ 40 tpy	No

tpy = tons per year, NEI = NET EMISSION INCREASE, PTE = POTENTIAL TO EMIT

12.1.1 Persons who must apply

12.1.1.1 Any person who proposes to install or construct any new STATIONARY SOURCE (as defined in Section 0), or make MODIFICATION (as defined in Section 0) to any existing STATIONARY SOURCE shall apply for an "AUTHORITY TO CONSTRUCT" CERTIFICATE prior to COMMENCING CONSTRUCTION unless a source has COMMENCED CONSTRUCTION, or MODIFICATION prior to August 25, 1971, and has not undergone a MODIFICATION, or reconstruction since such time.

SECTION 17 - DUST CONTROL PERMIT FOR CONSTRUCTION ACTIVITIES INCLUDING SURFACE GRINDING AND TRENCHING [Rev., 01/23/97]:

17.1 Prohibitions:

- 17.1.1 No owner, lessee, occupant, operator, user, or any other person shall engage in construction activities, including disturbing the topsoil, grading, clearing and grubbing operations, trenching or excavate, or the addition or removal of dirt or fill for construction of a building or dwelling unit(s) on property in excess of a) an aggregate of one-quarter acre or more; b) or a trench at least 100 feet in length if the aggregate is less than one quarter acre of any property or contiguous properties within Clark County, Nevada or any incorporated city there in prior to the issuance of a Dust Control Permit for Construction Activities including Surface Grading and Trenching by the Control Officer and then only if said permit is current and valid;
- 17.1.2 No person shall engage in construction activities, including disturbing the topsoil, grading, clearing and grubbing operations, trenching or the addition or removal of dirt or fill in excess of an aggregate of a) one-quarter acre or more b) or a trench at least 100 feet in length if the aggregate is less than one quarter acre of any property or contiguous properties within Clark County, Nevada or any incorporated city therein at the request of or under contract to the owner, lessee, occupant, user or any other person until he has in his possession a copy of the Dust Control Permit required by Subsection 17.1.1;
- 17.1.3 No person shall engage in the destruction, demolition or removal of any structure, 1000 square feet or larger, located on any property within Clark County, Nevada or any incorporated city therein prior to the issuance of Dust Control permit by the Control Officer and then only if said permit is current and valid.

SECTION 20 - EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR SOURCE CATEGORIES[Rev., 01/23/97]:

- 20.1 WHEREAS, the District Board of Health of Clark County, functioning as the Air Pollution Control Board, is responsible for control of pollutants discharged into the air; and
- WHEREAS, Air Pollution Control Standards and Regulations have been adopted by said Board pursuant to NRS 445 for the purpose, among others, of limiting Air Contaminant emissions from new sources of air pollutants; and
- WHEREAS, it is a public policy of Clark County and the purpose of the District's Regulations to review and approve proposed new sources of air pollution, only if emission standards can be met and air quality standards will not be violated; and
- WHEREAS, the United States Environmental Protection Agency has adopted standards for certain hazardous air pollutants for source categories which are required throughout the nation; and
- WHEREAS, it is the District's belief that review and approval of new sources are best managed at the local level;
- NOW, THEREFORE, the provisions of Part 63, Chapter I, Title 40, Code of Federal Regulations, as indexed below, are hereby adopted by reference and made a part

hereof as if fully set forth. Any final revisions to an existing subpart that are promulgated by the United States Environmental Protection Agency are hereby adopted by reference and made a part hereafter as if fully set forth. Any new subparts to Part 63 that are promulgated by the United States Environmental Protection Agency after the effective date of this Section shall be subject to review and adoption by the Clark County District Board of Health prior to becoming part of these Regulations. For the purposes, of this section, the word "Administrator" as used in Parts 60 and 61, Chapter I, Title 40, Code of Federal Regulations shall mean the Control Officer, except that the Control Officer shall not be empowered to approve alternate or equivalent test methods or alternative standards/work practices.

AQR SECTION 25.1 - UPSET/BREAKDOWN, MALFUNCTIONS [Rev., 12/19/96] (*in part*)

- 25.1 Operation of any plant or equipment which causes emissions of air contaminants in excess of limits set by these Regulations is in violation of these Regulations unless:
  - 25.1.1 Such emissions resulted from a malfunction.

**DISCUSSION:**

In determining whether a malfunction has occurred, the CONTROL OFFICER, HEARING OFFICER, or HEARING BOARD may use guidelines from subsection 25.1.1. The burden of proof will be upon the Operator.

SECTION 26 - EMISSION OF VISIBLE AIR CONTAMINANTS [Rev., 07/08/85]:

- 26.1 A person shall not discharge into the atmosphere, from any single source whatsoever, any air contaminants for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period, which is:
  - 26.1.1 Of such opacity to a degree equal to 20 percent obscuration or greater.
  - 26.1.2.5 Any existing source undergoing modification shall incorporate control devices and methods calculated, within the maximum control capability which is technically practicable at the time that the modification is begun, to eliminate all visible emission from the source involved.
  - 26.1.2.6 Any new source shall incorporate control devices and methods calculated to produce zero (0) opacity, except for three (3) minutes in any sixty (60) minutes during which time a visible emission of 20% opacity shall be permitted.
- 26.2 Exception to Subsection 26.1
  - 26.2.1 Notwithstanding the provisions of 26.1, *supra*, emissions resulting from the shutdown of air pollution control equipment for scheduled maintenance shall not constitute a violation of Section 26, subject to the following conditions:

- a) The scheduled maintenance was reported to the Control Officer more than twenty-four (24) hours in advance of the shutdown;
- b) The scheduled maintenance is performed at times specified by the Control Officer as being favorable for atmospheric ventilation; and
- c) Emissions during the shutdown are minimized to the extent reasonably possible; and

Where possible, the shutdown is scheduled during periods of non-operation of the Emission Unit.

SECTION 28 - FUEL BURNING EQUIPMENT [Rev., 04/23/87]:

28.2 Emission Limitations

28.2.1 No person shall cause or permit the emission of particulate matter from any fuel-burning equipment in excess of the quantity set forth in the following table:

Heat input, millions of British thermal units per hour	Maximum allowable rate of emissions of particulate matter, pounds per million British thermal units of heat
10	0.600
50	0.412
100	0.352
500	0.242
1,000	0.207
4,000	0.150
8,000	0.102
10,000	0.0904
15,000	0.0717
20,000	0.0607
40,000	0.0409
50,000	0.0358

SECTION 29 - SULFUR CONTENTS OF FUEL OIL [Rev., 12/16/93]:

29.1 It is unlawful for any person to store, offer for sale, burn, or cause to be burned, within Clark County at any time, any Diesel Fuel Oil having a sulfur content in excess of 0.05 percent by weight.

29.1.1 The limitation for Diesel Fuel does not apply to fuel purchased and in storage prior to December 16, 1993.

29.3 Allowance for analytical variations in sulfur content of fuel oil:

29.3.1 The percent by weight sulfur content shall be limited to a maximum deviation of 10 percent.

Sulfur Content

Maximum Sulfur Content

0.05  
0.30

0.055  
0.330

**DISCUSSION:**

The SIP limits the sulfur content in fuel oil to 1.0 percent by weight. The local regulations limit the sulfur content of diesel fuel oil to no more than 0.05 percent by weight. The local regulations are more stringent. The more stringent conditions relative to the compliance requirements of sulfur content in fuels will be incorporated in the permit conditions.

**AQR SECTION 40 - PROHIBITIONS OF NUISANCE CONDITIONS [Rev., 05/18/84]**

40.1 No person shall cause, suffer or allow the discharge from any source whatsoever such quantities of air contaminants or other material which cause a nuisance.

**SECTION 41 - FUGITIVE DUST [Rev., 06/25/92]**

41.1 Prohibitions:

41.1.1 Any person engaged in activities involving the dismantling or demolition of buildings, grubbing, grading, clearing of land, public or private construction, the operation of machines and equipment, the grading of roads, trenching operations, the operation and use of unpaved parking facilities, agricultural operations, use and operation of live stock arenas, horse arenas and feed lots, and operation and use of raceways for motor vehicles shall take all reasonable precautions to abate fugitive dust from becoming airborne from such activities. Reasonable precautions may include, but are not limited to the conditions agreed upon in the APCD permit for the project, sprinkling, compacting, enclosure, chemical, or asphalt sealing, cleaning up, sweeping, or such other measures as the Control Officer may specify to accomplish satisfactory results;

41.1.2 No person shall cause or permit the handling, transporting, or storage of any material in a manner which allows or may allow controllable particulate matter to become airborne.

41.3.1 If loose sand, dust, or dust particles are found to exist in excess of acceptable limits, as determined by the Control Officer, the Control Officer shall notify the owner, lessee, occupant, operator, or user of said land that said situation is to be corrected within a specified period of time, dependent upon the scope and extent of the problem. The failure to correct said situation within the specified period of time shall be in violation of this section.

41.4.1 The Control Officer, his designated agent, or any other authorized representative of the Health Department, after due notice shall be further empowered to enter upon any said land where any sand or dust problem exists, and to take such remedial and corrective action as may be deemed appropriate to cope with and relieve, reduce, or remedy the existent sand and dust situation and condition, when the owner, occupant, operator, or any tenant, lessee, or holder of any possessory interest or right in the involved land fails to do so.

AQR SECTION 43- ODORS IN THE AMBIENT AIR [REV. 12/28/78]

- 43.1 An ODOR occurrence shall be deemed a violation when a complaint is received and substantiated within two hours by the CONTROL OFFICER. The CONTROL OFFICER shall deem the ODOR occurrence a violation if he is able to detect the ODOR twice within a period of one hour, if the ODOR is of such a nature as to cause a nuisance, and these detections being separated by at least 15 minutes.

**D. State Implementation Plan (SIP) Requirements**

Note: The terms State Implementation Plan (SIP), Implementation Plan (IP), and Clark County Implementation Plan (CCIP) are essentially synonymous. They refer to those AQR that have been approved by the EPA for inclusion into the SIP. These rules are federally enforceable. For the sake of simplicity and consistency, the term SIP will be used exclusively in this document.

