Part II

CELITE CORPORATION
CELPURE PLANT

2500 Miguelito Road, Lompoc, California

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PART II– CELPURE PLANT

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ABBREVIATIONS/ACRONYMS

AP-42	USEPA's *Compilation of Emission Factors*
APCD	Santa Barbara County Air Pollution Control District
API	American Petroleum Institute
ASTM	American Society for Testing Materials
BACT	Best Available Control Technology
Bhp	brake horsepower
BSFC	brake specific fuel consumption
CAAA	Clean Air Act Amendments of 1990 (federal)
CAC	California Administrative Code
CAM	compliance assurance monitoring
CEMS	continuous emissions monitoring system
Dscf(m)	dry standard cubic foot (per minute)
E/S Engine	Emergency/Standby Engine
EU	emission unit
°F	degree Fahrenheit
gal	gallon
gr	grain
H_2S	hydrogen sulfide
HAP	hazardous air pollutant (as defined by CAAA, Section 112(b))
HHV	high heating value
I&M	inspection & maintenance
IC	internal combustion
k	kilo (thousand)
l	liter
lb	pound
lbs/hr	pounds per hour
LPG	liquid petroleum gas
M	mega (million)
MACT	Maximum Achievable Control Technology
MM	million
MW	molecular weight
NAR	Non-attainment Review
NEI	net emissions increase
NG	natural gas
NSPS	New Source Performance Standards
O_2	oxygen
ppm(vd or w)	parts per million (volume dry or weight)
psia	pounds per square inch absolute
psig	pounds per square inch gauge
PTO	Permit to Operate
RACT	Reasonably Available Control Technology
ROC	reactive organic compounds, same as "VOC" as used in this permit
scfd (or scfm)	standard cubic feet per day (or per minute)
SIP	State Implementation Plan
SSID	Stationary Source ID
STP	standard temperature (60° F) and pressure (29.92 inches of mercury)
THC	total hydrocarbons
tpy, TPY	tons per year
USEPA	United States Environmental Protection Agency
UTM	Universal Transverse Mercator
VE	visible emissions
VRS	vapor recovery system

1.0 Introduction

1.1. *Purpose*

General. The Santa Barbara County Air Pollution Control District ("District") is responsible for implementing all applicable federal, state and local air pollution requirements which affect any stationary source of air pollution in Santa Barbara County. The federal requirements include regulations listed in the Code of Federal Regulations: 40 CFR Parts 50, 51, 52, 55, 60, 61, 63, 68, 70 and 82. The State regulations may be found in the California Health & Safety Code, Division 26, Section 39000 et seq. The applicable local regulations can be found in the District's Rules and Regulations. This is a combined permitting action that covers both the Federal Part 70 permit (*Part 70 Operating Permit No. 9757*) as well as the State Operating Permit (*Permit to Operate No. 9757*).

The County is designated as an nonattainment area for the state ozone ambient air quality standard. The County is also designated a nonattainment area for the state PM_{10} ambient air quality standard.

Part 70 Permitting. The initial Part 70 permit for the Celpure Plant facility was issued April 14, 2001 (PTO 9757) in accordance with the requirements of the District's Part 70 operating permit program. Part 70 Minor Mod/PTO 9757 was incorporated into the main Part 70 permit for Celite on June 24, 2003 (Part 70/PTO 5840 R2). This permit is the third renewal of the Part 70 permit, and may include additional applicable requirements. The District triennial permit reevaluation has been combined with this Part 70 Permit renewal, and this permit incorporates previous Part 70 revision (ATC/PTO) permits 5840-R3, PTO 12651, ATC/PTO 13432, ATC/PTO 13478 and ATC 13544. The Celpure Plant is part of the *Lompoc-Celite* stationary source (SSID = 1735), which is a major source for VOC[1], NO_x, SO_x, CO, PM, PM_{10} and GHGs. Conditions listed in this permit are based on federal, state or local rules and requirements. Sections 9.A, 9.B and 9.C of this permit are enforceable by the District, the USEPA and the public since these sections are federally enforceable under Part 70. Where any reference contained in Sections 9.A, 9.B or 9.C (Parts I and II) refers to any other part of this permit, that part of the permit referred to is federally enforceable. Conditions listed in Section 9.D are "District-only" enforceable.

The Celpure Plant is a specialty plant within the Lompoc facility. Due to the size of this plant and complexity of PTO 9757, Sections 1 (Introduction) through Section 9.C (Equipment Specific Conditions) of PTO 9757 have been incorporated, in their entirety, as *Part II* of this permit.

Pursuant to the stated aims of Title V of the CAAA of 1990 (i.e., the Part 70 operating permit program), this permit has been designed to meet two objectives. First, compliance with all conditions in this permit would ensure compliance with all federally-enforceable requirements for the facility. Second, the permit would be a comprehensive document to be used as a reference by the permittee, the regulatory agencies and the public to assess compliance.

[1] VOC as defined in Regulation XIII has the same meaning as reactive organic compounds as defined in Rule 102. The term ROC shall be used throughout the remainder of this document, but where used in the context of the Part 70 regulation, the reader shall interpret the term as VOC.

1.2. *Facility Overview*

1.2.1 Facility Overview: The Celpure Plant is a plant within the Lompoc facility designed to produce specialized product from diatomaceous earth. It is also used as a research and development facility for the development of new product. The raw feedstock, DE, is the same as that used in the primary plant operations. Similar to the main facility, air pollution emissions from the Celpure Plant consist primarily of particulate matter and sulfur dioxide emissions as a result of non-metallic mineral drying and processing.

The primary difference in the operations conducted at the Celpure Plant is the use of a flotation process. This involves several equipment items not utilized in the dry-processing of DE, including flotation cells and leaching tanks. Four external combustion units are utilized in this process for calcining, drying, and process heat purposes. Ten baghouses control particulate matter. Two scrubbers control SO_x emissions from calcining, leaching and 1st stage drying. The first of the two scrubbers also controls sulfuric acid mist emitted by the leaching process.

Facility New Source Review Summary. An historical summary of the NSR (ATC) and PTO permit actions issued for the Celpure Plant is provided below. It should be noted that all District PTO's issued after the initial Part 70 permit (March 2001) were also Part 70 permits.

Permit Number:	ATC 9757 Mods 1 - 6	PTO 9757 and Part 70 Minor Mod
Final Issue Date:	11/03/1998 – 8/16/2000	03/14/2001

Summary: Modification to ATC 9757 for installation of additional equipment and SCDP extensions.

Permit Number:	ATC/PTO 10745	ATC/PTO 10745 Mod-01
Final Issue Date:	3/27/2002	6/24/2003

Summary: Mod to PTO 9757 (Celpure) Emission Limits. Modification of CP22 and CP56 SOx Outet Concentrations

Permit Number:	ATC 11007	PTO 11007
Final Issue Date:	4/11/2003	3/24/2005

Summary: This permit authorizes the installation of a semi-bulk packing station at the Celpure Plant.

Permit Number:	ATC/PTO 11107
Final Issue Date:	10/16/2003

Summary: This permit authorized modifications to the PM/PM_{10} concentration and mass emission limits of the Crude Bin Ventilation Baghouse (CP6).

Permit Number:	ATC/PTO 11224
Final Issue Date:	9/24/2004

Summary: This permit authorizes modifications to the PM/PM_{10} concentration and mass emission limits of each baghouse and scrubber listed within this permit. Each equipment item is located at the Celpure Plant.

Permit Number:	PTO 11695
Final Issue Date:	9/22/2005

Summary: Permits an existing diesel fired emergency/standby engine [Caterpillar/Perkins CD50 (50 bhp)] subject to the stationary compression ignition ATCM.

Permit Number:	PTO 12651
Final Issue Date:	10/21/2008

Summary: Permit to operate for existing external combustion equipment previously exempt from permit. Equipment includes one boiler, one shrink wrap process heater, three dryers and two kilns.

Permit Number:	PTO 5840-07
Final Issue Date:	3/1/2010

Summary: This modification de-permits and implements hour limitations and airflow limitations on select baghouses in order to provide reductions in PM/PM_{10} emissions and reduce the associated NEI. This permit was superseded by ATC 13544

Permit Number:	ATC/PTO 13432
Final Issue Date:	5/5/2010

Summary: This permit authorizes the use of additional filter media as the bag types for Celite's baghouses.

Permit Number:	ATC 13544	PTO 13544
Final Issue Date:	10/8/2010	At final issuance of this permit

Summary: This permit authorizes an increase in operating hours for the Crude Bin Vent Baghouse. Includes modifications from PTO 5840-07.

1.3. *Emission Sources*

Air pollution emissions from the Celpure Plant are primarily the result of combustion sources and non-metallic mineral drying and processing. Section 4 of the permit provides the District's engineering analysis of these emission sources. Section 5 of the permit describes the emissions from the Lompoc Plant, and also lists the potential emissions from non-permitted emission units.

1.4. *Emission Control Overview*

Air quality emission controls are utilized at the Celpure Plant for a number of emission units to reduce air pollution emissions. The emission controls employed at the plant include:

- Use of baghouses of many types and sizes for particulate matter control
- Scrubbers for SOx control

1.5. *Offsets/Emission Reduction Credit Overview*

This facility does not require emission offsets nor does it provide emission reduction credits.

1.6. *Part 70 Operating Permit Overview*

1.6.1 Permit Life and Federally enforceable Requirements: All federally enforceable requirements are listed in 40 CFR Part 70.2 (*Definitions*) under "applicable requirements." These include all SIP-approved District Rules, all conditions in the District-issued Authority to Construct permits, and all conditions applicable to major sources under federally promulgated rules and regulations. All these requirements are enforceable by the public under CAAA. (See Tables 3.1 and 3.2 for a list of federally enforceable requirements).

1.6.2 Insignificant Emissions Units: Insignificant emission units are defined under District Rule 1301 as any regulated air pollutant emitted from the unit, excluding HAPs, that are less than 2 tons per year based on the unit's potential to emit and any HAP regulated under section 112(g) of the Clean Air Act that does not exceed 0.5 ton per year based on the unit's potential to emit. Insignificant activities must be listed in the Part 70 application with supporting calculations.

1.6.3 Federal Potential to Emit: The Celite facility qualifies as a "Part 70 Source" because the source has a federal potential to emit (PTE) more than 100 tons per year of regulated air pollutants. Since the facility's emissions exceeded the Part 70 "major source" permit threshold exclusive of fugitive emissions, fugitive emissions have not been quantified.

1.6.4 Permit Shield: The operator of a major source may be granted a shield specifically stipulating any federally-enforceable conditions that are no longer applicable to the source and stating the reasons for such non-applicability. The permit shield must be based on a request from the source and its detailed review by the District. Permit shields cannot be indiscriminately granted with respect to all federal requirements. Celite did not request a permit shield for the Celpure Plant.

1.6.5 Alternate Operating Scenarios: A major source may be permitted to operate under different operating scenarios, if appropriate descriptions of such scenarios are included in its Part 70 permit application and if such operations are allowed under federally-enforceable rules. Celite requested alternate operating scenarios involving the Celpure Plant. These are related to research and development activity and involves raw materials other than DE such as perlite, silica gel, fiberglass, zeolite, alumina, fumed silica, and bentonite clay. Perlite use will not exceed 140 tons per year and the use of the other listed substances is not expected to exceed 14 tons/year. Process feed rates are expected to be approximately 1000 lbs/hr using alternative materials due to the heavier weight per unit volume compared to DE. Substances (e.g., boric acid) not used in Celpure processing will be introduced during use of the plant as a test bed. These alternate operating scenarios were approved by the District.

1.6.6 Compliance Certification: Part 70 permit holders must certify compliance with all applicable federally-enforceable requirements including permit conditions. Such certification must accompany each Part 70 permit application and be re-submitted annually on or before March 1st or on a more frequent schedule specified in the permit. Each certification must be signed by the "responsible official" of the owner/operator company whose name and address is listed prominently in the Part 70 permit. (see Section 1.6.9 below)

1.6.7 Permit Reopening: Part 70 permits are re-opened and revised if the source becomes subject to a new rule or new permit conditions are necessary to ensure compliance with existing rules. The permits are also re-opened if they contain a material mistake or the emission limitations or other conditions are based on inaccurate permit application data.

1.6.8 Hazardous Air Pollutants (HAPs): Part 70 permits also regulate emissions of HAPs from major sources through the imposition of maximum achievable control technology (MACT), where applicable. The federal PTE for HAP emissions from a source is estimated to determine MACT or any other rule applicability.

1.6.9 Responsible Official: The designated responsible official and their mailing address is:

Mr. John McFarlain, Plant Manager
Celite Corporation
2500 Miguelito Road
Lompoc, California 93436

2.0 Description of Project and Process Description

2.1. *Project and Process Description*

2.1.1 Main Process. The equipment identification numbers utilized in this section are provided in the equipment list in Attachment 10.5. Raw DE is delivered adjacent to the Celpure Plant. A dedicated crude loading station (CP1) is used to transport the DE into the processing building area. The crude bin (CP3) stores sized DE for the plant and is ventilated by the crude bin baghouse (CP6). The hammermill (CP2) beside the loading station sizes the raw ore and is ventilated to the crude bin baghouse (CP6). Sized ore flows from the bin to the detritor, where it is mixed with water. At this point, processing becomes wet, is free of dust, and therefore not ventilated to baghouses. Detritor discharge is pumped to a wet screen (CP9) to separate coarse DE. The coarse material is directed in slurry form to a crude tailings tank and then to the Silicate Plant's existing waste water system. The screen undersize material is pumped to the hydroclone station (CP10) for further separation, the waste from which is also directed to the crude tailings tank.

Hydroclone product is directed to one of two flotation conditioning tanks (CP11) where it is mixed with sulfuric acid, organic-based conditioners and frothers. Unwanted DE fractions are floated in the east or west flotation cells (CP12) for disposal via the flotation tailings pump to the existing Silicates Plant wastewater system. Product passes as a slurry to the dewatering filter (CP13) system at which soda ash and flocculant solutions may be added. The cake from the dewatering filter (CP13) is conveyed to the 3.200 MMBtu/hr 1st stage (flotation) dryer (CP14). The 1st stage dryer is ventilated by the 1st stage (flotation) dryer baghouse (CP15). The 1st stage dryer baghouse, in turn, vents to the 350 scrubber (CP22).

The product passes from the 1st stage dryer (CP14) through a dispersion screen (CP16) and is then air conveyed to the kiln feed cyclone (CP17). Soda ash is added to the air stream prior to the kiln feed cyclone (CP17), which feeds into the kiln feed bin (CP19), all of which is ventilated by the kiln feed (calciner surge) bin baghouse (CP18). From the kiln feed bin screw, material passes to the kiln rotary feed screw into the 2.640 MMBtu/hr kiln (calciner) (CP20) fired exclusively on natural gas. The kiln exhaust is ventilated first to the kiln exhaust (calciner) baghouse (CP21) for particulate removal and then to the 370 scrubber (CP56) for SO_x removal. Dried DE is flash cooled in an air line with the dedicated flash cooling cyclone (CP24) and flash cooler baghouse (CP25). Cooled calcined and flux-calcined material is directed to a product mix tank (CP26) where it is slurried with water. (Alternatively, the product can be packed in bags). The mix tank is ventilated to the flash cooler baghouse (CP25).

The slurry is directed to a leach tank (CP27) where it is mixed with sulfuric acid and heated with steam from a 3.780 MMBtu/hr package boiler (CP44) fired exclusively on natural gas. The leach tank (CP27) and downstream leach slurry storage tank (CP28) are ventilated to the 370 scrubber (CP56) already treating the kiln (calciner) emissions. After leaching, the reacted slurry is pumped to the leach slurry storage tank where it is dilute. The product is dewatered and rinsed by the rinsing filter (CP30) and then dried in a 3.200 MMBtu/hr 2nd stage dryer (CP31) fired exclusively on natural gas. Particulates of drying loop emissions are controlled by the 2nd stage dryer exhaust baghouse (CP32). Product from the 2nd stage dryer (CP31) is

conveyed via the packaging station cyclone (CP33) to a rotary product dispersing screen (CP34) and discharged into the packer bin (CP35). The manual bag packing station (CP36) is able to pack bags and drums and is ventilated to the packing station baghouse (CP37).

A 50 horsepower diesel-fired ICE (CP46)-driven generator provides power during electrical failures. The ICE is used exclusively for emergency power and not more than 200 hours per year.

2.1.2 Process Options. Soda ash is added to the system in two locations: the dewatering filter feed tank and the kiln feed cyclone (CP17). The soda ash handling system consists of a semitruck loading area where a truck attaches to a loading line and blows the material into a soda ash storage bin. The soda ash is blown into the bin by a blower integral to the vehicle which pressurizes the semitruck tank. From the soda ash bin, soda ash is metered into either the soda ash mix tank (CP40) or to a soda ash mill (CP41). The soda ash bin is ventilated to the soda ash bin baghouse (CP42). The soda ash is discharged from the mill into the dispersing screen discharge line which flows into the kiln feed cyclone (CP17). Alternatively, the soda ash is mixed with water at the soda ash mix tank (CP40) and then discharged to the dewatering filter feed tank. A bag breaking (refeed) station (CP23) allows the addition of bagged material at three locations in the system. The station consists of a feed hopper and an empty bag compactor and is ventilated to the dedicated refeed station baghouse (CP38). The refeed station feeds the refeed pump packer (CP55).

2.1.2 Research and Development. Use of the Celpure equipment as a pilot plant may involve raw materials other than DE such as perlite, silica gel, fiberglass, zeolite, alumina, fumed silica, and bentonite clay. Perlite use will not exceed 140 tons per year, and the use of the other listed substances is not expected to exceed 14 tons/year. Process feed rates are expected to be approximately 1000 lbs/hr using alternative materials due to the heavier weight per unit volume compared to DE. Substances (e.g., boric acid) not used in Celpure processing may be introduced during use of the plant as a test bed.

3.0 Regulatory Review

3.1. *Rule Exemptions Claimed*

3.1.1 District Rule 202 (*Exemptions to Rule 201*): Celite has requested a number of District permit exemptions under this rule. An exemption from permit, however, does not necessarily grant relief from any applicable prohibitory rule. The following exemptions were reviewed by the District and determined to be applicable:

- Section 202.V.9.a for one 5000 gas sulfuric acid tank (commercial grade of sulfuric acid of strength less than 99% by weight).
- Section 202.V for 55 gallon drums of additives.
- Section 202.L.9 and 202.D.12 for the Vacuum Baghouse

3.2. *Compliance with Applicable Federal Rules and Regulations*

3.2.1 40 CFR Parts 51/52{*New Source Review (Non-attainment Area Review and Prevention of Significant Deterioration)*}: The Lompoc Facility was constructed and permitted prior to the applicability of these regulations. However, all permit modifications as of 1971 are subject to District NSR requirements. Compliance with District Regulation VIII (*New Source Review*) ensures that future modifications to the facility will comply with these regulations.

3.2.2 40 CFR Part 60 {*New Source Performance Standards*}Subpart OOO applies to crushers, grinding mills, screening operations, bucket elevators, belt conveyors, bagging operations, storage bins and enclosed truck or rail car loading stations constructed, reconstructed or modified, as defined by the standard, after August 31, 1983. Several equipment items are subject to NSPS 40 CFR Subpart OOO (Standards of Performance for Nonmetallic Minerals Processing Plants). Some of the units are subject only to the reporting requirements of Subpart OOO. The chart below summarizes these requirements:

NSPS Subpart OOO Summary

Requirement	Limit/Specific	40 CFR Citation
Emission limit for control device	0.022 gr/dscf	60.672(a)(1)
Opacity limit for control device	7 %	60.672(a)(2)
Source Test for gr/dscf & opacity	timing, sampling, etc	60.672(a) to 60.8
Limits for fugitives	choice is provided[2]	60.672(e)
Test method for emission limit	Method 5 or 17 [2]	60.675(b)(1)
Test method for opacity	Method 9	60.675(b)(2)
Test method for fugitive opacity	Method 9, 60.11 [2]	60.675(c)
Test method for fugitive opacity inside bldg	Method 22 [2]	60.675(d)
Reporting Requirements	NA	60.676(f)

[2] See the cited section of 40 CFR 60 for additional requirements that must be met.

3.2.3. 40 CFR 60 Subpart UUU, {Standards of Performance for Calciner and Dryers in Mineral Industries}: This subpart applies only to the calciner particulate emissions (controlled by the kiln (calciner) exhaust baghouse). It does not apply to the1st Stage Dryer because this unit is an apron dryer (exempt under §60.730). (BACT is also required by District Nonattainment Review Rule 802 for the SO_x emissions; see the Rule 802 Section below). The chart below summarizes the requirements applicable to the kiln (calciner) PM emissions:

NSPS Subpart UUU Summary

Requirement	Limit/Specific	40 CFR Citation
Emission limit for control device	0.04 gr/dscf	60.732(a)
Opacity limit without wet scrubber	10% (NA)	60.732(b)
Source Test for gr/dscf & opacity	timing, sampling, etc	60.732 to 60.8
Test method for emission limit	Method 5 +	60.736(b)(1)
Test method for stack opacity	Method 9	60.736(b)(2)
Reporting Requirements	NA	60.735(c-f))

3.2.4 40 CFR Part 61 *{NESHAP}:* Any demolition or renovation affecting asbestos containing materials must meet the requirements of 40 CFR 61 Subpart M (National Emission Standard for Asbestos).

3.2.5 40 CFR Part 63 *{MACT}:* This facility is not currently subject to the provisions Part 63. However, compliance will be assessed once an applicable MACT standard is promulgated.

3.2.6 40 CFR Part 64 *{Compliance Assurance Monitoring}:* This rule became effective on April 22, 1998. The Celpure Plant contains several emission units that are subject to the provisions of Part 64. These units are identified in section 4.9.3. Celite submitted a CAM Plan that was approved by the District on December 19, 2002 and was updated December 13, 2007. This plan provides the details of how the applicability determination for these units was made and the monitoring parameters that have been implemented. See Section 4.7.2 and permit condition 9.C.13 for additional details.

3.2.7 40 CFR Part 70 *{Operating Permits}*: This Subpart is applicable to the Celpure Plant. Table 3.1 lists the federally-enforceable District promulgated rules that are "generic" and apply to the Celpure Plant. Table 3.2 lists the federally-enforceable District promulgated rules that are "unit-specific". These tables are based on data available from the District's administrative files and from Celite's Part 70 Operating Permit application.

3.3. *Compliance with Applicable State Rules and Regulations*

3.3.1 Division 26. Air Resources {California Health & Safety Code}: The administrative provisions of the Health & Safety Code apply to this facility and will be enforced by the District. These provisions are District-only enforceable.

3.3.2 California Administrative Code Title 17: These sections specify the standards by which abrasive blasting activities are governed throughout the State. All abrasive blasting activities at the Celpure Plant facility are required to conform to these standards. Compliance is typically

assessed through onsite inspections. However, CAC Title 17 does not preempt enforcement of any SIP-approved rule that may be applicable to abrasive blasting activities.

3.3.3 California Administrative Code Title 17 {Sections 93115}: These sections specify emission, operational, monitoring, and recordkeeping requirements for stationary diesel-fired compression ignition engines rated over 50 bhp. The emergency/standby generator at the Celpure Plant is required to conform to these standards. Compliance will be assessed through onsite inspections.

3.4. *Compliance with Applicable Local Rules and Regulations*

3.4.1 Applicability Tables: In addition to Tables 3.1 and 3.2, Table 3.3 lists the non-federally enforceable District promulgated rules that apply to the Celpure Plant.

3.4.2 Rules Requiring Further Discussion: This section provides a more detailed discussion regarding the applicability and compliance of certain rules.

Rule 301 - Circumvention: This rule prohibits the concealment of any activity that would otherwise constitute a violation of Division 26 (Air Resources) of the California H&SC and the SBCAPCD rules and regulations. To the best of the District's knowledge, Celite is operating this plant in compliance with this rule.

Rule 302 - Visible Emissions: This rule prohibits the discharge from any single source any air contaminants for which a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade than a reading of 1 on the Ringlemann Chart or of such opacity to obscure an observer's view to a degree equal to or greater than a reading of 1 on the Ringlemann Chart. Sources subject to this rule include: the baghouses, scrubbers, boiler and the emergency generator ICE. Improperly maintained units have the potential to violate this rule. See permit condition 9.B.2 for the requirements to be implemented to ensure compliance with this rule.

Rule 303 - Nuisance: Rule 303 prohibits any source from discharging air contaminants in such quantities which cause a nuisance to any considerable number of persons. District policy requires 5 verifiable complaints in 24 hours from different households or 10 verifiable complaints over a two week period to conclude that a public nuisance condition exists. The District has not received any complaints directly attributable to the Celpure Plant.

Since March 2007 the District has received fifteen (15) citizen complaints regarding emissions from the Celite facility. Fourteen (14) of those complaints concerned dust emissions and one (1) of the complaints concerned the "burnt match" like odor of oxides of sulfur. From April 2000 up to March 2007, the District received forty-four (44) citizen complaints regarding emissions from the Celite facility. The District has not received sufficient complaints in reference to any one incident to find Celite in violation of Rule 303. Consequently, to date, Celite has been found in compliance with Rule 303.

Rule 304 - Particulate Matter, Northern Zone: The Celpure Plant is considered a Northern Zone source. This rule prohibits the discharge to atmosphere, any particulate matter in excess of 0.3 grains per cubic feet of gas at standard conditions. Sources subject to this rule include

the baghouses, boiler and the emergency generator ICE. Improperly maintained units have the potential to violate this rule. Compliance will be ensured through the use of source testing, work practices, the facility IC Engine Particulate Operation and Maintenance Plan, and visible emissions monitoring and records.

Rule 306 - Dust and Fumes, Northern Zone: The Celpure Plant is considered a Northern Zone source. This rule prohibits the discharge to atmosphere from any source particulate matter in excess of specified mass emission rates in pounds per hour. The maximum emission rates are determined as a function of process weight rate, measured in pounds per hour, and are listed in Table 306(a) of the rule. Sources subject to this rule include: the baghouses, boiler and the emergency generator ICE. Improperly maintained units have the potential to violate this rule. Compliance will be ensured through the use of source testing, work practices, the facility IC Engine Particulate Operation and Maintenance Plan, and visible emissions monitoring and records.

Rule 309 - Specific Contaminants: Under Section "A", no single source may discharge sulfur compounds and combustion contaminants in excess of 0.2 percent as SO_2 (by volume) and 0.3 gr/scf (at 12% CO_2) respectively. In addition, no source may construct or operate equipment that emits over 200 lb/hr of sulfur compounds or over 140 lb/hr of NO_x. Equipment subject to this rule include the baghouses, scrubbers, boiler and the emergency generator ICE. The baghouses have the potential to violate the PM standard (see discussion on Rule 304 above for compliance). Compliance will be ensured through the use of source testing, work practices, visible emissions observations and records.

Rule 310 - Odorous Organic Compounds: This rule prohibits the discharge of H_2S and organic sulfides that result in a ground level impact beyond the property boundary in excess of either 0.06 ppmv averaged over 3 minutes and 0.03 ppmv averaged over 1 hour. No measured data exists to confirm compliance with this rule. However, since Celite processes primarily involve combustion of elemental sulfur to SO_x, emissions of odorous organic sulfur compounds are not expected to occur at the plant.

Rule 311 - Sulfur Content of Fuels: This rule limits the sulfur content of fuels combusted to 0.5 percent (by weight) for liquids fuels and 50 gr/100 scf (calculated as H_2S) or 796 ppmvd for gaseous fuels. Compliance will be verified through documentation from fuel suppliers or periodic analysis.

Rule 315 - Gasoline Specifications: This rule prohibits persons from supplying as a motor vehicle fuel gasoline with a degree of unsaturation greater than that indicated by a Bromine number of 30. Celite supplies gasoline for use by its motor vehicles. Use of gasoline meeting retail standards set by the State of California will result in compliance with this rule.

Rule 317 - Organic Solvents: This rule sets specific prohibitions against the discharge of emissions of both photochemically and non-photochemically reactive organic solvents (40 lb/day and 3,000 lb/day respectively). Solvents may be used at the plant during normal operations for degreasing by wipe cleaning and for use in paints and coatings in maintenance operations. There is the potential to exceed the limits under Section B.2 during significant surface coating activities. Celite will be required to maintain records to ensure compliance with this rule.

Rule 321 - Solvent Cleaning Operations: This rule sets equipment and operational standards for degreasers using organic solvents. Celite has stated that their solvent cleaning operations fall under the exemptions of this rule.

Rule 322 - Metal Surface Coating Thinner and Reducer: This rule prohibits the use of photochemically reactive solvents for use as thinners or reducers in metal surface coatings. Celite is required to maintain records during maintenance operations to ensure compliance with this rule.

Rule 323 - Architectural Coatings: This rule sets standards for the application of surface coatings. Standards for many types of architectural coatings. The primary coating standard that will apply to the plant is for Industrial Maintenance Coatings which has a limit of 250 gram ROC per liter of coating, as applied. Celite is required to comply with the Administrative requirements under Section F.

Rule 324 - Disposal and Evaporation of Solvents: This rule prohibits any source from disposing of more than one and a half gallons of any photochemically reactive solvent per day by means that will allow the evaporation of the solvent into the atmosphere. Celite is required to maintain records to ensure compliance with this rule.

Rule 326 - Storage of Reactive Organic Liquids: This rule applies to equipment used to store reactive organic compound liquids with a vapor pressure greater than 0.5 psia. The plant has several tanks of organic liquid, but they are all exempt from this rule.

Rule 329 - Cutback and Emulsified Asphalt Paving Materials: This rule details the applicability and standards for the application of cutback emulsified asphalt paving materials. Celite occasionally uses this material for road and parking lot maintenance.

Rule 330 - Surface Coating of Metal Parts and Products: This rule sets standards for the use of surface coatings on metal parts and products. However, all Celite coating operations fall within Rule 323 or Rule 339. Accordingly, no coating operations are expected to be subject to this rule.

Rule 333 - Control of Emissions from Reciprocating IC Engines: This rule applies to all engines with a rated brake horsepower of 50 or greater that are fueled by liquid or gaseous fuels. The emergency standby IC engine at the facility include one generator that are no longer exempt from permit and are therefore, subject to District Rule 333. However, engines that operate less than 200 hours per year are exempt from Sections D, E, F, and G of Rule 333.

Rule 353 - Adhesives and Sealants: This rule limits the use if adhesives, adhesive bonding primers, adhesive primers, sealants and sealant primers. Celite's use of these materials is very limited, and as such, they are expected to operate within the limits of the rule.

Rule 361 – Small Boilers, Steam Generators and Process Heaters: This rule sets emission standards for external combustion units with a rated heat input greater than 2.0 MMBtu/hr and less than 5.0 MMBtu/hr. The Celpure Plant has one boilers that is subject to this rule. This existing boiler must comply with the emission standards of Rule 361 by January 1, 2020. Section B.1a of Rule 361 exempts combustion equipment where the products of combustion come into direct contact with the materials to be heated. Three additional external combustion

units at the Celpure Plant meet this exemption criteria, and are not subject to Rule 361 requirements.

Rule 505 - Breakdown Conditions: This rule describes the procedures that Celite must follow in order to seek regulatory relief when a breakdown condition occurs to any emissions unit associated with the plant. A breakdown condition is defined as an unforeseeable failure or malfunction of (1) any air pollution control equipment or related operating equipment which causes a violation of an emission limitation or restriction prescribed in the District Rules and Regulations, or by State law, or (2) any in-stack continuous monitoring equipment, provided such failure or malfunction:

a. Is not the result of neglect or disregard of any air pollution control law or rule or regulation;

b. Is not the result of an intentional or negligent act or omission on the part of the owner or operator;

c. Is not the result of improper maintenance;

d. Does not constitute a nuisance as defined in Section 41700 of the Health and Safety Code;

e. Is not a recurrent breakdown of the same equipment.

Rule 603 - Emergency Episode Plans: Section "A" of this rule requires the submittal of *Stationary Source Curtailment Plan* for all stationary sources that can be expected to emit more than 100 tons per year of hydrocarbons, nitrogen oxides, carbon monoxide or particulate matter. A revised plan for the Lompoc facility was submitted on October 11, 2000 and approved October 16, 2000.

Rule 802 - Nonattainment Review (NAR): The NAR provisions apply to non-attainment pollutants and their precursor pollutants. The County is non-attainment for the State and Federal ozone and State PM_{10} ambient air quality standards. The precursor pollutants of ozone are oxides of nitrogen (NO_x) and reactive organic compound (ROCs). The precursor pollutants of PM_{10} are NO_x, ROCs and oxides of sulfur (SO_x).

The emission increases in the original ATC 9757 from Celpure plant projects are now included as a "P1" term in the NEI calculation in Attachment 10.3. Future projects will be evaluated for compliance with Rule 802.

Rule 803 - Prevention of Significant Deterioration (PSD): The PSD provisions apply to attainment pollutants and their precursor pollutants. This rule also applies to total suspended particulates (PM). Santa Barbara County is attainment for the federal PM_{10} ambient air quality standards. The precursor pollutants of PM_{10} are NO_x, ROCs and oxides of sulfur (SO_x).

Rule 810 – Federal Prevention of Significant Deterioration: This rule was adopted January 20, 2011 to incorporate the federal Prevention of Significant Deterioration rule requirements into the District's Rules and Regulations by reference. Future projects at the

facility will be evaluated to determine whether they constitute a new major stationary source or a major modification.

In conjunction with ATC 9757, Celpure plant projects were reviewed for PSD requirements and it was determined that BACT, offsets, and modeling thresholds were not triggered. Future projects will be evaluated for compliance with Rule 803.

3.5. *Compliance History*

This section contains a summary of the compliance history for this facility and was obtained from documentation contained in the District's Administrative file.

3.5.1 Variances: Celite has sought variance relief per Regulation V and received seven Emergency (E) Variances since the last Part 70 renewal permit was issued in 2007. Two of these emergency variances were specifically related to operations at the Celpure Plant:

Case 14-10-E: This was an emergency variance from PTO 5840 Part II granted on June 16, 2010 for exceeding permitted visible emission standards on Celpure baghouse CP32 following routine maintenance. The variance was effective until July 14, 2010, after which Celite was back in compliance.

Case 13-11-E: This was an emergency variance from PTO 5840 Part II granted on September 6, 2011 for exceeding permitted emission limits on the Celpure 350 Scrubber during source testing. The variance was effective until October 1, 2011, after which Celite was back in compliance.

3.5.2 Violations: The last facility inspections occurred during June 25, 2010. The inspector reported that no violations of District rules or permit conditions were found. See Part I of this permit for a complete list of documented violations for this source since the last Part 70 permit renewal in 2007.

3.5.3 Significant Historical Hearing Board Actions/NOVs: There have been no significant historical Hearing Board actions for the Celpure Plant since the plant was incorporated into the Lompoc Facility Part 70 permit (Part 70/PTO 5840).

Table 3.1 Generic Federally Enforceable District Rules

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 101: Compliance by Existing Installations	All emission units	Emission of pollutants	June 1981
RULE 102: Definitions	All emission units	Emission of pollutants	January 20, 2011
RULE 103: Severability	All emission units	Emission of pollutants	October 23, 1978
RULE 201: Permits Required	All emission units	Emission of pollutants	April 17, 1997
RULE 202: Exemptions to Rule 201	Applicable emission units	Insignificant activities/emissions, per size/rating/function	January 20, 2011
RULE 203: Transfer	All emission units	Change of ownership	April 17, 1997
RULE 204: Applications	All emission units	Addition of new equipment of modification to existing equipment.	April 17, 1997
RULE 205: Standards for Granting Permits	All emission units	Emission of pollutants	April 17, 1997
RULE 206: Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant rules	October 15, 1991
RULE 207: Denial of Applications	All emission units	Applicability of relevant rules	October 23, 1978
RULE 208: Action on Applications – Time Limits	All emission units. Not applicable to Part 70 permit applications.	Addition of new equipment of modification to existing equipment.	April 17, 1997
RULE 212: Emission Statements	All emission units	Administrative	October 20, 1992
RULE 301: Circumvention	All emission units	Any pollutant emission	October 23, 1978
RULE 302: Visible Emissions	All emission units	Particulate matter emissions	June 1981
RULE 303: Nuisance	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
RULE 304: PM Concentration – North Zone	Each PM source	Emission of PM in effluent gas	October 23, 1978
RULE 306: Dust and Fumes – North Zone	All emission units	Emissions of particulate matter	August 1989
RULE 309: Specific Contaminants	All emission units	Combustion contaminants	October 23, 1978

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 311: Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur	October 23, 1978
RULE 317: Organic Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
RULE 321: Solvent Cleaning Operations	Emission units using solvents	Solvent used in process operations.	September 18, 1997
RULE 322: Metal Surface Coating Thinner and Reducer	Emission units using solvents	Solvent used in process operations.	October 23, 1978
RULE 323: Architectural Coatings	Paints used in maintenance and surface coating activities	Application of architectural coatings.	July 18, 1996
RULE 324: Disposal and Evaporation of Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
RULE 353: Adhesives and Sealants	Emission units using adhesives and sealants	Adhesives and sealants use.	August 19, 1999
RULE 505 SECTIONS A, B1, D: Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
RULE 603: Emergency Episode Plans	Stationary sources with PTE greater than 100 tpy	Celite Lompoc is greater than 100 tpy.	June 15, 1981
REGULATION VIII: New Source Review	All emission units	Addition of new equipment of modification to existing equipment. Applications to generate ERC Certificates.	April 17, 1997
REGULATION XIII (RULE 1301): General Information for Part 70 Operating Permits	All emission units		September 18, 1997
REGULATION XIII (RULES 1302 - 1305): Part 70 Operating Permits	All emission units		November 9, 1993

Table 3.2 Unit-Specific Federally Enforceable District Rules

Unit-Specific Requirements	District DeviceNo	Basis for Applicability	Adoption Date
RULE 326: Storage of Reactive Organic Compounds		Stores ROCs with vapor pressure greater than 0.5 psia	December 14, 1993
RULE 329: Cutback Asphalt Paving Materials		Use of cutback asphalt for paving	June 11, 1979

Unit-Specific Requirements	District DeviceNo	Basis for Applicability	Adoption Date
RULE 360: Emissions of Oxides of Nitrogen from Large Water Heaters and Small Boilers		Rated greater than or equal to 75,000 MMBtu/hr and up to less than or equal to 2 MMBtu/hr	October 17, 2002
RULE 361: Small Boilers, Steam Generators, and Process Heaters		Rated greater than 2 MMBtu/hr and less than 5 MMBtu/hr	January 17, 2008
RULE 901: New Source Performance Standards (NSPS)		Subpart OOO, UUU	May 16, 1996

Table 3.3 Non-Federally Enforceable District Rules

Requirement	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 210: Fees	All emission units	Administrative	October 18, 1971
RULE 310: Organic Sulfides	All emission units.	Odorous sulfide emissions	January 12, 1976
RULE 352: Natural Gas-Fired Fan-Type Central Furnaces and Small Water Heaters	All emission units,	Rated less than 75,000 Btu/hr	October 20, 2011
RULES 501-504: Variance Rules	All emission units	Administrative	October 18, 1971
RULE 810: Federal Prevention of Significant Deterioration	All emission units.	Sources subject to any requirement under 40 Code of Federal Regulations, Part 52, Section 52.21.	January 20, 2011
RULE 505 SECTIONS B2, B3, C, E, F, G: Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
RULES 506-519: Variance Rules	All emission units	Administrative	August 14, 1978

4.0 Engineering Analysis

4.1. *General*

The engineering analyses performed for this permit were limited to the review of:

- facility process flow diagram
- emission factors and calculation methods for each emissions unit
- emission control equipment (including RACT, BACT, NSPS, NESHAP)
- emission source testing
- process monitors needed to ensure compliance.

4.2. *Stationary Combustion Sources*

4.2.1 General: The stationary combustion sources associated with the Celpure Plant consist of boilers, dryers, a kiln and an internal combustion engine. Primary power to the plant is currently supplied by Pacific Gas and Electric (PG&E). Natural gas is currently supplied by the Southern California Gas Company

External Combustion Equipment - The Celpure Plant is permitted to operate one kiln (calciner) rated at 2.64 MMBtu/hr, two dryers rated at 3.2 MMBtu/hr each, and one package boiler rated at 3.78 MMBtu/hr.

Internal Combustion Equipment - The Celpure Plant is permitted to operate one 50 hp diesel fired emergency/standby generator. The operations of this engine are limited to less than 20 hours per year for maintenance and testing, and unlimited for emergency use.

4.2.2 Emission Factors:

External Combustion Equipment- The federally enforceable NO_x, CO, ROC, and PM emission factors for the kiln, 1st and 2nd stage dryers and package boiler, shown in Table 5.2, come from USEPA AP-42 Tables 1.4-1 and 1.4-2 for external combustion equipment fired on natural gas. The SO_x emission factor is based on mass balance.

Internal Combustion Equipment – Emission factors for the exempt IC engines are based on Table 3.3-1 of USEPA AP-42. The SO_x emission factor is based on mass balance. Mass emission estimates are based on the maximum of 20 hours/year. Emission estimates are determined by the following equations:

E1, lb/day = Engine Rating (bhp) * EF (g/bhp-hr) * Daily Hours (hr/day) * (lb/453.6 g)
E2, tpy = Engine Rating (bhp) * EF (g/bhp-hr) * Annual Hours (hr/yr) * (lb/453.6 g) * (ton/2000 lb)

4.3. *Baghouse $PM/PM_{10}/PM_{2.5}$ Emissions*

4.3.1 General: The bins, mills, screens, belt conveyor, bagging operation, and loading station are subject to NSPS Subpart OOO and are ventilated to ten baghouses. In addition, the baghouse treating calcining kiln emissions is subject to NSPS Subpart UUU. The Subpart OOO and Subpart UUU particulate emission standards that apply are 0.022 gr/dscf and 0.040 gr/dscf, respectively. However, Celite has committed to more restrictive limits as indicated below.

Baghouse parameters, used to determine whether the baghouse is appropriate to the application, are described in Table 4.1. The parameters used directly in emission calculations are provided in Table 4.2.

Table 4.1 Baghouse Information

Equipment Description		Equipment Specification			
Equipment Item	District DeviceNo	Self-Cleaning Pulse-Jet?	Pressure	Temperature (°F)	Fabric
Crude Bin Ventilation Baghouse	8073	yes	Neg	70°	PTFE-coated polyethylene
Soda Ash Bin Baghouse	8074	yes	Neg	70°	PTFE-coated polyethylene
Kiln Feed (Calciner Surge) Bin Bahouse	8075	yes	Neg	85°	PTFE-surfaced polyester
Flash Cooler Baghouse	8076	yes	Neg	150°	PTFE-surfaced Nomex
Second Stage Dryer Baghouse	8077	yes	Neg	350°	PTFE-surfaced Nomex
Packing Station Baghouse	8078	yes	Neg	88°	Mikro-tex surfaced polyester
Refeed Station Baghouse	8079	yes	Neg	70°	PTFE-coated polyethylene
1st Stage (Flotation) Dryer Baghouse	8082	yes	Neg	350°	PTFE-surfaced Nomex
Kiln (Calciner) Exhaust Baghouse	8083	yes	Neg	250°	PTFE-coated PPS Ryton

4.3.2 Calculation Methods: Emissions from the subject equipment are based on the maximum parameters listed below in Tables 4.2 and 4.3. The general equation is:

$$E_{(lb\,/\,day)} = EF_{(gr\,/\,scf)} \times Q_{(scf\,/\,\min)} \times 1440_{(\min/\,day)} \div 7000_{(gr\,/\,lb)}$$

$$E_{(tons/yr)} = (lb/day) \div 24_{(hrs/day)} \times (T) \div 2000_{(lbs/ton)}$$

where:

E = mass emission rate
EF = emission factor
Q = exhaust flow rate
T = operating hours per year

The blower exhaust rating for the Flash Cooler Baghouse and the Second Stage Dryer Baghouse have been adjusted from acfm to scfm based on temperature as shown in Table 4.2 below.

During SCDP source testing, all baghouses, with the exception of those listed and discussed below, met the original permitted emission limits.

Baghouses Exceeding Flow Rate and Grain Loading Limit. Since issuance of ATC No. 9757 Celite has experienced difficulties in successfully meeting the PM/PM_{10} emission limits for several of the Celpure plant baghouses. Source test data have periodically have shown minor excursions above the permitted PM/PM_{10} emission limits as a result of baghouse grain loading concentrations and/or exhaust flow rates exceeding those assumed in the permit. In each case, Celite requested, and was granted, increased PM/PM_{10} emission limits through increased concentration limits and/or baghouse exhaust flow rates. In most cases, the source tested grain loading concentrations and/or exhaust rates, plus a 15% buffer was used to establish the new emission limits. The District approved the increases based on Celite's assertion that the grain loading guarantees for these baghouses were unachievable and that the existing emission factors and limits were significantly lower than similar baghouses. Additionally, the total emissions resulting from the increased concentration and exhaust flow rate was minimal.

The District granted Celite's request for an increase to grain loading limit to 0.005 gr/dscf, and the resulting PM/PM_{10} PTE increase in ATC/PTO 11224. ATC/PTO 11224 – 01 allowed for a twenty percent (20%) increase in the exhaust flow rate for the flash cooler baghouse due to the August 2005 source test exceeding the exhaust flow rate limit. Table 4.2 below identifies the baghouses with the corresponding grain loading and exhaust flow rate values that have been used to establish the revised emission limits per ATC/PTO 11224 and ATC/PTO 11224 - 01. The resulting emission limits are provided in Table 5.3 and Table 5.4.

Table 4.2 below identifies these units and the grain loading and flow rate values that have been used to establish the revised emission limits. The resulting emission limits are provided in Table 5.3 and 5.4.

Table 4.2 Baghouse Emission Parameter Basis

Equipment Description		Equipment Specification			
Equipment Item	APCD DeviceNo	Source Tested Flow Rate	Percent Flowrate Increase	Source Tested Flow Rate + Increase	Grain Loading Limit
		(scfm)		(scfm)	(gr/dscf)
Crude Bin Ventilation Baghouse	8073	2,444	15%	2,811	0.005
Soda Ash Bin Baghouse	8074	–	–	–	0.005
Kiln Feed (Calciner Surge) Bin Bahouse	8075	2,279	15%	2,621	0.005
Flash Cooler Baghouse	8076	2,327	20%	2,793	0.005
Packing Station Baghouse	8078	1,253	15%	1,441	0.005
Refeed Station Baghouse	8079	2,084	15%	2,397	0.005
Equipment Item	APCD DeviceNo	Blower Flowrate	T Ratio	Flowrate*T Ratio	Grain Loading Limit
		(acfm)		(scfm)	(gr/dscf)
Second Stage Dryer Baghouse	8077	11,360	0.716	8,134	0.005

4.3.3 Potential to Emit (PTE) for Particulate Emissions from Baghouses: The pounds per day and tons per year potential to emit emissions scenarios are defined by the exhaust flow rates and grain loading as specified in Tables 4.2 above. The baghouses collect all dust from the equipment it serves. The potential to emit calculations assume no fugitive emissions. All baghouses operate 24 hours per day, except the Crude Bin Ventilation Baghouse (4 hours per day) and the Soda Ash Bin Baghouse (12 hours per day). The PM_{10} to PM ratio is 1.0 and the $PM_{2.5}$ to PM ratio is 1.0.

4.4. *Scrubbers*

4.4.1 General: Celite operates two sulfur dioxide scrubbers, the 350 (1st stage dryer) scrubber and the 370 (calcining and leaching) scrubber. These units are SO_x emission control devices however, operations are such that particulate matter are a source of emissions emitted to atmosphere from these units.

The PM/PM_{10} emission limits for 350 (1st stage dryer) scrubber are based on the source tested inlet mass emission rate (0.694 lb/day) for this unit plus a 20% buffer. The PM/PM_{10} emission limits for 370 (calcining and leaching) scrubber are based on the source tested outlet mass emission rate (0.252 lb/day) for this unit plus a 20% buffer. The tpy limit for each unit is based on an 8,322 hr/yr operating schedule and the above formula. The emission limit for the 370 (calcining and leaching) scrubber could not be based on the inlet test rate since it exceeded the original emission limits for the kiln (calciner) exhaust baghouse. These emission limits are provided in Table 5.3 and Table 5.4

4.5. *Bag Packing Station*

Celpure product is packaged at the Celpure Plant bag packing station. This station packs product in ten to fifty pound bags. To meet specific customer demand, packaging product in larger quantities (five hundred to one-thousand pound bags) is required. This is accomplished by the semi-bulk bag packing station.

The semi-bulk packing station was installed under ATC 11007 (issued June 2003) and is adjacent to the bag packing station. Emissions from this station are vented to the packing station baghouse. There have been no alterations to the existing ventilation system (i.e., baghouse, blower size, ventilation air capacity, etc.) or any existing equipment other than connecting the product screw to the semi-bulk packer. There has been no change to the current permitted packing rates from PTO 9757, therefore, system throughput and packing rates will not increase. The pre-existing packing station and the semi-bulk packing system are prohibited from simultaneous operation.

4.6. *SOx Emissions from Equipment Subject to District Permit*

Equipment producing oxides of sulfur or sulfuric acid mist is ventilated to one of two packed tower scrubbers. The kiln (calciner) processes DE containing sulfur from two sources: the ore as mined and sulfuric acid process additive. A third source of sulfur to the kiln is fuel sulfur (minor in comparison). To determine the sulfur content of the DE feed to the kiln (calciner), Celite took samples from the product leaving pilot plant flotation cells. The flotation cells are upstream of

the kiln (calciner), and pre-kiln (calciner) sulfuric acid conditioner is upstream of the flotation cells, so the samples should be representative of the material routed to the kiln (calciner). Celite used the highest test result plus a buffer and assumed that all sulfur will be oxidized during calcining.

Sulfuric acid is added upstream of the 1st stage dryer (aka flotation dryer), which heats the feed. The 1st stage dryer is ventilated first by a baghouse and then the exhaust stream is treated by a scrubber to remove sulfur. Exhaust from the 2nd stage dryer is treated only by a baghouse, but the dryer feed is rinsed.

4.6.1 Calculation Methods: The pounds per day and tons per year potential to emit emissions scenarios are defined by the maximum hourly and annual feed rate and DE sulfur content as specified in Table 4.3. Samples of DE from which sulfur content was determined are representative, e.g. they contain sulfur from process conditioners such as sulfuric acid as well as from DE ore. Margin added to sample sulfur test results includes maximum possible sulfur content. All sulfur emissions are routed to the scrubber. Scrubber control efficiency is 99% (mass basis). Operations are assumed to occur 24 hours per day. SOx emissions are calculated using the following equations for uncontrolled and controlled emissions:

$$U_{1stStage}\left(\frac{lb}{day}\right) = F_{hr} * \frac{24hr}{day} * \left(C_{drierfeed} - C_{kiln\ feed}\right) * \left(\frac{1}{MW_S}\right) * M_R * MW_{SO2}$$

$$U_{kiln}\left(\frac{lb}{day}\right) = F_{hr} * \frac{24hr}{day} * C_{kiln\ feed} * \left(\frac{1}{MW_S}\right) * M_R * MW_{SO2}$$

Equation 4.1 Uncontrolled SOx emissions – lb/day

$$U_{1stStage}\left(\frac{ton}{year}\right) = F_{yr} * \left(C_{drierfeed} - C_{kiln\ feed}\right) * \left(\frac{1}{MW_S}\right) * M_R * MW_{SO2}$$

$$U_{kiln}\left(\frac{ton}{year}\right) = F_{yr} * C_{kiln\ feed} * \left(\frac{1}{MW_S}\right) * M_R * MW_{SO2}$$

Equation 4.2 Uncontrolled SOx emissions- ton/year

Where:

$U_{1st\ stage}$ = maximum uncontrolled emission rate of 1st Stage Drier
U_{kiln} = maximum uncontrolled emission rate of kiln (calciner)
F_{hr} = maximum DE feed rate per hour to the kiln (calciner) (lbs of DE per hour)
$C_{drier\ feed}$ = maximum sulfur content of DE (lbs elemental sulfur per lb DE) to Drier
$C_{kiln\ feed}$ = maximum sulfur content of DE (lbs elemental sulfur per lb DE) to Kiln
MW_s = mole molecular weight of sulfur (32 lb_S per lb-mol_S)
M_R = molar ratio (1.0 lb-mol_{SO2}/lb-mol_S)
MW_{SO2} = mole molecular weight of sulfur dioxide (64 lb_{SO2} per lb-mol_{SO2})
F_y $_r$ = maximum DE feed rate per year to the kiln (calciner), (tons of DE per year)

Where: F_{hr}, C, F_{yr} , and E are:

Table 4.3 SO_2 Scrubber Emission Equation Variables

Variable	Value	Units	Reference
F_{hr}	1500	lb DE/hr	Celite 6-17-98 letter, pg 1.
F_{yr}	2268	tons DE/year	9-15-97 revised application, Table 6, Note 2
$C_{drier\ feed}$	0.005	lb S/lb of dry DE	Celite letter dated 6-17-98 revising ATC application
C_{kiln}	0.00335	lb S/lb of dry DE	Celite letter dated 6-17-98 revising ATC application
E	99	%	Scrubber efficiency committed to by Celite. Note: BACT standard is 98%.

$$\frac{lb}{day} = U * (1 - E)$$

$$\frac{ton}{year} = U * (1 - E)$$

Equation 4.3 Controlled SOx Emissions – Daily and Annual Equation

Where:

E_{daily} = maximum emission rate in pounds per day
E_{annual} = maximum emission rate in tons per year
E = scrubber control efficiency (99% on a mass basis for limit)
U = uncontrolled emission rate of 1st Stage Drier or Kiln

4.6.2 Potential to Emit (PTE) for for SO_2 Emissions: The pounds per day and tons per year potential to emit emissions scenarios are defined by the Maximum hourly and annual feed rate and DE sulfur content are as specified in Table 4.3 above.. Samples of DE from which sulfur content was determined are representative, e.g. they contain sulfur from process conditioners such as sulfuric acid as well as from DE ore. Margin added to sample sulfur test results includes maximum possible sulfur content. All sulfur emissions are routed to the scrubber. Scrubber control efficiency is 99% (mass basis). 24 hour per day operation.

4.6.3 Sulfuric Acid Mist and Other Toxics: Sulfuric acid is a Prevention of Significant Deterioration (PSD) 40 CFR 51.166(b)(23)-listed pollutant which is produced during the leaching process. Nonattainment BACT for the SO_x emissions requires that the sulfuric acid leach tanks are enclosed and vented to the calcining and leaching scrubber that represents Nonattainment BACT for SO_x emissions from the separate calcining process. Since BACT for Nonattainment is more restrictive than PSD BACT for the sulfuric acid mist, there is no need to determine PSD BACT.

Controlled sulfuric acid emissions are roughly estimated by Celite at 1 ton per year and 5.5 lb/day as follows. The ventilation rate is about 900 cfm at 212°F and about 70% of it is either process steam or clean air. The remainder will be acid mist vaporizing. The partial pressure of the acid in the vapor is about 0.5 mmHg. The scrubber is expected to remove at least 90% of the acid mist.

$$UE = 900cfm * \left(\frac{460+32}{460+212}\right) * (1-0.7) * \left(\frac{0.5}{649}\right) * \left(\frac{1}{359\,ft^3/lbmole}\right) * \left(98lb/lbmole\right) * \left(60\,\text{min}/hr\right) * \left(24hr/day\right)$$

$$UE = 60lbH_2SO_4/day$$

$$UE = \left(60lbH_2SO_4/day\right) * \left(365days/year\right) * \left(1ton/2000lb\right) = 11tonH_2SO_4/year$$

Where: UE = Uncontrolled Emissions

Assuming the scrubber removes 90% of the acid mist, the controlled emissions will be about 6.0 lb/day & 1 TPY.

Hazardous substances are processed in the Celpure Plant. Based on the Material Data Safety Sheets (MSDS), some of the non-DE substances are described in Table 4.4.

Table 4.4 Hazardous Project Substances (Conditioners)[3]

Substance	CAS #	NESHAPS or AB2588?	Vapor Pressure at standard conditions
Sulfuric Acid (5000 gallon tank)	7664-93-9	AB2588[4]	0.0012 mm Hg
Sodium Hydroxide (6500 gallon tank)	1310-73-2	AB2588[4]	NA
Amorphous alumina silicate (perlite)	93763-70-3	no	NA
Hydrated alumina, alumina trihydrate, aluminum trihydroxide		no	NA
Boric acid	10043-35-3	no	2.6 mm Hg
Acetic acid, glacial	64-19-7	no	11 mm Hg
Propylene oxide methanol adduct	037286-64-9	no	
Cocodiamine	61791-63-7	no	<1 mm Hg
Flocculant containing petroleum distillates and alcohols	64742-47-8 & 84133-50-6	no	18 mm Hg

4.7. *Best Available Control Technology (BACT) for SO_2 Emissions*

4.7.1 BACT: Best Available Control Technology is required for SO_x, PM and PM_{10}. The applicable BACT control technologies and the corresponding performance standards are listed in Table 4.5.

[3] Based on the toxics information provided to date, it appears that public health effects off site would not be significant. The potential for such effects will be more comprehensively addressed through the AB2588 (Air Toxics Hot Spots) process. The District has not addressed the use of toxic substances not on the above list. Use in this project of other toxic substances will be subject to applicable rules at the time of use. It is not necessary to modify this permit solely to change the toxic substances list

[4] AB2588 identifies this substance as one for which emissions must be quantified.

Pursuant to District Policy and Procedure 6100.064, once an emission unit is subject to BACT requirements, then any subsequent modifications to that emissions unit or process is subject to BACT. This applies to both *de minimis* changes and equivalent replacements, regardless of whether or not such changes or replacements require a permit.

SO_x emissions in the original PTO 9757 permit application (36 lb/day) exceeded the non-attainment review BACT threshold of 25 pounds per day (Rule 802). SO_x is a precursor to PM_{10}, a non-attainment pollutant (See Rule 102 (Definitions)). The BACT analysis provided in PTO 9757 required a 99.0% SO_x Destruction Rate Efficiency (DRE) on a mass basis for the Kiln/Leach Scrubber and First Stage Dryer Scrubber.

Results of source testing conducted on the First Stage Drying Scrubber (CP22) during the week of August 15, 2001 indicated that the unit failed to meet the required 99.0% SO_x Destruction Rate Efficiency (DRE). The test results also indicated extremely low inlet flows for CP22 such that 99.0% DRE was not practicably achievable, even though the outlet mass emission rate was two orders of magnitude less than the permitted SO_x emission rate. For this reason, BACT for CP22, as well as the Kiln/Leaching Scrubber (CP56), was modified to include, as an alternative compliance mechanism, a SO_x concentration limit of 0.15 ppm SO_x to account for those operational scenarios in which low inlet rates preclude the use of a DRE control standard. This revision was authorized under ATC/PTO 10745.

Annual source testing of these units, conducted in January 2003, indicated that CP22 and CP56 failed to meet both the 99% DRE, as well as, the 0.15 ppm SO_x emission limit concentration. However, the source tested mass emission rate for CP22 (0.03 lb/hr SO_x) was significantly less than the permitted rate (0.10 lb/hr SO_x) as was the tested rate for CP56 (0.01 lb/hr SO_x) versus the permitted rate of 0.05 lb/hr. Additionally, the source test results indicate that the CP22 source tested mass emission rate of 0.03 lb/hr is based on a 0.90 ppm SO_x concentration and the CP56 source tested mass emission rate of 0.01 is based on a 0.30 ppm SO_x concentration. Thus, considering the magnitude of the difference between the permitted and source tested mass emission rates for each unit, the source tested SO_x concentrations for each unit and the corresponding mass emission rate, the BACT SO_x concentration limit for each unit is being increased from 0.15 ppm SO_x to 1.0 ppm SO_x. The 1.0 ppm limit results in lb/hr rates that approach the mass emission rate limits so no further ppmv increases will be allowed. Any future tests that fail to meet the above BACT limits will require long term corrective action.

Table 4.5 BACT Control Technology and Performance Standards

Source	Control Technology	Performance Standard	Reference
Kiln (Calciner)	Gas Absorption Tower - 370 (Calcining/Leaching) Scrubber	99 percent destruction rate efficiency (mass basis) based on manufacturer's guarantee or 1.00 ppmv SO_x exhaust outlet concentration.	ATC 9757, ATC/PTO 10745-01
Leach/Slurry Tanks	Gas Absorption Tower - 370 (Calcining/Leaching) Scrubber	Based on the maximum flow rate for this unit of 6700 scfm, a maximum concentration of 1.00 ppm SO_x results in a maximum mass emission rate of 0.10 lb/hr SO_x.	ATC 9757, ATC/PTO 10745-01
1st Stage Dryer	Gas Absorption Tower - 350 (1st Stage Drying) Scrubber	99 percent destruction rate efficiency (mass basis) based on manufacturer's guarantee or 1.00 ppmv SO_x exhaust outlet concentration.	ATC 9757, ATC/PTO 10745-01

4.8. *Emissions Monitoring/Process Monitoring/CAM*

4.8.1. Process Monitoring: In many instances, ongoing compliance beyond a single (snap shot) source test is assessed by the use of process monitoring systems. Examples of these monitors include: engine hour meters and fuel usage meters. Once these process monitors are in place, it is important that they be well maintained and calibrated to ensure that the required accuracy and precision of the devices are within specifications. At a minimum, the following process monitors will be required to be calibrated and maintained in good working order:

- Hour Meters, non-resettable (Emergency/Standby Diesel Engine, 1st stage dryer, 2nd stage dryer, kiln (calciner), package boiler)
- Manometers, magnahelic gauges or equivalent for pressure drop across baghouses

Calibration and maintenance requirements are provided in the *Process Monitor Calibration and Maintenance Plan.* This Plan takes into consideration manufacturer recommended maintenance and calibration schedules. Where manufacturer guidance is not available, the recommendations of comparable equipment manufacturers, when available, and good engineering judgment is utilized.

4.8.2. CAM: The Celite Lompoc Facility is a major source that is subject to the USEPA's Compliance Assurance Monitoring (CAM) rule (40 CFR 64). As detailed in Celite's CAM Plan (approved on December 17, 2007 it was determined that the units listed below in Table 4.6 satisfy the criterion established by 40 CFR Part 64 that subject these units to additional compliance monitoring, i.e., (1) these units have precontrol emissions of at least 100% of the major source amount (PM/PM_{10}); (2) are subject to a federally enforceable emissions standard and, (3) use a control device to achieve compliance with this standard.

The compliance monitoring parameter selected for the baghouses is a daily visible emission observation (VEE) as well as a quarterly Method 9 visbile emissions inspection.

The CAM Plan provides additional description of and justification for the selection of these monitoring parameters. The Plan also provides additional detail regarding the applicability determination of the units included in the plan and recordkeeping and reporting requirements. See permit condition 9.C.12.

Table 4.6 Celpure Baghouses Subject to CAM

Equipment Description	
Device Name	APCD DeviceNo
Crude Bin Ventilation Baghouse	8073
Kiln Feed (Calciner Surge) Bin Bahouse	8075
Flash Cooler Baghouse	8076
Second Stage Dryer Baghouse	8077
Packing Station Baghouse	8078
Refeed Station Baghouse	8079

4.9. *Source Testing/Sampling*

Source testing and sampling are required in order to ensure compliance with permitted emission limits, prohibitory rules, control measures and the assumptions that form the basis of this operating permit. Permit condition 9.C.9 and Table 9.5 and Table 9.6 detail the pollutants and test methods required for testing. Celite is required to follow the District's *Source Test Procedures Manual* (May 24, 1990 and all updates).

Soda Ash Bin Ventilation Baghouse. Source testing of this unit was attempted during SCDP source testing of the Celpure equipment. Source testing was required to be performed during a loading event since the major emissions from this unit occur during the loading of this product into the soda ash bin. However, due to loading difficulties involved during a loading event, as well as during normal operations, it was determined that PM source testing is not feasible. Additionally, (1) loading events typically occur only on a quarterly basis and, (2) this equipment is permitted to operate only 416 hours per year. Compliance with the permitted limits will be determined by visual emission inspections as detailed in permit condition 9.C.1. Sampling of DE for sulfur content is detailed in permit condition 9.C.3.

4.10. *Part 70 Engineering Review: Hazardous Air Pollutant Emissions*

Hazardous air pollutant (HAP) emissions for the Celpure Plant are based on various HAP emission factors and the permitted operational limits and maximum facility design throughputs of this permit. HAP emission factors are shown in Table 5.7. Facility potential annual HAP emissions, based on the worst-case scenario listed in Section 5.3 above, are shown in Table 5.8. Stationary Source potential annual HAP emissions are summarized in Table 5.9. These emissions are estimates only. They are not limitations.

4.10.1. Emission Factors for HAP Potential Emissions:

Natural Gas fired external combustion units: The HAP emission factors for external combustion equipment (boilers, dryers/heaters, and kiln) were obtained from the Ventura County Air Pollution Control District *AB2588 Combustion Emission Factors for Natural Gas Fired External Combustion Equipment* (May, 2001) for reactive organics, and USEPA AP-42 Table 1.4-4, *Emission Factors for Metals from Natural Gas Combustion* (July, 1998) for metals.

Diesel-fired IC engines with no control: The HAP emission factors for diesel fired IC engines were obtained from the Ventura County Air Pollution Control District *AB2588 Combustion Emission Factors for Diesel Combustion* (May, 2001). These emissions estimate is based on a diesel IC engine total brake horsepower of 50 bhp and a brake specific fuel consumption of 7500 Btu/bhp-hr.

Diatomite emissions: The HAP emission for the processed diatomite emissions from the the baghouses, rotoclones and the mobile plant were obtained from USEPA AP-42 Table 11.22-1, *Trace Element Content of Finished Diatomite* (November, 1995). The factors for the metal HAPs are fractions, in parts per million by weight, of the *emitted* tonnage of PM.

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5.0 Emissions

5.1. *General*

Emissions calculations are divided into "permitted" and "exempt" categories. Permit exempt equipment is determined by District Rule 202. The permitted emissions for each emissions unit is based on the equipment's potential-to-emit (as defined by Rule 102). Section 5.2 details the permitted emission from each emissions unit. Section 5.3 details the overall permitted emissions for the facility based on reasonable worst-case scenarios using the potential-to-emit for each emissions unit. Section 5.4 provides the federal potential to emit calculation using the definition of potential to emit according to Rule 1301. Section 5.5 provides the estimated HAP emissions from the Celpure Plant. Section 5.6 provides the estimated emissions from permit exempt equipment. Section 5.7 provides the net emissions increase basis for the Celpure Plant. In order to accurately track the emissions from a facility, the District uses a computer database.

5.2. *Permitted Emission Limits*

Each emissions unit associated with the facility was analyzed to determine the potential-to-emit for the following pollutants:

⇒ Nitrogen Oxides (NO_x) [5]
⇒ Reactive Organic Compounds (ROC)
⇒ Carbon Monoxide (CO)
⇒ Sulfur Oxides (SO_x) [6]
⇒ Particulate Matter (PM)
⇒ Particulate Matter smaller than 10 microns (PM_{10}) [7]
⇒ Particulate Matter smaller than 2.5 microns ($PM_{2.5}$) [8]
⇒ Greenhouse Gases (as CO_2)

Permitted emissions are calculated for both short term (hourly and daily) and long term (quarterly and annual) time periods. Section 4.0 (Engineering Analysis) provides a general discussion of the basic calculation methodologies and emission factors used as well as the basic operating characteristics, the specific emission factors. Table 5.1 provides the basic operating characteristics. Table 5.2 provides the specific emission factors. The permitted short-term and permitted long-term emissions for the subject equipment is listed in Tables 5.3 and 5.4.

5.3. *Permitted Emission Limits – Facility Totals*

The total potential-to-emit for all emission units associated with the Celpure Plant part of the facility was analyzed. This analysis looked at the reasonable worst-case operating scenarios for each operating period. The equipment operating in each of the scenarios are presented

[5] Calculated and reported as nitrogen dioxide (NO_2)
[6] Calculated and reported as sulfur dioxide (SO_2)
[7] Calculated and reported as all particulate matter smaller than 10 μm
[8] Calculated and reported as all particulate matter smaller than 2.5 μm

below. Unless otherwise specified, the operating characteristics defined in Table 5.1 for each emission unit are assumed. Table 5.5 shows the total permitted emissions for the Celpure Plant part of the facility.

Hourly/Daily Scenario:

- Baghouses
- Scrubbers
- Kiln (Calciner)
- 1st and 2nd Stage Dryers
- Package Boiler

Quarterly and Annual Scenario:

- Baghouses
- Scrubbers
- Kiln (Calciner)
- 1st and 2nd Stage Dryers
- Package Boiler
- Emergency Standby Generator

5.4. *Part 70: Federal Potential to Emit for the Facility*

Table 5.6 lists the federal Part 70 potential to emit. Being a NSR source, all project emissions, except fugitive emissions that are not subject to any applicable NSPS or NESHAP requirement, are counted in the federal definition of potential to emit.

5.5. *Part 70: Hazardous Air Pollutant Emissions for the Facility*

Total emissions of hazardous air pollutants (HAP) are computed for informational purposes only. HAP emission factors are shown in Table 5.7. Facility potential annual HAP emissions, based on the worst-case scenario listed in Section 5.3 above, are shown in Table 5.8. Stationary Source potential annual HAP emissions are summarized in Table 5.9.

5.6. *Exempt Emission Sources/Part 70 Insignificant Emissions*

Equipment/activities exempt pursuant to Rule 202 include maintenance operations involving surface coating and various combustion devices. Insignificant emission units are defined under District Rule 1301 as any regulated air pollutant emitted from the unit, excluding HAPs, that are less than 2 tons per year based on the unit's potential to emit and any HAP regulated under section 112(g) of the Clean Air Act that does not exceed 0.5 ton per year based on the unit's potential to emit.