DAQM has included the more relevant subsections in this document for convenience. Please refer to the AQR for the complete text.

**Table V-2: Clark County Department of Air Quality Management- Air Quality Regulations and State implementation Plan**

<b>Applicable Section – Title</b>	<b>Applicable Subsection - Title</b>	<b>SIP</b>	<b>Affected Emission Unit</b>	<b>Compliance Method</b>
0. Definitions	applicable definitions	no	entire facility	record keeping
1. Definitions	applicable definitions	yes	entire facility	record keeping
4. Control Officer	all subsections	yes	entire facility	record keeping
5. Interference with Control Officer	all subsections	yes	entire facility	record keeping
8. Persons Liable for Penalties - Punishment: Defense	all subsections	yes	entire facility	record keeping
9. Civil Penalties	all subsections	yes	entire facility	record keeping
10. Compliance Schedule	when applicable; applicable subsections	yes	entire facility	record keeping
11. Ambient Air Quality Standards	applicable subsections	yes	entire facility	record keeping

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit	Compliance Method
12. Preconstruction Review for New or Modified Stationary Sources	§ 12.1 General Application Requirements for New and Modified Sources of Air Pollutants. § 12.2.5 Requirements for PM <sub>10</sub> Sources in the PSD Area. § 12.2.10 Requirements for CO Sources in the PSD Area. § 12.2.13 Requirements for VOC Sources in the PSD Area. § 12.2.15 Requirements for NO <sub>x</sub> Sources in the PSD Area. § 12.2.18 HAP Sources in Clark County § 12.3 Owner/Operator Notification, Application Processing Deadlines, Notice of Proposed Action Procedures, and Public Hearings. § 12.8 Issuance of Authority to Construct Certificate with conditions.	no	entire facility	record keeping performance testing reporting
15. Source Registration	all subsections <b>except</b> §15.14 Source registration for Areas Exceeding Air Quality Standards	yes	entire facility	record keeping performance testing reporting
16. Operating Permits	all subsections	yes	entire facility	record keeping
18. Permit and Technical Service Fees	§ 18.1 Operating Permit Fees. § 18.2 Annual Emission Unit Fees. § 18.4 New Source Review Application Review Fee. § 18.5 Part 70 Application Review Fee. § 18.6 Annual Part 70 Emission Fee. § 18.14 Billing Procedures	yes	entire facility	record keeping
19. Part 70 Operating Permit	§ 19.2 Applicability § 19.3 Part 70 Permit Applications § 19.4 Part 70 Permit Content § 19.5 Permit Issuance, Renewal, Reopenings, and Revisions § 19.6 Permit Renewal by the EPA and Affected States § 19.7 Fee Determination and Certification	NA	entire facility	record keeping

Applicable Section – Title	Applicable Subsection - Title	SIP	Affected Emission Unit	Compliance Method
24. Sampling and Testing - Records and Reports	§ 24.1 Requirements for installation and maintenance of sampling and testing facilities. § 24.2 Requirements for emissions recordkeeping. § 24.3 Requirements for the record format. § 24.4 Requirements for the retention of records by the emission sources.	yes	entire facility	record keeping reporting
25.1 Upset/Breakdown, Malfunctions	§ 25.1 Requirements for the excess emissions caused by upset/breakdown and malfunctions.	no	entire facility	record keeping reporting
25.2 Upset/Breakdown, Malfunctions	§ 25.2 Reporting and Consultation.	yes	entire facility	record keeping reporting
26. Emission of Visible Air Contaminants	§ 26.1 Limit on opacity (≤ 20% for 3 minutes in a 60 minute period)	yes	entire facility	record keeping Method 9 (EPA)
40. Prohibitions of Nuisance Conditions	§ 40.1 Prohibitions	no	entire facility	record keeping
41. Fugitive Dust	§ 41.1 Prohibitions	yes	entire facility	record keeping
42. Open Burning	§ 42.1 Burning of Combustibles § 42.4 Open burning	yes	entire facility	record keeping
43. Odors In the Ambient Air	§ 43.1 Prohibitions	yes	entire facility	record keeping
60. Evaporation and Leakage	all subsections	yes	entire facility	record keeping
70. Emergency Procedures	all subsections	yes	entire facility	record keeping
80. Circumvention	all subsections	yes	entire facility	record keeping

**E. Federal Requirements**

40 CFR PART 60-STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES (NSPS).

Georgia Pacific is subject to 40 CFR 60 Subparts A, Dc, OOO, and UUU. Table V-3 below details each emission unit and the applicable regulatory subparts. The subsequent subsections of Section V-E detail the applicable subparts at extensive length.

**Table V-3: Emission Units and Applicable Subparts**

<b>EU#</b>	<b>Description</b>	<b>Applicable Subpart</b>
B 01	Crushing Area Conveyor	Subpart A, Subpart OOO
B 02	Primary Crusher	Subpart A, Subpart OOO
B 03	200 Ton Rock Bin	Subpart A, Subpart OOO
B 04	Secondary Crusher	Subpart A, Subpart OOO
C 05	IMP Mill #5	Subpart A, Subpart UUU
D 03	North Stucco Storage Bin	Subpart A, Subpart OOO
D 04	South Stucco Storage Bin	Subpart A, Subpart OOO
D 08	Vermiculite Bin	Subpart A, Subpart OOO
D 09	Landplaster Bin #1	Subpart A, Subpart OOO
D 10	Landplaster Bin #2	Subpart A, Subpart OOO
D 11	Ball Mill #1	Subpart A, Subpart OOO
D 12	Ball Mill #2	Subpart A, Subpart OOO
D 17	Raw Material Conveyor	Subpart A, Subpart OOO
E 101	Roll Crusher	Subpart A, Subpart OOO
E 102	Rock Conveyors	Subpart A, Subpart OOO
E 164	Alpha Rock Screen	Subpart A, Subpart OOO
E 103	West Beta Rock Bin	Subpart A, Subpart OOO
E 104	East Beta Rock Bin	Subpart A, Subpart OOO
E 105	West Roller Mill 150 HP	Subpart A, Subpart OOO
E 106	East Roller Mill 150 HP	Subpart A, Subpart OOO
E 107	LP Bulk Loadout Bin with enclosed screw conveyors	Subpart A, Subpart OOO
E 165	LP Bulk Loadout	Subpart A, Subpart OOO
E 108	West LP Bin	Subpart A, Subpart OOO
E 109	East LP Bin	Subpart A, Subpart OOO
E 110	West Kettle	Subpart A, Subpart UUU
E 111	East Kettle	Subpart A, Subpart UUU
E 112	Stucco Conveyors	Subpart A, Subpart OOO
E 113	Reject Bin	Subpart A, Subpart OOO
E 166	Stucco Sweeco Screen	Subpart A, Subpart OOO
E 114	Stucco Bulk Loadout Bin	Subpart A, Subpart OOO
E 167	Stucco Bulk Loadout	Subpart A, Subpart OOO
E 117	West Stucco Bin	Subpart A, Subpart OOO
E 115	West Hummer Screen Tyler H40-W	Subpart A, Subpart OOO
E 118	East Stucco Bin	Subpart A, Subpart OOO
E 116	East Hummer Screen Tyler H40-W	Subpart A, Subpart OOO
E 119	West Entoleter	Subpart A, Subpart OOO
E 120	East Entoleter	Subpart A, Subpart OOO
E 122	Split Finish Bin #1 South	Subpart A, Subpart OOO

EU#	Description	Applicable Subpart
E 123	Split Finish Bin #1 North	Subpart A, Subpart 000
E 124	Split Finish Bin #2 South	Subpart A, Subpart 000
E 125	Split Finish Bin #2 North	Subpart A, Subpart 000
E 126	Split Finish Bin #3 South	Subpart A, Subpart 000
E 127	Split Finish Bin #3 North	Subpart A, Subpart 000
E 128	South Alpha Bin	Subpart A, Subpart 000
E 129	North Alpha Bin	Subpart A, Subpart 000
E 130	Cement Bin	Subpart A, Subpart 000
E 137	South Bag Packer	Subpart A, Subpart 000
E 131	South Weigh Hopper	Subpart A, Subpart 000
E 132	North Weigh Hopper	Subpart A, Subpart 000
E 133	South Mixer	Subpart A, Subpart 000
E 134	North Mixer	Subpart A, Subpart 000
E 135	South Bag Packer Feed Hopper	Subpart A, Subpart 000
E 136	North Bag Packer Feed Hopper	Subpart A, Subpart 000
E 138	North Bag Packer	Subpart A, Subpart 000
E 171	South MP Bulk Loadout	Subpart A, Subpart 000
E 170	North MP Bulk Loadout	Subpart A, Subpart 000
E 139	FP Bulk Loadout Bin	Subpart A, Subpart 000
E 168	FP Bulk Bagging	Subpart A, Subpart 000
E 169	MP Bulk Bagging	Subpart A, Subpart 000
E 140	MP Bulk Loadout Bin	Subpart A, Subpart 000
E 145	Alpha Boiler	Subpart A, Subpart Dc
E 142	Alpha Rock Conveyors	Subpart A, Subpart 000
E 143	South Alpha Rock Bin	Subpart A, Subpart 000
E 144	North Alpha Rock Bin	Subpart A, Subpart 000
E 149	Pan Dryer #1	Subpart A, Subpart UUU
E 150	Pan Dryer #2	Subpart A, Subpart UUU
E 151	Pan Dryer #3	Subpart A, Subpart UUU
E 161	Alpha Cemco Crusher	Subpart A, Subpart 000
E 162	Alpha Tube Mill	Subpart A, Subpart 000
E 163	Alpha Entoleter #2	Subpart A, Subpart 000
E 152	Alpha Entoleter #1	Subpart A, Subpart 000
E 153	Alpha Multiscrew Reheater	Subpart A, Subpart 000
E 160	Alpha Hammermill	Subpart A, Subpart 000
E 154	Alpha Hummer Screen Tyler HW-40	Subpart A, Subpart 000
E 156	Alpha Reject Screens	Subpart A, Subpart 000
E 157	South Alpha Storage Bin	Subpart A, Subpart 000
E 158	North Alpha Storage Bin	Subpart A, Subpart 000

**1) Subpart A - General Provisions**

**§ 60.1 Applicability.**

- (a) Except as provided in subparts B and C, the provisions of this part apply to the owner or operator of any stationary source which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of any standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.
- (b) Any new or revised standard of performance promulgated pursuant to section 111(b) of the Act shall apply to the owner or operator of any stationary source

which contains an affected facility, the construction or modification of which is commenced after the date of publication in this part of such new or revised standard (or, if earlier, the date of publication of any proposed standard) applicable to that facility.