Table 5.9 presents the estimated annual emissions from these exempt equipment items, including those exempt items not considered insignificant. The basis for these calculations is

presented in Table 10.2. This permit includes the Solvents/Surface coating activities during maintenance operations.

5.7. *Net Emissions Increase Calculation*

The net emissions increase (NEI) for Celpure Plant is equal to the existing facility NEI plus any emissions increase ("I") due to past projects. The Celite stationary source net emissions increase since November 15, 1990 (the day the federal Clean Air Act Amendments were adopted) is based on the NSR permit actions since December 5, 1991 (including the Lompoc and Celpure Plants) is found in Attachment 10.3.

NEI Calculation: NEI = I + (P1 - P2) - D

I = PTE of modifications

P1 = increases in PTE subject to NSR since 15 Nov 90

P2 = decreases in PTE since 15 Nov 90, where the emissions are included in P1 (not applicable)

D = decreases in actual emissions via permit actions if the emissions are not included in P2 or the Source Register

Table 5.1 Operating Equipment Description

Equipment Description			Equipment Specification					Operating Limitations					
					Pressure Drop (in of H_2O)			On-line			Fuel Sulfur	Material Throughput	
Equipment Item	Fabric	District DeviceNo	Size	Units	Minimum	Maximum	Efficiency	(hr/day)	(hr/qtr)	(hr/yr)	(% wt)	lb DE/hr	tons DE/year
Crude Bin Ventilation Baghouse	PTFE-Coated Polyethlene	8073	2,811	scf/minute	1	10		24	2,081	8,322	--	--	--
Soda Ash Bin Baghouse	PTFE-Coated Polyethlene	8074	600	scf/minute	1	10		24	104	416	--	--	--
Kiln Feed (Calciner Surge) Bin Bahouse	PTFE-Surfaced Polyester	8075	2,621	scf/minute	1	6		24	2,081	8,322	--	--	--
Flash Cooler Baghouse	PTFE-Surfaced Nomex	8076	2,793	scf/minute	1	6		24	2,081	8,322	--	--	--
Second Stage Dryer Baghouse	PTFE-Surfaced Nomex	8077	8,134	scf/minute	1	6		24	2,081	8,322	--	--	--
Packing Station Baghouse	Mikro-tex Surfaced Polyester	8078	1,441	scf/minute	1	6		24	2,081	8,322	--	--	--
Refeed Station Baghouse	PTFE-Coated Polyethlene	8079	2,397	scf/minute	1	10		24	1,500	6,000	--	--	--
DE Bin Baghouse	PTFE-Coated Polyethlene	8080	769	scf/minute	1	10		24	1,500	6,000	--	--	--
Alternate Materials Bin Baghouse	PTFE-Coated Polyethlene	8081	769	scf/minute	1	10		24	1,500	6,000	--	--	--
1st Stage (Flotation) Dryer Baghouse	PTFE-Surfaced Nomex	8082	6,150	scf/minute	1	6		24	2,081	8,322	--	1,500	2,268
350 (1st Stage Dryer) Scrubber		106243	6,150	scf/minute	--	--	0.99	24	2,081	8,322	--	1,500	2,268
Kiln (Calciner) Exhaust Baghouse	PTFE-coated PPS Ryton	8083	6,700	scf/minute	1	6		24	2,081	8,322	--	1,500	2,268
370 (Calcining and Leaching) Scrubber		106242	6,700	scf/minute	--	--	0.99	24	2,081	8,322	--	1,500	2,268
1st Stage Dryer		8920	3.20	MMBtu/hr	--	--		24	2,190	8,760	0.008	--	--
2nd Stage Dryer		8922	3.20	MMBtu/hr	--	--		24	2,190	8,760	0.008	--	--
Kiln (Calciner)		8921	2.64	MMBtu/hr	--	--		24	2,190	8,760	0.008	--	--
Package Boiler		8923	3.78	MMBtu/hr	--	--		24	2,190	8,760	0.008	--	--
Emergency Power Generator		103521	50	bhp	--	--		2	20	20	0.05	--	--

Notes:

(1) The Equipment size is the blower exhaust rate based on the manufacturer's rating or source test. The Flash Cooler BH and the Second Stage Dryer Baghouse size have been adjusted from acfm to scfm based on operating temperature ratios.

(2) Exhaust from the 1st Stage (Flotation) Dryer Baghouse is routed to the 350 (1st Stage Dryer) Scrubber

(3) Exhaust from the Kiln (Calciner) Exhaust Baghouse is routed to the 370 (Calcining and Leaching) Scrubber

(4) The DE material throughput listed for the 350 and 370 scrubbers, is actually processed through the Kiln and 1st Stage Drier, but for purposes of calculating emissions, the throughput has also been listed with the scrubbers.

Table 5.2 Equipment Emission Factors

Equipment Description / Equipment Item	District DeviceNo	Emission Factors									References
		NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG	Units	
Crude Bin Ventilation Baghouse	8073					0.0050	0.0050	0.0050		gr/dscf	ATC/PTO 11107
Soda Ash Bin Baghouse	8074					0.0050	0.0050	0.0050		gr/dscf	
Kiln Feed (Calciner Surge) Bin Bahouse	8075					0.0050	0.0050	0.0050		gr/dscf	
Flash Cooler Baghouse	8076					0.0050	0.0050	0.0050		gr/dscf	
Second Stage Dryer Baghouse	8077					0.0050	0.0050	0.0050		gr/dscf	
Packing Station Baghouse	8078					0.0050	0.0050	0.0050		gr/dscf	
Refeed Station Baghouse	8079					0.0050	0.0050	0.0050		gr/dscf	
DE Bin Baghouse	8080					0.0050	0.0050	0.0050		gr/dscf	
Alternate Materials Bin Baghouse	8081					0.0050	0.0050	0.0050		gr/dscf	
1st Stage (Flotation) Dryer Baghouse	8082					0.8328	0.8328	0.8328		lb/day	Based on January 2000 Source Test Report
350 (1st Stage Dryer) Scrubber	106243				0.005					lb S/lb dDE	Celite Letter (6/17/98)
Kiln (Calciner) Exhaust Baghouse	8083					0.3024	0.3024	0.3024		lb/day	Based on January 2000 Source Test Report
370 (Calcining and Leaching) Scrubber	106242				0.00335					lb S/lb dDE	Celite Letter (6/17/98)
1st Stage Dryer	8920	0.098	0.0054	0.0824	0.0129	0.0075	0.0075	0.0075	117.00	lb/MMBtu	AP-42 Section 1.4
2nd Stage Dryer	8922	0.098	0.0054	0.0824	0.0129	0.0075	0.0075	0.0075	117.00	lb/MMBtu	AP-42 Section 1.4
Kiln (Calciner)	8921	0.098	0.0054	0.0824	0.0129	0.0075	0.0075	0.0075	117.00	lb/MMBtu	AP-42 Section 1.4
Package Boiler	8923	0.098	0.0054	0.0824	0.0129	0.0075	0.0075	0.0075	117.00	lb/MMBtu	AP-42 Section 1.4
Emergency Power Generator	103521	14.06	1.12	3.03	0.184	1.00	1.00	1.00	556.58	g/bhp-hr	AP-42 Section 3.3

Notes:
(1) Density of diesel fuel = 7.05 lb/gal. (ref: APC-42, Appendix A)

Table 5.3 Short Term Emission Limits

Equipment Description / Equipment Item	District Device No	NOx		ROC		CO		SOx		H_2SO_4		PM		PM10		PM2.5		GHG		Federal Enforceability
		lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	lb/hr	lb/day	
Crude Bin Ventilation Baghouse	8073											0.12	2.89	0.12	2.89	0.12	2.89			FE
Soda Ash Bin Baghouse	8074											0.03	0.62	0.03	0.62	0.03	0.62			FE
Kiln Feed (Calciner Surge) Bin Bahouse	8075											0.11	2.70	0.11	2.70	0.11	2.70			FE
Flash Cooler Baghouse	8076											0.12	2.87	0.12	2.87	0.12	2.87			FE
Second Stage Dryer Baghouse	8077											0.35	8.37	0.35	8.37	0.35	8.37			FE
Packing Station Baghouse	8078											0.06	1.48	0.06	1.48	0.06	1.48			FE
Refeed Station Baghouse	8079											0.10	2.47	0.10	2.47	0.10	2.47			FE
DE Bin Baghouse	8080											0.03	0.79	0.03	0.79	0.03	0.79			FE
Alternate Materials Bin Baghouse	8081											0.03	0.79	0.03	0.79	0.03	0.79			FE
1st Stage (Flotation) Dryer Baghouse	8082											0.03	0.83	0.03	0.83	0.03	0.83			FE
350 (1st Stage Dryer) Scrubber	106243							0.10	2.41	0.24	5.67									FE
Kiln (Calciner) Exhaust Baghouse	8083											0.01	0.30	0.01	0.30	0.01	0.30			FE
370 (Calcining and Leaching) Scrubber	106242							0.05	1.19											FE
1st Stage Dryer	8920	0.31	7.53	0.02	0.41	0.26	6.33	0.04	0.99			0.02	0.58	0.02	0.58	0.02	0.58	374.40	8985.60	FE
2nd Stage Dryer	8922	0.31	7.53	0.02	0.41	0.26	6.33	0.04	0.99			0.02	0.58	0.02	0.58	0.02	0.58	374.40	8985.60	FE
Kiln (Calciner)	8921	0.26	6.21	0.01	0.34	0.22	5.22	0.03	0.82			0.02	0.48	0.02	0.48	0.02	0.48	308.88	7413.12	FE
Package Boiler	8923	0.37	8.89	0.02	0.49	0.31	7.48	0.05	1.17			0.03	0.68	0.03	0.68	0.03	0.68	442.26	10614.24	FE
Emergency Power Generator	103521	1.55	3.10	0.12	0.25	0.33	0.67	0.02	0.04			0.11	0.22	0.11	0.22	0.11	0.22	61.35	122.71	AE

Table 5.4 Long Term Emission Limits

Equipment Description / Equipment Item	District DeviceNo	NOx		ROC		CO		SOx		H_2SO_4		PM		PM10		PM2.5		GHG		Federal Enforceability
		TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	TPQ	TPY	
Crude Bin Ventilation Baghouse	8073											0.13	0.50	0.13	0.50	0.13	0.50			FE
Soda Ash Bin Baghouse	8074											0.00	0.01	0.00	0.01	0.00	0.01			FE
Kiln Feed (Calciner Surge) Bin Bahouse	8075											0.12	0.47	0.12	0.47	0.12	0.47			FE
Flash Cooler Baghouse	8076											0.12	0.50	0.12	0.50	0.12	0.50			FE
Second Stage Dryer Baghouse	8077											0.36	1.45	0.36	1.45	0.36	1.45			FE
Packing Station Baghouse	8078											0.06	0.26	0.06	0.26	0.06	0.26			FE
Refeed Station Baghouse	8079											0.08	0.31	0.08	0.31	0.08	0.31			FE
DE Bin Baghouse	8080											0.02	0.10	0.02	0.10	0.02	0.10			FE
Alternate Materials Bin Baghouse	8081											0.02	0.10	0.02	0.10	0.02	0.10			FE
1st Stage (Flotation) Dryer Baghouse	8082											0.04	0.14	0.04	0.14	0.04	0.14			FE
350 (1st Stage Dryer) Scrubber	106243							0.04	0.15	0.26	1.03									FE
Kiln (Calciner) Exhaust Baghouse	8083											0.01	0.05	0.01	0.05	0.01	0.05			FE
370 (Calcining and Leaching) Scrubber	106242							0.02	0.07											FE
1st Stage Dryer	8920	0.34	1.37	0.02	0.08	0.29	1.15	0.05	0.18			0.03	0.11	0.03	0.11	0.03	0.11	409.97	1639.87	FE
2nd Stage Dryer	8922	0.34	1.37	0.02	0.08	0.29	1.15	0.05	0.18			0.03	0.11	0.03	0.11	0.03	0.11	409.97	1639.87	FE
Kiln (Calciner)	8921	0.28	1.13	0.02	0.06	0.24	0.95	0.04	0.15			0.02	0.09	0.02	0.09	0.02	0.09	338.22	1352.89	FE
Package Boiler	8923	0.41	1.62	0.02	0.09	0.34	1.36	0.05	0.21			0.03	0.12	0.03	0.12	0.03	0.12	484.27	1937.10	FE
Emergency Power Generator	103521	0.02	0.02	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.61	0.61	AE

Table 5.5 Celpure Plant Potential to Emit

A. Hourly

Equipment Category	NOx	ROC	CO	SOx	H_2SO_4	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	--	1.00	1.00	1.00	--
Scrubbers	--	--	--	0.15	0.24	--	--	--	--
External Combustion Equipment	1.26	0.07	1.06	0.17	--	0.10	0.10	0.10	1,499.94
Internal Combustion Engines	1.55	0.12	0.33	0.02	--	0.11	0.11	0.11	61.35
Totals (lb/hr)	**2.81**	**0.19**	**1.39**	**0.34**	**0.24**	**1.21**	**1.21**	**1.21**	**1,561.29**

B. Daily

Equipment Category	NOx	ROC	CO	SOx	H_2SO_4	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	--	24.11	24.11	24.11	--
Scrubbers	--	--	--	3.60	5.67	--	--	--	--
External Combustion Equipment	30.15	1.66	25.35	3.97	--	2.31	2.31	2.31	35,998.56
Internal Combustion Engines	3.10	0.25	0.67	0.04	--	0.22	0.22	0.22	122.71
Totals (lb/day)	**33.25**	**1.91**	**26.02**	**7.61**	**5.67**	**26.64**	**26.64**	**26.64**	**36,121.27**

C. Quarterly

Equipment Category	NOx	ROC	CO	SOx	H_2SO_4	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	--	0.97	0.97	0.97	--
Scrubbers	--	--	--	0.06	0.26	--	--	--	--
External Combustion Equipment	1.38	0.08	1.16	0.18	--	0.11	0.11	0.11	1,642.43
Internal Combustion Engines	0.02	0.00	0.00	0.00	--	0.00	0.00	0.00	0.61
Totals (TPQ)	**1.39**	**0.077**	**1.160**	**0.24**	**0.26**	**1.08**	**1.08**	**1.08**	**1,643.05**

D. Annual

Equipment Category	NOx	ROC	CO	SOx	H_2SO_4	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	--	3.88	3.88	3.88	--
Scrubbers	--	--	--	0.23	1.03	--	--	--	--
External Combustion Equipment	5.50	0.30	4.63	0.72	--	0.42	0.42	0.42	6,569.74
Internal Combustion Engines	0.02	0.00	0.00	0.00	--	0.00	0.00	0.00	0.61
Totals (TPY)	**5.52**	**0.30**	**4.63**	**0.95**	**1.03**	**4.30**	**4.30**	**4.30**	**6,570.35**

Table 5.6 Federal Potential to Emit

A. Hourly

Equipment Category	NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	1.00	1.00	1.00	--
Scrubbers	--	--	--	0.15	--	--	--	--
External Combustion Equipment	1.26	0.07	1.06	0.17	0.10	0.10	0.10	1,499.94
Internal Combustion Engines	1.55	0.12	0.33	0.02	0.11	0.11	0.11	61.35
Exempt Emissions	0.00	0.00	0.00	0.00	0.02	0.02	0.02	--
Totals (lb/hr)	**2.81**	**0.19**	**1.39**	**0.34**	**1.23**	**1.23**	**1.23**	**1,561.29**

B. Daily

Equipment Category	NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	24.11	24.11	24.11	--
Scrubbers	--	--	--	3.60	--	--	--	--
External Combustion Equipment	30.15	1.66	25.35	3.97	2.31	2.31	2.31	35,998.56
Internal Combustion Engines	3.10	0.25	0.67	0.04	0.22	0.22	0.22	122.71
Exempt Emissions	0.00	0.00	0.00	0.00	0.56	0.56	0.56	--
Totals (lb/day)	**33.25**	**1.91**	**26.02**	**7.61**	**27.19**	**27.19**	**27.19**	**36,121.27**

C. Quarterly

Equipment Category	NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	0.97	0.97	0.97	--
Scrubbers	--	--	--	0.06	--	--	--	--
External Combustion Equipment	1.38	0.08	1.16	0.18	0.11	0.11	0.11	1,642.43
Internal Combustion Engines	0.02	0.001	0.003	0.000	0.001	0.001	0.001	0.614
Exempt Emissions	0.00	0.00	0.00	0.00	0.03	0.03	0.03	--
Totals (TPQ)	**1.39**	**0.08**	**1.16**	**0.24**	**1.10**	**1.10**	**1.10**	**1,643.05**

D. Annual

Equipment Category	NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG
Baghouses	--	--	--	--	3.88	3.88	3.88	--
Scrubbers	--	--	--	0.23	--	--	--	--
External Combustion Equipment	5.50	0.30	4.63	0.72	0.42	0.42	0.42	6,569.74
Internal Combustion Engines	0.02	0.001	0.003	0.000	0.001	0.001	0.001	0.614
Exempt Emissions	0.00	0.00	0.00	0.00	0.10	0.10	0.10	--
Totals (TPY)	**5.52**	**0.30**	**4.63**	**0.95**	**4.41**	**4.41**	**4.41**	**6,570.35**

Table 5.7 Estimated Permit Exempt Emissions

Annual

Item	Equipment Category	NO_x	ROC	CO	SO_x	PM	PM10	PM2.5	GHG
	Vacuum Station Baghouse	--	--	--	--	0.10	0.10	0.10	--
	Totals (TPY)	**0.00**	**0.00**	**0.00**	**0.00**	**0.10**	**0.10**	**0.10**	**0.00**

Table 5.8 HAP Emission Factors

Equipment Category	Description	Benzene	Dichlorobenzene	Naphthalene	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Acetaldehyde	Acrolein	1,3-butadiene	Chlorobenzene	Ethylbenzene	HCL	Toluene	Xylene	Formaldehyde	PAH	Hexane	Units
Baghouses	Crude Bin Ventilation Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Soda Ash Bin Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Kiln Feed (Calciner Surge) Bin Bahouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Flash Cooler Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Second Stage Dryer Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Packing Station Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Refeed Station Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	DE Bin Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Alternate Materials Bin Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	1st Stage (Flotation) Dryer Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
	Kiln (Calciner) Exhaust Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm
External Combustion	1st Stage Dryer	7.84E-06	--	2.94E-07	--	1.96E-07	1.18E-08	1.08E-06	1.37E-06	8.24E-08	--	3.73E-07	2.55E-07	2.06E-06	2.35E-08	4.22E-06	2.65E-06	--	--	9.31E-06	--	3.59E-05	2.67E-05	1.67E-05	3.92E-07	6.18E-06	lb/MMBtu
	2nd Stage Dryer	7.84E-06	--	2.94E-07	--	1.96E-07	1.18E-08	1.08E-06	1.37E-06	8.24E-08	--	3.73E-07	2.55E-07	2.06E-06	2.35E-08	4.22E-06	2.65E-06	--	--	9.31E-06	--	3.59E-05	2.67E-05	1.67E-05	3.92E-07	6.18E-06	lb/MMBtu
	Kiln (Calciner)	7.84E-06	--	2.94E-07	--	1.96E-07	1.18E-08	1.08E-06	1.37E-06	8.24E-08	--	3.73E-07	2.55E-07	2.06E-06	2.35E-08	4.22E-06	2.65E-06	--	--	9.31E-06	--	3.59E-05	2.67E-05	1.67E-05	3.92E-07	6.18E-06	lb/MMBtu
	Package Boiler	7.84E-06	--	2.94E-07	--	1.96E-07	1.18E-08	1.08E-06	1.37E-06	8.24E-08	--	3.73E-07	2.55E-07	2.06E-06	2.35E-08	4.22E-06	2.65E-06	--	--	9.31E-06	--	3.59E-05	2.67E-05	1.67E-05	3.92E-07	6.18E-06	lb/MMBtu
IC Engines	Emergency Power Generator	1.86E-01	--	1.97E-02	--	1.60E-03	--	1.50E-03	6.00E-04	--	8.30E-03	3.10E-03	2.00E-03	3.90E-03	2.20E-03	7.83E-01	3.39E-02	2.17E-01	2.00E-04	1.09E-02	1.86E-01	1.05E-01	4.24E-02	1.73E+00	5.59E-02	2.69E-02	lb/1000 gal
Exempt Equipment	Vacuum Station Baghouse	--	--	--	2	5	1	2	100	5	2	60	0.3	120	10	--	--	--	--	--	--	--	--	--	--	--	ppm

Table 5.9 Facility HAP Potential to Emit (tpy) Estimate

Equipment Category	Description	Benzene	Dichlorobenzene	Napthalene	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Acetaldehyde	Acrolein	1,3-butadiene	Chlorobenzene	Ethylbenzne	HCL	Toluene	Xylene	Formaldehyde	PAH	Hexane	Total HAPs
Baghouses	Crude Bin Ventilation Baghouse	--	--	--	1.0E-06	2.5E-06	5.0E-07	1.0E-06	5.0E-05	2.5E-06	1.0E-06	3.0E-05	1.5E-07	6.0E-05	5.0E-06	--	--	--	--	--	--	--	--	--	--	--	1.5E-04
	Soda Ash Bin Baghouse	--	--	--	1.1E-08	2.7E-08	5.3E-09	1.1E-08	5.3E-07	2.7E-08	1.1E-08	3.2E-07	1.6E-09	6.4E-07	5.3E-08	--	--	--	--	--	--	--	--	--	--	--	1.6E-06
	Kiln Feed (Calciner Surge) Bin Baghouse	--	--	--	9.3E-07	2.3E-06	4.7E-07	9.3E-07	4.7E-05	2.3E-06	9.3E-07	2.8E-05	1.4E-07	5.6E-05	4.7E-06	--	--	--	--	--	--	--	--	--	--	--	1.4E-04
	Flash Cooler Baghouse	--	--	--	1.0E-06	2.5E-06	5.0E-07	1.0E-06	5.0E-05	2.5E-06	1.0E-06	3.0E-05	1.5E-07	6.0E-05	5.0E-06	--	--	--	--	--	--	--	--	--	--	--	1.5E-04
	Second Stage Dryer Baghouse	--	--	--	2.9E-06	7.3E-06	1.5E-06	2.9E-06	1.5E-04	7.3E-06	2.9E-06	8.7E-05	4.4E-07	1.7E-04	1.5E-05	--	--	--	--	--	--	--	--	--	--	--	4.5E-04
	Packing Station Baghouse	--	--	--	5.1E-07	1.3E-06	2.6E-07	5.1E-07	2.6E-05	1.3E-06	5.1E-07	1.5E-05	7.7E-08	3.1E-05	2.6E-06	--	--	--	--	--	--	--	--	--	--	--	7.9E-05
	Refeed Station Baghouse	--	--	--	6.2E-07	1.5E-06	3.1E-07	6.2E-07	3.1E-05	1.5E-06	6.2E-07	1.8E-05	9.2E-08	3.7E-05	3.1E-06	--	--	--	--	--	--	--	--	--	--	--	9.5E-05
	DE Bin Baghouse	--	--	--	2.0E-07	4.9E-07	9.9E-08	2.0E-07	9.9E-06	4.9E-07	2.0E-07	5.9E-06	3.0E-08	1.2E-05	9.9E-07	--	--	--	--	--	--	--	--	--	--	--	3.0E-05
	Alternate Materials Bin Baghouse	--	--	--	2.0E-07	4.9E-07	9.9E-08	2.0E-07	9.9E-06	4.9E-07	2.0E-07	5.9E-06	3.0E-08	1.2E-05	9.9E-07	--	--	--	--	--	--	--	--	--	--	--	3.0E-05
	1st Stage (Flotation) Dryer Baghouse	--	--	--	2.9E-07	7.2E-07	1.4E-07	2.9E-07	1.4E-05	7.2E-07	2.9E-07	8.7E-06	4.3E-08	1.7E-05	1.4E-06	--	--	--	--	--	--	--	--	--	--	--	4.4E-05
	Kiln (Calciner) Exhaust Baghouse	--	--	--	1.0E-07	2.6E-07	5.2E-08	1.0E-07	5.2E-06	2.6E-07	1.0E-07	3.1E-06	1.6E-08	6.3E-06	5.2E-07	--	--	--	--	--	--	--	--	--	--	--	1.6E-05
External Combustion	1st Stage Dryer	1.1E-04	--	4.1E-06	--	2.7E-06	1.6E-07	1.5E-05	1.9E-05	1.2E-06	--	5.2E-06	3.6E-06	2.9E-05	3.3E-07	--	--	--	--	--	--	5.0E-04	--	2.3E-04	5.5E-06	8.7E-05	1.0E-03
	2nd Stage Dryer	1.1E-04	--	4.1E-06	--	2.7E-06	1.6E-07	1.5E-05	1.9E-05	1.2E-06	--	5.2E-06	3.6E-06	2.9E-05	3.3E-07	--	--	--	--	--	--	5.0E-04	--	2.3E-04	5.5E-06	8.7E-05	1.0E-03
	Kiln (Calciner)	9.1E-05	--	3.4E-06	--	2.3E-06	1.4E-07	1.2E-05	1.6E-05	9.5E-07	--	4.3E-06	2.9E-06	2.4E-05	2.7E-07	--	--	--	--	--	--	4.1E-04	--	1.9E-04	4.5E-06	7.1E-05	8.4E-04
	Package Boiler	1.3E-04	--	4.9E-06	--	3.2E-06	1.9E-07	1.8E-05	2.3E-05	1.4E-06	--	6.2E-06	4.2E-06	3.4E-05	3.9E-07	--	--	--	--	--	--	5.9E-04	--	2.8E-04	6.5E-06	1.0E-04	1.2E-03
IC Engines	Emergency Power Generator	5.1E-06	--	5.4E-07	--	4.4E-08	--	4.1E-08	1.6E-08	--	2.3E-07	8.5E-08	5.5E-08	1.1E-07	6.0E-08	2.1E-05	9.3E-07	6.0E-06	5.5E-09	3.0E-07	5.1E-06	2.9E-06	1.2E-06	4.7E-05	1.5E-06	7.4E-07	9.4E-05
Exempt Equipment	Vacuum Station Baghouse	--	--	--	2.0E-07	5.1E-07	1.0E-07	2.0E-07	1.0E-05	5.1E-07	2.0E-07	6.1E-06	3.1E-08	1.2E-05	1.0E-06	--	--	--	--	--	--	--	--	--	--	--	3.1E-05
	SUB-TOTAL HAPS (tpy) =	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.01**
	TOTAL HAPS (tpy) =	**0.01**																									

1. These are estimates only, and are not intended to represent emission limits.

Table 5.10 Stationary Source HAP Potential to Emit (tpy) Estimate

Facility	Benzene	Dichlorobenzene	Napthalene	Antimony	Arsenic	Beryllium	Cadmium	Chromium	Cobalt	Lead	Manganese	Mercury	Nickel	Selenium	Acetalaldehyde	Acrolein	1,3-butadiene	Chlorobenzene	Ethylbenzne	HCL	Toluene	Xylene	Formaldehyde	PAH	Hexane	Total HAPs
Main Plant	29.74	0.00	0.00	0.01	0.02	0.00	0.01	0.43	0.02	0.01	0.26	0.00	0.51	0.04	1.07	0.00	0.01	0.00	0.38	0.01	33.90	29.61	1.69	0.00	2.37	100.11
Celpure	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01
Stationary Source Total HAPs (tpy) =	**29.74**	**0.00**	**0.00**	**0.01**	**0.02**	**0.00**	**0.01**	**0.43**	**0.02**	**0.01**	**0.26**	**0.00**	**0.51**	**0.04**	**1.07**	**0.00**	**0.01**	**0.00**	**0.38**	**0.01**	**33.90**	**29.61**	**1.69**	**0.00**	**2.37**	**100.11**

1. These are estimates only, and are not intended to represent emission limits.

6.0 Air Quality Impact Analysis

Air quality modeling, Increments, Vegetation Analysis, and Visibility Analysis were not performed for the Celpure Plant project.

7.0 CAP Consistency, Offset Requirements and ERCs

7.1. *General*

The *Celite Lompoc* stationary source is located in an ozone nonattainment area. Santa Barbara County has not attained the state ozone ambient air quality standards. The County also does not meet the state PM_{10} ambient air quality standards. Therefore, emissions from all emission units at the stationary source and its constituent facilities must be consistent with the provisions of the USEPA- and State- approved Clean Air Plans (CAP) and must not interfere with progress towards attainment of federal and state ambient air quality standards. Under District regulations, any modifications at Celpure Plant (or the Celite Lompoc stationary source) that result in an emissions increase of any nonattainment pollutant exceeding 25 lbs/day must apply BACT (NAR). Any additional increases of ROC, NO_x, SO_x, PM or PM_{10} require emission offsets at the source or elsewhere so that there is a net air quality benefit for Santa Barbara County. Offset threshold levels for these pollutants are 55 lbs/day for all non-attainment pollutants except PM_{10} for which the level is 80 lbs/day. Additional stationary source increases of ROC, NO_x, SO_2, PM, or PM_{10} may require emission offsets.

7.2. *Clean Air Plan*

Santa Barbara County's air quality has historically violated both the state and federal ozone standards. Since 1999, however, local air quality data show that every monitoring location in the County complied with the federal one-hour ambient air quality standard for ozone. The Santa Barbara County Air Pollution Control District adopted the 2001 Clean Air Plan (2001 CAP) that demonstrated attainment of the federal one-hour ozone standard and continued maintenance of that standard through 2015. Consequently, on August 8, 2003, the United States Environmental Protection Agency (USEPA) designated Santa Barbara County as an attainment area for the federal one-hour ozone standard.

On June 15, 2004, USEPA replaced the federal one-hour ozone standard with an eight-hour ozone standard for Santa Barbara County and most parts of the country. This eight-hour ozone standard, originally promulgated by USEPA on July 18, 1997, is set at 0.08 parts per million measured over eight hours and is more protective of public health and more stringent than the federal one-hour standard. For the purposes of the federal eight-hour ozone standard, Santa Barbara County has been designated attainment.

On August 16, 2007, the District Board adopted the 2007 Clean Air Plan to chart a course of action that will provide for ongoing maintenance of the federal eight-hour ozone standard through the year 2014 as well as the expeditious attainment of the state one-hour ozone standard. These plans have been developed for Santa Barbara County as required by both the 1998 California Clean Air Act and the 1990 Federal Clean Air Act Amendments.

7.3. *Offset Requirements*

The Celite Lompoc stationary source does not currently require emission offsets.

7.4. *Emission Reduction Credits*

Celite does not currently provide ERCs to any source nor has this facility generated ERCs for past projects.

8.0 Lead Agency Permit Consistency

To the best of the District's knowledge, no other governmental agency's permit requires air quality mitigation.

9.0 Requirements and Equipment Specific Conditions

This section includes non-generic federally enforceable conditions including emissions and operation limits, monitoring and recordkeeping and reporting for each specific equipment group. This section may also contain other non-generic requirements.

Section 9.A lists the standard administrative conditions. Section 9.B lists 'generic' permit conditions, including emission standards, for all equipment in this permit. Section 9.C lists conditions affecting specific equipment. Section 9.D lists non-federally enforceable (i.e., District only) permit conditions. Conditions listed in Sections A, B and C are enforceable by the USEPA, the District, the State of California and the public. Conditions listed in Section D are enforceable only by the District and the State of California. Where any reference contained in Sections 9.A, 9.B or 9.C refers to any other part of this permit, that part of the permit referred to is federally enforceable.

9.A Standard Administrative Conditions

A.1 **Compliance with Permit Conditions.**

(a) The permittee shall comply with all permit conditions in Sections 9.A, 9.B and 9.C.

(b) This permit does not convey property rights or exclusive privilege of any sort.

(c) Any permit noncompliance with sections 9.A, 9.B, or 9.C constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.

(d) It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

(e) A pending permit action or notification of anticipated noncompliance does not stay any permit condition.

(f) Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
(i) compliance with the permit, or
(ii) whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.

(g) In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible. *[Re: 40 CFR Part 70.6.(a)(6), District Rules 1303.D.1]*

A.2 **Emergency Provisions.** The permittee shall comply with the requirements of the District, Rule 505 (Upset/Breakdown rule) and/or District Rule 1303.F, whichever is applicable to the emergency situation. In order to maintain an affirmative defense under Rule 1303.F, the permittee shall provide the District, in writing, a "notice of emergency" within two (2) working days of the emergency. The "notice of emergency" shall contain the information/documentation listed in Sections (1) through (5) of Rule 1303.F. [*Re: 40 CFR 70.6(g), District Rule 1303.F*]

A.3 **Right of Entry.** The Regional Administrator of USEPA, the Control Officer, or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a Part 70 Source is located or where records must be kept:

(a) To inspect the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;

(b) To inspect and duplicate, at reasonable times, records required by this Permit to Operate;

(c) To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times. Monitoring of emissions can include source testing. [*Re: District Rule 1303.D.2*]

A.4 **Indemnity and Separation Clauses**. The Permittee shall defend, indemnify and hold harmless the District or its agents, officers and employees from any claim, action or proceeding against the District or its agents, officers or employees, to attack, set aside, void, or annul, in whole or in part, the approval granted herein. In the event that the District fails promptly to notify the Permittee of any such claim, action or proceeding, or that the District fails to cooperate fully in the defense of said claim, this condition shall thereafter be of no force or effect. In the event that any condition contained herein is determined to be invalid, then all remaining conditions shall remain in force.

A.5 **Payment of Fees.** The permittee shall reimburse the District for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the District and the USEPA pursuant to section 502(a) of the Clean Air Act. [*Re: District Rules 1303.D.1 and 1304.D.11, 40 CFR 70.6(a)(7)*]

A.6 **Prompt Reporting of Deviations.** The permittee shall submit a written report to the District documenting each and every deviation from the requirements of this permit or any applicable federal requirements within seven (7) days after discovery of the violation, but not later than 6 months after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation 2) equipment involved, 3) the quantity of excess pollutant emissions, if any, and 4) actions taken to correct the deviation. The requirements of this condition shall not apply to deviations reported to District in accordance with Rule 505. Breakdown Conditions, or Rule 1303.F Emergency Provisions. *[District Rule 1303.D.1, 40 CFR 70.6(a) (3)]*

A.7 **Reporting Requirements/Compliance Certification.** The permittee shall submit compliance certification reports to the USEPA and the Control Officer every six months. These reports shall be submitted on District approved forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition,

the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations from permit requirement. The reporting periods shall be each half of the calendar year, e.g., January through June for the first half of the year. These reports shall be submitted by September 1st and March 1st, respectively, each year. Supporting monitoring data shall be submitted in accordance with the "Semi-Annual Compliance Verification Report" condition in Section 9.C. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [*Re: District Rules 1303.D.1, 1302.D.3, 1303.2.c*]

A.8 **Federally Enforceable Conditions.** Each federally enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the District-only enforceable section of this permit are federally enforceable or subject to the public/USEPA review. [*Re: CAAA § 502(b)(6), 40 CFR 70.6(b)*]

A.9 **Recordkeeping Requirements**. The permittee shall maintain records of required monitoring information that include the following:

(a) The date, place as defined in the permit, and time of sampling or measurements;
(b) The date(s) analyses were performed;
(c) The company or entity that performed the analyses;
(d) The analytical techniques or methods used;
(e) The results of such analyses; and
(f) The operating conditions as existing at the time of sampling or measurement;
(g) The records (electronic or hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the District upon request. [*Re: District Rule 1303.D.1.f, 40 CFR 70.6(a)(3)*]

A.10 **Conditions for Permit Reopening.** The permit shall be reopened and revised for cause under any of the following circumstances:

(a) Additional Requirements: If additional applicable requirements (e.g., NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.

(b) Inaccurate Permit Provisions: If the District or the USEPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

(c) Applicable Requirement: If the District or the USEPA determines that the permit must be revised or revoked to assure compliance with any applicable requirement including a

federally enforceable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.

(d) Administrative procedures to reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists.

(e) If a permit is reopened, the expiration date does not change. Thus, if the permit is reopened, and revised, then it will be reissued with the expiration date applicable to the re-opened permit. [*Re: 40 CFR 70.7(f), 40 CFR 70.6(a)*]

A.11 **Consistency with Analysis.** Operation under this permit shall be conducted consistent with all data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file) and the District's analyses under which this permit is issued as documented in the Permit Analyses prepared for and issued with the permit.

A.12 **Equipment Maintenance.** The equipment listed in this permit shall be properly maintained and kept in good condition at all times. The equipment manufacturer's maintenance manual, maintenance procedures and/or maintenance checklists (if any) shall be kept on site.

A.13 **Compliance.** Nothing contained within this permit shall be construed as allowing the violation of any local, state or federal rules, regulations, air quality standards or increments.

A.14 **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein.

A.15 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A.

A.16 **Equipment Identification.** Identifying tag(s) or name plate(s) shall be displayed on the equipment to show manufacturer, model number, and serial number. The tag(s) or plate(s) shall be issued by the manufacturer and shall be affixed to the equipment in a permanent and conspicuous position.

A.17 **Emission Factor Revisions.** The District may update the emission factors for any calculation based on USEPA AP-42 or District emission factors at the next permit modification or permit reevaluation to account for USEPA and/or District revisions to the underlying emission factors.

A.18 **Transfer of Owner/Operator.** This permit is only valid for the owner and operator listed on this permit unless a *Transfer of Owner/Operator* application has been applied for and received by the District. Any transfer of ownership or change in operator shall be done in a manner as specified in District Rule 203. District Form –01T and the appropriate filing fee shall be submitted to the District within 30 days of the transfer.

A.19 **Reimbursement of Costs.** All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for the activities listed below that follow the issuance of this permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by the permittee as required by Rule 210. Reimbursable activities include work involving: permitting, compliance, CEMS, modeling/AQIA, ambient air monitoring and air toxics.

9.B Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. These conditions are federally enforceable. These rules apply to the equipment and operations at the Celpure Plant part of the facility as they currently exist. Compliance with these requirements is discussed in Section 3.4.2. In the case of a discrepancy between the wording of a condition and the applicable District rule, the wording of the rule shall control.

B.1 **Circumvention (Rule 301).** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of District Rule 303. [*Re: District Rule 301*]

B.2 **Visible Emissions (Rule 302).** Celite shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour which is:

(a) As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or

(b) Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.2.(a) above.

(c) Celite shall determine compliance with this Rule for the emergency generator as specified below:

(i) Once per calendar quarter when operational, Celite shall perform a visible emissions inspection for a one-minute period on the emergency generator. If visible emissions are detected during any inspection, then a USEPA Method 9 visible emission evaluations (VEE) shall immediately be performed for a six-minute period. Celite staff certified in VEE shall perform the VEE and maintain logs in accordance with USEPA Method 9. The start-time and end-time of each visible emissions inspection shall be recorded in a log, along with a notation identifying whether visible emissions were detected.

(d) All VEE sheets and records shall be maintained consistent with the recordkeeping condition of this permit. [*Re: District Rule 302*].

B.3 **Nuisance (Rule 303).** No pollutant emissions from any source at Celite shall create nuisance conditions. No operations shall endanger health, safety or comfort, nor shall they damage any property or business. [*Re: District Rule 303*]

B.4 **PM Concentration – Northern Zone (Rule 304).** Celite shall not discharge into the atmosphere, from any source, particulate matter in excess of 0.3 grain per cubic foot of gas at standard conditions. [*Re: District Rule 304*]

B.5 **Dust and Fumes - North Zone (Rule 306).** Celite shall not discharge into the atmosphere, from any source, particulate matter in excess of the concentrations listed in Table 306 (a) of Rule 306. [*Re: District Rule 306*]

B.6 **Specific Contaminants (Rule 309).** Celite shall not discharge into the atmosphere from any single source, sulfur compounds or combustion contaminants in excess of the applicable standards listed in Sections A and E of Rule 309. [*Re: District Rule 309*].

B.7 **Sulfur Content of Fuels (Rule 311).** Celite shall not burn fuels with a sulfur content in excess of 0.5% (by weight) for liquid fuels and 796 ppmvd or 50 gr/100scf (calculated as H_2S) for gaseous fuel. [*Re: District Rule 311*] Celite shall demonstrate compliance and maintain records for the different fuel types as follows:

(a) Fuel oil #6; The permittee shall comply with (i) or (ii)

(i) For each calendar year in which #6 fuel oil was used, Celite shall obtain the total sulfur content of the liquid fuel measured in accordance with ASTM D-2622, D-129, D-1552 or an equivalent reference method which has been previously approved, in writing, by the District.

(ii) Celite shall maintain written documentation of the total sulfur content of the fuel on a per shipment or quarterly basis. Such documentation shall consist of at least one of the following: vendor certification, vendor bill of lading, vendor laboratory analysis, or equivalent reference testing results which have prior written District approval.

(b) Diesel oil and gasoline; The permittee shall comply with (i) or (ii)

(i) Annually, Celite shall obtain measurements of the total sulfur content of the liquid fuel in accordance with ASTM D-2622, D-129, D-1552 or an equivalent reference method which has been previously approved, in writing, by the District.

(ii) Celite shall maintain written documentation of the total sulfur content of the fuel on a per shipment basis or quarterly basis. Such documentation shall consist of at least one of the following: vendor certification, vendor bill of lading, vendor laboratory analysis, or equivalent reference testing results which have prior written District approval.

(c) Natural gas: Celite shall maintain billing records or other data showing that the fuel gas is obtained from a natural gas utility. These records shall be obtained at least annually. Compliance shall also be based on fuel samples obtained during source testing when required by the source test plan. *[Re: District Rule 311]*

B.8 **Organic Solvents (Rule 317).** Celite shall comply with the emission standards listed in Section B of Rule 317. *[Re: District Rule 317]*

B.9 **Solvent Cleaning Operations (Rule 321).** Celite shall comply with the operating requirements of this rule when performing solvent cleaning operations unless relieved by rule exemption. *[Re: District Rule 321]*

B.10 **Metal Surface Coating Thinner and Reducer (Rule 322).** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. *[Re: District Rule 322]*

B.11 **Architectural Coatings (Rule 323).** Celite shall comply with the coating ROC content and handling standards listed in Section D of Rule 323 as well as the Administrative requirements listed in Section F of Rule 323. *[Re: District Rules 323]*

B.12 **Disposal and Evaporation of Solvents (Rule 324).** Celite shall not dispose through atmospheric evaporation of more than one and a half gallons of any photochemically reactive solvent per day. *[Re: District Rule 324]*

B.13 **Motor Vehicle and Mobile Equipment Coating Operations (Rule 339).** Celite shall comply with the requirements of this rule when performing coating operations unless relieved by rule exemption. *[Re: District Rule 339]*

B.14 **CARB Registered Portable Equipment.** State registered portable equipment shall comply with State registration requirements. A copy of the State registration shall be readily available whenever the equipment is at the facility. *[Re: District Rule 202]*

B.15 **Rule 360 Compliance.** Any boiler or hot water heater rated at or less than 2.000 MMBtu/hr and manufactured after October 17, 2003 shall be certified per the provisions of Rule 360. An ATC/PTO permit shall be obtained prior to installation of any grouping of Rule 360 applicable boilers or hot water heaters whose combined system design heat input rating exceeds 2.000 MMBtu/hr *[Ref: District Rule 360]*

9.C Requirements and Equipment Specific Conditions

C.1 **Baghouses.** The following equipment are included in this emissions unit category:

Device Name	District DeviceNo
Capture System	
Crude Bin Ventilation Baghouse	8073
Soda Ash Bin Baghouse	8074
Kiln Feed (Calciner Surge) Bin Bahouse	8075
Flash Cooler Baghouse	8076
Second Stage Dryer Baghouse	8077
Packing Station Baghouse	8078
Refeed Station Baghouse	8079
1st Stage (Flotation) Dryer Baghouse	8082
Kiln (Calciner) Exhaust Baghouse	8083

(a) Emission Limits: Except as noted below, mass emissions from the baghouses shall not exceed the limits listed in Tables 5.3 and 5.4. Compliance with this condition shall be based on the monitoring, recordkeeping, and reporting conditions in this permit.

(i) Emissions from the Packing Station baghouse shall not exceed 1.48 lb/day and 0.257 tpy of PM/PM_{10} emissions. [*Ref: ATC 11007*]

(b) Operational Limits: The baghouses shall not exceed the following operational limits:

(i) Fugitive emissions: The requirements in this section apply only to equipment installed in this permit subject to NSPS Subpart OOO, i.e. the mills, screening operations, belt conveyor, bagging operation, bins, and silo. Either 1) or 2) below must be maintained:

(1) Fugitive emissions shall not exceed 10% opacity, or
(2) No visible fugitive emissions shall be emitted from the building enclosing these operations.

Once each calendar quarter, Celite shall use EPA Method 22 to obtain a reading of visible emissions from the each NSPS Subpart OOO equipment item listed above. The Method 22 readings shall be a minimum of five minutes and taken in calendar quarters during which the equipment operated. These inspections shall be taken when the equipment is operating due to operation of some or all of the equipment it serves.

(ii) The baghouses shall not exceed the exhaust flow rate and hours of operation specified in Table 9.1.

Table 9.1 Equipment Exhaust Flow Limits and Operating Limits

Equipment Description		Equipment Specification			
Equipment Item	District DeviceNo	Exhaust Flowrate Limit	Schedule		
		(scfm)	(hr/day)	(hr/qtr)	(hr/yr)
Crude Bin Ventilation Baghouse	8073	2,811	4	365	1,460
Soda Ash Bin Baghouse	8074	600	12	104	416
Kiln Feed (Calciner Surge) Bin Bahouse	8075	2,621	24	2,081	8,322
Flash Cooler Baghouse	8076	2,793	24	2,081	8,322
Second Stage Dryer Baghouse	8077	8,134	24	2,081	8,322
Packing Station Baghouse	8078	1,441	24	2,081	8,322
Refeed Station Baghouse	8079	2,397	24	1,500	6,000
1st Stage (Flotation) Dryer Baghouse	8082	6,150	24	2,081	8,322
Kiln (Calciner) Exhaust Baghouse	8083	6,700	24	2,081	8,322

(iii) *Pressure Drop* - The baghouses shall operate at all times within the pressure drop range specified in Table 9.2.

Table 9.2 Baghouse Pressure Ranges

Device Name	District DeviceNo	Pressure Drop	
		(inches of H_2O)	
		(Minimum)	(Maximum)
Crude Bin Ventilation Baghouse	8073	1	10
Soda Ash Bin Baghouse	8074	1	10
Kiln Feed (Calciner Surge) Bin Bahouse	8075	1	6
Flash Cooler Baghouse	8076	1	6
Second Stage Dryer Baghouse	8077	1	6
Packing Station Baghouse	8078	1	6
Refeed Station Baghouse	8079	1	10
1st Stage (Flotation) Dryer Baghouse	8082	1	6
Kiln (Calciner) Exhaust Baghouse	8083	1	6

(iv) *Soda Ash Bin Ventilation Baghouse* - During each bin loading event, Celite shall use EPA Method 9 performed by a certified observer to obtain a reading of visible emissions from the stack of this baghouse. In addition, a Method 9 visible emissions reading shall be taken once per quarter during routine operations (non-loading events). The Method 9 readings shall be taken in calendar quarters during which the baghouse operated and shall be taken when the baghouse is operating due to operation of some or all of the equipment it serves. If visible emissions are observed during the quarterly Method 9 inspection, corrective action shall be immediately implemented. If visible emissions are not eliminated within 24 hours, Celite shall shut down the equipment controlled by the baghouse until corrective action that eliminates visible emissions is completed or obtain a variance from the

District Hearing Board. If a variance is not granted, the equipment must be shutdown immediately until corrective action is taken. Celite shall maintain records of the date, results and any correction actions related to each visual inspection. *[Ref: ATC 9757-06]*

(1) For routine operation inspections of the Soda Ash Bin Ventilation Baghouse, if five (5) consecutive quarters of Method 9 inspections of the baghouse result in 0% opacity after final issuance of this permit, Celite may submit a request in writing to the District to reduce the frequency of Method 9 inspections to semi-annual. Celite shall include documentation supporting the request to reduce the inspection frequency for the baghouse. Upon District written approval, the semi-annual inspection frequency becomes effective.

(c) Monitoring: The equipment listed in this section are subject to the following monitoring requirements:

(i) *Baghouse Maintenance and Inspection:* Celite shall follow the Baghouse Maintenance Plan (approved 17, 1998) and any subsequent District-approved revisions. In addition, Celite shall comply with the following:

(ii) *Visible Emission Observations:* For all baghouses in Table 9.1, Celite shall observe baghouses daily when operational. On any day a baghouse is not operating, Celite shall have a responsible person make a written entry in the applicable baghouse operation log noting that the baghouse was not in operation. The responsible person shall certify the entry by initialing or signing their name next to the entry. Celite shall perform a visual inspection of each baghouse and baghouse exhaust once per day. If visible emissions are observed during the daily observation, corrective action shall be immediately implemented. If visible emissions are not eliminated within 24 hours, Celite shall shut down the equipment controlled by the baghouse until corrective action that eliminates visible emissions is completed or obtain a variance from the District Hearing Board.

(iii) *Visible Emissions Inspections (Method 9:* Once each calendar quarter, Celite shall use EPA Method 9 performed by a certified observer to obtain a reading of visible emissions from the stack of each baghouse, except the 1st Stage Dryer Baghouse (DeviceNo 8082) and the Kiln Exhaust Baghouse (DeviceNo. 8083), to determine compliance with Rule 302. Because the 1st Stage Dryer Baghouse and the Kiln Exhaust Baghouse exhaust through the 350 Scrubber and 370 Scrubber, respectively, the visible emissions operational and monitoring requirements satisfy the NSPS requirements of these baghouses. The Method 9 readings shall be taken in calendar quarters during which the baghouse operated and shall be taken when the baghouse is operating due to operation of some or all of the equipment it serves.

(iv) *Pressure Drop*: When operating, Celite shall perform daily observations of the pressure drop across the baghouses. Any time this differential pressure falls outside the ranges listed in Table 9.2 with the collector in operation, corrective action shall be taken.

(v) *Maintenance Plan:* The baghouses shall be maintained consistently with manufacturer recommended weekly, monthly and annual maintenance practices listed in the manufacturer literature submitted to the District (located in the project file) and any manufacturer's supplements. Such supplements shall be provided to the District upon implementation by Celite, and shall be effective unless the District objects in writing within 14 days of receipt of the manufacturer's supplement. *[Ref: ATC 9757-01; 40 CFR 70.6]*

(vi) *Hours of Operation:* The hours of operation for each baghouse shall be monitored using a nonresettable hour meter. In addition, Celite shall monitor the daily hours of operation of the Soda Ash Baghouse and the Crude Bin Vent Baghouse in accordance with the *Process Monitor Plan for PTO Mod 5840-07, including 345BH and 773BH* (approved 5/27/2010). [*Ref: ATC 13544*]

(d) Recordkeeping: For any condition that requires for its effective enforcement, inspection of facility records or equipment by the District or its agents, the permittee shall make such records available or provide access to such equipment upon notice from the District. Access to facilities shall mean access consistent with the California Health and Safety Code Section 41510 and Clean Air Act Section 114(a). At a minimum, the following records (electronic or manual) shall be maintained by the permittee and shall be made available to the District upon request:

(i) On a daily basis, when the equipment is in use: Indication of whether the pressure drop across each baghouse is within the operating range set forth in Condition 9.C.1, to the nearest half inch of water column or equivalent gauge. The range shall be specified on the form. If the pressure drop is outside the range, the actual readings and all corrective actions required by Conditions 9.C.1(c) (iv) shall be recorded.

(ii) *Visible Emission Observations* – For all baghouses, Celite shall record whether or not daily visible emissions are present along with the corrective action taken, or the date and initials of a responsible person when the baghouse is not operational.

(iii) *Visible Emission Inspection (Method 9)* - For all baghouses readings obtained by the use of USEPA Method 9 as required by this condition, maintain a record of the date and time of reading, name of reader, most recent Method 9 certification date of reader, baghouse name, individual interval readings required by Method 9, and the final reading.

(iv) *Hours of Operation.* The daily hours of operation of the Soda Ash Baghouse and the Crude Bin Vent Baghouse.

(v) For all baghouse malfunctions and maintenance activities: Date of breakdown, malfunction, or preventive maintenance activity; Description of activity; Date and time malfunction or maintenance is completed.

(e) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by the *Compliance Verification Reports* condition of this permit.

(f) Baghouse Bag Alternate Materials. Celite may install baghouse bags comprised of materials other than those listed on the applicable permit(s) after first obtaining District approval. Celite shall obtain District approval prior to installing an alternate bag material each time an alternate material will be installed. To obtain District approval for alternate bag material(s), Celite shall submit a request, in writing, that includes all of the following *[Ref: ATC/PTO 13432]*:

(i) A description of the current baghouse bag material and the proposed alternate baghouse bag material. This description should focus on the differences between the bag materials, and explain the reason(s) for the change in material.

(ii) Baghouse bag manufacturer's product specification data sheet, or if not available, specifics on the bag material composition, permeability and temperature operating range. Also specify if the total fabric area or air to cloth ratio will change from the current baghouse configuration.

(iii) Baghouse bag manufacturer's emissions statement and/or guarantee.

The District will review all information submitted and issue a written approval or denial of each alternate material baghouse bag request. Celite may not install any alternate material baghouse bags until first receiving a written approval from the APCD. Celite shall adhere to any conditions of approval for alternate material baghouse bags, including source testing if required.

(g) Baghouse Access Doors. Celite may install baghouse access doors on the Flash Cooler Baghouse (DeviceNo 8076) and the Second Stage Dryer Baghouse (DeviceNo. 8077). The access doors permitted herein are subject to the following *[Ref: ATC/PTO 13478]*:

(i) The baghouse access doors shall be installed and maintained such that when the door is in the closed position, it creates an air-tight seal with the body of the baghouse.

(ii) The baghouse access doors shall remain in the closed position whenever the baghouse is in operation.

Celite shall obtain additional District permits for the installation of access doors on any other baghouse at the Celite stationary source.

C.2 **SOx Gas Absorption Tower (Scrubber).** The following equipment are included in this emissions unit category:

Device Name	District DeviceNo
Scrubbers	
350 (1st Stage Dryer) Scrubber	106243
370 (Calcining and Leaching) Scrubber	106242

(a) Emission Limits: Mass emission limits from the scrubbers shall not exceed the limits listed in Table 5.3 and Table 5.4. Compliance with this condition shall be based on the monitoring, recordkeeping, and reporting conditions in this permit.

(b) Operational Limits: The gas absorption tower and associated process monitors (e.g. pH meter, flow meters, manometers, and gauges) shall be operated, calibrated, and maintained according to manufacturer recommended procedures and schedules.

(i) The scrubbers serving the Celpure™Plant shall be subject to the operating limits defined in Table 9.3.

Table 9.3 Scrubber Operational Limits[9]

Device Name	District DeviceNo	Parameter	Limit	Units
350 (1st Stage Dryer) Scrubber	106243			
		Solvent pH range (high/low)	9 to 11	pH
		Minimum Solvent Flow Rate	95	gallons/minute
		Maximum Pressure Drop	10.5	inches of H_2O
		Maximum pollutant gas inlet flow rate	6,150	ACFM @212°F
		Maximum annual operating schedule	8,322	hours/year
370 (Calcining and Leaching) Scrubber	106242			
		Solvent pH range (high/low)	9 to 11	pH
		Minimum Solvent Flow Rate	95	gallons/minute
		Maximum Pressure Drop	10	inches of H_2O
		Maximum pollutant gas inlet flow rate	6,700	ACFM @375°F
		Maximum annual operating schedule	8,322	hours/year

(ii) The permittee shall comply with the District approved *SOx Gas Absorption Tower and Process Monitor Calibration and Maintenance Plan* (last updated 5/12/1999).

(iii) *BACT - SO_x Gas Absorption Tower.* The permittee shall apply emission control technology and plant design measures that represent Best Available Control Technology ("BACT") to the operation of the equipment/facilities as described in this permit and the District's *Engineering Evaluation* for this permit for the control of oxides of sulfur. Table 9.4 defines the specific control technology and performance standard emission limits for BACT. BACT shall be in place, and shall be operational at all times, for the life of the project. *[Ref: ATC 9757-01; PTO 10745-01]*

[9] These pressure drops are consistent with manufacturer recommendations, as well as, source test data that show compliance at these limits. The District will consider increasing these limits upon demonstration of compliance with permitted efficiency requirements for the scrubbers at these increased limits via source testing.

Table 9.4 SO_x Gas Absorption Tower BACT[10], [11]

Source	Process Line	Control Technology	Pollutants	Emission Limit/Performance Standard
Kiln (Calciner)	Celpure™	Gas Absorption Tower - 370 (Calcining/Leaching) Scrubber	SOx (as SO_2)	99 percent destruction rate efficiency (mass basis) based on manufacturer's guarantee or 1.00 ppmv SOx exhaust outlet concentration.
Leach/Slurry Tanks	Celpure™	Gas Absorption Tower - 370 (Calcining/Leaching) Scrubber	SOx (as SO_2)	Based on the maximum flow rate for this unit of 6700 scfm, a maximum concentration of 1.00 ppm SO_x results in a maximum mass emission rate of 0.1 lb/hr SO_x.
1st Stage Dryer	Celpure™	Gas Absorption Tower - 350 (1st Stage Drying) Scrubber	SOx (as SO_2)	99 percent destruction rate efficiency (mass basis) based on manufacturer's guarantee or 1.00 ppmv SOx exhaust outlet concentration.

(c) Monitoring:

(i) The hours of operation for the scrubbers and the floatation dryer shall be monitored using a nonresettable hour meter.

(ii) *SO_x Gas Absorption Towers (Scrubbers):* The permittee shall continuously monitor the following Scrubber process parameters:

(1) solvent pH,
(2) solvent flow rate, and
(3) pressure drop.

(iii) *Visible Emission Observations:* Celite shall observe the 350 (1st stage drying) scrubber and the 370 (calcining/leaching) scrubber daily when operational. On any day a scrubber is not operating, Celite shall have a responsible person make a written entry in the applicable scrubber operation log noting that the scrubber was not in operation. The responsible person shall certify the entry by initialing or signing their name next to the entry. Celite shall perform a visual inspection of each scrubber and scrubber exhaust once per day. If visible emissions are observed during the daily observation, corrective action shall be immediately implemented. If visible emissions are not eliminated within 24 hours, Celite shall shut down the equipment controlled by the scrubber until corrective action that eliminates visible emissions is completed or obtain a variance. [*Ref: ATC 9757-01; CFR 40 70.6*]

(iv) *Visible Emissions Inspection (Method 9):* Once each calendar quarter, Celite shall use EPA Method 9 performed by a certified observer to obtain a reading of visible emissions from the stack of each scrubber. The Method 9 readings shall be taken in calendar quarters during which the scrubber(s) operated and shall be taken when the scrubber(s) are operating due to operation of some or all of the equipment they serve. If visible emissions are observed during the quarterly Method 9 inspection, corrective action shall be immediately implemented. If visible emissions are not eliminated within 24 hours, Celite shall shut down the equipment controlled by the scrubber until corrective action that eliminates visible emissions is completed or obtain a variance. [*Ref: ATC 9757-01; CFR 40 70.6*]

[10] Each control system is subject to the maintenance schedule as identified in the *SOx Gas Absorption Tower and Process Monitor Calibration and Maintenance Plan*

[11] Process monitoring required for: Solvent pH, solvent flow rate, and pressure drop across each control device.

(d) Recordkeeping: For any condition that requires for its effective enforcement, inspection of facility records or equipment by the District or its agents, the permittee shall make such records available or provide access to such equipment upon notice from the District. Access to facilities shall mean access consistent with the California Health and Safety Code Section 41510 and Clean Air Act Section 114(a). At a minimum, the following records (electronic or manual) shall be maintained by the permittee and shall be made available to the District upon request:

(i) *Hours of* Operation: On a daily basis, when the equipment is in use, Celite shall record he hours of operation of the Celpure™line based on the 1st stage dryer hour meter

(ii) *Visible Emissions Inspection (Method 9):*For all scrubber readings obtained by the use of USEPA Method 9 as required in this condition, i.e., date and time of reading, name of reader, most recent Method 9 certification date of reader, scrubber name, individual interval readings required by Method 9, and the final reading.

(iii) For all scrubber malfunctions and maintenance activities: Date of breakdown, malfunction, or preventive maintenance activity; Description of activity; and the date and time malfunction or maintenance is completed.

(iv) For the scrubbers: BACT-related recordkeeping shall consist of continuous real time recording of pH, solvent circulation flow rate, and pressure drop.

(v) *Visible Emission Observations* – For the scrubbers, Celite shall record whether or not daily visible emissions are present along with the corrective action taken, or the date and initials of a responsible person when the equipment associated with the scrubber is not operational.

(vi) *Visible Emission Inspection (Method 9)* - For all scrubber readings obtained by the use of USEPA Method 9 as required by this condition, maintain a record of the date and time of reading, name of reader, most recent Method 9 certification date of reader, the scrubber inspected, individual interval readings required by Method 9, and the final reading.

(e) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by the *Compliance Verification Reports* condition of this permit.

C.3 **Combustion Equipment.** The following equipment are included in this emissions unit category: [*Ref: ATC 9757-01, ATC 11007, and PTO 12651*]

Device Name	District DeviceNo
Kiln (Calciner)	8921
1st Stage Dryer	8920
2nd Stage Dryer	8922
Package Boiler	8923

(a) Emission Limits: Mass emission limits from the c shall not exceed the limits listed in Table 5.3 and Table 5.4. Compliance with this condition shall be based on the monitoring, recordkeeping, and reporting conditions in this permit.

(b) Operational Limits:

(i) The kiln feedrate shall not exceed any of the values in the table below. Compliance with this condition shall be verified through the recordkeeping requirements this condition.

	Peak Kiln Feed Rate of DE
Pounds per hour	1500
Pounds per day	36000
Tons per year	2268

(ii) The sulfur content of the DE feed at the points identified below shall not exceed:

Process location	Sulfur content limit
1st Stage Dryer Inlet	0.005 lb_S/lb_{DE}
Kiln (calciner)	0.00335 lb_S/lb_{DE}

(iii) *Heat Input Limits.* The hourly, daily and annual heat input limits to each unit shall not exceed the values listed in Table 5.1. These limits are based on the design rating of the unit and the annual heat input value as listed in the permit application. Unless otherwise designated by the APCD, the following fuel content shall be used for determining compliance: Natural Gas = 1,050 Btu/scf.

(iv) *Public Utility Natural Gas Fuel Sulfur Limit.* The total sulfur and hydrogen sulfide (H_2S) content (calculated as H_2S at standard conditions, 60°F and 14.7 psia) of the public utility natural gas fuel shall not exceed 80 ppmv and 4 ppmv respectively. Compliance with this condition shall be based on billing records or other data showing that the fuel gas is obtained from a public utility gas company.

(v) *Rule 360 Compliance.* Any boiler or hot water heater rated at or less than 2.000 MMBtu/hr and manufactured after October 17, 2003 shall be certified per

the provisions of Rule 360. An ATC/PTO permit shall be obtained prior to installation of any grouping of Rule 360 applicable boilers or hot water heaters whose combined system design heat input rating exceeds 2.000 MMBtu/hr.

(vi) *Rule 361 Compliance – Package Boiler.* The Package Boiler (DeviceNo 8923) is subject to the existing unit requirements of District Rule 361. The owner or operator of any unit requesting the low use exemption in Section D.2 shall comply with the requirement to submit a Rule 361 Compliance Plan for APCD review and approval prior to March 15, 2016. Fuel meters installed pursuant to the approved Rule 361 Compliance Plan shall be installed prior to December 31, 2016.

On or before January 30, 2019, the owner or operator of any existing unit shall:

(1) For units subject to Section D.1 emission standards, apply for an Authority to Construct permit.

(2) For units subject to the Section D.2 low use provision, provide the annual fuel heat input data for years 2017 and 2018.

(3) Any existing unit that is replaced or modified is subject to requirements of Rule 361 and shall first obtain an APCD ATC permit prior to installation or modification.

(c) Monitoring:

(i) *Diatomaceous Earth Sulfur Content Analyses* - Once every calendar quarter, Celite shall obtain measurements of the total sulfur content of the DE according to the following requirements:

(1) The sulfur content of the diatomaceous earth shall be analyzed in accordance with ASTM D-5016-89 or an equivalent reference method which has been previously approved for this purpose, in writing, by the District.

(2) Total sulfur results shall be reported as percent by weight.

(3) The DE sulfur content data shall specify the location and the amount of soda ash being added during the sampling, the sulfur content results, and difference between the inlet and outlet samples.

(4) Once every calendar quarter, Celite shall obtain measurements of the total sulfur content of the DE at the following points: 1st stage dryer feed stream, Kiln (calciner) feed stream, and the Kiln (calciner) exit stream. *[Ref: ATC 9757-01]*

(ii) *1st Stage Dryer Hour Meter* – Monitor the hours of operation of the Celpure line based on the 1st stage dryer hour meter.

(iii) *Fuel Usage.* The volume of fuel gas used in the units shall be determined by hour meter method listed below. Except for changing to the Default Rating Method, written APCD approval is required to change to a different method. Units subject to the Rule 361.D.2 low use exemption shall use the fuel meter option.

(1) Fuel Use Meter. The volume of fuel gas (in units of standard cubic feet) used shall be measured through the use of a dedicated APCD-approved fuel meter. The meter shall be temperature and pressure corrected. The fuel meter shall be accurate to within five percent (5%) of the full scale reading. The meter shall be calibrated according to manufacturer's specifications and the calibration records shall be made available to the APCD upon request.

(2) Hour Meter. The volume of natural gas (in units of standard cubic feet) used in the units shall be determined through the use of a dedicated APCD-approved hour meter or APCD-approved electronic management system that is capable of tracking and logging the unit's time on/off. Fuel usage shall be calculated based on the actual hours of operation (hours/year) times the heat input rating of the unit (Btu/hr) and divided by the APCD-approved heating value of the fuel (Btu/scf).

(3) Default Rating Method. The volume of natural gas (in units of standard cubic feet) used shall be reported as permitted annual heat input limit for the unit (Btu/year) divided by the APCD-approved heating value of the fuel (Btu/scf).

(d) Recordkeeping: For any condition that requires for its effective enforcement, inspection of facility records or equipment by the District or its agents, the permittee shall make such records available or provide access to such equipment upon notice from the District. Access to facilities shall mean access consistent with the California Health and Safety Code Section 41510 and Clean Air Act Section 114(a). At a minimum, the following records (electronic or manual) shall be maintained by the permittee and shall be made available to the District upon request:

(i) On a daily basis, when the equipment is in use: The total monthly DE feed (wet) to the 1st stage (flotation) dryer.

(ii) *Diatomaceous Earth Sulfur Content Analyses* - Results of quarterly DE sulfur sampling analysis including: sulfur content, amount and location of soda ash added and the difference in the sulfur concentration between inlet and outlet samples.

(iii) *Hours of Operation* – Total hours of operation of each unit summarized monthly and annually. In addition the hours of operation of the Celpure™line shall be recorded based on the 1st stage dryer hour meter.

(iv) *Fuel Use.* The volume of fuel gas used by each unit each year (in units of standard cubic feet) as determined by the fuel use monitoring condition above.

(v) *Maintenance Logs.* Maintenance logs for the units and hour meters (as applicable).

(e) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by the *Compliance Verification Reports* condition of this permit.

C.4 **Fugitive Emissions**. The requirements in this section apply only to equipment installed in this permit subject to NSPS Subpart OOO, which include the following equipment:

Device Name	District DeviceNo
Hammermill	106226
Crude Bin	106227
Metering Belt Conveyor	106229
Detritor	108260
Transfer Belt Conveyor	106228
Soda Ash Bin	106237
Soda Ash Mill	106239
Kiln Feed (Calciner Surge) Bin	106241

(a) Operational Limits: The permittee must maintain one of the following operational limits:

(i) Fugitive emissions shall not exceed 10% opacity, or

(ii) No visible fugitive emissions shall be emitted from the building enclosing these operations.

(b) Monitoring:

(i) *Visible Emissions Inspections (Method 22)* - Once each calendar quarter, Celite shall use EPA Method 22 to obtain a reading of visible emissions from the each NSPS Subpart OOO equipment item listed above. The Method 22 readings shall be a minimum of five minutes and taken in calendar quarters during which the equipment operated. These inspections shall be taken when the equipment is operating due to operation of some or all of the equipment it serves.

(c) Recordkeeping:

(i) *Visible Emissions Inspections (Method 22)* -For all USEPA Method 22 inspections Celite shall record the following: date and time of reading, name of reader, equipment item and whether fugitive emissions were observed.

(d) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by the *Compliance Verification Reports* condition of this permit.

C.5 **Packing Stations.** The following equipment are included in this emissions unit category:

Device Name	District DeviceNo
Manual Packing Station	106255
Semi-Bulk Packing Station	108405

(a) Emission Limits:

(i) *NSPS Fugitive Emission Limits* – Celite shall maintain the semi-bulk packing station in compliance with the requirements of NSPS Subpart OOO via one of the two following means:

(1) Fugitive emissions from the semi-bulk packing station shall not exceed 10% opacity, or;

(2) No visible fugitive emissions shall be emitted from the building enclosing these operations.

(b) Operational Limits:

(i) The primary Celpure Plant packing station and the semi-bulk packing station shall not operate simultaneously. [*Ref: ATC 11007*]

(ii) The packed production rate shall not exceed any of the values in the table below. Compliance with this condition shall be verified through the recordkeeping requirements this condition.