- (c) In addition to complying with the provisions of this part, the owner or operator of an affected facility may be required to obtain an operating permit issued to stationary sources by an authorized State air pollution control agency or by the Administrator of the U.S. Environmental Protection Agency (EPA) pursuant to Title V of the Clean Air Act (Act) as amended November 15, 1990 (42 U.S.C. 7661). For more information about obtaining an operating permit see part 70 of this chapter. [Part 60]

[40 FR 53346, Nov. 17, 1975, as amended at 55 FR 51382, Dec. 13, 1990; 59 FR 12427, Mar. 16, 1994]

## **§ 60.2 Definitions.**

The definitions provide, in part, the following:

*Part 70 permit* means any permit issued, renewed, or revised pursuant to part 70 of this chapter.

*Title V permit* means any permit issued, renewed, or revised pursuant to Federal or State regulations established to implement title V of the Act (42 U.S.C. 7661). A title V permit issued by a State permitting authority is called a part 70 permit in this part.

### **DISCUSSION:**

This facility is subject to NSPS. The facility is subject to Dc, OOO and UUU, but is not subject to MACT for the HAP formaldehyde. The applicability or nonapplicability of each will be discussed in more detail below.

## **§ 60.7 Notification and Record Keeping**

Notification and record keeping requires notification to DAQM of modifications, opacity testing, records of malfunctions of either process equipment and/or continuous monitoring device, CEMS data, and performance test data. These requirements are found in the Part 70 OP in Sections III-C, III-D, III-E, and III-F.

DAQM requires records to be maintained for five years, a more stringent requirement than the two years required by §60.7.

## **§ 60.8 Performance Tests**

Performance tests requirements are found in the Part 70 OP in Section III-G. 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. [Part 60] DAQM conditions for initial performance testing are identical to §60.8. DAQM also requires periodic performance testing on emission units based upon throughput or usage and the lack of other compliance demonstration methods. Performance testing and CEMS were discussed in this document in Section IV-D. More discussion is in this document under the compliance section.

### **§ 60.11 Compliance with standards and maintenance requirements**

- (a) Compliance with standards in this part, [Part 60] other than opacity standards, shall be determined only by performance tests established by §60.8, unless otherwise specified in the applicable standard.
- (b) Compliance with opacity standards in this part [Part 60] shall be determined by conducting observations in accordance with Reference Method 9 in appendix A of this part [Part 60], any alternative method that is approved by the Administrator, or as provided in paragraph (e)(5) of this section. For purposes of determining initial compliance, the minimum total time of observations shall be 3 hours (30 6-minute averages) for the performance test or other set of observations (meaning those fugitive-type emission sources subject only to an opacity standard).
- (c) The opacity standards set forth in this part shall apply at all times except during periods of startup, shutdown, malfunction, and as otherwise provided in the applicable standard.

#### **DISCUSSION:**

Section 26 of the AQR is more stringent than the federal opacity standards, setting a maximum of 20 percent obscuration in any 3 minute period. Section 26.1 does include (c) above as an exception to the more stringent local rule.

- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

#### **DISCUSSION:**

This is Condition III-E-3 in the Part 70 OP. More discussion is in this document under the compliance section.

### **§ 60.12 Circumvention**

The Circumvention prohibition is Condition I-A-27 in the Part 70 OP. This is also local rule §80.1.

### **§ 60.13 Monitoring requirements**

This section requires that performance testing meet Appendix A standards of operation, testing and performance criteria. Section III-D of the Part 70 permit specifically contains these performance conditions.

## **2) Subpart OOO Standards of Performance for Nonmetallic Mineral Processing Plants**

Source: 62 FR 31351, June 9, 1997.

### **§ 60.670 Applicability and designation of affected facility.**

- (a)
  - (1) Except as provided in paragraphs (a)(2), (b), (c), and (d) of this section, the provisions of this subpart are applicable to the following affected facilities in fixed or portable nonmetallic mineral processing plants: each crusher, grinding mill, screening operation, bucket elevator, belt conveyor, bagging operation, storage bin, enclosed truck or railcar loading station. Also, crushers and grinding mills at hot mix asphalt facilities that reduce the size of nonmetallic minerals embedded in recycled asphalt pavement and subsequent affected facilities up to, but not including, the first storage silo or bin are subject to the provisions of this subpart.
  - (2) The provisions of this subpart do not apply to the following operations: All facilities located in underground mines; and stand-alone screening operations at plants without crushers or grinding mills.
- (b) An affected facility that is subject to the provisions of subpart F or I or that follows in the plant process any facility subject to the provisions of subparts F or I of this part is not subject to the provisions of this subpart.
- (c)
  - (1) When an existing facility is replaced by a piece of equipment of equal or smaller size, as defined in §60.671, having the same function as the existing facility, the new facility is exempt from the provisions of §§60.672, 60.674, and 60.675 except as provided for in paragraph (d)(3) of this section.
  - (2) An owner or operator complying with paragraph (d)(1) of this section shall submit the information required in § 60.676(a).
  - (3) An owner or operator replacing all existing facilities in a production line with new facilities does not qualify for the exemption described in paragraph (d)(1) of this section and must comply with the provisions of §§60.672, 60.674 and 60.675.
- (d) An affected facility under paragraph (a) of this section that commences construction, reconstruction, or modification after August 31, 1983 is subject to the requirements of this part.

### **§ 60.672 Standard for particulate matter.**

- (a) On and after the date on which the performance test required to be conducted by §60.8 is completed, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any stack emissions which:
  - (1) Contain particulate matter in excess of 0.05 g/dscm; or

- (2) Exhibit greater than 7 percent opacity, unless the stack emissions are discharged from an affected facility using a wet scrubbing control device. Facilities using a wet scrubber must comply with the reporting provisions of §60.676 (c), (d), and (e).
- (b) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator subject to the provisions of this subpart shall cause to be discharged into the atmosphere from any transfer point on belt conveyors or from any other affected facility any fugitive emissions which exhibit greater than 10 percent opacity, except as provided in paragraphs (c), (d) and (e) of this section.
- (c) On and after the sixtieth day after achieving the maximum production rate at which the affected facility will be operated, but not later than 180 days after initial startup, no owner or operator shall cause to be discharged into the atmosphere from any crusher, at which a capture system is not used, fugitive emissions which exhibit greater than 15 percent opacity.
- (d) Truck dumping of nonmetallic minerals into any screening operation, feed hopper, or crusher is exempt from the requirements of this section.
- (e) If any transfer point on a conveyor belt or any other affected facility is enclosed in a building, then each enclosed affected facility must comply with the emission limits in paragraphs (a), (b) and (c) of this section, or the building enclosing the affected facility or facilities must comply with the following emission limits:
  - (1) No owner or operator shall cause to be discharged into the atmosphere from any building enclosing any transfer point on a conveyor belt or any other affected facility any visible fugitive emissions except emissions from a vent as defined in §60.671.
  - (2) No owner or operator shall cause to be discharged into the atmosphere from any vent of any building enclosing any transfer point on a conveyor belt or any other affected facility emissions which exceed the stack emissions limits in paragraph (a) of this section.

**§ 60.675 Test methods and procedures.**

- (a) In conducting the performance tests required in §60.8, the owner or operator shall use as reference methods and procedures the test methods in appendix A of this part [Part 60] or other methods and procedures as specified in this section, except as provided in §§60.8(b). Acceptable alternative methods and procedures are given in paragraph (e) of this section.
- (b) The owner or operator shall determine compliance with the particulate matter standards in §§60.272(a) as follows:
  - (1) Method 5 or Method 17 shall be used to determine the particulate matter concentration. The sample volume shall be at least 1.70 dscm (60 dscf). For Method 5, if the gas stream being sampled is at ambient temperature, the sampling probe and filter may be operated without heaters. If the gas stream is above ambient temperature, the sampling probe and filter may

be operated at a temperature high enough, but no higher than 121 °C (250 °F), to prevent water condensation on the filter.