	Packaged Celpure™ Production Rate
Pounds per hour	4800
Pounds per day	34200
Tons per year	1930

(c) Monitoring:

(i) *Visible Emissions Inspections (Method 22)* - Once each calendar quarter, Celite shall use EPA Method 22 to obtain a reading of visible emissions from the semi-bulk packing station. The Method 22 readings shall be a minimum of five minutes and taken in calendar quarters during which the equipment operated. These inspections shall be taken when the equipment is operating due to operation of some or all of the equipment it serves.

(d) Recordkeeping:

(i) On a daily basis, when the equipment is in use: The total product weight packed that corresponds with the hours for the 1st stage (flotation) dryer.

(ii) *Visible Emissions Inspections (Method 22)* - For all USEPA Method 22 inspections Celite shall record the following: date and time of reading, name of reader, equipment item and whether fugitive emissions were observed.

(e) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by the *Compliance Verification Reports* condition of this permit.

C.6 **Research and Development Activity.** Operation of the equipment subject to this permit, (a) utilizing any additive to the DE other than the sulfuric acid, organic conditioners and frothers, soda ash, or (b) any material other than DE as the primary raw material source, will constitute research and development activity. This activity shall be subject to the source test requirements provided in Condition 10 and the recordkeeping requirements of this condition. *[Ref: ATC 9757-01]*

(a) Recordkeeping:

(i) The type of primary raw material and additives used;

(ii) The number of hours during the calendar year that research and development is conducted.

(b) Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report must list all data required by the *Compliance Verification Reports* condition of this permit.

C.7 **Enforceability:** Compliance with this permit condition shall be determined through the conditions of this permit. *[Ref: ATC 9757-01; ATC 9757-02; ATC 9757-05; ATC 9757-06, ATC 11007]*

C.8 **Semi-Annual Monitoring/Compliance Verification Reports.** Twice a year, Celite shall submit a compliance verification report to the District. Each report shall document compliance with all permit, rule, or other statutory requirements during the prior two calendar quarters. The first report shall cover calendar quarters 1 and 2 (January through June) and the second report shall cover calendar quarters 3 and 4 (July through December). The reports shall be submitted by March 1st and September 1st each year. Each report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit and shall document compliance separately for each calendar quarter. These reports shall be in a format approved by the District. Compliance with all limitations shall be documented in the submittals. All records and other supporting information not included in the report shall be available to the District upon request. "Supporting information" includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all logs and reports required by the permit. The second report shall include a summary of quarterly values for the half year being reported along with the yearly total for any reporting item below that requires a value or a sum over a year. Pursuant to Rule 212, a completed *District Annual Emissions Inventory* questionnaire should be included in the annual report or submitted electronically via the District website. Celite may use the Compliance Verification Report in lieu of the Emissions Inventory questionnaire if the format of the CVR is acceptable to the District's Emissions Inventory Group and if Celite submits a statement signed by a responsible official stating that the information and calculations of

quantifies of emissions of air pollutants presented in the CVR are accurate and complete to best knowledge of the individual certifying the statement. The report shall include the following information:

(a) *Baghouses*

(i) *Visible Emission Observations.* Results of daily visible emission observations for all baghouses.

(ii) *Visible Emission Inspections (Method 9).* For all baghouses, the results of the quarterly readings obtained by the use of USEPA Method 9, which include the date and time of reading, name of reader, most recent Method 9 certification date of reader, baghouse name, individual interval readings required by Method 9, and the final reading;

(iii) *Pressure Drop For Baghouses Listed in Table 9.2*: The days the pressure drop is outside the range, the range, the actual readings and all corrective actions implemented as required by Condition 9.C.1(c)(iv);

(iv) *Hours of Operation.* The hours of operation for each baghouse.

(b) *SOx Gas Absorption Tower*

(i) *Visible Emission Observations.* Results of the daily visible emission observations for each scrubber.

(ii) *Visible Emission Inspections (Method 9).* For each scrubber, the readings obtained by the use of USEPA Method 9, which include the date and time of reading, name of reader, most recent Method 9 certification date of reader, baghouse name, individual interval readings required by Method 9, and the final reading;

(iii) The hours of operation of the Celpure™line based on the 1st stage (flotation) dryer hour meter;

(c) *Combustion Equipment*

(i) The total monthly DE feed (wet) to the 1st stage (flotation) dryer.

(ii) *Diatomaceous Earth Sulfur Content Analyses.* Results of quarterly DE sulfur sampling analysis including: sulfur content, amount and location of soda ash added and the difference in the sulfur concentration between inlet and outlet samples.

(iii) *Hours of Operation.* Total monthly hours of operation of each unit summarized monthly and annually. The hours of operation of the Celpure line based on the 1st stage dryer hour meter.

(iv) *Fuel Use.* The volume of fuel gas used by each unit each year (in units of standard cubic feet) as determined by the fuel use monitoring condition.

(d) *Fugitive Emissions*

(i) *Visible Emission Inspections (Method 22).* For the equipment identified in condition 9.C.4 (*Fugitive Emissions*), the results of the quarterly USEPA Method

22 inspections which include the date and time of reading, name of reader, equipment item and whether fugitive emissions were observed.

(e) *Packing Stations*

(i) The total product weight packed that corresponds with the hours for the 1st stage (flotation) dryer.

(ii) *Visible Emission Inspections (Method 22).* For the semi-bulk packing station, the results of the quarterly USEPA Method 22 inspections which include the date and time of reading, name of reader, equipment item and whether fugitive emissions were observed.

(f) *Research and Development Activity*

(i) The type of primary raw material and additives used;

(ii) The number of hours during the calendar year that research and development is conducted.

C.9 **Source Testing.** Celite shall conduct source testing of the equipment identified in Table 9.5 and Table 9.6. More frequent source testing may be required if the equipment does not comply with permitted limitations or if other compliance problems, as determined by the District, occur. Source testing shall be completed by August 1st of each year. Source test shall be performed at the maximum achievable production rate of all equipment venting to the control device being tested. The following specific conditions shall apply to the equipment required to be source tested:

(a) 350 (1st StageDrying) and the 370 (Calcining/Leaching) scrubbers shall be tested annually for the SO_x mass emission rate and outlet concentration and/or control efficiency per Table 9.6.

(b) One unit in Table 9.5 (including the scrubbers in Table 9.6) shall be tested biennially for PM/PM_{10}. Each unit shall be tested at least once before any unit is tested a second time. Testing shall be performed on a biennial schedule using August as the anniversary date.

(c) The permittee shall submit a written source test plan to the District for approval at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the District's Source Test Procedures Manual (revised May 1990 and any subsequent revisions). The permittee shall obtain written District approval of the source test plan prior to commencement of source testing. The District shall be notified at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.

(d) Source test results shall be submitted to the District within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall document the permittee's compliance status with BACT requirements, mass emission rates and applicable permit conditions, rules and NSPS (if applicable). If the source test pounds per hour result for a pollutant exceeds the "pounds per hour equivalent limit", then the

source is not in compliance with the pounds per day permitted limit for the applicable pollutant. All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by District Rule 210.

(e) A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain District approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. If the test can not be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the District. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the District. Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's authorization shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the District by the close of the business day following the scheduled test day.

(f) The timelines listed above may be extended for good cause provided a written request is submitted to the District at least three (3) days in advance of the deadline, and approval for the extension is granted by the District.

Table 9.5 Baghouse Source Testing Requirements

Baghouses
Source Testing Requirements

Emission & Limit Test Points[b]	Pollutants[d],[e]	Parameters	Test Methods[a]
Baghouses[f]	PM/PM10	ppmv, lb/hr	EPA Method 5
	PM/PM10	gr/dscf	EPA Method 5 & 17
	Stack Gas Flow Rate	dscfm	EPA Method 2 or 19
	Blower Static Pressure		

Notes:

[a] Alternative methods may be acceptable on a case-by-case basis.

[b] Baghouse Test Frequency: All baghouses shall be tested according to the schedule identified in 9.C.9

[c] Source testing shall be performed for the baghouses in an "as found" condition

[d] PM is total suspended particulates, and use of PM:PM10 ratio = 1 allows testing for PM only.

[e] Blower static pressure shall be recorded for the Calciner Surge Bin BH and Packing Station BH during testing under permit condition 9.C.10 (b).

[f] Baghouses included for source testing: Flash Cooler BH, Second Stage Dryer BH, Packing Station BH, Refeed Station BH, and Kiln Feed (Calciner Surge) Bin BH

Table 9.6 Scrubber Source Testing Requirements

Scrubbers Source Testing Requirements			
Test Location[b]	**Pollutants[d], [e]**	**Parameters**	**Test Methods[a]**
Outlet Concentration	PM/PM_{10}	gr/dscf	EPA Method 5 & 17
Mass Emission Rate & Destruction Efficiency	SO_x	lb/hr	EPA Method 6 & 8
Scrubber Inlet Concentration	SO_x	ppmv	EPA Method 6 & 8
Outlet Concentration	SOx	ppmv	EPA Method 6 & 8
	Process Feed Rate	tons/hour	EPA Method 2
	Solvent pH	pH	
	Solvent circulation rate	gal/min	
	Pressure drop	inches of H_2O	
	Pollutant gas inlet flow rate		
	Fuel flow rate	dscf/hr	
	Stack Gas temperature	°F	
	Moisture content	%	
	Sulfur content of feed.		USEPA 2
			USEPA 4
		Total S Content	ASTM D-5016-89

Notes:

[a] Alternative methods may be acceptable on a case-by-case basis.

[b] Scrubber Test Frequency: The scrubbers shall be tested annually for SOx mass emission rate and outlet concentration and/or control efficiency.

[c] Source testing shall be performed for the scrubbers in an "as found" condition

[d] PM is total suspended particulates, and use of PM:PM10 ratio = 1 allows testing for PM only.

[e] Scrubbers included for source testing: SOx Gas Absorption Towers (350 and 370 Scrubbers)

C.10 **Equipment Operation and Maintenance.** Operation under this permit shall be conducted in compliance with all written data, specifications and assumptions included with the application (and supplements thereof) supplied by Celite in writing as documented in the District's project file, and with the District's analyses contained within this permit (including any documents specifically referenced herein). *[Ref: ATC 9757-01]*

C.11 **Diesel and Gasoline Engine NO_x and Particulate Matter Maintenance Plan.** To ensure compliance with District Rules 302, 304, and 309, Celite shall implement the District-approved *Diesel and Gasoline Engine NO_x and Particulate Matter Maintenance Plan.* All liquid fuel-fired stationary engines, regardless of exemption status, are subject to this plan. *[Re: District Rules 205.A, 302, 304, 309, 40 CFR 70.6]*

C.12 **40 CFR Part 64 - Compliance Assurance Monitoring (CAM).** The emission units identified in section 4.7.2 are subject to enhanced compliance monitoring for PM/PM_{10} as required by 40 Part 64 (CAM). Celite shall comply with the monitoring requirements specified in section

4.6.2 for each unit listed. Baghouse Visible Emissions Evaluations (VEEs) shall be conducted in accordance with permit conditions 9.C.1.(c). VEEs for the scrubbers shall be conducted in accordance with permit conditions 9.C.2.(c).

(a) Celite shall implement all requirements of the District-approved CAM Plan. This plan is hereby incorporated by reference as an enforceable part of this permit. Recordkeeping and reporting shall be maintained consistent with the CAM Plan requirements as summarized below.

(b) Quality Improvement Plan: Celite shall submit for District-approval a Quality Improvement Plan (QIP) consistent with 40 CFR 64 section 64.8(b) within 30-days of notification by the District that a QIP threshold has been exceeded. A QIP threshold is defined as a number of exceedances or "excursions" (within a continuous 12-month period) of a monitoring parameter limit, per emission unit, above which triggers submittal and implementation of a QIP for the affected unit. The QIP threshold for all CAM monitoring parameters is five (5), e.g., after a specific baghouse or scrubber fails five VEE inspections, submittal of a QIP is required.

(c) Recordkeeping: The following records shall be maintained:

(i) results of daily VEE evaluations for which visible emissions were detected.

(ii) results of quarterly Method 9 VEE and Method 22 VEE evaluations

(iii) results of the daily scrubber liquid line pressure observations which indicate an exceedance of the respective ranges (per CAM Plan)

9.D District-Only Conditions

The following section lists permit conditions that are not enforceable by the USEPA or the public. However, these conditions are enforceable by the District and the State of California. These conditions are issued pursuant to District Rule 206 (*Conditional Approval of Authority to Construct or Permit to Operate*), which states that the Control Officer may issue an operating permit subject to specified conditions. Permit conditions have been determined as being necessary for this permit to ensure that operation of the facility complies with all applicable local and state air quality rules, regulations and laws. Failure to comply with any condition specified pursuant to the provisions of Rule 206 shall be a violation of that rule, this permit, as well as any applicable section of the California Health & Safety Code.

D.1 **Diesel Internal Combustion Engines**. The following equipment is included in this emissions category:

Device Name	District DeviceNo
Combustion Equipment	
Emergency Power Generator (Diesel)	103521

(a) Emission Limitations. The mass emissions from the emergency generator (DeviceNo 103521) shall not exceed the values listed in Table 5.3 and 5.4. Compliance shall be based on the operational, monitoring, recordkeeping and reporting conditions of this permit

(b) Operational Restrictions. The equipment permitted herein is subject to the following operational restrictions listed below. Emergency use operations, as defined in Section (d)(25) of the ATCM[12], have no operational hours limitations.

(i) *Maintenance & Testing Use Limit:* E the in-use stationary emergency standby diesel-fueled CI engine(s) subject to this permit shall not be operated for more than 20 hours per year for maintenance and testing[13] purposes.

(ii) *Impending Rotating Outage Use*: The stationary emergency standby diesel-fueled CI engine(s) subject to this permit may be operated in response to the notification of an impending rotating outage if all the conditions cited in Section (e)(2)(A)(2) or Section (e)(2)(B)(1) of the ATCM are met, as applicable.

(iii) *Fuel and Fuel Additive Requirements*: Effective January 1, 2006, the permittee may only add fuel and/or fuel additives to the engine or any fuel tank directly attached to the engine that comply with Section (e)(1)(A) or Section (e)(1)(B) of the ATCM, as applicable. This provision may be delayed pursuant to the provisions of Section (c)(19) of the ATCM.

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[12] As used in the permit, "ATCM" means Section 93115, Title 17, California Code of Regulations. Airborne Toxic Control Measure for Stationary Compression Ignition (CI) Engines

[13] "maintenance and testing" is defined in Section (d)(41) of the ATCM

(iv) *Temporary Engine Replacements - DICE ATCM.* Any reciprocating internal combustion engine subject to this permit and the stationary diesel ATCM may be replaced temporarily only if the requirements (1 – 7) listed herein are satisfied.

(1) The permitted engine is in need of routine repair or maintenance.

(2) The permitted engine that is undergoing routine repair or maintenance is returned to its original service within 180 days of installation of the temporary engine.

(3) The temporary replacement engine has the same or lower manufacturer rated horsepower and same or lower potential to emit of each pollutant as the permitted engine that is being temporarily replaced. At the written request of the permittee, the District may approve a replacement engine with a larger rated horsepower than the permitted engine if the proposed temporary engine has manufacturer guaranteed emissions (for a brand new engine) or source test data (for a previously used engine) less than or equal to the permitted engine.

(4) The temporary replacement engine shall comply with all rules and permit requirements that apply to the permitted engine that is undergoing routine repair or maintenance.

(5) For each permitted engine to be temporarily replaced, the permittee shall submit a completed *Temporary IC Engine Replacement Notification* form (Form ENF-94) within 14 days of the temporary engine being installed. This form shall be sent electronically to: *temp-engine@sbcapcd.org.*

(6) Within 14 days upon return of the original permitted engine to service, the permittee shall submit a completed *Temporary IC Engine Replacement Report* form (Form ENF-95). This form may be sent hardcopy to the District (Attn: Engineering Supervisor), or can be sent electronically to: *temp-engine@sbcapcd.org.*

(7) Any engine in temporary replacement service shall be immediately shut down if the District determines that the requirements of this condition have not been met. This condition does not apply to engines that have experienced a cracked block (unless under manufacturer's warranty), to engines for which replacement parts are no longer available, or new engine replacements {including "reconstructed" engines as defined in Section (d)(44) of the ATCM}. Such engines are subject to the provisions of New Source Review and the new engine requirements of the ATCM.

(v) *Permanent Engine Replacements.* Any E/S engine, firewater pump engine or engine used for an essential public service that breaks down and can not be repaired may install a new replacement engine without first obtaining an ATC permit only if the requirements (1 – 6) listed herein are satisfied.

(1) The permitted stationary diesel IC engine is an E/S engine, a fire water pump engine or an engine used for an essential public service (as defined by the District).

(2) The engine breaks down, cannot be repaired and needs to be replaced by a new engine.

(3) The facility provides "good cause" (in writing) for the immediate need to install a permanent replacement engine prior to the time period before an ATC permit can be obtained for a new engine. The new engine must comply with the requirements of the ATCM for new engines. If a new engine is not immediately available, a temporary engine may be used while the new replacement engine is being procured. During this time period, the temporary replacement engine must meet the same guidelines and procedures as defined in the permit condition above (*Temporary Engine Replacements - DICE ATCM*).

(4) An Authority to Construct application for the new permanent engine is submitted to the District within 15 days of the existing engine being replaced and the District permit for the new engine is obtained no later that 180 days from the date of engine replacement (these timelines include the use of a temporary engine).

(5) For each permitted engine to be permanently replaced pursuant to the condition, the permittee shall submit a completed *Permanent IC Engine Replacement Notification* form (Form ENF-96) within 14 days of either the permanent or temporary engine being installed. This form may be sent hardcopy to the District (Attn: Engineering Supervisor), or can be sent electronically to: *temp-engine@sbcapcd.org*.

(6) Any engine installed (either temporally or permanently) pursuant to this permit condition shall be immediately shut down if the District determines that the requirements of this condition have not been met.

(vi) *Notification of Non-Compliance.* Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in Sections (e)(1) and (e)(2) of the ATCM shall notify the District immediately upon detection of the violation and shall be subject to District enforcement action.

(vii) *Notification of Loss of Exemption.* Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in Section (c) from all or part of the requirements of Section (e)(2), shall notify the District immediately after they become aware that the exemption no longer applies and pursuant to Section (e)(4)(F)(1) of the ATCM shall demonstrate compliance within 180 days after notifying the District.

(viii) *Enrollment in a DRP/ISC - January 1, 2005.* Any stationary diesel IC engine rated over 50 bhp that enrolls for the first time in a Demand Response Program/Interruptible Service Contract (as defined in the ATCM) on or after January 1, 2005, shall first obtain an District Authority to Construct permit to ensure compliance with the emission control requirements and hour limitations governing ISC engines.

(c) Monitoring. The equipment permitted herein is subject to the following monitoring requirements:

(i) *Non-Resettable Hour Meter*: Each stationary emergency standby diesel-fueled CI engine(s) subject to this permit shall have installed a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District has determined (in writing) that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the owner or operator's compliance history

(d) Recordkeeping. The permittee shall record and maintain the information listed below. Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engine's location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to District staff within 5 working days from request. Use of District Form ENF-92 (*Diesel-Fired Emergency Standby Engine Recordkeeping Form*) can be used for this requirement.

(i) emergency use hours of operation;

(ii) maintenance and testing hours of operation;

(iii) hours of operation for emission testing to show compliance with Section (e)(2)(A)(3) or Section (e)(2)(B)(3) {if specifically allowed for under this permit}

(iv) hours of operation for all uses other than those specified in items (a) – (c) above along with a description of what those hours were for.

(v) The owner or operator shall document fuel use through the retention of fuel purchase records that account for all fuel used in the engine and all fuel purchased for use in the engine, and, at a minimum, contain the following information for each individual fuel purchase transaction:

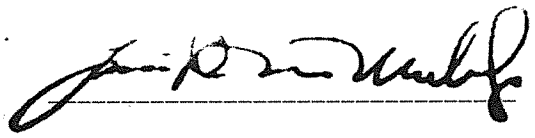
(1) identification of the fuel purchased as either CARB Diesel, or an alternative diesel fuel that meets the requirements of the Verification Procedure, or an alternative fuel, or CARB Diesel fuel used with additives that meet the requirements of the Verification Procedure, or any combination of the above;
(2) amount of fuel purchased;
(3) date when the fuel was purchased;
(4) signature of owner or operator or representative of owner or operator who received the fuel;
(5) signature of fuel provider indicating fuel was delivered.

(vi) A log of the quarterly visible emission inspections and Method 9 inspections (if required) conducted on the emergency generator per condition 9.B.2. The start-time and end-time of each visible emissions inspection shall be recorded in a log, along with a notation identifying whether visible emissions were detected. Records

of all Method 9 inspections shall be maintained in accordance with USEPA Method 9.

(e) Reporting. By March 1 of each year, a written report documenting compliance with the terms and conditions of this permit and the ATCM for the previous calendar year shall be provided by the permittee to the District (Attn: *Annual Report Coordinator*). All logs and other basic source data not included in the report shall be made available to the District upon request. The report shall include the information required in the Recordkeeping Condition above.

AIR POLLUTION CONTROL OFFICER



MAR 0 1 2012

Date

Attachments:

1 - Emission Calculation Documentation
2 – Further Calculations for Section 5
3 - Source NEI
4 - Equipment List
5 – Track List of Device Names and Numbers used for Celpure Equipment
6 – District Response to Comments

Notes:

Reevaluation Due Date: March 2015
Semi-Annual reports are due by March 1st and September 1st of each year
This permit supersedes PTO 5840-R3, PTO Mod 5840-06, PTO 12091, PTO 12208, PTO 12315, PTO 12398, PTO Mod 12398-01, PTO 12651, ATC/PTO 13432, ATC/PTO 13478, ATC 13544, ATC/PTO Mod 13594-01

RECOMMENDATION

It is recommended that this permit be granted with the conditions as specified in the permit.

David Harris	3/1/2012		3/1/12
AQ Engineer	Date	Engineering Supervisor	Date

10.0 Attachments

10.1. *Emission Calculation Documentation*

This attachment contains all relevant emission calculation documentation used for the emission tables in Section 5. Refer to Section 4 for the general equations. The letters A-H refer to Tables 5.1 and 5.2.

Reference A - Combustion Engines

1. The maximum operating schedule is in units of hours.

2. Default values for diesel fuel:
   a. Density = 7.4 lb/gal (36EAPI)
   b. LHV = 18,410 Btu/lb (129,700 Btu/gal)
   c. HHV = 18,919 Btu/lb (140,000 Btu/gal)
   d. BSFC = 7500 Btu/bhp-hr

3. Default values for #6 fuel oil:
   a. Density = 7.95 lb/gal (36EAPI)
   b. HHV = 19,036 Btu/lb (150,000 Btu/gal)

4. Default values for gasoline:
   a. Density = 6.5 lb/gal (36EAPI)
   b. HHV = 21,070 Btu/lb (125,000 Btu/gal)
   c. BSFC = 11,000 Btu/bhp-hr

5. Emission factors units (lb/MMBtu) are based on HHV.

6. Engine operational limits: General Equation

$$Q = \frac{(BSFC) * (bhp) * (LCF) * (hours/timeperiod)}{HHV}$$

7. LCF (LHV to HHV) value of 6 percent used.

8. SO_x emissions based on mass balance (Fuel Oil):

$$SO_x(asSO_2) = \frac{[(\%S) * (\rho_{oil}) * 20{,}000]}{HHV}$$

9. SO_x emissions based on mass balance (Natural Gas):

$$SO_x(asSO_2) = (0.169) * (ppmvS) * (HHV)$$

10. Allowable sulfur content of 0.05 wt. % consistent with the stationary diesel ATCM (CCR Title 17, section 93115)

11. Emergency production generator emission factors for NOx, ROC, CO, and PM/PM10/PM2.5 based on AP-42 section 3.3.

See spreadsheet for calculation results.

Reference B – Greenhouse Gases

For natural gas combustion the emission factor is:

(53.02 kg CO_2/MMbtu) (2.2046 lb/kg) = 116.89 lb CO_2/MMBtu

(0.001 kg CH_4/MMBtu) (2.2046 lb/kg)(21 lb CO_2e/lb CH4) = 0.046 lb CO_2e/MMBtu

(0.0001 kg N_2O/MMBtu) (2.2046 lb/kg)(310 lb CO_2e/lb N_2O) = 0.068 lb CO_2e/MMBtu

Total CO2e/MMBtu = 116.89 + 0.046 + 0.068 = 117.00 lb CO_2e/MMBtu

For diesel fuel combustion the emission factor is:

(73.96 kg CO_2/MMbtu) (2.2046 lb/kg) = 163.05 lb CO_2/MMBtu

(0.003 kg CH_4/MMBtu) (2.2046 lb/kg)(21 lb CO_2e/lb CH4) = 0.139 lb CO_2e/MMBtu

(0.0006 kg N_2O/MMBtu) (2.2046 lb/kg)(310 lb CO_2e/lb N_2O) = 0.410 lb CO_2e/MMBtu

Total CO2e/MMBtu = 163.05 + 0.139 + 0.410 = 163.60 lb CO_2e/MMBtu

10.2. *Further Calculations for Section 5*

This attachment contains emission calculation spreadsheets and other supporting calculations used for the emission tables in Section 5 and permit conditions section 9. Refer to Section 4 for the general equations, assumptions, and emission factors used.

Table 10.1 Variables Used in Emission Calculations

Item	Variable Symbol	Value	Variable Name	Unit	Reference
1	ConF1	453.59	Grams to Pound Conversion	g/lb	
2	ConF2	2000	Pounds to Tons Conversion	lb/ton	
3	ConF3	7000	Grains to Pounds Conversion	gr/lb	
4	MW_s	32	Molecular Weight Sulfur	g/g-mole	
5	MW_{so2}	64	Molecular Weight Sulfur Dioxide	g/g-mole	
6	MW_{NOx}	46.01	Molecular Weight Nitrous Oxides	g/g-mole	
7	MW_{CO}	28	Molecular Weight Carbon Monoxide	g/g-mole	
8	MW_{VOC}	16	Molecular Weight VOCs	g/g-mole	
9	MW_{H2SO4}	98	Molecular Weight Sulfuric Acid	lb/lb-mole	
10	mv	379	Molar Volume	std ft^3/lb-mol	
11	Den	7.05	Diesel Fuel #2 Density	lb/gal	
12	HHVD2	140000	Diesel Fuel #2 Higher Heating Value	Btu/gal	

Table 10.2 Calculations for Estimated Exempt Emissions – Celpure Plant

Equipment Category	Exemption Claimed	gr/dscf	scfm	NOx	ROC	CO	SOx	PM	PM10	PM2.5	GHG
				Tons Per Year (TPY)							
Vacuum Station Baghouse	202.L.9/202.D.12	0.022	260					0.10	0.10	0.10	

10.3. *Stationary Source NEI*

ATTACHMENT 10.3 - Stationary Source NEI
PTO 5840-R4
Celite Corporation - Lompoc and Celpure Plants

1. This Project's "I" NEI-90

Permit No.	Date Issued	NOx		ROC		CO		SOx		PM		PM10	
		lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
PTO 5840-R4	3/1/2012												
Totals		**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**	**0.00**

II. Stationary Source "P1s"
Enter all stationary source "P1" NEI-90s below:

Permit No.	Date Issued	NOx		ROC		CO		SOx		PM		PM10	
		lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
PTO 5840-R2[1]	6/1/2003					145.40	25.25	3.60	0.23	10.46	4.25	12.12	2.13
A/P 11107	12/26/2003									1.90	0.33	1.90	0.33
PTO 11008	3/8/2004									6.48	1.15	1.85	0.33
PTO 11083	4/12/2004									0.55	0.03	0.55	0.03
ATC/PTO 11224	9/1/2004									16.07	2.57	16.07	2.57
PTO 11007	3/24/2005									0.59	0.10	0.59	0.10
ATC/PTO 11224-01	4/28/2006									0.48	0.08	0.48	0.08
ATC 12091	10/26/2006									16.24	2.96	16.24	2.96
ATC 12208	1/31/2007									19.84	3.62	19.84	3.62
ATC 12091-01[2]	3/26/2007									0.00	0.00	0.00	0.00
ATC 12105	6/11/2007	48.53	8.86	10.74	1.96	147.41	26.90	84.63	15.45	151.81	27.32	145.45	26.42
ATC 12208-01[3]	8/31/2007									0.00	0.00	0.00	0.00
ATC 12091-02	9/25/2007									11.31	2.06	11.31	2.06
ATC 12208-02	12/28/2007									7.16	1.31	7.16	1.31
ATC 12315	1/11/2008									33.08	1.59	16.06	0.79
ATC 12105-01	1/25/2008									57.79	10.55	57.79	10.55
ATC 12091-03	6/6/2008									2.06	0.38	2.06	0.38
PTO 12398[4]	7/8/2008									23.15	4.22	23.15	4.22
PTO 12315	3/9/2009										1.43		0.68
PTO 12208	3/9/2009									0.49	0.09	0.49	0.09
ATC-Mod 12105-09	3/1/2010									15.97	2.92	15.97	2.92
ATC-Mod 12105-11	5/12/2010	5.85	1.07	1.29	0.23	17.76	3.25	3.36	0.61	1.80	0.33	1.80	0.33
ATC 13544	10/8/2010									0.36	0.07	0.36	0.07
ATC/PTO 13675	5/10/2011	47.22	4.25	7.08	0.64	97.06	8.74	17.97	1.62	9.84	0.89	9.84	0.89
ATC 13570-01	11/10/2011									2.38	0.43	2.38	0.43
Totals		**101.60**	**14.18**	**19.12**	**2.83**	**407.63**	**64.13**	**109.56**	**17.91**	**389.80**	**68.67**	**363.45**	**63.28**

Notes:
1. Stationary source (Lompoc and Celpure Plant) NEI as found in Table 5.6 of Pt70 PTO 5840-R2 issued 6/24/03
2. PTE remains the same under modification ATC 12091-01 as PTE under ATC 12091; therefore, no increase in PTE.
3. PTE remains the same under modification ATC 12208-01 as PTE under ATC 12208; therefore, no increase in PTE.
4. P1 includes ATC 12398 project plus an increase of 3.35 lb/day PM/PM10 incorporated in PTO 12398.

III. Stationary Source "P2" NEI-90 Decreases
Enter all facility "P2" NEI-90s below:

Permit No.	Date Issued	NOx		ROC		CO		SOx		PM		PM10	
		lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
PTO 11083	4/12/2004									0.24	0.03	0.24	0.03
ATC 12105-01	1/25/2008	28.06	5.12	6.21	1.13	85.25	15.56	12.68	2.32	80.84	14.75	80.84	14.75
PTO-Mod 5840-07	3/1/2010									38.28	6.64	14.27	2.39
ATC 12105-14	2/16/2011									13.25	2.42	13.25	2.42
ATC/PTO 13675	5/10/2011	47.22	4.25	7.08	0.64	97.06	8.74	17.97	1.62	9.84	0.89	9.84	0.89
Totals		**75.28**	**9.37**	**13.29**	**1.77**	**182.31**	**24.30**	**30.65**	**3.94**	**142.45**	**24.73**	**118.44**	**20.47**

IV. Stationary Source Pre-90 "D" Decreases

Enter all stationary source "D" decreases below:

Permit No.	Date Issued	NOx		ROC		CO		SOx		PM		PM10	
		lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
ATC 12105-01[1,2]	1/25/2008	20.47	3.74	2.04	0.37	121.90	22.15	75.55	13.36	201.13	38.18	176.05	32.13
Totals		**20.47**	**3.74**	**2.04**	**0.37**	**121.90**	**22.15**	**75.55**	**13.36**	**201.13**	**38.18**	**176.05**	**32.13**

Notes: 1. "D"-Term values in table above excludes reductions which are subject to DOI 047 ERC application (see table below).
This is necessary so that NEI remains non-negative per Rule 801
2. Original ATC 12105 NOx, SOx, and PM "D" Term adjusted to account for equipment removal in ATC 12105-01

		NOx		SOx		PM	
		lb/day	TPY	lb/day	TPY	lb/day	TPY
	Total Reductions from ATC 12105 ("D" Term)	65.82	12.01	1147.42	209.40	355.87	64.95
D Term Adjustment	I + (P1-P2) on June 11, 2007 (issue date of ATC 12105)	48.53	8.86	88.23	15.68	224.18	42.38
	Add I Term from ATC 12105-01					57.79	10.55
	Subtract Above P2 Decrease	28.06	5.12	12.68	2.32	80.84	14.75
	Remaining Reductions subject to DOI 047 application	45.35	8.27	1071.87	196.04	270.32	47.87

V. Calculated Stationary Source NEI-90

Table below summarizes stationary source NEI-90 as equal to: I + (P1-P2) -D

Term	NOx		ROC		CO		SOx		PM		PM10	
	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr	lb/day	ton/yr
I	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
P1	101.60	14.18	19.12	2.83	407.63	64.13	109.56	17.91	389.80	68.67	363.45	63.28
P2	75.28	9.37	13.29	1.77	182.31	24.30	30.65	3.94	142.45	24.73	118.44	20.47
D	20.47	3.74	2.04	0.37	121.90	22.15	75.55	13.36	201.13	38.18	176.05	32.13
NEI-90	**5.85**	**1.07**	**3.78**	**0.69**	**103.42**	**17.69**	**3.36**	**0.61**	**46.22**	**5.76**	**68.96**	**10.68**

Notes: Per Rule 801, "In no event shall the net emission increase for a stationary source be less than zero."

10.4. Equipment List – Main Plant and Celpure Plant

Attachment 10.4 Equipment List – Main Plant and Celpure Plant

A PERMITTED EQUIPMENT

1 Receiving, Conveying, Crushing & Storage Equip (Tbl A-1)

1.1 Storage piles (blend piles)

Device ID #	**103275**	***Device Name***	**Storage piles (blend piles)**
Rated Heat Input		*Physical Size*	8.00 Acres of Storage Piles
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

1.2 Crushing Plant Storage Bins

Device ID #	**000043**	***Device Name***	**Crushing Plant Storage Bins**
Rated Heat Input		*Physical Size*	9.60 MMcf/Minute
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

1.3 Spiked Roller Mills

Device ID #	**103277**	***Device Name***	**Spiked Roller Mills**
Rated Heat Input		*Physical Size*	150.00 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

1.4 Hammer Mills

Device ID #	**103278**	***Device Name***	**Hammer Mills**
Rated Heat Input		*Physical Size*	150.00 Tons/Hour
Manufacturer		*Operator ID*	CP2
Model		*Serial Number*	
Location Note			
Device Description	Sizes raw ore beside the loading station		

1.5 Crushing Plant Ventilation Baghouse

Device ID #	**000100**	***Device Name***	**Crushing Plant Ventilation Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	JM / Mikro-Pulsaire	*Operator ID*	CRVBH
Model	672R-8-20 TRH	*Serial Number*	
Location Note			
Device Description	General Process Descrip: Ventilation crushers, #1,2,3,4,5,6 crude bins, belts, 6crude bin discharge Pos./Neg: Neg. Number of Socks: 672 Bag Diam. (in): 4.5 Bag Length (ft): 8.0 Total Cloth Area: 6334 Est Air Flow: 34000 Est. A/C Ratio: Fabric Material: 16 oz polyprop Cleaning Method: pulse jet.		