- (2) Method 9 and the procedures in §60.11 shall be used to determine opacity.
- (c) In determining compliance with the particulate standards §60.672 (b) and (c), the owner or operator shall use Method 9 and the procedures in §60.11, with the following additions:
- (1) The minimum distance between the observer and the emission source shall be 4.57 meters (15 feet).
  - (2) The observer shall, when possible, select a position that minimizes interference from other fugitive emission sources (e.g., road dust). The required observer position relative to the sun (Method 9, Section 2.1) must be followed.
  - (3) For affected facilities using wet dust suppression for particulate matter control, a visible mist is sometimes generated by the spray. The water mist must not be confused with particulate matter emissions and is not to be considered a visible emission. When a water mist of this nature is present, the observation of emissions is to be made at a point in the plume where the mist is no longer visible.
- (d) In determining compliance with §§60.672(e), the owner or operator shall use Method 22 to determine fugitive emissions. The performance test shall be conducted while all affected facilities inside the building are operating. The performance test for each building shall be at least 75 minutes in duration, with each side of the building and the roof being observed for at least 15 minutes.
- (e) The owner or operator may use the following as alternatives to the reference methods and procedures specified in this section:
- (1) For the method and procedure of paragraph (c) of this section, if emissions from two or more facilities continuously interfere so that the opacity of fugitive emissions from an individual affected facility cannot be read, either of the following procedures may be used:
    - (i) Use for the combined emission stream the highest fugitive opacity standard applicable to any of the individual affected facilities contributing to the emissions stream.
    - (ii) Separate the emissions so that the opacity of emissions from each affected facility can be read.
- (f) To comply with §§60.676(d), the owner or operator shall record the measurements as required in §§60.676(c) using the monitoring devices in §60.674 (a) and (b) during each particulate matter run and shall determine the averages.  
[54 FR 6680, Feb. 14, 1989]

**§ 60.676 Reporting and record keeping**

- (a) Each owner or operator seeking to comply with §§60.670(d) shall submit to the Administrator the following information about the existing facility being replaced and the replacement piece of equipment.
  - (1) For a crusher, grinding mill, bucket elevator, bagging operation, or enclosed truck or railcar loading station:
    - (i) The rated capacity in tons per hour of the existing facility being replaced and
    - (ii) The rated capacity in tons per hour of the replacement equipment.
  - (2) For a screening operation:
    - (i) The total surface area of the top screen of the existing screening operation being replaced and
    - (ii) The total surface area of the top screen of the replacement screening operation.
  - (3) For a conveyor belt:
    - (i) The width of the existing belt being replaced and
    - (ii) The width of the replacement conveyor belt.
  - (4) For a storage bin:
    - (i) The rated capacity in tons of the existing storage bin being replaced and
    - (ii) The rated capacity in tons of replacement storage bins.
- b) Each owner or operator seeking to comply with §§60.670(d) shall submit the following data to the Director of the Emission Standards and Engineering Division, (MD-13), U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711.
  - (1) The information described in §§60.676(a).
  - (2) A description of the control device used to reduce particulate matter emissions from the existing facility and a list of all other pieces of equipment controlled by the same control device; and
  - (3) The estimated age of the existing facility.
- (c) During the initial performance test of a wet scrubber, and daily thereafter, the owner or operator shall record the measurements of both the change in pressure of the gas stream across the scrubber and the scrubbing liquid flow rate.
- (d) After the initial performance test of a wet scrubber, the owner or operator shall submit semiannual reports to the Administrator of occurrences when the measurements of the scrubber pressure loss (or gain) and liquid flow rate differ by more than  $\pm 30$  percent from the averaged determined during the most recent performance test.
- (e) The reports required under paragraph (d) shall be postmarked within 30 days following end of the second and fourth calendar quarters.
- (f) The owner or operator of any affected facility shall submit written reports of the results of all performance tests conducted to demonstrate compliance with the standards set forth in §60.672, including reports of opacity observations made using Method 9 to demonstrate compliance with §60.672 (b) and (c) and reports of observations using Method 22 to demonstrate compliance with §§60.672(e).

- (g) The requirements of this paragraph remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such States. In that event, affected sources within the State will be relieved of the obligation to comply with paragraphs (a), (c), (d), (e), and (f) of this section, provided that they comply with requirements established by the State. Compliance with paragraph (b) of this section will still be required.  
[51 FR 31337, Aug. 1, 1985, as amended at 54 FR 6680, Feb. 14, 1989]

#### **DISCUSSION:**

G-P is subject to Subpart OOO - Standards of Performance for Nonmetallic Mineral Processing Plants. These requirements were discussed in the TSD Part IV D above and will be discussed in more details in the Compliance Section below. Testing methods, emission limits, record keeping and reporting are included as conditions in the Title V Part 70 Renewal OP, Sections C, D, E, F, and G. EPA testing Method 5 or 17 for particulate emissions and Method 9 and 22 for Opacity will be required in the conditions of the Part 70 operating permit. Georgia Pacific, as denoted in C-11, will pursuant to §60.672 (a)(1), not discharge into the air any emissions containing particulate matter in excess of 0.05 g/dscm (0.022 gr/dscf). NSPS requirements for the impact mills are referred to in the discussion of the following Subpart UUU.

#### **3) Subpart UUU - Standards of Performance for Calciners and Dryers in Mineral Industries**

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

Source: 57 FR 44503, Sept. 28, 1992, unless otherwise noted.

#### **§ 60.730 Applicability and designation of affected facility.**

- (a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.
- (b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in §60.731, "Mineral processing plant").
- (c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

**§ 60.731 Definitions.**

As used in this subpart, all terms not defined herein shall have the meaning given them in the Clean Air Act and in subpart A of this part.

Calciner means the equipment used to remove combined (chemically bound) water and/or gases from mineral material through direct or indirect heating. This definition includes expansion furnaces and multiple hearth furnaces.

Control device means the air pollution control equipment used to reduce particulate matter emissions released to the atmosphere from one or more affected facilities.

Dryer means the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating.

Installed in series means a calciner and dryer installed such that the exhaust gases from one flow through the other and then the combined exhaust gases are discharged to the atmosphere.

Mineral processing plant means any facility that processes or produces any of the following minerals, their concentrates or any mixture of which the majority (50 percent) is any of the following minerals or a combination of these minerals: alumina, ball clay, bentonite, diatomite, feldspar, fire clay, fuller's earth, gypsum, industrial sand, kaolin, lightweight aggregate, magnesium compounds, perlite, roofing granules, talc, titanium dioxide, and vermiculite.

**§ 60.732 Standards for particulate matter.**

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test required by §60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

- (a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm for dryers; and
- (b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

**§ 60.734 Monitoring of emissions and operations.**

- (a) With the exception of the process units described in paragraphs (b), (c), and (d) of this section, the owner or operator of an affected facility subject to the provisions of this subpart who uses a dry control device to comply with the mass emission standard shall install, calibrate, maintain, and operate a continuous monitoring system to measure and record the opacity of emissions discharged into the atmosphere from the control device.
- (b) In lieu of a continuous opacity monitoring system, the owner or operator of a ball clay vibrating grate dryer, a bentonite rotary dryer, a diatomite flash dryer, a

diatomite rotary calciner, a feldspar rotary dryer, a fire clay rotary dryer, an industrial sand fluid bed dryer, a kaolin rotary calciner, a perlite rotary dryer, a roofing granules fluid bed dryer, a roofing granules rotary dryer, a talc rotary calciner, a titanium dioxide spray dryer, a titanium dioxide fluid bed dryer, a vermiculite fluid bed dryer, or a vermiculite rotary dryer who uses a dry control device may have a certified visible emissions observer measure and record three 6-minute averages of the opacity of visible emissions to the atmosphere each day of operation in accordance with Method 9 of appendix A of part 60.

- (c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.
- (d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

**§ 60.735 Record keeping and reporting requirements.**

- (a) Records of the measurements required in §60.734 of this subpart shall be retained for at least 2 years.
- (b) Each owner or operator who uses a wet scrubber to comply with §60.732 shall determine and record once each day, from the recordings of the monitoring devices in §§60.734(d), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.
- (c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by §60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:
  - (1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or
  - (2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in §§60.735(b) that is less than 90 percent of the average value recorded according to §§60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or
  - (3) Each daily wet scrubber liquid flow rate recorded as described in §§60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to §§60.736(c) during the most

recent performance test that demonstrated compliance with the particulate matter standard.

- (d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.  
[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

**§ 60.736 Test methods and procedures.**

- (a) In conducting the performance tests required in §60.8, the owner or operator shall use the test methods in appendix A of this part [Part 60] or other methods and procedures as specified in this section, except as provided in §60.8(b).
- (b) The owner or operator shall determine compliance with the particulate matter standards in §60.732 as follows:
- (1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least two hours and 1.70 dscm;
  - (2) Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions.
    - (a) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of §§60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §§60.735(c).

**DISCUSSION:**

In the 1998 Title V application process, Georgia Pacific had raised questions as to the applicability of NSPS, Subpart OOO and/or UUU standards to the five impact mills at the Wallboard Plant. The IMP mills' applicability to the subparts was in question due to the dates that the rules were promulgated. The effective date for Subpart OOO is August 31, 1983 while the effective date for Subpart UUU was April 23, 1986. It was determined that the IMP mills #1-4 were not subject to either Subparts OOO or UUU because of the fabrication date.

A question also arose as to the applicability of Subpart OOO or UUU to IMP mill #5. The equipment dries and calcines raw materials during processing. The definitions specifically note that if the product is calcined it is subject to the Subpart UUU standard. The IMP mills are considered calciners as they grind and calcine gypsum. Communication with EPA staff supports the fact that the UUU requirements apply. Conditions relative to Subpart UUU will be addressed in the permit with regard to IMP mill #5.

Since this determination, Georgia Pacific has also constructed a Plaster Plant. In this plant, calcination also occurs. Here, two separate processes are used, a beta process whereby ore is crushed, flash dried, then calcined in batches of 15 tons for 2-2.75 hours forming stucco, and an alpha process in which the ore is steam calcined under pressure in autoclaves before curshing and grinding. Since calcining is involved in this process, the UUU requirements apply.

The applicable testing methods, emission limits, record keeping and reporting are included as conditions in the Title V Part 70 Renewal Operating Permit. EPA testing Method 5 for particulate emissions and Method 9 for Opacity will be required in the conditions of the Part 70 operating permit. For emission units subject to subpart UUU, 40 CFR § 60.732(a) forbids the source from discharging into the air any emissions containing particulate matter in excess of 0.092 grams per dry standard cubic meter (g/dscm) [0.040 grains per dry standard cubic foot (gr/dscf)] for calciners and for calciner and dryers installed in a series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers.

#### **CFR 40 Part 60-Standards of Performance For New Stationary Sources**

Appendix A-Test Methods

Appendix B-Performance Specifications

Appendix C-Determination of Emission Rate Change

Appendix D-Required Emission Inventory Information

Appendix F-Quality Assurance Procedures

#### **4) 40 CFR § 60.40 (c): Subpart Dc standards**

- (a) The affected facility to which this subpart applies is each steam-generating unit for which construction, modification, or reconstruction is commenced after June 9, 1989 and that has a maximum design heat input capacity of 29 megawatts or less but greater than or equal to 2.9 MW.

#### **DISCUSSION:**

Subpart Dc applies to the Alpha Boiler at the Plaster Plant. The facility was built after 1989.

#### **5) 40 CFR § 63.43 : Maximum Available Control Technology (MACT)**

- (a) *Applicability.* The requirements of this section apply to an owner or operator who constructs or reconstructs a major source of HAP subject to a case-by-case determination of maximum achievable control technology pursuant to § 63.42(c).
- (b) *Requirements for constructed and reconstructed major sources.* When a case-by-case determination of MACT is required by § 63.42(c), the owner and operator shall obtain from the permitting authority an approved MACT determination according to one of the review options contained in paragraph (c) of this section.
- (c) *Review options.* (1) When the permitting authority requires the owner or operator to obtain, or revise, a permit issued pursuant to title V of the Act before construction or reconstruction of the major source, or when the permitting authority allows the owner or operator at its discretion to obtain or revise such a

permit before construction or reconstruction, and the owner or operator elects that option, the owner or operator shall follow the administrative procedures in the program approved under title V of the Act (or in other regulations issued pursuant to title V of the Act, where applicable).

**DISCUSSION:**

Based on the issued NSR ATC/OP Modification Three (09/08/99), the following HAPs are emitted during the processing of gypsum wallboard:

1. Acetaldehyde
2. Formaldehyde
3. Ethylene Glycol

In the processing of wallboard where additional strength and moisture is required, a patented process using fiberglass mat instead of a paper facing and backing is employed. Potential acetaldehyde and formaldehyde emissions are based on emission factors developed from stack tests conducted at a Wallboard Plant, which was manufacturing the fiberglass mat based product.

**Table V-4: Wallboard Plant HAP Emissions Limitations**

	Tons per Year 2002 Actual	Tons per Year 1999 PTE
Acetaldehyde (Wallboard Plant)	0.01	2.50
Formaldehyde (Wallboard Plant)	0.12	25.00
Ethylene Glycol (Wallboard Plant)	0.00	0.01
<b>Total</b>	<b>0.13</b>	<b>27.51</b>

The mechanism resulting in the emission of these HAPs is uncertain. As stated in the BACT analysis performed to support the originally issued NSR ATC/OP Modification Two (09/27/96), it is theorized that at least partially, VOC and particulate in the kiln may contribute to the formation of aldehydes. Since the fiberglass mat is held together with a urea-formaldehyde binder, which may contain trace amounts of free formaldehyde, another mechanism may be contributing. It is expected that formaldehyde and acetaldehyde will be emitted when Georgia Pacific processes the fiberglass mat based product. Potential emissions of ethylene glycol are based on the assumption that all components of a particular ink applied to the wallboard product are volatilized.

Due to this theorization, Georgia Pacific was given a PTE of 25 tons per year for formaldehyde, which classified it as a major source for said HAP. Indeed, Georgia Pacific even acknowledged in the ATC modifications and in its original Part 70 application that the facility is a major HAP source for formaldehyde. If Georgia Pacific were to remain a major source for HAP, then they would have to do a MACT analysis. A MACT analysis is applicable to “any stationary source or group of stationary sources located within a contiguous area under common control that emits or has the potential to emit, considering controls, in the aggregate, 10 tons per year of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants” [General Provisions to 40 CFR 63]

Due to the fact that Georgia Pacific's actual emissions for formaldehyde have been so low (0.12 tons per year), the Agency has allowed Georgia Pacific to stipulate to 5.00 tons per year of potential emissions for formaldehyde. Georgia Pacific so stipulated in a September 3, 2003 correspondence. On October 8, 2003, Georgia Pacific also stipulated that the facility would not emit any more than 2.50 tons per year of acetaldehyde. Because of this and because the combined emissions of all HAPs is less than 25 tons per year, Georgia Pacific is not a major source for any HAPs and, accordingly is not required to do a MACT analysis.

## **6) 40 CFR § 64: COMPLIANCE ASSURANCE MONITORING (CAM)**

The Compliance Assurance Monitoring (CAM) Rule was enacted in response to the mandates of the 1990 Clean Air Act. The CAM rule covers sources seeking a Part 70 Operating Permit if:

- 1) the unit is subject to an emission standard or limitation for the applicable regulated air pollutant;
- 2) the unit uses a control device to achieve compliance; and
- 3) the pre-control potential to emit in tons per year would classify this unit as a major source.

The rule requires that the owners/operators submit a CAM plan for each affected emission unit and controlled pollutant above the specified threshold. In the CAM plan, the owners/operators must specify the parameters to be monitored, the performance indicators to assure the control device is operating properly, and the corrective action to be taken should the operating conditions drift beyond the stated performance range.

The owners/operators may also have to perform testing in order to verify ranges and relationships. In record keeping, the owners/operators must include all monitoring data, performance data, relevant maintenance, and corrective actions. Finally, the owner/operator may be required to implement a Quality Improvement Plan (QIP) to reduce the number of excursions if they exceed a set percentage of the operating time for the reporting period.

### **§ 64.1 Definitions**

The following definitions apply to this part 70 permit.

*Control device* means, in part, equipment, other than inherent process equipment, that is used to destroy or remove air pollutant(s) prior to discharge to the atmosphere. For purposes of this part, a control device does not include passive control measures that act to prevent pollutants from forming, such as the use of seals, lids, or roofs to prevent the release of pollutants, use of low-polluting fuel or feedstocks, or the use of combustion or other process design features or characteristics.

*Emission limitation or standard* means, in part, any applicable requirement that constitutes an emission limitation, emission standard, standard of performance or means of emission limitation as defined under the Act. An emission limitation or standard may be expressed in terms of the pollutant, expressed either as a specific rate or quantity, rate or concentration of emissions or as the relationship of uncontrolled to controlled

emissions. An emission limitation or standard may also be expressed either as a work practice, process or control device parameter, or other form of specific design, equipment, operational, or operation and maintenance requirement.

*Exceedance* shall mean a condition that is detected by monitoring that provides data in terms of an emission limitation or standard and that indicates that emissions (or opacity) are greater than the applicable emission limitation or standard (or less than the applicable standard in the case of a percent reduction requirement) consistent with any averaging period the results of the monitoring.

#### **§ 64.2 Applicability**

- (a) *General Applicability.* [T]he requirements of this part shall apply to a pollutant-specific emissions unit at a major source that is required to obtain a part 70 or 71 permit if the unit satisfies all of the following criteria:
- (1) The unit is subject to an emission limitation or standard for the applicable regulated air pollutant.
  - (2) The unit uses a control device to achieve compliance with any such emissions limitation or standard.
  - (3) The unit has a potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than 100 percent of the amount in tons per year, required for a source to be classified as a major source.
- (b) *Exemptions.*
- (1) *Exempt emission limitations or standards.*
    - (i) Emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or 112 of this Act.

#### **§ 64.3 Monitoring design criteria**

- (a) *General criteria.* To provide a reasonable assurance of compliance with emission limitations or standards for the anticipated range of operations at a pollutant-specific emissions unit, monitoring under this part shall meet the following general criteria:
- (1) The owner or operator shall design the monitoring to obtain data for one or more indicators of emission control performance for the control device, any associated capture system, and, if necessary to satisfy paragraph (a)(2) of this section, processes at a pollutant-specific emission unit. Indicators of performance may include, but are not limited to, direct or predicted emissions (including visible emissions or opacity), process and control device parameters that affect control device (and capture system) efficiency or emission rates, or recorded finding of inspection and maintenance activities conducted by the owner or operator.
  - (2) The owner or operator shall establish an appropriate range(s) or designated condition(s) for the selected indicator(s) such that operation within the ranges provides a reasonable assurance of ongoing compliance with emissions limitations or standards for the anticipated range of operating conditions.

- (b) *Performance criteria.* The owner or operator shall design the monitoring to meet the following performance criteria.
- (1) Specifications that provide for obtaining data that are representative of the emissions or parameters being monitoring.
  - (3) Quality assurance and control practices that are adequate to ensure the continuing validity of the data.
  - (4) Specifications for the frequency of conducting the monitoring, the data collection procedures that will be used, and, if applicable, the period over which discrete data points will be averaged for the purpose of determining whether an excursion or exceedance has occurred.
- (c) *Evaluation Factors.* In designing monitoring to meet the requirements of in paragraphs (a) and (b) of this section, the owner or operator shall take into account site-specific factors including the applicability of existing monitoring equipment and procedures, the ability of the monitoring to account for process and control device operational variability, the reliability and latitude built into the control technology, and the level of actual emissions relative to compliance limitation.

**§ 64.4 Submittal Requirements**

- (a) The owner or operator shall submit to the permitting authority monitoring that satisfies the design requirements in § 64.3.

**§ 64.6 Approval of monitoring**

- (a) [T]he permitting authority shall act to approve the monitoring submitted by the owner or operator by confirming that the monitoring satisfies the requirements in § 64.3.
- (b) In approving monitoring under this section, the permitting authority may condition the approval on . . .required compliance or performance testing.
- (c) [T]he permitting authority shall establish one or more permit terms or conditions that specify the required monitoring in accordance with § 70.6(a)(3)(i) of this chapter. At a minimum the permit will specify:
- (2) The means by which the owner or operator will define an exceedance or excursion for purposes of responding to and reporting exceedances or excursions under §§ 64.7 and 64.8 of this part. [Part 60]

**§ 64.7 Operation of approved monitoring**

- (d) *Response to excursions or exceedances.*
- (1) Upon detecting an excursion or exceedance, the owner or operator shall restore operation of the pollutant-specific emissions unit to its normal or usual manner of operation as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions.
  - (2) Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on information available, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures and records,

and inspection of the control device, associated capture system, and the process.