1.6 Conveyors

Device ID #	**103279**	***Device Name***	**Conveyors**
Rated Heat Input		*Physical Size*	Tons Processed
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	The conveyors serve the crushing equipment and the processing line feed bins as shown in drawing No. D-101076 (dated June 23, 1952).		
Device Description			

2 Powder Mills (Tbl A-2)

2.1 Line No. 3

2.1.1 Processing Line #3 (drying, milling, separating)

2.1.1.1 Line 3 Furnace

Device ID #	**103303**	***Device Name***	**Line 3 Furnace**
Rated Heat Input	45.000 MMBtu/Hour	*Physical Size*	394200.00 MMBtu/yr
Manufacturer		*Operator ID*	
Model		*Serial Number*	APCD ID 2-8
Location Note	Note (c) Unless otherwise indicated, combustion equipment burns PUC quality natural gas (primary) or No. 6 residual oil (secondary). Ratings are from ATCs 9353 and 9367. The heat input ratings have been adjusted from 1000 Btu/scf fuel to 1250		
Device Description	May be fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 3CHEAF		

2.1.1.2 Cyclones

Device ID #	**103304**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.1.1.3 Hoppers

Device ID #	**103311**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Natural Baghouse (7) hoppers, supercel baghouse (10), Soda Ash system (1)		

2.1.1.4 Bins

Device ID #	**103309**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) Crude ore bins, (1) soda ash mill bin, (2) surge bins		

2.1.1.5 Pre-separators

Device ID #	**103306**	***Device Name***	**Pre-separators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	301A, 301B, and 302
Model		*Serial Number*	
Location Note			
Device Description			

2.1.1.6 Separators

Device ID #	**103307**	***Device Name***	**Separators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	301A, 301B
Model		*Serial Number*	
Location Note			
Device Description			

2.1.1.7 Re-separator

Device ID #	**103308**	***Device Name***	**Re-separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.1.1.8 Screens

Device ID #	**103310**	***Device Name***	**Screens**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(4) Sweco screens, (1) Scalper Screen		

2.1.1.9 Soda Ash Mill

Device ID #	**103312**	***Device Name***	**Soda Ash Mill**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	CP41
Model		*Serial Number*	
Location Note			
Device Description	Receives soda ash from storage bin and discharged into dispersing screen discharge line; consists of a storage bin, weigh belt feeder, hopper, screw conveyor, and pulverizer		

2.1.1.10Line 3 Kiln

Device ID #	**103302**	***Device Name***	**Line 3 Kiln**
Rated Heat Input	56.250 MMBtu/Hour	*Physical Size*	492750.00 MMBtu/yr
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	May be fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 3CHEAF		

2.1.1.11Conveyor Belts

Device ID #	**103313**	***Device Name***	**Conveyor Belts**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	System #3		

2.1.1.123 Natural BH

Device ID #	**000105**	***Device Name***	**3 Natural BH**
Rated Heat Input		*Physical Size*	25000.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	3NBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	3 system natural product collection; Positive Pressure; Bag Diam. (in): 9.0; Bag Length (ft): 64.0; Total Cloth Area: 59112; Est. A/C Ratio: 1.0		

2.1.2 Processing Line #3 (packing)

2.1.2.1 Packer Bins

Device ID #	**106106**	***Device Name***	**Packer Bins**
Rated Heat Input		*Physical Size*	
Manufacturer	Johns-Manville	*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Packer Bins: A, P, S.C, and "Ten Pound"		

2.1.2.2 Bulk Bins

Device ID #	**106107**	***Device Name***	**Bulk Bins**
Rated Heat Input		*Physical Size*	
Manufacturer	St. Regis	*Operator ID*	#1 and #2
Model		*Serial Number*	
Location Note			
Device Description			

2.1.3 Capture System and Control Devices (Line #3 Wet End)

2.1.3.1 Cleanable High Efficiency Air Filter (3CHEAF)

Device ID #	**000104**	***Device Name***	**Cleanable High Efficiency Air Filter (3CHEAF)**
Rated Heat Input		*Physical Size*	60000.00 dscfm
Manufacturer	Johns-Manville	*Operator ID*	3CHEAF
Model		*Serial Number*	
Location Note			
Device Description	Wet End Control System		

2.1.3.2 Cyclone

Device ID #	**106109**	***Device Name***	**Cyclone**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	301
Model		*Serial Number*	
Location Note			
Device Description			

2.1.3.3 Waste Bin

Device ID #	**106110**	***Device Name***	**Waste Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	with knife gate to permit waste to be transferred into dump trucks.		

2.1.4 Capture System and Control Devices (Line #3 Packing)

2.1.4.1 3 automatic packing station Baghouse (345)

Device ID #	**000108**	***Device Name***	**3 automatic packing station Baghouse (345)**
Rated Heat Input		*Physical Size*	40000.00 scf/Minute
Manufacturer	Fabric Filters Northwest	*Operator ID*	345BH
Model	16 oz Polypropylene	*Serial Number*	
Location Note			
Device Description	Ventilation 3 A/P Packing equipment; Negative pressure; Bag Diam. (in): 5.0; Bag Length (ft): 12.0; Total Cloth Area: 8671; Est. A/C Ratio: 4.0		

2.1.4.2 3 Air Sifter Ventilation Baghouse

Device ID #	**006471**	***Device Name***	**3 Air Sifter Ventilation Baghouse**
Rated Heat Input		*Physical Size*	473.00 scf/Minute
Manufacturer	DCE	*Operator ID*	3ASBH
Model	PTFE Material	*Serial Number*	
Location Note			
Device Description	Ventilates the 3 System air sifter; Negative pressure; Bag Diam. (in): cartridge; Bag Length (ft): 4'x 17"; Total Cloth Area: 168; Est. A/C Ratio: 2.7		

2.1.5 Blowers

Device ID #	**103305**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.1.6 Screws

Device ID #	**103315**	***Device Name***	**Screws**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Coarse and AS Screw		

2.1.7 Baghouses - Prod Line 3

2.1.7.1 305 Baghouse

Device ID #	**000134**	***Device Name***	**305 Baghouse**
Rated Heat Input		*Physical Size*	19509.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	305BH
Model	Orlon Fabric	*Serial Number*	
Location Note			
Device Description	dark floss production collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 46.0; Total Cloth Area: 19509; Est. A/C Ratio: 1.0; Open		

2.1.7.2 378 Baghouse / 3 Dry End

Device ID #	**000109**	***Device Name***	**378 Baghouse / 3 Dry End**
Rated Heat Input		*Physical Size*	45150.00 scf/Minute
Manufacturer	Amer. Air Filter	*Operator ID*	378BH
Model	gortex/polyester	*Serial Number*	
Location Note			
Device Description	Ventilation line 3 pack. equip., dry end & truck & railcar load station, 978 supplement, 3A packers, Jolter bin bulk packing unit; Negative pressure; Bag Diam. (in): 5.5; Bag Length (ft): 11.7; Total Cloth Area: 7283; Est. A/C Ratio: 6.1		

2.1.7.3 3 Bulk Bin Baghouse

Device ID #	**000151**	***Device Name***	**3 Bulk Bin Baghouse**
Rated Heat Input		*Physical Size*	3600.00 scf/Minute
Manufacturer	DCE - Sintamatic	*Operator ID*	3BBVBH
Model	polyethylene, PTFE coating	*Serial Number*	
Location Note			
Device Description	Ventilation bulk bin, 3 semi-bulk station; Negative pressure; Bag Diam. (in): cartridge; Bag Length (ft): 5' 1.25"; Total Cloth Area: 850; enclosed		

2.1.7.4 3 Dry End Baghouse

Device ID #	**000106**	***Device Name***	**3 Dry End Baghouse**
Rated Heat Input		*Physical Size*	67300.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	3DBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Baghouse product collection; Positive Pressure; Bag Diam. (in): 9.0; Bag Length (ft): 51.0; Total Cloth Area: 67293; Est. A/C Ratio: 1.0		

2.2 Line No. 5

2.2.1 Processing Line #5 (drying, milling separating)

2.2.1.1 Line 5 Kiln

Device ID #	**103326**	***Device Name***	**Line 5 Kiln**
Rated Heat Input	43.750 MMBtu/Hour	*Physical Size*	383250.00 MMBtu/yr
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Note (c) Unless otherwise indicated, combustion equipment burns PUC quality natural gas (primary) or No. 6 residual oil (secondary). Ratings are from ATCs 9353 and 9367. The heat input ratings have been adjusted from 1000 Btu/scf fuel to 1250 Btu/scf fuel.		
Device Description	Fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 5HEVSCR		

2.2.1.2 Line 5 Furnace

Device ID #	**103327**	***Device Name***	**Line 5 Furnace**
Rated Heat Input	45.000 MMBtu/Hour	*Physical Size*	394200.00 MMBtu/yr
Manufacturer		*Operator ID*	
Model		*Serial Number*	APCD ID 2-10
Location Note	Note (c) Unless otherwise indicated, combustion equipment burns PUC quality natural gas (primary) or No. 6 residual oil (secondary). Ratings are from ATCs 9353 and 9367. The heat input ratings have been adjusted from 1000 Btu/scf fuel to 1250 Btu/scf fuel.		
Device Description	Fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 5HEVSCR		

2.2.1.3 Cyclones

Device ID #	**103328**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	#501 - 503 A - C, 505 A-B, 506, 509-512 (current PTO lists 11)		

2.2.1.4 5 Dry End Baghouse

Device ID #	**000117**	***Device Name***	**5 Dry End Baghouse**
Rated Heat Input		*Physical Size*	58315.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	5DBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Baghouse product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 50.0; Total Cloth Area: 58316; Est. A/C Ratio: 1.0; open		

2.2.1.5 Blowers

Device ID #	**103329**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	511B
Model		*Serial Number*	
Location Note			
Device Description	27 blowers plus: (#532) furnance primary blower, (#531) secondary furnace blower, (2) soda ash system and (3) rotary kiln		

2.2.1.6 Screens

Device ID #	**103333**	***Device Name***	**Screens**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) Sweco screens, (1) scalping screen		

2.2.1.7 Hoppers

Device ID #	**103334**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(8) hoppers natural baghouse, (9) hoppers dry baghouse, (1) soda ash system hopper, (1) weigh hopper, (1) reject hopper		

2.2.1.8 5 Dry End Ventilation Baghouse

Device ID #	**000118**	***Device Name***	**5 Dry End Ventilation Baghouse**
Rated Heat Input		*Physical Size*	19438.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	5DVBH
Model	Polyester	*Serial Number*	
Location Note			
Device Description	511 cyclone discharge and 511B blower; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 50.0; Total Cloth Area: 19439; Est. A/C Ratio: 1.0; open		

2.2.1.9 Pre-separators

Device ID #	**103330**	***Device Name***	**Pre-separators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	501A, 501B, 502
Model		*Serial Number*	
Location Note			
Device Description			

2.2.1.10Re-Separators

Device ID #	**103331**	***Device Name***	**Re-Separators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Two separators and one re-separator		

2.2.1.11Soda Ash Mill

Device ID #	**103335**	***Device Name***	**Soda Ash Mill**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	includes a storage bin, belt feeder, hopper, screw conveyor, pulverizer, and (2) blowers		

2.2.1.12Conveyor Belts

Device ID #	**103336**	***Device Name***	**Conveyor Belts**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) soda ash screw conveyors, (12) conveyors, (2) refeed conveyors		

2.2.1.13Bins

Device ID #	**106146**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) crude ore bins, (1) soda ash storage bin, (1) reject bin		

2.2.2 Processing Line #5 (packing)

2.2.2.1 Packer Bins

Device ID #	**103332**	***Device Name***	**Packer Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	5P, 5SC, 5AP
Model		*Serial Number*	
Location Note			
Device Description	Packer Bins: 5P, 5SC, 5AP		

2.2.3 Capture System and Control Devices (Line #5)

2.2.3.1 Waste Bin

Device ID #	**106116**	***Device Name***	**Waste Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.2.3.2 High Efficiency Venturi Scrubber

Device ID #	**000115**	***Device Name***	**High Efficiency Venturi Scrubber**
Rated Heat Input		*Physical Size*	50000.00 dscfm
Manufacturer		*Operator ID*	5VSCR
Model		*Serial Number*	
Location Note			
Device Description	Wet End Control System		

2.2.3.3 Cyclone

Device ID #	**106117**	***Device Name***	**Cyclone**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	504
Model		*Serial Number*	
Location Note			
Device Description			

2.2.3.4 Blowers

Device ID #	**106118**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.2.4 Baghouses - Prod Line 5

2.2.4.1 5 Air Sifter Ventilation Baghouse

Device ID #	**006472**	***Device Name***	**5 Air Sifter Ventilation Baghouse**
Rated Heat Input		*Physical Size*	473.00 scf/Minute
Manufacturer	DCE	*Operator ID*	5ASBH
Model	PTFE	*Serial Number*	
Location Note			
Device Description	Ventilates the 5 System air sifter; Negative pressure; Bag Diam. (in): cartridge; Bag Length (ft): 4' x 17"; Total Cloth Area: 168; Est. A/C Ratio: 2.7; enclosed		

2.2.4.2 5 Automatic station Baghouse (578)

Device ID #	**000119**	***Device Name***	**5 Automatic station Baghouse (578)**
Rated Heat Input		*Physical Size*	31500.00 scf/Minute
Manufacturer	Mikro-Pulsaire	*Operator ID*	5APVBH
Model	Polypropylene	*Serial Number*	
Location Note			
Device Description	Ventilation 5 AP equipment and 5 PS bulk packing unit; Negative pressure; Bag Diam. (in): 4.5; Bag Length (ft): 12.0; Total Cloth Area: 6729; Est. A/C Ratio: 4.5; enclosed		

2.2.5 Pumps

Device ID #	**103337**	***Device Name***	**Pumps**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown		

2.2.6 Screws

Device ID #	**103338**	***Device Name***	**Screws**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Coarse and AS screw shared with Line 3		

2.3 Line No. 6

Device ID #	**103256**	***Device Name***	**Line No. 6**
Rated Heat Input		*Physical Size*	37.90 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Note (a): Unless otherwise noted, the rate is shown in a letter from Steve Kirby, Manville Attorney, to Joan Heredia, APCD Engineer, dated December 11, 1989.		
Device Description	Max Dry Production Rate (a): 18.7 tons/hr		

2.3.1 Processing Line #6 (drying, milling, separating)

2.3.1.1 Line 6 Kiln

Device ID #	**103345**	***Device Name***	**Line 6 Kiln**
Rated Heat Input	50.000 MMBtu/Hour	*Physical Size*	438000.00 MMBtu/yr
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Note (c) Unless otherwise indicated, combustion equipment burns PUC quality natural gas (primary) or No. 6 residual oil (secondary). Ratings are from ATCs 9353 and 9367. The heat input ratings have been adjusted from 1000 Btu/scf fuel to 1250.		
Device Description	Fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 6CHEAF		

2.3.1.2 Hoppers

Device ID #	**106128**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(6) natural baghouse hoppers, (6) #601 baghouse hoppers, (3) superfine baghouse hoppers, (9) #602 baghouse hoppers, (1) soda ash hopper		

2.3.1.3 Bins

Device ID #	**106129**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(4) Crude bins, (2) soda ash storage bins, (1) refeed bin, (1) reject/refeed bin, (1) surge bin		

2.3.1.4 Hoppers

Device ID #	**106130**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.3.1.5 Line 6 Furnace

Device ID #	**000047**	***Device Name***	**Line 6 Furnace**
Rated Heat Input	45.000 MMBtu/Hour	*Physical Size*	394200.00 MMBtu/yr
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 6CHEAF		

2.3.1.6 601 Dry End Baghouse

Device ID #	**103364**	***Device Name***	**601 Dry End Baghouse**
Rated Heat Input		*Physical Size*	37322.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6DBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Production Line 6 baghouse product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 48.0; Total Cloth Area: 37322; Est. A/C Ratio: 1.0; open		

2.3.1.7 Cyclones

Device ID #	**103347**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	PTO 5840 listed 6 air sifter cyclones and 19 cyclones		

2.3.1.8 602 Dry End Baghouse

Device ID #	**103365**	***Device Name***	**602 Dry End Baghouse**
Rated Heat Input		*Physical Size*	60563.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6DBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Production Line 6 baghouse product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 51.0; Total Cloth Area: 60564; Est. A/C Ratio: 1.0; open		

2.3.1.9 Blowers

Device ID #	**103348**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) furnace blower, (44) blowers, (2) soda ash system blowers, (2) rotary kiln blowers, (1) discharge blower		

2.3.1.10Pre-separators

Device ID #	**103349**	***Device Name***	**Pre-separators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	601A, 601B, 602
Model		*Serial Number*	
Location Note			
Device Description			

2.3.1.11Pump

Device ID #	**103359**	***Device Name***	**Pump**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) discharge pump		

2.3.1.126 Natural Baghouse

Device ID #	**000122**	***Device Name***	**6 Natural Baghouse**
Rated Heat Input		*Physical Size*	29500.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6NBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Production Line 6 natural product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 53.0; Total Cloth Area: 50201; Est. A/C Ratio: 1.0; open		

2.3.1.13De-lumpers

Device ID #	**103350**	***Device Name***	**De-lumpers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.3.1.14Re-separator

Device ID #	**103351**	***Device Name***	**Re-separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.3.1.156 Super Fine Super Floss Baghouse

Device ID #	**000126**	***Device Name***	**6 Super Fine Super Floss Baghouse**
Rated Heat Input		*Physical Size*	8812.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6SFSF
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Super fine product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 55.0; Total Cloth Area: 8812; Est. A/C Ratio: 1.0; open		

2.3.1.16Screens

Device ID #	**103353**	***Device Name***	**Screens**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) Sweco screens,		

2.3.1.17Bucket Elevator

Device ID #	**103355**	***Device Name***	**Bucket Elevator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	transfers material from A/S coarse collector screw conveyor to packing station #6A		

2.3.1.18Air Sifters

Device ID #	**103356**	***Device Name***	**Air Sifters**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	601, 602, 603, 604
Model		*Serial Number*	
Location Note			
Device Description			

2.3.1.19Soda Ash Mill

Device ID #	**103357**	***Device Name***	**Soda Ash Mill**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	includes (4) screw conveyors, bucket elevator, (2) bins, ducting from soda ash bins, belt feeder, hopper, pulverizier, and (2) blowers		

2.3.1.20Conveyor belts

Device ID #	**103358**	***Device Name***	**Conveyor belts**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(4) soda ash screw conveyors, (42) conveyors, (1) A/S coarse screw conveyor, (1) screw conveyor, (1) feed conveyor		

2.3.2 Blowers

Device ID #	**106125**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	635, 636
Model		*Serial Number*	
Location Note			
Device Description	Line 6 Blowers?		

2.3.3 Blowers

Device ID #	**106126**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	615A, 616, 678
Model		*Serial Number*	
Location Note			
Device Description	Line 6 blowers?		

2.3.4 Processing Line #6 (Wet End Packing)

2.3.4.1 Conveyors

Device ID #	**106127**	***Device Name***	**Conveyors**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.3.4.2 Packing Station

Device ID #	**103352**	***Device Name***	**Packing Station**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	6PS
Model		*Serial Number*	
Location Note			
Device Description	Includes (2) packers, bag flattener, zip lift, press well and (2) conveyors		

2.3.5 Processing Line #6 (Dry End Packing)

2.3.5.1 Shrink Wrap Unit

Device ID #	**008044**	***Device Name***	**Shrink Wrap Unit**
Rated Heat Input	2.500 MMBtu/Hour	*Physical Size*	
Manufacturer	Mollers North America	*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.3.5.2 Screws

Device ID #	**103360**	***Device Name***	**Screws**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	PTO 5840 listed one SC located below 6A packers, and one below SFSF packers and 6SC packers		

2.3.5.3 Conveyor Belts

Device ID #	**106122**	***Device Name***	**Conveyor Belts**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) screw conveyors located below A/S packers, (1) screw conveyor below SFSF packers, (2) conveyors below A/S packers, (7) bag conveyors		

2.3.5.4 Packing Station

Device ID #	**103354**	***Device Name***	**Packing Station**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	6AS
Model		*Serial Number*	
Location Note			
Device Description	(1) superfine super floss, (1) #6A product, (1) #6P, (1) #6SC, (1) A/S product, (1) automatic packer #6AP product		

2.3.6 Capture System and Control Device (Line #6)

2.3.6.1 Cleanable High Efficiency Air Filter (6CHEAF)

Device ID #	**000121**	***Device Name***	**Cleanable High Efficiency Air Filter (6CHEAF)**
Rated Heat Input		*Physical Size*	63000.00 dscfm
Manufacturer		*Operator ID*	6CHEAF
Model		*Serial Number*	
Location Note			
Device Description	Wet End Control System		

2.3.6.2 Blowers

Device ID #	**106124**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	607, 607B, 625A - B
Model		*Serial Number*	
Location Note			
Device Description			

2.3.7 Baghouses - Prod Line 6

2.3.7.1 6 Automatic Station Baghouse (678)

Device ID #	**103363**	***Device Name***	**6 Automatic Station Baghouse (678)**
Rated Heat Input		*Physical Size*	30000.00 scf/Minute
Manufacturer	Mikro-Pulsaire	*Operator ID*	6APVBH
Model	Polypropylene	*Serial Number*	
Location Note			
Device Description	Ventilation 6AP equipment; Negative pressure; Bag Diam. (in): 4.5; Bag Length (ft): 12.0; Total Cloth Area: 6729; Est. A/C Ratio: 4.5; enclosed		

2.3.7.2 616 Ventilation Baghouse

Device ID #	**000128**	***Device Name***	**616 Ventilation Baghouse**
Rated Heat Input		*Physical Size*	3000.00 scf/Minute
Manufacturer	Mikro-Pulsaire	*Operator ID*	616VBH
Model	Polypropylene	*Serial Number*	
Location Note			
Device Description	Production Line 6 Ventilation AP packer chamber, spouts, and bin; Negative pressure; Bag Diam. (in): 4.5; Bag Length (ft): 10.0; Total Cloth Area: 848; Est. A/C Ratio: 3.5; enclosed		

2.3.7.3 6 Natural Ventilation Baghouse

Device ID #	**000123**	***Device Name***	**6 Natural Ventilation Baghouse**
Rated Heat Input		*Physical Size*	8812.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6NVBH
Model	Cotton	*Serial Number*	
Location Note			
Device Description	Production Line 6 Ventilation line 6 wet end pack equip., bag flattener, cyclone 614; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 55.0 Total Cloth Area: 8812; Est. A/C Ratio: 1.0; open		

2.3.7.4 6 Dry End Ventilation Baghouse

Device ID #	**000125**	***Device Name***	**6 Dry End Ventilation Baghouse**
Rated Heat Input		*Physical Size*	18661.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	6DVBH
Model	Polyester	*Serial Number*	
Location Note			
Device Description	Production Line 6 Ventilation line 6 dry end packing equip., bagwash, 6 AS, 6P SB, blowoff booth, 6P1 and 6AS bulk packing units; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 48.0; Total Cloth Area: 18661; Est. A/C Ratio: 1.0; open		

2.4 Line No. 7

2.4.1 Processing Line #7 (drying, milling, separating)

2.4.1.1 Line 7 Kiln

Device ID #	**103370**	***Device Name***	**Line 7 Kiln**
Rated Heat Input	50.000 MMBtu/Hour	*Physical Size*	438000.00 MMBtu/yr
Manufacturer		*Operator ID*	KN723
Model		*Serial Number*	
Location Note	Note (c) Unless otherwise indicated, combustion equipment burns PUC quality natural gas (primary) or No. 2 Diesel (emergency backup).		
Device Description	Fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 7CHEAF Heat Input Limits for Operation on Fuel Oil: 40 MMBPH; 350,400 MMBPY		

2.4.1.2 Line 7 Furnace

Device ID #	**103371**	***Device Name***	**Line 7 Furnace**
Rated Heat Input	45.000 MMBtu/Hour	*Physical Size*	394200.00 MMBtu/yr
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Note (c) Unless otherwise indicated, combustion equipment burns PUC quality natural gas (primary) or No. 6 residual oil (secondary). Ratings are from ATCs 9353 and 9367. The heat input ratings have been adjusted from 1000 Btu/scf fuel to 1250		
Device Description	Fired on PUC gas/#2, #4, or #6 Fuel Oil/Propane; Control Device: 7CHEAF		

2.4.1.3 7 Natural Baghouse

Device ID #	**000130**	***Device Name***	**7 Natural Baghouse**
Rated Heat Input		*Physical Size*	38350.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	7NBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Production Line 7 natural product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 56.0; Total Cloth Area: 66501; Est. A/C Ratio: 1.0; open		

2.4.1.4 7 Dry End Baghouse

Device ID #	**000131**	***Device Name***	**7 Dry End Baghouse**
Rated Heat Input		*Physical Size*	64126.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	7DBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Production Line 7 baghouse product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 54.0; Total Cloth Area: 64126; Est. A/C Ratio: 1.0; open		

2.4.1.5 Cyclones

Device ID #	**103372**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(15) cyclones,		

2.4.1.6 Blowers

Device ID #	**103373**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) furnace blower, (33) blowers, (4) soda ash blowers (#727A -D), (2) rotary kiln blowers (730 & 733)		

2.4.1.7 Pre-separators

Device ID #	**103374**	***Device Name***	**Pre-separators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	701A, 701B, 702
Model		*Serial Number*	
Location Note			
Device Description			

2.4.1.8 De-lumpers

Device ID #	**103375**	***Device Name***	**De-lumpers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	701A, 701B
Model		*Serial Number*	
Location Note			
Device Description			

2.4.1.9 Re-separator

Device ID #	**103376**	***Device Name***	**Re-separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.4.1.10Bins

Device ID #	**103377**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(3) crude bins (#13 -15), (1) soda ash storage bin, (1) refeed bin, (1) air sifter process surge bin, (1) surge bin		

2.4.1.11Screens

Device ID #	**103378**	***Device Name***	**Screens**
Rated Heat Input		*Physical Size*	
Manufacturer	Sweco	*Operator ID*	SN784, ML775A, ML775B
Model		*Serial Number*	
Location Note			
Device Description	(1) scalping screen, and (2) Sweco screen #701A and 701B		

2.4.1.12Hoppers

Device ID #	**103379**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Crude Feed Hopper (1), Soda Ash Hopper (1), Natural Baghouse Hoppers (6), Dry Product Baghouse Hoppers (9), Kiln discharge Hopper (1), surge hopper (1)		

2.4.1.13Bucket Elevator

Device ID #	**103380**	***Device Name***	**Bucket Elevator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.4.1.14Air sifters

Device ID #	**103381**	***Device Name***	**Air sifters**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.4.1.15Soda Ash Mill

Device ID #	**103382**	***Device Name***	**Soda Ash Mill**
Rated Heat Input		*Physical Size*	
Manufacturer	Alpine Hosokawa	*Operator ID*	ML719
Model	CX 30 ACM	*Serial Number*	
Location Note			
Device Description	Comprised of ducting from storage bin, hopper, conveyor, pulverizer, and blowers (4) (#727 A - D)		

2.4.1.16Conveyor belts

Device ID #	**103383**	***Device Name***	**Conveyor belts**
Rated Heat Input		*Physical Size*	
Manufacturer	See description	*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) screw conveyor, (1) soda ash system conveyor, (27) conveyors		

2.4.2 System 7 Milling Circuit

2.4.2.1 Feed Bin

Device ID #	**108934**	***Device Name***	**Feed Bin**
Rated Heat Input		*Physical Size*	11.02 Tons
Manufacturer	Acerforma-2	*Operator ID*	BN901
Model	Ecutec 06.046-FS1	*Serial Number*	
Location Note			
Device Description			

2.4.2.2 Feed Bin Baghouse BH901

Device ID #	**108935**	***Device Name***	**Feed Bin Baghouse BH901**
Rated Heat Input		*Physical Size*	2550.00 scf/Minute
Manufacturer	Airjet SA	*Operator ID*	BH901
Model	81-S-6-TRL-A	*Serial Number*	
Location Note			
Device Description	Controls emissions from Feed Bin BN901; baghouse blower is a CBI SA Model CHB13 9HP blower (BL901); contains 81 polyester felt-type bags; each bag 5in D x 6 ft L		

2.4.2.3 Mill

Device ID #	**108936**	***Device Name***	**Mill**
Rated Heat Input		*Physical Size*	4.00 Tons/Hour
Manufacturer		*Operator ID*	BM906
Model	BM18/42 R01 DC02	*Serial Number*	
Location Note			
Device Description	Drum size 5.9 ft Dia X 13.2 ft Long; powered by a 72.4 HP motor		

2.4.2.4 Classifier 910

Device ID #	**108937**	***Device Name***	**Classifier 910**
Rated Heat Input		*Physical Size*	22.50 Tons/Hour
Manufacturer		*Operator ID*	CL910
Model		*Serial Number*	
Location Note			
Device Description	Powered by a 60 HP electric motor.		

2.4.2.5 Classifier 913

Device ID #	**110202**	***Device Name***	**Classifier 913**
Rated Heat Input		*Physical Size*	22.50 Tons/Hour
Manufacturer		*Operator ID*	CL913
Model		*Serial Number*	
Location Note			
Device Description	Powered by a 60 HP electric motor.		

2.4.2.6 Cyclone

Device ID #	**108939**	***Device Name***	**Cyclone**
Rated Heat Input		*Physical Size*	
Manufacturer	Ecutec	*Operator ID*	CY914
Model	KEZ1900	*Serial Number*	
Location Note			
Device Description	Max dia 5.25 ft; collects and sizes product.		

2.4.2.7 Baghouse BH916

Device ID #	**108940**	***Device Name***	**Baghouse BH916**
Rated Heat Input		*Physical Size*	13243.00 scf/Minute
Manufacturer	Airjet SA	*Operator ID*	BH916
Model	280-M-10-TRL-B2R	*Serial Number*	
Location Note			
Device Description	Captures product from Cyclone CY914; baghouse blower is a 180HP Reitz Model KXE160-040030-00 blower (BL919); contains 280 polyester felt-type bags; each bag 5in D x 10 ft L		

2.4.2.8 Enclosed Screw Conveyors (6)

Device ID #	**108941**	***Device Name***	**Enclosed Screw Conveyors (6)**
Rated Heat Input		*Physical Size*	
Manufacturer	Sinfimasa	*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Celite ID and electric motor HP drive rating: SC902 (3 HP), SC904 (3 HP), SC907 (7.5 HP), SC909 (7.5 HP), SC912 (7.5 HP), SC916 (4 HP)		

2.4.2.9 Weigh Bin

Device ID #	**108942**	***Device Name***	**Weigh Bin**
Rated Heat Input		*Physical Size*	50.50 Cubic Feet
Manufacturer		*Operator ID*	BN904
Model		*Serial Number*	
Location Note			
Device Description			

2.4.2.10Blower

Device ID #	**108946**	***Device Name***	**Blower**
Rated Heat Input		*Physical Size*	600.00 scf/Minute
Manufacturer	Sutorbilt	*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Product mover powered by a 60 HP electric motor.		

2.4.2.11Waste Bulk Bag

Device ID #	**108948**	***Device Name***	**Waste Bulk Bag**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Totally enclosed semi-bulk bag		

2.4.2.12Blower

Device ID #	**109438**	***Device Name***	**Blower**
Rated Heat Input		*Physical Size*	300.00 scf/Minute
Manufacturer	Sutorbilt	*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Product mover powered by a 30 HP electric motor		

2.4.2.13Baghouse BH912

Device ID #	**110203**	***Device Name***	**Baghouse BH912**
Rated Heat Input		*Physical Size*	13000.00 scf/Minute
Manufacturer	Mikropul	*Operator ID*	BH912
Model	RAF II	*Serial Number*	
Location Note			
Device Description	Captures product from Alpha Classifier, baghouse blower 15 HP electric motor, contains 320 polyester PTFE coated bags; each bag 4.625 in D x 10 ft L		

2.4.3 Processing Line #7 (packing)

2.4.4 Capture System and Control (Line #7 Wet End)

2.4.4.1 Cleanable High Efficiency Air Filter (7CHEAF)

Device ID #	**000129**	***Device Name***	**Cleanable High Efficiency Air Filter (7CHEAF)**
Rated Heat Input		*Physical Size*	63000.00 dscfm
Manufacturer	Johns-Manville	*Operator ID*	7CHEAF
Model		*Serial Number*	
Location Note			
Device Description	Wet End Control System; equipped with drive motor, spray nozzles, water pumps, and pressure drop measurement instrument.		

2.4.4.2 Blower

Device ID #	**106137**	***Device Name***	**Blower**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	707
Model		*Serial Number*	
Location Note			
Device Description			

2.4.4.3 Cyclone

Device ID #	**106138**	***Device Name***	**Cyclone**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	704
Model		*Serial Number*	
Location Note			
Device Description			

2.4.5 Capture System and Control (Line #7 Dry End)

2.4.5.1 7 Dry End Ventilation Baghouse

Device ID #	**000132**	***Device Name***	**7 Dry End Ventilation Baghouse**
Rated Heat Input		*Physical Size*	64126.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	7DVBH
Model	Polyester	*Serial Number*	
Location Note			
Device Description	Ventilation cyclone 706, 711, line 7 packers; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 54.0; Total Cloth Area: 64000; Est. A/C Ratio: 1.0; open		

2.4.5.2 Cyclone

Device ID #	**106140**	***Device Name***	**Cyclone**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	713
Model		*Serial Number*	
Location Note			
Device Description	4-foot outside diameter		

2.4.5.3 Baghouse Blowers

Device ID #	**103384**	***Device Name***	**Baghouse Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.4.5.4 Baghouse Hoppers

Device ID #	**103385**	***Device Name***	**Baghouse Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

2.5 Product Storage Bins

Device ID #	**103325**	***Device Name***	**Product Storage Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	8 storage bins shared among production lines 11, 3, 5, 6, and 7.		

3 Ancillary Processing Systems (Tbl A-4)

3.1 Central Natural Production Line (Snow Floss Plant)

3.1.1 Blowers

Device ID #	**103391**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.1.2 Hoppers

Device ID #	**103392**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(4) hoppers on open baghouse #305, and (6) hoppers on the snow floss product baghouse		

3.1.3 Cyclones

Device ID #	**103390**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	#1202, 1205, and 1206		

3.1.4 Snow/Dark Floss Separator

Device ID #	**103394**	***Device Name***	**Snow/Dark Floss Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Should have 3 associated cyclcones		

3.1.5 Conveyors

Device ID #	**103395**	***Device Name***	**Conveyors**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.1.6 Bag air washer

Device ID #	**103396**	***Device Name***	**Bag air washer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.1.7 Baghouses - Cent. Nat Prod Line (Snow Floss Plant)

3.1.7.1 Snow Floss Plant Baghouse

Device ID #	**000133**	***Device Name***	**Snow Floss Plant Baghouse**
Rated Heat Input		*Physical Size*	12978.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	SFPBH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Snow Floss Plant product collection; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 54.0; Total Cloth Area: 12978; Est. A/C Ratio: 1.0; open		

3.1.8 Central Nature Product (Packing)

3.1.8.1 Packers

Device ID #	**103393**	***Device Name***	**Packers**
Rated Heat Input		*Physical Size*	9.00 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	#305, dark floss, #209, #310?		

3.2 Synthetic Silicate Production Line

3.2.1 Sythethic Silicate (processing line)

3.2.1.1 Silicates Flash Dryer (SPFD)

Device ID #	**000140**	***Device Name***	**Silicates Flash Dryer (SPFD)**
Rated Heat Input	17.500 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	SPFD
Model		*Serial Number*	APCD ID 2-4
Location Note			
Device Description	PUC gas fired.		

3.2.1.2 Silicates Conveyor Dryer (SPCD)

Device ID #	**000143**	***Device Name***	**Silicates Conveyor Dryer (SPCD)**
Rated Heat Input	56.300 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	SPCD
Model		*Serial Number*	
Location Note			
Device Description	PUC gas fired.		

3.2.1.3 Fuel Oil Heater

Device ID #	**108106**	***Device Name***	**Fuel Oil Heater**
Rated Heat Input	2.500 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	PUC gas fired.		

3.2.1.4 Cyclones

Device ID #	**103397**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) cyclone,		

3.2.1.5 Crushers

Device ID #	**103403**	***Device Name***	**Crushers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.2.1.6 Blowers

Device ID #	**103398**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) lime truck vent blower,		

3.2.1.7 Bins

Device ID #	**103399**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) surge bins, (1) lime storage bin		

3.2.1.8 Screens

Device ID #	**103400**	***Device Name***	**Screens**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.2.1.9 Lime Truck Unloading Hopper

Device ID #	**103401**	***Device Name***	**Lime Truck Unloading Hopper**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.2.1.10Mills

Device ID #	**103404**	***Device Name***	**Mills**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) hammer mill, (1) ball mill,		

3.2.1.11Belt Conveyors

Device ID #	**103406**	***Device Name***	**Belt Conveyors**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) inclined conveyors, (2) conveyors		

3.2.2 Synthetic Silicate (Packing)

3.2.2.1 Silicates Packing Station

Device ID #	**103402**	***Device Name***	**Silicates Packing Station**
Rated Heat Input		*Physical Size*	24.00 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Packing System		

3.2.2.2 Pumps

Device ID #	**103407**	***Device Name***	**Pumps**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) press well pump		

3.2.2.3 Hoppers

Device ID #	**106208**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) spillage hoppers		

3.2.2.4 Packer Bins

Device ID #	**106209**	***Device Name***	**Packer Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.2.2.5 Conveyors

Device ID #	**106210**	***Device Name***	**Conveyors**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.2.3 Main Boiler Silicate Plant Boiler 1

Device ID #	**000081**	***Device Name***	**Main Boiler Silicate Plant Boiler 1**
Rated Heat Input	15.500 MMBtu/Hour	*Physical Size*	8999.00 MMBtu/yr
Manufacturer	Combustion Engineering	*Operator ID*	SPB1
Model	VP	*Serial Number*	APCD ID 2-1
Location Note			
Device Description	PUC gas or low-sulfur fuel oil #2 or #6.		

3.2.4 Standby Boiler Silicate Plant Boiler 2

Device ID #	**000082**	***Device Name***	**Standby Boiler Silicate Plant Boiler 2**
Rated Heat Input	23.000 MMBtu/Hour	*Physical Size*	195960.00 MMBtu/yr
Manufacturer	Nebraska	*Operator ID*	SPB2
Model	NS-B-32-ECON	*Serial Number*	
Location Note			
Device Description	PUC gas or low sulfur fuel oil #2 or #6 , low-NOx burner.		

3.2.5 Baghouses - Silicate Production Line

3.2.5.1 Silicate Plant Flash Dryer Baghouse

Device ID #	**103474**	***Device Name***	**Silicate Plant Flash Dryer Baghouse**
Rated Heat Input		*Physical Size*	14700.00 scf/Minute
Manufacturer	Mikro-Pulsaire	*Operator ID*	SPFDBH
Model	Gortex/Polyester	*Serial Number*	
Location Note			
Device Description	Product collection; Negative pressure; Bag Diam. (in): 4.5; Bag Length (ft): 8.33; Total Cloth Area: 3770; Est. A/C Ratio: 3.9; enclosed		

3.2.5.2 Silicate Plant Feed Mix Baghouse

Device ID #	**000138**	***Device Name***	**Silicate Plant Feed Mix Baghouse**
Rated Heat Input		*Physical Size*	35984.00 scf/Minute
Manufacturer	Sly	*Operator ID*	SPFMBH
Model	Polyester	*Serial Number*	
Location Note			
Device Description	Vents crushing area, conveyor and re-feed areas; Negative pressure; Bag Diam. (in): env; Bag Length (ft): 43x36 in; Total Cloth Area: 1677; enclosed		

3.2.5.3 Silicate Plant Lime Baghouse

Device ID #	**000139**	***Device Name***	**Silicate Plant Lime Baghouse**
Rated Heat Input		*Physical Size*	3000.00 scf/Minute
Manufacturer	Fuller Bulk Handling	*Operator ID*	SPLBH
Model	Nylon	*Serial Number*	
Location Note			
Device Description	Bin ventilation; Negative pressure; Bag Diam. (in): 6.0; Bag Length (ft): 8.0; Total Cloth Area: 754; enclosed		

3.2.5.4 Silicate Plant Production Baghouse

Device ID #	**000141**	***Device Name***	**Silicate Plant Production Baghouse**
Rated Heat Input		*Physical Size*	3300.00 scf/Minute
Manufacturer	Mikro Collector	*Operator ID*	SPPBH
Model	18 oz Dralon felt	*Serial Number*	
Location Note			
Device Description	Product collection; Negative pressure; Bag Diam. (in): 18.0; Bag Length (ft): 11.83; Total Cloth Area: 892; Est. A/C Ratio: 2.5; enclsoed		

3.2.5.5 Silicate Plant Ventilation Baghouse (Pack Area)

Device ID #	**000142**	***Device Name***	**Silicate Plant Ventilation Baghouse (Pack Area)**
Rated Heat Input		*Physical Size*	40000.00 scf/Minute
Manufacturer	Mikro-Pulsaire	*Operator ID*	SPVBH
Model	Polypropylene	*Serial Number*	
Location Note			
Device Description	Ventilation packer and spillage, blow off booth, belt dryer,conveyors, AW packer, bulk packing unit; Negative pressure; Bag Diam. (in): 4.5; Bag Length (ft): 10.0; Total Cloth Area: 8588; enclosed		

3.2.6 Refeed Station

Device ID #	**103405**	***Device Name***	**Refeed Station**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.2.7 Screws

Device ID #	**103408**	***Device Name***	**Screws**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.3 Mortar Production Line

3.3.1 Cyclones

Device ID #	**103426**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.3.2 Hoppers

Device ID #	**103427**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Mixer feed hopper with (2) hopper mixers, and a spillage hopper		

3.3.3 Packer

Device ID #	**103428**	***Device Name***	**Packer**
Rated Heat Input		*Physical Size*	2.00 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Packer is equipped with the spillage hopper		

3.3.4 Bagwasher Flattener

Device ID #	**103429**	***Device Name***	**Bagwasher Flattener**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Bag flattener and air washer		

3.3.5 Mixer

Device ID #	**103430**	***Device Name***	**Mixer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) hopper mixers		

3.3.6 Bag Breaking Station

Device ID #	**103431**	***Device Name***	**Bag Breaking Station**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	CP23
Model		*Serial Number*	
Location Note			
Device Description	Includes a feed hopper and an empty bag compactor		

3.3.7 Baghouses - Mortar Prod Line

3.3.7.1 Mortar Plant Ventilation Baghouse

Device ID #	**000146**	***Device Name***	**Mortar Plant Ventilation Baghouse**
Rated Heat Input		*Physical Size*	38465.00 scf/Minute
Manufacturer	Sly	*Operator ID*	MPVBH
Model	Polyester	*Serial Number*	
Location Note			
Device Description	Ventilation to refeed and packaging areas of mortar plant; Negative pressure; Bag Diam. (in): 3-sec env.; Bag Length (ft): 43x36 in; Total Cloth Area: 6966; enclosed		

3.4 Pellet Production Line

3.4.1 Mixer

Device ID #	**103440**	***Device Name***	**Mixer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.4.2 Bucket Elevators

Device ID #	**103437**	***Device Name***	**Bucket Elevators**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.4.3 Belt Conveyors

Device ID #	**103438**	***Device Name***	**Belt Conveyors**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) conveyor associated with bucket elevator, (5) conveyors, (1) belt conveyor associated with sweco screen, (1) convenyor associated with surge bin		

3.4.4 Pellet Plant Dryer

Device ID #	**005843**	***Device Name***	**Pellet Plant Dryer**
Rated Heat Input	4.500 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Fired on natural gas		

3.4.5 Screens

Device ID #	**103434**	***Device Name***	**Screens**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) Sweco screens		

3.4.6 Bins

Device ID #	**103433**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) surge bins, (3) packer bins		

3.4.7 Pellet Plant Kiln

Device ID #	**005844**	***Device Name***	**Pellet Plant Kiln**
Rated Heat Input	4.400 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Fired on natural gas		

3.4.8 Cyclones

Device ID #	**103432**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.4.9 Hoppers

Device ID #	**103435**	***Device Name***	**Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.4.10 Packers

Device ID #	**103436**	***Device Name***	**Packers**
Rated Heat Input		*Physical Size*	10.00 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.4.11 Screws

Device ID #	**103439**	***Device Name***	**Screws**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.4.12 Baghouses - Pellet Prod Line

3.4.12.1Pellet Plant Ventilation Baghouse - Hot

Device ID #	**000148**	***Device Name***	**Pellet Plant Ventilation Baghouse - Hot**
Rated Heat Input		*Physical Size*	10500.00 scf/Minute
Manufacturer	Midwesco Filter Resources	*Operator ID*	PPHVBH
Model	Aramid w/Tetratex Membrane	*Serial Number*	
Location Note			
Device Description	Ventilation sweco, bucket elevator, pellet kilns, packers, vibrating feeder, screen. CAFA kiln, cyclone & vent hood; Negative pressure; Bag Diam. (in): 4.625; Bag Length (ft): 10.0; Total Cloth Area: 1744; Est. A/C Ratio: 5.9; enclosed		

3.4.12.2Pellet Plant Ventilation Baghouse - Cold

Device ID #	**000147**	***Device Name***	**Pellet Plant Ventilation Baghouse - Cold**
Rated Heat Input		*Physical Size*	18549.00 scf/Minute
Manufacturer	Mikro-Pulsaire	*Operator ID*	PPCVBH
Model	Polyester Felt	*Serial Number*	
Location Note			
Device Description	Ventilation conveyor dryer, refeed area, surge bin, sweco,conveyors; Negative pressure; Bag Diam. (in): 4.5; Bag Length (ft): 10.4; Total Cloth Area: 3313; enclosed		

3.5 Chromosorb Production Line

3.5.1 Chromosorb Bins

Device ID #	**103443**	***Device Name***	**Chromosorb Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) bag feed bin		

3.5.2 Chromosorb Screens

Device ID #	**103444**	***Device Name***	**Chromosorb Screens**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.5.3 Chromosorb Hoppers

Device ID #	**103445**	***Device Name***	**Chromosorb Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) coarse hopper, (1) fines hopper		

3.5.4 Crushers

Device ID #	**103447**	***Device Name***	**Crushers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.5.5 Chromosorb Cyclones

Device ID #	**103441**	***Device Name***	**Chromosorb Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.5.6 Chromosorb Product Wash Equipment

Device ID #	**103451**	***Device Name***	**Chromosorb Product Wash Equipment**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.5.7 Electric Ovens

Device ID #	**103450**	***Device Name***	**Electric Ovens**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) OSI, (2) Despatch, (1) Proctor & Schwartz		

3.5.8 Chemical Treatment and Storage Tanks

Device ID #	**103449**	***Device Name***	**Chemical Treatment and Storage Tanks**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.5.9 Chromosorb Plant: Rotoclone Scrubber

Device ID #	**000150**	***Device Name***	**Chromosorb Plant: Rotoclone Scrubber**
Rated Heat Input		*Physical Size*	10000.00 scf/Minute
Manufacturer		*Operator ID*	CROTO
Model		*Serial Number*	
Location Note			
Device Description			

3.5.10 Baghouses - Chromosorb Prod Line

3.5.10.1 Chromosorb Ventilation Baghouse - South

Device ID #	**000149**	***Device Name***	**Chromosorb Ventilation Baghouse - South**
Rated Heat Input		*Physical Size*	7800.00 scf/Minute
Manufacturer	Flex-Kleen	*Operator ID*	CPVBHS
Model	16 oz Dacron polyester felt	*Serial Number*	
Location Note			
Device Description	Ventilation chromosorb processes; Negative pressure; Bag Diam. (in): 5.75; Bag Length (ft): 8.5; Total Cloth Area: 2252; enclosed		

3.5.11 Chromosorb Blowers

Device ID #	**103442**	***Device Name***	**Chromosorb Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.5.12 Chromosorb Packers

Device ID #	**103446**	***Device Name***	**Chromosorb Packers**
Rated Heat Input		*Physical Size*	100.00 lb/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.5.13 Mills

Device ID #	**103448**	***Device Name***	**Mills**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6 Acid Washed Filter Aid Production Line

3.6.1 Sulfuric Acid Tank

Device ID #	**103420**	***Device Name***	**Sulfuric Acid Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.2 Premix Tank

Device ID #	**103421**	***Device Name***	**Premix Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.3 Reaction Tank

Device ID #	**103422**	***Device Name***	**Reaction Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.4 Holding Tanks

Device ID #	**103423**	***Device Name***	**Holding Tanks**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.5 Horizontal Belt Filter

Device ID #	**103424**	***Device Name***	**Horizontal Belt Filter**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	includes a belt conveyor		

3.6.6 Acid Wash Cyclones

Device ID #	**103416**	***Device Name***	**Acid Wash Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.7 Acid Wash Blowers

Device ID #	**103417**	***Device Name***	**Acid Wash Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.8 Acid Wash Hoppers

Device ID #	**103418**	***Device Name***	**Acid Wash Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.9 Acid Wash Packers

Device ID #	**103419**	***Device Name***	**Acid Wash Packers**
Rated Heat Input		*Physical Size*	1200.00 lb/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.6.10 Acid Wash Pumps

Device ID #	**103425**	***Device Name***	**Acid Wash Pumps**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Filtrate pump, vacuum pump, and sump pump		

3.7 Celite Analytical Filter Aid Production Line

Device ID #	**103265**	***Device Name***	**Celite Analytical Filter Aid Production Line**
Rated Heat Input		*Physical Size*	100.00 lb/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.7.1 Feed Hopper

Device ID #	**103455**	***Device Name***	**Feed Hopper**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.7.2 Screw Conveyor

Device ID #	**103457**	***Device Name***	**Screw Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.7.3 Milling Blower

Device ID #	**103453**	***Device Name***	**Milling Blower**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.7.4 Cyclone

Device ID #	**103452**	***Device Name***	**Cyclone**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.7.5 Surge Bin

Device ID #	**103454**	***Device Name***	**Surge Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.7.6 Drum Packer

Device ID #	**103456**	***Device Name***	**Drum Packer**
Rated Heat Input		*Physical Size*	100.00 lb/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.7.7 Baghouses - Celite Analytical Filter Aid Prod Line

3.7.7.1 CAFA Baghouse

Device ID #	**000152**	***Device Name***	**CAFA Baghouse**
Rated Heat Input		*Physical Size*	138.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	CAFABH
Model	Orlon	*Serial Number*	
Location Note			
Device Description	Ventilation CAFA equipment; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 11.0; Total Cloth Area: 130; Est. A/C Ratio: 1.0; open		

3.8 Nos. 3 and 5 Air Sifters

Device ID #	**103260**	***Device Name***	**Nos. 3 and 5 Air Sifters**
Rated Heat Input		*Physical Size*	8.20 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note	Note (a): Unless otherwise noted, feed rate is from correspondence provided by Steven Kirby, Manville's Attorney, to Joan Heredia, APCD Engineer, dated January 11, 1989.		
Device Description			

3.8.1 Blowers

Device ID #	**103410**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.8.2 Bins

Device ID #	**103411**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.8.3 Cyclones

Device ID #	**103409**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.8.4 Packers

Device ID #	**103412**	***Device Name***	**Packers**
Rated Heat Input		*Physical Size*	8.20 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.8.5 Pumps

Device ID #	**103413**	***Device Name***	**Pumps**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.8.6 Air Sifters

Device ID #	**103414**	***Device Name***	**Air Sifters**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.8.7 Screws

Device ID #	**103415**	***Device Name***	**Screws**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9 Experimental Plant

Device ID #	**103266**	***Device Name***	**Experimental Plant**
Rated Heat Input		*Physical Size*	500.00 lb/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.1 Cyclones

Device ID #	**103458**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.2 Blowers

Device ID #	**103459**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.3 Bins

Device ID #	**103460**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.4 Packers

Device ID #	**103461**	***Device Name***	**Packers**
Rated Heat Input		*Physical Size*	1.75 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.5 Mixer

Device ID #	**103462**	***Device Name***	**Mixer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.9.6 Air Sifters

Device ID #	**103463**	***Device Name***	**Air Sifters**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.7 Separator

Device ID #	**103464**	***Device Name***	**Separator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.9.8 Delumper

Device ID #	**103465**	***Device Name***	**Delumper**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.9.9 Mill

Device ID #	**103466**	***Device Name***	**Mill**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.9.10 Feeders

Device ID #	**103467**	***Device Name***	**Feeders**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.11 Belt Conveyor

Device ID #	**103468**	***Device Name***	**Belt Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

3.9.12 Packer Columns

Device ID #	**103469**	***Device Name***	**Packer Columns**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

3.9.13 Baghouses - Experimental Plant

3.9.13.1Experimental Plant Ventilation Baghouse

Device ID #	**005935**	***Device Name***	**Experimental Plant Ventilation Baghouse**
Rated Heat Input		*Physical Size*	1000.00 scf/Minute
Manufacturer	JM Open	*Operator ID*	XPBH
Model	Polyester	*Serial Number*	
Location Note			
Device Description	Ventilates Experimental plant; Positive pressure; Bag Diam. (in): 9.0; Bag Length (ft): 28.0; Total Cloth Area: 990; Est. A/C Ratio: 1.0; open		

4 Jolter Bin

Device ID #	**108175**	***Device Name***	**Jolter Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5 Bulk Product and Waste Handling Systems (Tbl A-6)

5.1 Truck and Railcar Loading System

5.1.1 Bins

Device ID #	**103491**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Handles material from Lines #3-7 and #11		

5.2 Truck Loading System at No. 5 & 6 Bins

Device ID #	**103268**	***Device Name***	**Truck Loading System at No. 5 & 6 Bins**
Rated Heat Input		*Physical Size*	20.00 Tons/Hour
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Serves: Primary Processing Line No. 7		

5.2.1 Bulk Bins

Device ID #	**103493**	***Device Name***	**Bulk Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.2.2 Powder Pumps

Device ID #	**103492**	***Device Name***	**Powder Pumps**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.3 Preseparator Waste System

5.3.1 Cyclones

Device ID #	**103495**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.3.2 Preseparator Waste Blower

Device ID #	**103496**	***Device Name***	**Preseparator Waste Blower**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.3.3 Bins

Device ID #	**103494**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) preseparator waste bin		

5.3.4 Hopper

Device ID #	**103497**	***Device Name***	**Hopper**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.3.5 Baghouses - Preseparator Waste System

5.3.5.1 Preseparator Waste Baghouse

Device ID #	**000136**	***Device Name***	**Preseparator Waste Baghouse**
Rated Heat Input		*Physical Size*	20000.00 Square Feet
Manufacturer	Mikropul	*Operator ID*	PSWBH
Model	520R-10-40-TC "C"	*Serial Number*	
Location Note			
Device Description	Ventilation of Powder Mills wet end waste collection system; Negative pressure; Bag Diam. (in): 4.625; Bag Length (ft): 10.0; Total Cloth Area: 6296; Est. A/C Ratio: 5.0; enclosed		

5.4 General Waste Handling System

5.4.1 General Waste Baghouse

Device ID #	**000137**	***Device Name***	**General Waste Baghouse**
Rated Heat Input		*Physical Size*	24150.00 scf/Minute
Manufacturer	Mikropul	*Operator ID*	GWBH
Model	611R-10-30-TR "C"	*Serial Number*	
Location Note			
Device Description	Ventilation of Powder Mills dry end, 7 System wet end waste collection and 5 & 6 Semi-Bulk Packing Station; Negative pressure; Bag Diam. (in): 4.625; Bag Length (ft): 10.0; Total Cloth Area: 7398; Est. A/C Ratio: 3.0; enclosed		

5.4.2 General Waste Cyclones

Device ID #	**103499**	***Device Name***	**General Waste Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.4.3 Baghouses - Central Waste System

5.4.4 General Waste Blowers

Device ID #	**103500**	***Device Name***	**General Waste Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(1) general waste blower, (1) booster blower		

5.4.5 General Waste Bins

Device ID #	**103498**	***Device Name***	**General Waste Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Bin #1, Bin #4, Bin #10, Bin #8, Bin #9, and (1) waste bin		

5.4.6 General Waste Hoppers

Device ID #	**103501**	***Device Name***	**General Waste Hoppers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	(2) hoppers on baghouse, (2) hoppers with general waste bin		

5.4.7 General Waste Screw Conveyors

Device ID #	**103502**	***Device Name***	**General Waste Screw Conveyors**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	screw conveyors per line: #4 (5), #5 (3), #6 (2), #7 (1),		

5.5 Recirculating System

5.5.1 Cyclones

Device ID #	**103504**	***Device Name***	**Cyclones**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.5.2 Blowers

Device ID #	**103505**	***Device Name***	**Blowers**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.5.3 Bins

Device ID #	**103503**	***Device Name***	**Bins**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

5.5.4 Screw and dust hole conveyor

Device ID #	**103506**	***Device Name***	**Screw and dust hole conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Number of devices is currently unknown.		

5.5.5 Baghouses - Recirculating System

5.5.5.1 Recirculating System Ventilation Baghouse

Device ID #	**000135**	***Device Name***	**Recirculating System Ventilation Baghouse**
Rated Heat Input		*Physical Size*	18000.00 scf/Minute
Manufacturer	Mikropul	*Operator ID*	RBH
Model	408R-10/12 -30-TC "C"	*Serial Number*	
Location Note			
Device Description	Ventilation of Powder Mills dry end waste recovery; Negative pressure; Bag Diam. (in): 4.6; Bag Length (ft): 10.0; Total Cloth Area: 4940; Est. A/C Ratio: 3.6; enclosed		

6 IC Engines (CARB-PERP) (See Exempt Equipment)

7 Miscellaneous Permit Exempt Devices (See Exempt Equipment)

8 Baghouses - Miscellaneous

8.1 4 Dry End Baghouse

Device ID #	**000112**	***Device Name***	**4 Dry End Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	JM Open	*Operator ID*	4DBH
Model		*Serial Number*	
Location Note			
Device Description	General Process Descrip: SC production collection Pos./Neg: Pos. Number of Socks: 330 Bag Diam. (in): 9.0 Bag Length (ft): 57.0 Total Cloth Area: 44320 Est Air Flow: 44320 Est. A/C Ratio: 1.0 Fabric Material: orlon Cleaning Method: reverse air.		

8.2 978 Baghouse

Device ID #	**000110**	***Device Name***	**978 Baghouse**
Rated Heat Input		*Physical Size*	scf/Day
Manufacturer	Sly	*Operator ID*	978BH
Model		*Serial Number*	
Location Note			
Device Description	General Process Descrip: Ventilation truck & railcar load station, Line 3 packing equip., dry end, powder pumps, refeed vent, 10# packing, No. 4 packer vent, 1&2 BB packers, 378 supplement Pos./Neg: Neg. Number of Socks: 306 Bag Diam. (in): envelope Bag Length (ft): 43x36 in Total Cloth Area: 6579 Est Air Flow: 32900 Est. A/C Ratio: 4.9 Fabric Material: polyester felt Cleaning Method: 3-sect. blow-back.		

8.3 4 Bulk Bin Baghouse

Device ID #	**103514**	***Device Name***	**4 Bulk Bin Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	DCE - Sintamatic	*Operator ID*	4BBBH
Model		*Serial Number*	APCD ID 3-17
Location Note			
Device Description	General Process Descrip: Ventilation bulk bin, vents 4 semi-bulk station Pos./Neg: Neg. Number of Socks: 10 Bag Diam. (in): cartridge Bag Length (ft): 5' 1.25" Total Cloth Area: 850 Est Air Flow: 3200 Est. A/C Ratio: Fabric Material: polyethylene, PTFE coating Cleaning Method: pulse jet.		

8.4 Sackroom Baghouse

Device ID #	**000153**	***Device Name***	**Sackroom Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	JM Open	*Operator ID*	SRBH
Model		*Serial Number*	
Location Note			
Device Description	General Process Descrip: Sack room area & so. 1148 warehouse ventilation Pos./Neg: Pos. Number of Socks: 88 Bag Diam. (in): 9.0 Bag Length (ft): 24.0 Total Cloth Area: 4976 Est Air Flow: 4976 Est. A/C Ratio: 1.0 Fabric Material: cotton Cleaning Method: manual.		

8.5 Ventilation Baghouse (1178)

Device ID #	**000102**	***Device Name***	**Ventilation Baghouse (1178)**
Rated Heat Input		*Physical Size*	36000.00 scf/Minute
Manufacturer	Mikro-Pulsaire	*Operator ID*	BH1178
Model	16 oz Polypropylene	*Serial Number*	
Location Note			
Device Description	Ventilation system preseparators, packing, XP plant; Negative Pressure; Bag Diam. (in): 4.5; Bag Length (ft): 8.0; Total Cloth Area: 9048; Est. A/C Ratio: 5.4; enclosed		

8.6 Soda Ash Baghouse

Device ID #	**109452**	***Device Name***	**Soda Ash Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	DCE	*Operator ID*	SABH
Model	CSI 24K10, Type F	*Serial Number*	
Location Note			
Device Description	General Process Description: Ventilation soda ash BH Cleaning method: pulse jet Fabric material: Sintered polyethylene Pos/Neg Press: Neg Number of cartridges: 12 Cartridge dimensions: 3ft x 1.8ft Cartridge length: 3ft Total Fabric area: 245 sqft Air/cloth ratio: 3.26:1 Pressure drop: 1 - 10 in H2O Blower rating: 800 cfm Blower motor rating: 7.5 hp		

9 Celpure Plant

9.1 Vacuum System

9.2 Celpure Exempt Equipment

9.3 Celpure Process 1

9.3.1 Hammermill

Device ID #	**106226**	***Device Name***	**Hammermill**
Rated Heat Input		*Physical Size*	175.00 Tons/Hour
Manufacturer	Jeffry	*Operator ID*	CP2
Model	45AB	*Serial Number*	
Location Note			
Device Description			

9.3.2 Upper Crude Hopper

Device ID #	**108409**	***Device Name***	**Upper Crude Hopper**
Rated Heat Input		*Physical Size*	Tons/Hour
Manufacturer	Spokane Machinery	*Operator ID*	CP1
Model	custom	*Serial Number*	
Location Note			
Device Description			

9.3.3 Crude Bin

Device ID #	**106227**	***Device Name***	**Crude Bin**
Rated Heat Input		*Physical Size*	2650.00 Cubic Feet
Manufacturer	Steel Structures	*Operator ID*	CP3
Model		*Serial Number*	
Location Note			
Device Description			

9.3.4 Crude Belt Conveyor

Device ID #	**106229**	***Device Name***	**Crude Belt Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer	Bulk Material Handling	*Operator ID*	CP5
Model		*Serial Number*	
Location Note			
Device Description	14' x 26"		

9.3.5 Crude Bin Ventilation Baghouse

Device ID #	**008073**	***Device Name***	**Crude Bin Ventilation Baghouse**
Rated Heat Input		*Physical Size*	1620.00 scf/Minute
Manufacturer	DCE Sintamatic	*Operator ID*	DC1
Model	CS 138FP	*Serial Number*	
Location Note			
Device Description	1620 cfm, 0.00044 gr/acf		

9.3.6 Detritor

Device ID #	**108260**	***Device Name***	**Detritor**
Rated Heat Input		*Physical Size*	25.00 Horsepower (Electric Motor)
Manufacturer	Metso Minerals	*Operator ID*	
Model		*Serial Number*	62597
Location Note	Added in May 2005 after the removal of the pug mill and attrition scrubber		
Device Description	Operates with one 25 hp electric motor		

9.3.7 Upper Crude Belt Conveyor

Device ID #	**106228**	***Device Name***	**Upper Crude Belt Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer	Power Industries	*Operator ID*	CP4
Model		*Serial Number*	
Location Note			
Device Description	300' x 36 "		

9.4 Celpure Process 2

9.4.1 Wet Screen

Device ID #	**106232**	***Device Name***	**Wet Screen**
Rated Heat Input		*Physical Size*	170.00 gal/Minute
Manufacturer	Derrick Corp	*Operator ID*	CP9
Model	2124-60W-2M	*Serial Number*	
Location Note			
Device Description			

9.4.2 Hydroclone Feed Tank

Device ID #	**106259**	***Device Name***	**Hydroclone Feed Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

9.4.3 Waste (Crude Tailings) Tank

Device ID #	**106260**	***Device Name***	**Waste (Crude Tailings) Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Receives material from hydroclone slurry tank		

9.4.4 Hydroclones

Device ID #	**106233**	***Device Name***	**Hydroclones**
Rated Heat Input		*Physical Size*	lb/gal
Manufacturer	Krebs Engineers	*Operator ID*	CP10
Model	Model PCI-1421	*Serial Number*	
Location Note			
Device Description	5 lb DE/min/hydroclone		

9.4.5 Hydroclone Slurry Tank

Device ID #	**106261**	***Device Name***	**Hydroclone Slurry Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

9.4.6 Flotation Conditioning Tanks

Device ID #	**106234**	***Device Name***	**Flotation Conditioning Tanks**
Rated Heat Input		*Physical Size*	850.00 Gallons
Manufacturer	Paramount Fabricators	*Operator ID*	CP11
Model		*Serial Number*	
Location Note			
Device Description	two tanks?		

9.4.7 Flotation Cells

Device ID #	**106235**	***Device Name***	**Flotation Cells**
Rated Heat Input		*Physical Size*	288.00 Cubic Feet
Manufacturer	Quinn Process Equipment Co.	*Operator ID*	CP12
Model	18SPL 6 Cell	*Serial Number*	
Location Note			
Device Description			

9.5 Celpure Process 3

9.5.1 Dewatering Filter Feed Tank

Device ID #	**106263**	***Device Name***	**Dewatering Filter Feed Tank**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

9.5.2 Dewatering Filter

Device ID #	**106262**	***Device Name***	**Dewatering Filter**
Rated Heat Input		*Physical Size*	50.00 Square Feet
Manufacturer	Filtration Systems Tech	*Operator ID*	CP13
Model	VP-50-1	*Serial Number*	
Location Note			
Device Description	Receives hydroclone slurry from floatation cells		

9.5.3 Soda Ash Mix Tank

Device ID #	**106238**	***Device Name***	**Soda Ash Mix Tank**
Rated Heat Input		*Physical Size*	250.00 Gallons
Manufacturer	LW LeFort	*Operator ID*	CP40
Model	Custom	*Serial Number*	
Location Note			
Device Description			

9.5.4 Soda Ash Bin

Device ID #	**106237**	***Device Name***	**Soda Ash Bin**
Rated Heat Input		*Physical Size*	110.00 Cubic Feet
Manufacturer	Steel Structures Inc.	*Operator ID*	CP39
Model	Custom	*Serial Number*	
Location Note			
Device Description			

9.5.5 Soda Ash Mill

Device ID #	**106239**	***Device Name***	**Soda Ash Mill**
Rated Heat Input		*Physical Size*	100.00 lb/Hour
Manufacturer	Micron Powder Systems	*Operator ID*	CP41
Model	10	*Serial Number*	
Location Note			
Device Description	with gravity feed		

9.5.6 Soda Ash Bin Baghouse

Device ID #	**008074**	***Device Name***	**Soda Ash Bin Baghouse**
Rated Heat Input		*Physical Size*	600.00 Cubic Feet/Minute
Manufacturer	Sintamatic	*Operator ID*	DC2
Model	CSI 12 K5	*Serial Number*	
Location Note			
Device Description	Associated with Soda Ash Bin Dust Collector (CP42)		

9.5.7 1st Stage Dryer

Device ID #	**008920**	***Device Name***	**1st Stage Dryer**
Rated Heat Input	3.200 MMBtu/Hour	*Physical Size*	
Manufacturer	The National Drying Machinery Co.	*Operator ID*	CP14
Model	Apron Dryer	*Serial Number*	
Location Note			
Device Description	(CS1) 6 ft x 30 ft. Receives cake from dewatering filter		

9.5.8 1st Stage Dryer Baghouse

Device ID #	**008082**	***Device Name***	**1st Stage Dryer Baghouse**
Rated Heat Input		*Physical Size*	6143.00 Cubic Feet/Minute
Manufacturer	Mikropul	*Operator ID*	CP15/ DC4
Model	133-8-100 "C"	*Serial Number*	
Location Note			
Device Description	(DC4), 6413 acfm, 0.002 gr/dscf, 90 psig header		

9.5.9 Dispersing Screen

Device ID #	**106236**	***Device Name***	**Dispersing Screen**
Rated Heat Input		*Physical Size*	1000.00 lb/Hour
Manufacturer	Kemutec Group	*Operator ID*	CP16
Model	K650	*Serial Number*	
Location Note			
Device Description			

9.6 Celpure Process 4

9.6.1 Cyclone

Device ID #	**106240**	***Device Name***	**Cyclone**
Rated Heat Input		*Physical Size*	4.00 Diameter (ft)
Manufacturer	Peterson	*Operator ID*	CP17
Model	Custom	*Serial Number*	
Location Note			
Device Description	Ventilated to surge bin baghouse		

9.6.2 Kiln Feed (Calciner Surge) Bin

Device ID #	**106241**	***Device Name***	**Kiln Feed (Calciner Surge) Bin**
Rated Heat Input		*Physical Size*	200.00 Cubic Feet
Manufacturer	Steel Structures	*Operator ID*	CP19
Model		*Serial Number*	
Location Note			
Device Description	Receives material from cyclone with Soda Ash added. Ventilated by surge bin baghouse.		