**§ 64.8 Quality Improvement Plan (QIP) Requirements**

- (a) Based on the results of a determination made under § 64.7(d)(2), the Administrator or the permitting authority may require the owner or operator to develop and implement a QIP. Consistent with § 64.6(c)(3), the part 70 permit . . . may specify an appropriate threshold . . . for requiring the implementation of a QIP.
- (b) Elements of a QIP.
  - (1) The owner or operator shall maintain a written QIP, if required, and have it available for inspections.
  - (2) The plan initially shall include procedures for evaluating the control performance problems and, based on the results of the evaluation process, the owner or operator shall modify the plan to include procedures for conducting one or more of the following actions, as appropriate:
    - (i) Improved preventive maintenance practices.
    - (ii) Process operation changes.
    - (iii) Appropriate improvements to control methods.
    - (iv) Other steps appropriate to correct control performance.
    - (v) More frequent or improved monitoring.
- (c) If a QIP is required, the owner or operator shall develop a QIP as expeditiously as practicable . . .

**§ 70.6(a)(3)(i) Monitoring and related reporting requirements**

Each permit shall contain the following requirements with respect to monitoring: (A) All monitoring and analysis procedures or test methods required under applicable monitoring and testing requirements . . . that may be promulgated pursuant to sections 114(a)(3) or 504(b) of the Act.

**DISCUSSION:**

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

**a) Emission Units with Control Devices**

The only control devices potentially associated with this Title V Part 70 Operating Permit are the many bagfilter type collectors used to filter particulate matter. Table V-5 lists the emissions units by category and their respective control devices.

**Table V-5: Control Equipment**

Emission Unit	Pollutant	Control Device
Plant and Storage Area Vehicle Traffic	PM <sub>10</sub>	Paving/Water Spray
Plant Materials Piles	PM <sub>10</sub>	Water Spray
Primary Crusher	PM <sub>10</sub>	Baghouse
Secondary Crusher	PM <sub>10</sub>	Baghouse
Impact Mills #1 through #5	PM <sub>10</sub>	Baghouse
Stucco Area Conveyors	PM <sub>10</sub>	Baghouse
Stucco Blender #1	PM <sub>10</sub>	Baghouse
Stucco Blender #2	PM <sub>10</sub>	Baghouse
Pin Mixer	PM <sub>10</sub>	Baghouse
End Trim/Bundler	PM <sub>10</sub>	Baghouse
Riser Machine	PM <sub>10</sub>	Baghouse
Roll Crusher	PM <sub>10</sub>	Baghouse
Rock Bin	PM <sub>10</sub>	Baghouse
Roller Mill	PM <sub>10</sub>	Baghouse
Loadout Bin	PM <sub>10</sub>	Baghouse
LP Bin	PM <sub>10</sub>	Baghouse
Kettle	PM <sub>10</sub>	Baghouse
Stucco Conveyors	PM <sub>10</sub>	Baghouse
Reject Bin	PM <sub>10</sub>	Baghouse
Stucco Bulk Loadout	PM <sub>10</sub>	Baghouse
West Stucco Bin	PM <sub>10</sub>	Baghouse
East Stucco Bin	PM <sub>10</sub>	Baghouse
Split Finish Bin	PM <sub>10</sub>	Baghouse
Alpha Bin	PM <sub>10</sub>	Baghouse
Cement Bin	PM <sub>10</sub>	Baghouse
Hopper	PM <sub>10</sub>	Baghouse
Bulk Bagging	PM <sub>10</sub>	Baghouse
Bulk Loadout Bin	PM <sub>10</sub>	Baghouse
Pan Dryers	PM <sub>10</sub>	Baghouse
Alpha series	PM <sub>10</sub>	Baghouse
Vacuum System	PM <sub>10</sub>	Baghouse
Airvey System	PM <sub>10</sub>	Baghouse

**b) CAM and Its Applicability to Georgia Pacific's Control Devices**

40 CFR § 64.2 (b) exempts emission units that are subject to any 40 CFR § Part 60 New Source Performance Standard (NSPS) promulgated after November 15, 1990. 40 CFR 60 Subpart UUU was promulgated in 1992. As a result, all emission units affected by Subpart UUU are exempt from CAM analysis.

Table V-6 lists the various control devices evaluated for CAM applicability. Those not excluded are assumed to be covered since the uncontrolled emission potential would exceed 70 tons per year if it is also assumed that each bagfilter is a least 99% efficient.

**Table V-6: CAM Applicability**

Control Device Name	Control Device ID	CAM Applicability
End Trim Dust Collector	BH-W01	CAM applies
End Trim Cyclone Collector	CL-W01	CAM applies

Control Device Name	Control Device ID	CAM Applicability
IMP Mill #1-5	BH-W02 BH-W03 BH-W04 BH-W05 BH-W06	CAM applies CAM applies CAM applies CAM applies NSPS Subpart UUU
Stucco Conveyor Dust Collectors	BH-W07 BH-W08 BH-W09 BH-W10	CAM applies CAM applies CAM applies CAM applies
Stucco Bin Vents	BH-W11 BH-W12	CAM applies CAM applies
Outside Stucco Dust Collector	BH-W13	CAM applies
Interior Dust Collector	BH-W14	CAM applies
Roll Crusher Dust Collector	BH-01	CAM applies
West Beta Rock Bin Vent	BH-02	CAM applies
East Beta Rock Bin Vent	BH-03	CAM applies
West Roller Mill Dust Collector	BH-04	CAM applies
East Roller Mill Dust Collector	BH-05	CAM applies
West LP Bin Vent	BH-06	CAM applies
East LP Bin Vent	BH-07	CAM applies
West Kettle Dust Collector	BH-08	NSPS Subpart UUU
East Kettle Dust Collector	BH-09	NSPS Subpart UUU
Alpha Rock Fugitive Dust Collector	BH-13	NSPS Subpart UUU
Alpha Stucco Dust Collector	BH-14	CAM applies
LP Bulk Load Out Bin Vent	BH-10	CAM applies
Reject Bin Vent	BH-11	CAM applies
Pin Collector	BH-12	CAM applies
West Stucco Dust Collector	BH-15	CAM applies
East Stucco Dust Collector	BH-16	CAM applies
Split Finished Bin #1 South Bin Vent	BH-17	CAM applies
Split Finished Bin #1 North Bin Vent	BH-18	CAM applies
Split Finished Bin #2 South Bin Vent	BH-19	CAM applies
Split Finished Bin #2 North Bin Vent	BH-20	CAM applies
Split Finished Bin #3 South Bin Vent	BH-21	CAM applies
Split Finished Bin #3 North Bin Vent	BH-22	CAM applies
South Alpha Bin Vent	BH-23	CAM applies
Cement Bin Vent	BH-24	CAM applies
North Alpha Bin Vent	BH-25	CAM applies
MP Bulk Bag Loading Bin Vent	BH-28	CAM applies
FP Bulk Bag Loading Bin Vent	BH-29	CAM applies
Hot Pit Dust Collector	BH-30	CAM applies
Packer Vacuum System Dust Collector	BH-31	CAM applies
Hi-Vac Vacuum System Dust Collector	BH-32	CAM applies
LP Bin Airvey System Dust Collector	BH-33	CAM applies
Water Truck (paved and unpaved roads and areas)	NA	CAM applies

**c) Compliance Assurance Monitoring**

Per EPA Region 9’s guidance, Compliance Assurance Monitoring would require Georgia Pacific to monitor all “large”, post-control major units, four times per hour. Georgia Pacific is located in the Apex Valley in Clark County, Nevada, which is an attainment area and which requires a 100-ton per year controlled emission rate for PM<sub>10</sub> major status. The largest post-control major at the facility is the BH-W01 baghouse in the

Wallboard Plant. This unit, which emits 6.76 tons per year post-control, is well under the 100-ton per year PM<sub>10</sub> major designation status. As such, none of the baghouses at either the Wallboard or Plaster Plant need to be monitored four times per hour.

Additionally, per EPA Region 9's guidance, Compliance Assurance Monitoring specifically requires Georgia Pacific to monitor parameters on a daily basis on all non-major controlled units. This requirement attaches to all baghouses, BH-W01 through 14 at the Wallboard Plant and BH-01 through 33 at the Plaster Plant, at the Georgia Pacific facility. However, BH-W06 at the Wallboard Plant, and BH-08, BH-09, and BH-13 at the Plaster Plant receive exemptions from CAM because of NSPS subpart UUU.

#### **d) CAM for Baghouses**

Particulate emissions associated with the Georgia Pacific facility are controlled by baghouses. For monitoring, compliance, and record keeping purposes, Georgia Pacific will adhere to the following requirements:

- 1) Georgia Pacific will conduct a Method 5 performance test on each baghouse identified in Table V-5 as CAM applicable at least once during the five-year life of the Part 70 OP.
- 2) Georgia Pacific will, on a daily basis, whenever the equipment is operating, make an inspection for visible emissions from the vent of Wallboard Plant for all bagfilters BH-W01 through BH-W14, save one, BH-W06, which is exempted from CAM because of NSPS subpart UUU, and BH-01 through BH-33 at the Plaster Plant, except for BH-08, BH-09, and BH-13, which are also exempted from CAM because of NSPS subpart UUU. If no visible emissions are observed, Georgia Pacific will make a record of that observation. If visible emissions are observed, Georgia Pacific will perform two opacity readings.
- 3) Additionally, Georgia Pacific, while conducting their daily inspections on the baghouses denoted in c.2 above, will also have to read and record the pressure drop across the filter and air pressure supplied to the bag cleaning mechanism, and evaluate the condition and performance of any capture system associated with the bagfilter. Baghouse pressure drop will be maintained between 0.5 and 8 inches water.
- 4) Georgia Pacific will perform, on at least an annual basis, an internal inspection of each baghouse. During this inspection, Georgia Pacific will record the condition of the bags.
- 5) Georgia Pacific will record all maintenance actions, routine or otherwise, for all bagfilters.
- 6) Georgia Pacific will keep and maintain records of inspection results and estimates of emissions during any time a baghouse is not in compliance.

#### **e) CAM for Fugitive Emissions**

Fugitive particulate emissions associated with the storage and handling of raw gypsum rock are controlled by applying water to stockpiles and paved and unpaved areas subject to vehicle traffic. A water truck is used for this purpose and is assumed to be the control device associated with these operations.

CAM does not apply to most fugitive emission sources. Portions of the CAM preamble, which are summarized below, denote why most fugitive sources have been exempted from CAM. The CAM preamble, in part, provides:

The proposed rule defined “fugitive emissions” as those emissions which could not reasonably pass through a stack, chimney, vent, or other functionally-equivalent opening. This definition was necessary because § 64.4(d) of the proposed rule would have established separate monitoring protocol requirements for fugitive emissions monitoring. Fugitive emissions are not subject to any specific part 64 monitoring requirements. The Agency has therefore deleted this definition from the final rule.

The CAM preamble also denotes:

Many commenters raised objections to [the fugitive] emissions provisions, arguing that § 64.4(d) required either burdensome monitoring of emissions from each fugitive emissions point or the use of costly monitoring devices to monitor fugitive emissions. The Agency does not necessarily agree with these comments, noting that proposed § 64.4(d) was intended to allow for cost-effective multi-point monitoring at affected fugitive emissions sources. The final rule, however, applies only to those emissions units for which emissions are vented to a control device.

In 1998, the EPA found similarly in its “Summary of Comments and Responses on the Draft CAM Technical Guidance Document”. On page 4 of this document at 2.1.c, EPA states the following in regards to a question on whether CAM applies to fugitive sources such as haul roads or storage piles using control devices. In part, EPA denotes:

The CAM rule applies only to those emission units that are vented to a control device. Fugitive sources which are not vented through a stack, chimney, vent, or similar opening (such as emissions from an unpaved road) to a control device are not subject to Part 64. However, if the “fugitive” emission is a result of poor capture efficiency of process emissions that are intended to be collected and routed to the control device, CAM does apply.

In 1997, EPA had previously noted in its “Compliance Assurance Rulemaking (40 CFR Parts 64, 70, and 71) Responses to Public Comments (Part I)” that CAM would apply to fugitive emissions collected or vented to a control device and that there is not, per section 6.7.4, a blanket exemption for all fugitive emissions. In section 6.5.2, the EPA elaborated on this comment noting:

EPA continues to believe that where fugitive emissions are captured and routed to a control device, they should be subject to part 64 monitoring to the same extent as emissions that are routed directly through a process to a control device. Where fugitive emissions not subject to regulation or are not associated with an emission unit that needs the control device or other applicable criteria, then Part 64 does not apply.

Georgia Pacific had proposed to follow CAM for its fugitive emissions, which stem from haul roads and storage piles. However, since CAM does not apply to these types of fugitive emissions, Georgia Pacific will only be required to adhere to local regulations

concerning fugitive emissions. Therefore, for monitoring, compliance, and record keeping purposes, Georgia Pacific will adhere to the local fugitive emissions requirements denoted in their Authority To Construct/Operating Permit Modification 3, Operating Permit Modification 4, comprehensive Dust Plan, and 2003 Title V Operating Permit.

**f) QIP requirements**

DAQM may require Georgia Pacific to adopt a Quality Improvement Plan (QIP) based on whether Georgia Pacific has used acceptable procedures in response to an excursion or an exceedance. Determination of whether the owner or operator has used acceptable procedures in response to an excursion or exceedance will be based on available information, which may include, but is not limited to, monitoring results, review of operation and maintenance procedures and records, and inspection of the control device, associated capture system, and the process.

If required, a QIP can become an integral part of a CAM plan. In a QIP, the owner/operator must first evaluate the reasons for control performance problems. Next, the owner/operator must develop procedures for improved preventative maintenance practices, process operation changes, and improvements to control methods. Finally, the owner/operator must report the implementation and completion of their respective QIP to DAQM.

**F. Authority To Construct /Operating Permit Conditions**

AUTHORITY TO CONSTRUCT/OPERATING PERMIT, MODIFICATION THREE, ISSUED 09/08/99

OPERATING PERMIT, MODIFICATION FOUR, ISSUED 02/05/03

The Part 70 OP contains methods to assure compliance with all applicable ATC/OP and/or OP conditions. This permit requires recording and reporting of hours of operation, consumption of materials and fuels, and maximum emission limits for emission units.

**G. Section 16 Operating Permit Conditions**

**Discussion:**

AUTHORITY TO CONSTRUCT/OPERATING PERMIT, MODIFICATION THREE, ISSUED 09/08/99

OPERATING PERMIT, MODIFICATION FOUR, ISSUED 02/05/03

**VI. COMPLIANCE**

**A. Compliance Plan and Compliance Certification**

**REGULATORY REQUIREMENTS**

The following AQR detail the requirements for submittal of a Compliance Plan and Compliance Certification in Part 70 OP Applications:

19.3 Part 70 Permit Applications

19.3.3.4 The following air pollution control requirements:

- (a) Citation and description of all applicable requirements, including requirements applicable to emission units that cause the source to be subject to the Part 70 Program.
- (b) Description of or reference to any applicable test method for determining compliance with each applicable requirement.

p 19.3.3.8 A compliance plan for all Part 70 Sources shall contain the following:

- (a) A description of the compliance status of the source with respect to all applicable requirements.
- (b) A statement that the source will continue to comply with applicable requirements for which the source is in compliance.
- (c) For applicable requirements that become effective during the permit term, the compliance schedule shall include a statement that the source will meet such requirements in a timely manner including a more detailed schedule if expressly required by an applicable requirement.
- (d) A compliance schedule must be submitted for sources not in compliance with all applicable requirements at the time of permit issuance. Such a schedule shall include a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance with any applicable requirements for which the source will be in noncompliance at the time of permit issuance. This compliance schedule shall resemble and be at least as stringent as that contained in any judicial consent decree or administrative order to which the source is subject. Any such schedule of compliance shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based.

19.3.3.9 Requirements for compliance certification:

- (a) A certification of compliance with all applicable requirements by a Responsible Official shall be submitted to the Control Officer each year or more frequently if specified by the underlying applicable requirement.
- (b) A statement of methods used for determining compliance, including a description of monitoring, record keeping, 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.

**NEW RULE AND REGULATION COMPLIANCE**

DAQM has examined the Compliance Plan and Certification information in Georgia Pacific's Part 70 OP application. In its Compliance Plan and Certification, Georgia Pacific stated:

1. It would comply with new applicable requirements that become effective during the permit term;
  2. It would maintain compliance with existing and future permit conditions; and
  3. It would, in a timely manner, comply with all changes in applicable requirements.
- CLC is subject to the annual compliance certification requirements of the Act per Section 19.4.3.5 of AQR.

## **B. Periodic Monitoring For Compliance**

### **REGULATORY REQUIREMENTS**

The following regulations provide the basis for the compliance assurance requirements:

Clean Air Act Section 504. Permit Requirements and Conditions

- (a) **CONDITIONS.**—Each permit issued under this title shall include enforceable emission limitations and standards, a schedule of compliance, a requirement that the permittee submit to the permitting authority, no less often than every 6 months, the results of any required monitoring, and such other conditions as are necessary to assure compliance with applicable requirements of this Act, including the requirements of the applicable implementation plan.
- (c) **INSPECTION, ENTRY MONITORING, CERTIFICATION, AND REPORTING.**—Each permit issued under this title shall set forth inspection, entry, monitoring, compliance certification, and reporting requirements to assure compliance with the permit terms and conditions. Such monitoring and reporting requirements shall conform to any applicable regulation under subsection (b). Any report required to be submitted by a permit issued to a corporation under this title shall be signed by a responsible corporate official, who shall certify its accuracy.

Title 40 of the Code of Federal Regulations Part 70

### **§ 70.6 Permit content.**

- (a) Standard permit requirements. Each permit issued under this part [Part 70] shall include the following elements:
  - (3) Monitoring and related record keeping and reporting requirements.
    - (i) Each permit shall contain the following requirements with respect to monitoring:
      - (A) All emissions monitoring and analysis procedures or test methods required under the applicable requirements, including any procedures and methods promulgated pursuant to sections 114(a)(3) or 504(b) of the Act;
      - (B) Where the applicable requirement does not require periodic testing or instrumental or noninstrumental monitoring (which may consist of record keeping designed to serve as monitoring), periodic monitoring sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the permit, as reported pursuant to paragraph (a)(3)(iii) of this section. Such monitoring requirements shall assure use of terms, test methods, units, averaging periods, and

- other statistical conventions consistent with the applicable requirement. Record keeping provisions may be sufficient to meet the requirements of this paragraph (a)(3)(i)(B) of this section; and
- (C) As necessary, requirements concerning the use, maintenance, and, where appropriate, installation of monitoring equipment or methods.
- (ii) With respect to record keeping, the permit shall incorporate all applicable record keeping requirements and require, where applicable, the following:
    - (A) Records of required monitoring information that include the following:
      - (1) The date, place as defined in the permit, and time of sampling or measurements;
      - (2) The date(s) analyses were performed;
      - (3) The company or entity that performed the analyses;
      - (4) The analytical techniques or methods used;
      - (5) The results of such analyses; and
      - (6) The operating conditions as existing at the time of sampling or measurement;
    - (B) Retention of records of all required monitoring data and support information for a period of at least 5 years from the date of the monitoring sample, measurement, report, or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the permit.
  - (iii) With respect to reporting, the permit shall incorporate all applicable reporting requirements and require the following:
    - (A) Submittal of reports of any required monitoring at least every 6 months. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official consistent with §70.5(d) of this part.
    - (B) Prompt reporting of deviations from permit requirements, including those attributable to upset conditions as defined in the permit, the probable cause of such deviations, and any corrective actions or preventive measures taken. The permitting authority shall define "prompt" in relation to the degree and type of deviation likely to occur and the applicable requirements.
- (c) Compliance requirements. All Part 70 permits shall contain the following elements with respect to compliance:
    - (1) Consistent with paragraph (a)(3) of this section, compliance certification, testing, monitoring, reporting, and recordkeeping requirements sufficient to assure compliance with the terms and conditions of the permit. Any document (including reports) required by a part 70 permit shall contain a certification by a responsible official that meets the requirements of §70.5(d) for this part.
    - (5) Requirements for compliance certification with terms and conditions contained in the permit, including emission limitations, standards, or work practices. Permits shall include each of the following:

- (i) The frequency (not less than annually or such more frequent periods as specified in the applicable requirement or by the permitting authority) of submissions of compliance certifications;
- (ii) In accordance with §70.6(a)(3) of this part, a means for monitoring the compliance of the source with its emissions limitations, standards, and work practices;
- (iii) A requirement that the compliance certification include the following:
  - (A) The identification of each term or condition of the permit that is the basis of the certification;
  - (B) The compliance status;
  - (C) Whether compliance was continuous or intermittent;
  - (D) The method(s) used for determining the compliance status of the source, currently and over the reporting period consistent with paragraph (a)(3) of this section; and
  - (E) Such other facts as the permitting authority may require to determine the compliance status of the source;
- (iv) A requirement that all compliance certifications be submitted to the Administrator as well as to the permitting authority; and
- (v) Such additional requirements as may be specified pursuant to sections 114(a)(3) and 504(b) of the Act.

#### AQR Section 4

4.5 The Control Officer may require any person responsible for emission of air contaminants to make or have made tests to determine the emission of air contaminants from any source, whenever the Control Officer has reason to believe that an emission in excess of that allowed by the Air Quality Division Regulations [AQR] 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. The Control Officer shall be given a copy of the test results in writing and signed by the person responsible for the tests.”

#### GENERAL STRATEGY FOR PERIODIC MONITORING (COMPLIANCE ASSURANCE)

#### **DISCUSSION:**

##### Record Keeping:

1. All records and logs required by this document shall be kept by the owner/operator and made available to DAQM for inspection immediately upon request.
2. All records, logs, etc., or a copy thereof, shall be kept on site for a minimum of five years from the date the measurement or data was entered.
3. The owner/operator shall maintain records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of any affected facility; any

- malfunction of the air pollution control equipment; or any periods during which a continuous monitoring system or monitoring device is inoperative.
4. The records required shall include:
    - a) excess emissions, notifications, malfunctions etc. as required by 40 CFR 60.7, and specifically by 40 CFR Part 60.1-17, 40 CFR Part 60.40c-48, CFR Part 60.670-676, 40 CFR Part 60.730-737, and 40 CFR Part 64;
    - b) the results of any fuel sulfur analysis performed; audit results, corrective actions, etc. as required by 40 CFR 60 Appendix F;
    - c) the results of any performance tests conducted during the quarter;
    - d) the daily totals and quarterly cumulative totals of all regulated emissions, operating hours, fuel use, etc. required to demonstrate compliance with permit conditions for each permitted emission unit; and
    - e) monthly hours of operation and total gallons of diesel fuel consumed per emergency generator used for testing and maintenance purposes only and a log of emergency use hours.
  
  5. The owner/operator shall comply with all notification, record keeping, and reporting requirements of 40 CFR 60.7. In addition to the requirements set forth in the previous condition various records, logs, etc., shall specifically contain the following information for the Wallboard Plant:
    - a) the owner/operator shall maintain a daily record of the number of tons of finished product produced at the Wallboard Plant;
    - b) the owner/operator shall maintain a record of the total number of tons of gypsum rocks produced at the Wallboard Plant for the full calendar year;
    - c) the owner/operator shall maintain information on the monthly consumption of natural gas at the Wallboard Plant and those days when exhaust from NCA #1 Plant was not utilized in the manufacturing process;
    - d) records demonstrating the VOC and HAP containing material;
    - e) record any sprays that were repaired, replaced, or modified;
    - f) maintain a monthly record of the results of moisture sampling and analysis; and
    - g) the amount of diesel used at the Wallboard Plant.
  
  6. To ensure compliance with the hourly and annual PM<sub>10</sub> emission limits, the owner/operator shall:
    - a) keep a daily record of operating hours, material throughput in tons per day, capture efficiency of PM<sub>10</sub> emissions, and the control efficiency of each baghouse listed in Tables IV-B-1 and IV-B-2;
    - b) conduct and record a daily visual emission test of baghouses BH-W01 through BH-W14 at the Wallboard Plant, save one, BH-W06, and BH-01 through BH-33 at the Plaster Plant, except for BH-08, BH-09, and BH-13, to determine if the baghouse needs repair to maintain its full functionality and if visual emissions are noted than employ EPA Method 9 standards;
    - c) conduct and record a weekly visual check of baghouses BH-W06 at the Wallboard Plant, and BH-08, BH-09, and BH-13 at the Plaster Plant;
    - d) list quarterly in a report the discovery of any broken bags and/or improperly secured bags, and the maintenance actions taken therein;
    - e) conduct and record a daily reading of the differential pressure on the baghouses, BH-W01 through BH-W14, save one BH-W06, at the Wallboard Plant and BH-01 through BH-33, except BH-08, BH-09, and BH-13, at the Plaster Plant;
    - f) record the time of the equipment shutdown;

- g) following repairs, monitor and record the differential pressure and verify that it is within the range established in the operation and maintenance guidelines; and
  - h) conduct and record the EPA Method 9 visible emissions test on the exhaust stack of all baghouses on a quarterly basis.
7. To ensure compliance with the annual PM<sub>10</sub> emission limit for plant vehicle traffic for both paved and unpaved roads, the owner/operator shall:
- a) keep a weekly record of vehicular miles traveled on roads within the facility premises, average speed of vehicles traveling on paved roads and unpaved roads, average weight of vehicles, estimated silt loading on paved roads and estimated moisture and silt content on the unpaved roads;
  - b) keep a daily record of every truck that delivers gypsum rock to the facility;
  - c) calculate the total vehicle miles traveled based on the average trip to and from the rock storage area;
  - d) calculate fugitive emissions based on an AP-42 formula or other formula as agreed by the Control Officer; and
  - d) calculate PM<sub>10</sub> emissions based on the aforementioned weekly recorded information.
8. To ensure compliance with III-D-5 (a) of the Title V Operating Permit, Georgia Pacific shall keep a record of bi-weekly opacity readings.

Reporting:

1. Each quarterly report shall:
- a) include quarterly summaries of all items listed in the Section above, conditions 4, 5, 6, 7 and 8;
  - b) be based on the calendar quarter, including partial calendar quarters;
  - c) be submitted on or before 30 days after the end of the calendar quarter; and
  - d) be addressed to the attention of the Compliance Reporting Supervisor, DAQM.
2. In addition, the quarterly report for the final calendar quarter shall also include:
- a) annual total operating hours;
  - b) annual calculation of actual emissions of all air pollutants in tons per year from all emission units; and
  - c) a statement certifying compliance with all requirements as described in Conditions 10 and 29 of Part I, Standard Conditions of the Part 70 OP.
3. The annual report shall be a summary of quarterly reports and be:
- a) based on the calendar year;
  - b) submitted on or before January 30 each year; and
  - c) addressed to the attention of the Compliance Reporting Supervisor, DAQM.
4. The annual emissions inventory shall be submitted by March 31 to the Compliance Reporting Supervisor and shall include the emission factors and calculations used to determine the emissions from each permitted emission unit.
5. Regardless of the date of issuance of this Part 70 OP, the schedule for the submittal of reports to the DAQM Compliance Reporting Supervisor shall be as follows:

Quarter	Applicable Period	Due Date	Required Contents
1	January, February, March	April 30 each year	Quarterly Report for 1 <sup>st</sup> Calendar Quarter
2	April, May, June	July 30 each year	Quarterly Report for 2 <sup>nd</sup> Calendar Quarter
3	July, August, September	October 30 each year	Quarterly Report for 3 <sup>rd</sup> Calendar Quarter
4	October, November, December	January 30 each year	Quarterly Report for 4 <sup>th</sup> Calendar Quarter, any additional annual records required, and Annual Certification of Compliance

Note: The first calendar quarter after the issuance of the Part 70 OP may be a partial quarter. A report is required for this quarter. Each report must be received by the DAQM Compliance Reporting Supervisor on or before the due date listed. If the due date falls on a Saturday, Sunday, or legal holiday, then the submittal is due on the next regularly scheduled business day.

6. A copy of the quarterly and annual reports shall be transmitted to the Administrator Region IX, EPA.

## VII. ADMINISTRATIVE REQUIREMENTS

This document was prepared in accordance with the latest interpretation of the DAQM guidelines, policies, and verbal and/or written supervisory and managerial instructions, issued on or before September 15, 2003.

Subsection 19.4.1.1(a) of the AQR requires that DAQM identify the origin of authority for each term or condition in the Part 70 Operating Permit. Such reference of origin of authority is denoted by [*italic text enclosed in brackets*] after each Part 70 Operating Permit Condition.

DAQM proposes to public notice 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 V Operating Permit Program submitted for the purpose of complying with the Title V requirements of the 1990 Clean Air Act Amendments and implementing Part 70 of Title 40 Code of Federal Regulations.
- Factual: On January 10, 2003, Georgia Pacific submitted a Part 70 OP Application. An amendment to the Part 70 OP application was received on February 25, 2003 and on September 8, 2003. DAQM has written the attached Part 70 OP and a notice of proposed action was issued on September 21, 2003.
- Conclusion: DAQM has determined that Georgia Pacific will continue to determine compliance through the use of performance testing, control devices, quarterly reporting, daily record keeping, and annual certifications. DAQM proceeds with the preliminary decision that a Part 70 Operating Permit should be issued as drafted to Georgia Pacific for a period not to exceed five years.

## APPENDICES

1. Georgia Pacific Dust Control Plan
2. Georgia Pacific CAM Plan

June 4, 2002  
September 8, 2003

## Appendix B

### Correspondence after Original Proposed Part 70 OP

Note: Appendix B contains all documents received by and sent from DAQM regarding the proposed Part 70 OP.

Number	Description	Date
1	Notice of Proposed Action published	09/21/03
2	Public hearing held	10/23/03
3	Permit issued	10/24/03