9.6.3 Calciner Exhaust Baghouse

Device ID #	**008083**	***Device Name***	**Calciner Exhaust Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Mikropul	*Operator ID*	CP21
Model	85-8-35 "C"	*Serial Number*	
Location Note			
Device Description	3600 acfm, 0.002 gr/dscf, 90 psig header		

9.6.4 Kiln (Calciner)

Device ID #	**008921**	***Device Name***	**Kiln (Calciner)**
Rated Heat Input	2.640 MMBtu/Hour	*Physical Size*	
Manufacturer	Vulcan	*Operator ID*	CP20
Model		*Serial Number*	97-14322
Location Note			
Device Description	(CS2) Receives material sent from the kiln rotary feed screw. Exhaust is ventilated to the calciner baghouse for PM and to the packed tower scrubber for SOx removal. 6 ft ID x 40 ft		

9.6.5 Kiln Feed Bin Metering Screw

Device ID #	**106264**	***Device Name***	**Kiln Feed Bin Metering Screw**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Receives material from calciner surge bin, and sends it to the kiln rotary feed screw.		

9.6.6 Kiln Feed Baghouse

Device ID #	**008075**	***Device Name***	**Kiln Feed Baghouse**
Rated Heat Input		*Physical Size*	1995.00 scf/Minute
Manufacturer	Mikropul	*Operator ID*	CP18/ DC5
Model	55-8-55 "C"	*Serial Number*	
Location Note			
Device Description	(DC5) 1995 acfm, 0.002 gr/dscf		

9.6.7 Kiln Rotary Feed Screw

Device ID #	**106265**	***Device Name***	**Kiln Rotary Feed Screw**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Receives material from the metering bin screw and sends it to the calciner.		

9.6.8 350 Scrubber

Device ID #	**106243**	***Device Name***	**350 Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer	Met Pro Corporation	*Operator ID*	CP56/ SR2
Model		*Serial Number*	
Location Note			
Device Description	(SR2), 6150 acfm, 98% efficiency		

9.6.9 370 Scrubber

Device ID #	**106242**	***Device Name***	**370 Scrubber**
Rated Heat Input		*Physical Size*	
Manufacturer	Met Pro Corporation	*Operator ID*	CP22/ SR1
Model		*Serial Number*	
Location Note			
Device Description	(SR1)		

9.7 Celpure Process 5

9.7.1 Flash Cooling Cyclone

Device ID #	**106245**	***Device Name***	**Flash Cooling Cyclone**
Rated Heat Input		*Physical Size*	5.00 Diameter (ft)
Manufacturer	Peterson	*Operator ID*	CP24
Model	Custom	*Serial Number*	
Location Note			
Device Description	Flash cools dried DE. Calcined material is sent to the product mix tank.		

9.7.2 Flash Cooler Baghouse

Device ID #	**008076**	***Device Name***	**Flash Cooler Baghouse**
Rated Heat Input		*Physical Size*	2678.00 Cubic Feet/Minute
Manufacturer	Mikropul	*Operator ID*	DC7
Model	69-8-35 "C"	*Serial Number*	
Location Note			
Device Description	90 psig header, 2678 acfm, 0.002 gr/dscf. Serves the product mix tank and packing area.		

9.7.3 Mix Tank

Device ID #	**106246**	***Device Name***	**Mix Tank**
Rated Heat Input		*Physical Size*	2300.00 Gallons
Manufacturer	Paramount Fabricators	*Operator ID*	CP26
Model		*Serial Number*	
Location Note			
Device Description	Receives cooled material from cyclone. Material is slurried with water.		

9.7.4 Leach Tank

Device ID #	**106247**	***Device Name***	**Leach Tank**
Rated Heat Input		*Physical Size*	1500.00 Gallons
Manufacturer	Ametek	*Operator ID*	CP27
Model		*Serial Number*	
Location Note			
Device Description	Receives slurried calcined material from the product mix tank. Adds sulfuric acid and heated with steam from boiler.		

9.7.5 Leach Slurry Storage Tank

Device ID #	**106248**	***Device Name***	**Leach Slurry Storage Tank**
Rated Heat Input		*Physical Size*	2300.00 Gallons
Manufacturer	Paramount Fabricators	*Operator ID*	CP28
Model		*Serial Number*	
Location Note			
Device Description	Ventilated to the packed bed scrubber (SR1)		

9.7.6 Refeed Station Baghouse

Device ID #	**008079**	***Device Name***	**Refeed Station Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	DCE Sintamatic	*Operator ID*	CP38/ DC11
Model	CSI 32F10	*Serial Number*	
Location Note			
Device Description	2000 acfm, 0.00044 gr/acf		

9.7.7 Refeed (Bag Breaking) Station

Device ID #	**106244**	***Device Name***	**Refeed (Bag Breaking) Station**
Rated Heat Input		*Physical Size*	
Manufacturer	Celite	*Operator ID*	CP23
Model	Custom	*Serial Number*	
Location Note			
Device Description	4 bags/minute. Allows the addition of bagged material at three locations. Consists of a feed hopper, and an empty bag compactor. Ventilated to the dedicated refeed baghouse.		

9.7.8 Refeed Station Powder Pump Packer

Device ID #	**106249**	***Device Name***	**Refeed Station Powder Pump Packer**
Rated Heat Input		*Physical Size*	400.00 lb/Hour
Manufacturer	Bulk Materials Handling	*Operator ID*	CP55
Model	Custom	*Serial Number*	
Location Note			
Device Description	Pump used for the Refeed Station Powder Packer		

9.8 Celpure Process 6

9.8.1 Rinsing Filter

Device ID #	**106251**	***Device Name***	**Rinsing Filter**
Rated Heat Input		*Physical Size*	200.00 Square Feet
Manufacturer	Filtration Systems Tech	*Operator ID*	CP30
Model	VP-50-4	*Serial Number*	
Location Note			
Device Description	Rinses and filters the reacted slurry		

9.8.2 2nd Stage Dryer

Device ID #	**008922**	***Device Name***	**2nd Stage Dryer**
Rated Heat Input	3.200 MMBtu/Hour	*Physical Size*	
Manufacturer	The National Drying Machine Company	*Operator ID*	CP31
Model		*Serial Number*	
Location Note			
Device Description	(CS3) direct fired process heater: 6' x 30 '. Dries slurry from the rinsing and deacidifying filters. PM is controlled by the dryer exhaust baghouse		

9.8.3 Second Stage Dryer Baghouse

Device ID #	**008077**	***Device Name***	**Second Stage Dryer Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Mikropul	*Operator ID*	CP32
Model	133-8-100 C	*Serial Number*	
Location Note			
Device Description	(DC8) 6143 acfm, 0.002 gr/dscf, 90 psig header		

9.8.4 Packaging Station Cyclone

Device ID #	**106252**	***Device Name***	**Packaging Station Cyclone**
Rated Heat Input		*Physical Size*	3.00 Diameter (ft)
Manufacturer	Peterson	*Operator ID*	CP33
Model	Custom	*Serial Number*	
Location Note			
Device Description	Receives material from the dryer, which is sent to the rotary screen.		

9.8.5 Product Dispersing Screen

Device ID #	**106253**	***Device Name***	**Product Dispersing Screen**
Rated Heat Input		*Physical Size*	1000.00 lb/Hour
Manufacturer	Kemutec Group	*Operator ID*	CP34
Model	K650	*Serial Number*	
Location Note			
Device Description	Material is discharged into a packer bin.		

9.8.6 Packer Bin

Device ID #	**106254**	***Device Name***	**Packer Bin**
Rated Heat Input		*Physical Size*	500.00 Cubic Feet
Manufacturer	Steel Structures	*Operator ID*	CP35
Model	Custom	*Serial Number*	
Location Note			
Device Description			

9.8.7 Bag Packing Station

Device ID #	**106255**	***Device Name***	**Bag Packing Station**
Rated Heat Input		*Physical Size*	
Manufacturer	PAC 21	*Operator ID*	CP36
Model		*Serial Number*	
Location Note			
Device Description	Bag filler is ventilated to the Packing Station Baghouse. 150 lb/min		

9.8.8 Semi-Bulk Packing Station

Device ID #	**108405**	***Device Name***	**Semi-Bulk Packing Station**
Rated Heat Input		*Physical Size*	
Manufacturer	Sota	*Operator ID*	
Model	BB4P3	*Serial Number*	99 403
Location Note			
Device Description	Added per ATC 11007. Served by the Packing Station Baghouse		

9.8.9 Packing Station Baghouse

Device ID #	**008078**	***Device Name***	**Packing Station Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Mikropul	*Operator ID*	CP37
Model	31-8-85 C	*Serial Number*	
Location Note			
Device Description	(DC9) 1260 acfm, 0.002 gr/dscf, 90 psig header		

9.9 Celpure Process 7

9.9.1 Package Boiler

Device ID #	**008923**	***Device Name***	**Package Boiler**
Rated Heat Input	3.780 MMBtu/Hour	*Physical Size*	
Manufacturer	Parker Industries	*Operator ID*	CP44
Model	105-90	*Serial Number*	49330
Location Note			
Device Description	direct fired process heater; Steam is used to heat slurry mixed with sulfuric acid in leach tank CP27. Horizontal drum steam boiler.		

9.9.2 DE Bin Baghouse

Device ID #	**008080**	***Device Name***	**DE Bin Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	DCE Sintamatic	*Operator ID*	DC13
Model	CSI 12 K5	*Serial Number*	
Location Note			
Device Description	600cfm, 0.00044 gf/acf		

9.9.3 Alternate Materials Baghouse

Device ID #	**008081**	***Device Name***	**Alternate Materials Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	DCE Sintamatic	*Operator ID*	DC14
Model	CSI 12K5	*Serial Number*	
Location Note			
Device Description	600 cfm, 0.00044 gr/acf		

9.9.4 DE Bin

Device ID #	**106256**	***Device Name***	**DE Bin**
Rated Heat Input		*Physical Size*	690.00 Cubic Feet
Manufacturer	Steel Structures Inc	*Operator ID*	CP50
Model	Custom	*Serial Number*	
Location Note			
Device Description			

9.9.5 Alternate Material Bin

Device ID #	**106257**	***Device Name***	**Alternate Material Bin**
Rated Heat Input		*Physical Size*	690.00 Cubic Feet
Manufacturer	Steel Structures, Inc.	*Operator ID*	CP52
Model	Custom	*Serial Number*	
Location Note			
Device Description			

9.10 Emergency Power Generator

Device ID #	103521	*Maximum Rated BHP*	50.00
Device Name	Emergency Power Generator	*Serial Number*	CD050/3777E068
Engine Use	Electrical Power	*EPA Engine Family Name*	
Manufacturer	Caterpillar	*Operator ID*	CP46
Model Year	1998	*Fuel Type*	CARB Diesel - ULSD
Model	CD50		
DRP/ISC?	No	*Healthcare Facility?*	No
Daily Hours		*Annual Hours*	
Location Note			
Device Description	Celpure Plant: diesel-fired,		

10 Solvent Usage: Cleaning & Degreasing

Device ID #	**008043**	***Device Name***	**Solvent Usage: Cleaning & Degreasing**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description			

11 Storage Silos

11.1 Product Storage Silo 101

Device ID #	**109214**	***Device Name***	**Product Storage Silo 101**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN101
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.2 Product Storage Silo 102

Device ID #	**109216**	***Device Name***	**Product Storage Silo 102**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN102
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.3 Product Storage Silo 103

Device ID #	**109217**	***Device Name***	**Product Storage Silo 103**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN103
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.4 Product Storage Silo 104

Device ID #	**109218**	***Device Name***	**Product Storage Silo 104**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN104
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.5 Product Storage Silo 105

Device ID #	**109219**	***Device Name***	**Product Storage Silo 105**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN105
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.6 Product Storage Silo 106

Device ID #	**109220**	***Device Name***	**Product Storage Silo 106**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN106
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.7 Product Storage Silo 107

Device ID #	**109221**	***Device Name***	**Product Storage Silo 107**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN107
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.8 Product Storage Silo 108

Device ID #	**109222**	***Device Name***	**Product Storage Silo 108**
Rated Heat Input		*Physical Size*	181.40 Tons Produced
Manufacturer	Tank Connection Co	*Operator ID*	BN108
Model	Custom	*Serial Number*	
Location Note			
Device Description	Dimensions: 25ft dia x 100 ft high (with footings); storage capacity 200 metric tons		

11.9 Inlet Hose Station Product Storage Silos

Device ID #	**109231**	***Device Name***	**Inlet Hose Station Product Storage Silos**
Rated Heat Input		*Physical Size*	
Manufacturer	Cyclonaire	*Operator ID*	HS118
Model	Custom	*Serial Number*	
Location Note			
Device Description	Product pneumatically transferred from system line bulk bin to storage silo by existing 600 cfm Sutorbilt product blower.		

11.10 Outlet Hose Station Product Storage Silos

Device ID #	**109232**	***Device Name***	**Outlet Hose Station Product Storage Silos**
Rated Heat Input		*Physical Size*	
Manufacturer	Cyclonaire	*Operator ID*	HS119
Model	Custom	*Serial Number*	
Location Note			
Device Description	Product pneumatically transferred from storage silo to existing packer bin, bulk bin or railcar by powder pumps PP111-PP115.		

11.11 Baghouse 101

Device ID #	**110191**	***Device Name***	**Baghouse 101**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH101
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN101; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.12 Baghouse 102

Device ID #	**110192**	***Device Name***	**Baghouse 102**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN102; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.13 Baghouse 103

Device ID #	**110193**	***Device Name***	**Baghouse 103**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN103; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.14 Baghouse 104

Device ID #	**110194**	***Device Name***	**Baghouse 104**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN104; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.15 Baghouse 105

Device ID #	**110195**	***Device Name***	**Baghouse 105**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN105; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.16 Baghouse 106

Device ID #	**110196**	***Device Name***	**Baghouse 106**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN106; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.17 Baghouse 107

Device ID #	**110197**	***Device Name***	**Baghouse 107**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN107; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.18 Baghouse 108

Device ID #	**110198**	***Device Name***	**Baghouse 108**
Rated Heat Input		*Physical Size*	2411.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	
Model	81MBT8	*Serial Number*	
Location Note			
Device Description	Controls particulate emissions from product storage silo BN108; positive pressure baghouse ; contains 81Tetratex polyester felt-type bags; each bag 6 in D x 8 ft L; total fabric area 1039 sq ft; pulse jet cleaning		

11.19 Powder Pumps - PP111 - PP115

Device ID #	**110640**	***Device Name***	**Powder Pumps - PP111 - PP115**
Rated Heat Input		*Physical Size*	200.00 Cubic Feet
Manufacturer	Cyclonaire	*Operator ID*	PP111 - PP115
Model	DPV-200B	*Serial Number*	
Location Note			
Device Description	Air pressure driven; 200 cu ft capacity		

11.20 Baghouse - BH925A

Device ID #	**110641**	***Device Name***	**Baghouse - BH925A**
Rated Heat Input		*Physical Size*	720.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH925A
Model	36MBT6	*Serial Number*	
Location Note			
Device Description	Particulate emission control on Holding Bin (BN925A); positive pressure baghouse; contains 36 Tetratex polyester bags; each bag 6 in D x 6 ft L; total fabric area 345 sq ft; pulse jet cleaning; operating temperature 60F		

11.21 Baghouse - BH925B

Device ID #	**110642**	***Device Name***	**Baghouse - BH925B**
Rated Heat Input		*Physical Size*	720.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH925B
Model	36MBT6	*Serial Number*	
Location Note			
Device Description	Particulate emission control on Holding Bin (BN925B); positive pressure baghouse; contains 36 Tetratex polyester bags; each bag 6 in D x 6 ft L; total fabric area 345 sq ft; pulse jet cleaning; operating temperature 60F		

11.22 Holding Bin - BN925A

Device ID #	**110643**	***Device Name***	**Holding Bin - BN925A**
Rated Heat Input		*Physical Size*	20.00 Tons
Manufacturer	Tank Connection	*Operator ID*	BN925A
Model		*Serial Number*	
Location Note			
Device Description			

11.23 Holding Bin - BN925B

Device ID #	**110644**	***Device Name***	**Holding Bin - BN925B**
Rated Heat Input		*Physical Size*	20.00 Tons
Manufacturer	Tank Connection	*Operator ID*	BN925B
Model		*Serial Number*	
Location Note			
Device Description			

11.24 Disposition Bin - BN109A

Device ID #	**110645**	*Device Name*	**Disposition Bin - BN109A**
Rated Heat Input		*Physical Size*	20.00 Tons
Manufacturer	Tank Connection	*Operator ID*	BN109A
Model		*Serial Number*	
Location Note			
Device Description			

11.25 Disposition Bin - BN109B

Device ID #	**110646**	*Device Name*	**Disposition Bin - BN109B**
Rated Heat Input		*Physical Size*	20.00 Tons
Manufacturer	Tank Connection	*Operator ID*	BN109B
Model		*Serial Number*	
Location Note			
Device Description			

11.26 Disposition Bin - BN110A

Device ID #	**110647**	*Device Name*	**Disposition Bin - BN110A**
Rated Heat Input		*Physical Size*	20.00 Tons
Manufacturer	Tank Connection	*Operator ID*	BN110A
Model		*Serial Number*	
Location Note			
Device Description			

11.27 Disposition Bin - BN110B

Device ID #	**110648**	*Device Name*	**Disposition Bin - BN110B**
Rated Heat Input		*Physical Size*	20.00 Tons
Manufacturer	Tank Connection	*Operator ID*	BN110B
Model		*Serial Number*	
Location Note			
Device Description			

11.28 Baghouse - BH109A

Device ID #	**110649**	***Device Name***	**Baghouse - BH109A**
Rated Heat Input		*Physical Size*	1381.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH109A
Model	54MBT6	*Serial Number*	
Location Note			
Device Description	Particulate emission control on Disposition Bin (BN109A); negative pressure baghouse with a 3HP motor driven blower; contains 54 Tetratex polyester bags; each bag 6 in D x 6 ft L; total fabric area 518 sq ft; pulse jet cleaning; operating temperature 60 - 180F		

11.29 Baghouse - BH109B

Device ID #	**110650**	***Device Name***	**Baghouse - BH109B**
Rated Heat Input		*Physical Size*	1381.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH109B
Model	54MBT6	*Serial Number*	
Location Note			
Device Description	Particulate emission control on Disposition Bin (BN109B); negative baghouse with a 3HP motor driven blower; contains 54 Tetratex polyester bags; each bag 6 in D x 6 ft L; total fabric area 518 sq ft; pulse jet cleaning; operating temperature 60 - 180F		

11.30 Baghouse - BH110A

Device ID #	**110651**	***Device Name***	**Baghouse - BH110A**
Rated Heat Input		*Physical Size*	1381.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH110A
Model	54MBT6	*Serial Number*	
Location Note			
Device Description	Particulate emission control on Disposition Bin (BN110A); negative pressure baghouse with a 3HP motor driven blower; contains 54 Tetratex polyester bags; each bag 6 in D x 6 ft L; total fabric area 518 sq ft; pulse jet cleaning; operating temperature 60F		

11.31 Baghouse - BH110B

Device ID #	**110652**	***Device Name***	**Baghouse - BH110B**
Rated Heat Input		*Physical Size*	1381.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH110B
Model	54MBT6	*Serial Number*	
Location Note			
Device Description	Particulate emission control on Disposition Bin (BN110B); negative pressure baghouse with a 3HP motor driven blower; contains 54 Tetratex polyester bags; each bag 6 in D x 6 ft L; total fabric area 518 sq ft; pulse jet cleaning; operating temperature 60F		

11.32 Powder Pumps - PP116 - PP117 A&B

Device ID #	**110653**	***Device Name***	**Powder Pumps - PP116 - PP117 A&B**
Rated Heat Input		*Physical Size*	100.00 Cubic Feet
Manufacturer	Cyclonaire	*Operator ID*	PP116 -117 A&B
Model	DPV-100B	*Serial Number*	
Location Note			
Device Description	Air pressure driven; 100 cu ft capacity		

11.33 Powder Pumps - PP925 A&B

Device ID #	**110654**	***Device Name***	**Powder Pumps - PP925 A&B**
Rated Heat Input		*Physical Size*	25.00 Cubic Feet
Manufacturer	Cyclonaire	*Operator ID*	PP925 A&B
Model	DPV-25B	*Serial Number*	
Location Note			
Device Description	Air pressure driven; 25 cu ft capacity		

12 Bagging and Packing

12.1 Packing Station Baghouse

Device ID #	**110525**	***Device Name***	**Packing Station Baghouse**
Rated Heat Input		*Physical Size*	14259.00 scf/Minute
Manufacturer	Donaldson	*Operator ID*	BH125
Model	DLMC 4/5/15	*Serial Number*	
Location Note			
Device Description	BH125 contains 200 bags (each approx 20in D X 5ft L); del p = 0.1 - 6 in WC; neg pressure; rating of blower (Celite ID BL125) = 30 HP; blower flow rate = 14,259 scfm; a/c ratio = 4.41; op temp = 60F		

12.2 Semi Bulk Bag Filler

Device ID #	**110526**	***Device Name***	**Semi Bulk Bag Filler**
Rated Heat Input		*Physical Size*	
Manufacturer	Stone Container Corp	*Operator ID*	5BB-132A
Model	MBS-1000	*Serial Number*	
Location Note			
Device Description	Bagging rate = 13.2 short tons/hour (12 mt/hr)		

12.3 Semi Bulk Bag Filler

Device ID #	**110527**	***Device Name***	**Semi Bulk Bag Filler**
Rated Heat Input		*Physical Size*	
Manufacturer	Stone Container Corp	*Operator ID*	5BB-132B
Model	MBS-1000	*Serial Number*	
Location Note			
Device Description	Bagging rate = 13.2 short tons/hour (12 mt/hr)		

12.4 Packer Bin (BN121A) Baghouse

Device ID #	**110528**	***Device Name***	**Packer Bin (BN121A) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH121A1
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH121A1 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.5 Packer Bin (BN121A) Baghouse

Device ID #	**110529**	***Device Name***	**Packer Bin (BN121A) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH121A2
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH121A2 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.6 Packer Bin (BN121B) Baghouse

Device ID #	**110530**	***Device Name***	**Packer Bin (BN121B) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH121B1
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH121B1 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.7 Packer Bin (BN121B) Baghouse

Device ID #	**110531**	***Device Name***	**Packer Bin (BN121B) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH121B2
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH121B2 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.8 Packer Bin (BN131A) Baghouse

Device ID #	**110532**	***Device Name***	**Packer Bin (BN131A) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH131A1
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH131A1 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.9 Packer Bin (BN131A) Baghouse

Device ID #	**110533**	***Device Name***	**Packer Bin (BN131A) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH131A2
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH131A2 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.10 Packer Bin (BN131B) Baghouse

Device ID #	**110534**	***Device Name***	**Packer Bin (BN131B) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH131B1
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH131B1 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.11 Packer Bin (BN131B) Baghouse

Device ID #	**110535**	***Device Name***	**Packer Bin (BN131B) Baghouse**
Rated Heat Input		*Physical Size*	
Manufacturer	Donaldson	*Operator ID*	BH131B2
Model	DLMV 30/15	*Serial Number*	
Location Note			
Device Description	BH131B2 contains 20 bags (each approx 20 in D X 5 ft L); del p = 0.1 - 6 in WC; positive pressure; air flow 1031 scfm, a/c ratio = 3.2; op temp = 60F.		

12.12 Blower

Device ID #	**110536**	***Device Name***	**Blower**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	BL125
Model		*Serial Number*	
Location Note			
Device Description	Serving BH125 (Dev No 110525); HP rating = 30 HP		

12.13 Blower

Device ID #	**110537**	***Device Name***	**Blower**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	BL 132
Model		*Serial Number*	
Location Note			
Device Description	Serving Semi Bulk Bag Fillers SB132A and B (Dev Nos 110526 & 110527); HP rating = 3 HP		

12.14 Bag Packer

Device ID #	**109822**	***Device Name***	**Bag Packer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	4AP-122A
Model		*Serial Number*	
Location Note			
Device Description	Bagging Capacity = 15 short tons/hr (13.6 mt/hr); packing units = 50 pound bags		

12.15 Bag Packer

Device ID #	**109823**	***Device Name***	**Bag Packer**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	4AP-122B
Model		*Serial Number*	
Location Note			
Device Description	Bagging Capacity = 15 short tons/hr (13.6 mt/hr); packing units = 50 pound bags		

12.16 Packer Bin

Device ID #	**109824**	***Device Name***	**Packer Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	BN121A
Model		*Serial Number*	
Location Note			
Device Description	Capacity = 4.4 short tons (4 mt) serving bag packer PK122A (Dev No 109822)		

12.17 Packer Bin

Device ID #	**109825**	***Device Name***	**Packer Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	BN121B
Model		*Serial Number*	
Location Note			
Device Description	Capacity = 4.4 short tons (4 mt) serving bag packer PK122B (Dev No 109823)		

12.18 Semi Bulk Packer Bin

Device ID #	**109828**	***Device Name***	**Semi Bulk Packer Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	BN131A
Model		*Serial Number*	
Location Note			
Device Description	Capacity = 4.4 short tons (4 mt) serving semi-bulk bag filler SB132A (Dev No 110526)		

12.19 Semi Bulk Packer Bin

Device ID #	**109829**	***Device Name***	**Semi Bulk Packer Bin**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	BN131B
Model		*Serial Number*	
Location Note			
Device Description	Capacity = 4.4 short tons (4 mt) serving semi-bulk bag filler SB132B (Dev No 110527)		

13 Mobile Crude Ore Crushing and Screening Plant

13.1 Grizzly Feeder

Device ID #	**110481**	***Device Name***	**Grizzly Feeder**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	SC010
Model		*Serial Number*	
Location Note			
Device Description	16 inch openings on grid; automatic lift		

13.2 Crusher Feed Hopper

Device ID #	**110482**	***Device Name***	**Crusher Feed Hopper**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	FH010
Model		*Serial Number*	
Location Note			
Device Description	Capacity of 61 yd3; unlined; above ground		

13.3 Crusher Apron Feeder

Device ID #	**110483**	***Device Name***	**Crusher Apron Feeder**
Rated Heat Input		*Physical Size*	
Manufacturer	Rexnord	*Operator ID*	FB011
Model		*Serial Number*	
Location Note			
Device Description	65" belt width x 44ft length; 65" Apron type; VFD, driven by 15 HP electric motor		

13.4 Raw Ore Transfer Belt Conveyor to Crusher

Device ID #	**110484**	***Device Name***	**Raw Ore Transfer Belt Conveyor to Crusher**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB012
Model		*Serial Number*	
Location Note			
Device Description	42" belt width X 80ft length; driven by 20 HP electric motor		

13.5 Protection ElectroMagnet cw tramp metal conveyor

Device ID #	**110485**	***Device Name***	**Protection ElectroMagnet cw tramp metal conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer	Dings 44CR	*Operator ID*	MA040
Model		*Serial Number*	
Location Note			
Device Description	36" belt width X 6ft length; self cleaning; driven by 5 HP electric motor		

13.6 DE Ore Crusher

Device ID #	**110486**	***Device Name***	**DE Ore Crusher**
Rated Heat Input		*Physical Size*	
Manufacturer	Metso NP1520	*Operator ID*	CR013
Model		*Serial Number*	
Location Note			
Device Description	Size minus 1/2 inch; horizontal shelf impactor; open discharge, VFD; driven by 2 - 250 HP electric motors		

13.7 Crushed Ore Transfer Belt Conveyor to Screen

Device ID #	**110487**	***Device Name***	**Crushed Ore Transfer Belt Conveyor to Screen**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB014
Model		*Serial Number*	
Location Note			
Device Description	36" belt width X 100ft length; stationary; driven by 40 HP electric motor		

13.8 Feed Belt Scale

Device ID #	**110488**	***Device Name***	**Feed Belt Scale**
Rated Heat Input		*Physical Size*	
Manufacturer	Milltronics (Siemens)	*Operator ID*	BS014
Model		*Serial Number*	
Location Note			
Device Description	36' width		

13.9 Vibratory Screen Deck

Device ID #	**110489**	***Device Name***	**Vibratory Screen Deck**
Rated Heat Input		*Physical Size*	
Manufacturer	Nordberg	*Operator ID*	VS015
Model		*Serial Number*	
Location Note			
Device Description	Triple deck capability; 8ft X 20ft inclined deck; square aperture wire mesh screen, 5/8 inch & 1" screen sizes; driven by a 50 HP electric motor		

13.10 Undersize Collection Conveyor Belt

Device ID #	**110490**	***Device Name***	**Undersize Collection Conveyor Belt**
Rated Heat Input		*Physical Size*	
Manufacturer	JW Jones	*Operator ID*	FB016
Model		*Serial Number*	
Location Note			
Device Description	48' belt width X 25ft length; driven by a 10 HP electric motor		

13.11 First Oversize Collection Conveyor Belt

Device ID #	**110491**	***Device Name***	**First Oversize Collection Conveyor Belt**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB020
Model		*Serial Number*	
Location Note			
Device Description	30" belt width X 60ft length; portable/stackable; driven by a 15 HP electric motor		

13.12 Second Oversize Conveyor Belt

Device ID #	**110492**	***Device Name***	**Second Oversize Conveyor Belt**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB021
Model		*Serial Number*	
Location Note			
Device Description	30" belt width X 60ft length; portable/stackable; driven by a 15 HP electric motor		

13.13 Oversize Stacker

Device ID #	**110493**	***Device Name***	**Oversize Stacker**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	ST022
Model		*Serial Number*	
Location Note			
Device Description	30" belt width X 80ft length; driven by a 20 HP electric motor		

13.14 Reject Belt Scale

Device ID #	**110494**	***Device Name***	**Reject Belt Scale**
Rated Heat Input		*Physical Size*	
Manufacturer	Belt Way	*Operator ID*	BS022
Model	100	*Serial Number*	
Location Note			
Device Description			

13.15 First Undersize Transfer Belt Conveyor

Device ID #	**110495**	***Device Name***	**First Undersize Transfer Belt Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB030
Model		*Serial Number*	
Location Note			
Device Description	36" belt width X 100ft length; portable; driven by a 40 HP electric motor		

13.16 Crushed Product Belt Scale

Device ID #	**110496**	***Device Name***	**Crushed Product Belt Scale**
Rated Heat Input		*Physical Size*	
Manufacturer	Milltronics (Siemens)	*Operator ID*	BS030
Model		*Serial Number*	
Location Note			
Device Description	30" width		

13.17 Second Undersize Transfer Conveyor

Device ID #	**110497**	***Device Name***	**Second Undersize Transfer Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB031
Model		*Serial Number*	
Location Note			
Device Description	36" belt width X 80ft length; portable; driven by a 25 HP electric motor		

13.18 Third Undersize Transfer Conveyor

Device ID #	**110498**	***Device Name***	**Third Undersize Transfer Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB032
Model		*Serial Number*	
Location Note			
Device Description	36" belt width X 80ft length; portable/stackable; driven by a 15 HP electric motor		

13.19 Fourth Undersize Transfer Conveyor

Device ID #	**110499**	***Device Name***	**Fourth Undersize Transfer Conveyor**
Rated Heat Input		*Physical Size*	
Manufacturer	Rock Systems	*Operator ID*	CB033
Model		*Serial Number*	
Location Note			
Device Description	36" belt width X 50ft length; portable/stackable; driven by a 10 HP electric motor		

13.20 Telescoping Radial Stacker Belt

Device ID #	**110500**	***Device Name***	**Telescoping Radial Stacker Belt**
Rated Heat Input		*Physical Size*	
Manufacturer	Thorstack T150-8	*Operator ID*	ST034
Model		*Serial Number*	
Location Note			
Device Description	36" belt width X 150ft length; able to create >50ft pile height; driven by a 72 HP electric motor		

13.21 Product Storage Pile - Large

Device ID #	**110561**	***Device Name***	**Product Storage Pile - Large**
Rated Heat Input		*Physical Size*	4.80 Acres of Storage Piles
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Base footprint of each pile = 2.4 acres; surface area of each pile = 2.9 acres; maximum height of each pile shall not exceed 40 ft		

13.22 Product Storage Pile - Small

Device ID #	**110562**	***Device Name***	**Product Storage Pile - Small**
Rated Heat Input		*Physical Size*	2.60 Acres of Storage Piles
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Base footprint of each pile = 1.3 acres; surface area of each pile = 1.6 acres; maximum height of each pile shall not exceed 40 ft		

13.23 Reject Storage Pile

Device ID #	**110563**	***Device Name***	**Reject Storage Pile**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	650 cu yds of reject material, maximum height of pile = 15 feet		

13.24 Water Supply Pump

Device ID #	**110564**	***Device Name***	**Water Supply Pump**
Rated Heat Input		*Physical Size*	15.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	
Model	ACT-P470	*Serial Number*	
Location Note			
Device Description	Supplies water for the wet suppression control system; pump capacity = 18.5 gpm; powered by a 15 hp motor		

B EXEMPT EQUIPMENT

1 Rotary Dryer

Device ID #	**005841**	***Device Name***	**Rotary Dryer**
Rated Heat Input	0.600 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

2 Flash Dryer

Device ID #	**005842**	***Device Name***	**Flash Dryer**
Rated Heat Input	0.600 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

3 ICE 1017 Emergency Electrical Power Generation

Device ID #	**008069**	***Device Name***	**ICE 1017 Emergency Electrical Power Generation**
Rated Heat Input		*Physical Size*	200.00 Brake Horsepower
Manufacturer		*Operator ID*	ICE 1017
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	Natural gas fired, Powder Mills emergency power generator, 200 hr/yr.		

4 CAFA Rotary Kiln

Device ID #	**005845**	***Device Name***	**CAFA Rotary Kiln**
Rated Heat Input	0.110 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	Fired on Natural Gas		

5 Main Kiln

Device ID #	**008049**	***Device Name***	**Main Kiln**
Rated Heat Input	1.500 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

6 6 inch Kiln

Device ID #	**008050**	***Device Name***	**6 inch Kiln**
Rated Heat Input	0.200 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

7 Experimental Plant Dryer

Device ID #	**008048**	***Device Name***	**Experimental Plant Dryer**
Rated Heat Input	0.300 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

8 IC Engine: Air Compressor Mounted on Bulk Truck Trailer #17

Device ID #	**000068**	***Device Name***	**IC Engine: Air Compressor Mounted on Bulk Truck Trailer #17**
Rated Heat Input		*Physical Size*	43.00 Brake Horsepower
Manufacturer	White G	*Operator ID*	#8776
Model	1600X191	*Serial Number*	39283 L-4-HM
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108252; ARB Tracking #20001090.		

9 IC Engine: Air Compressor Mounted on Bulk Truck Trailer #43

Device ID #	**000069**	***Device Name***	**IC Engine: Air Compressor Mounted on Bulk Truck Trailer #43**
Rated Heat Input		*Physical Size*	43.00 Brake Horsepower
Manufacturer	White G	*Operator ID*	#8778
Model	1600X191	*Serial Number*	09293 K-1-HG
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108255; ARB Tracking #20001093.		

10 IC Engine: Air Compressor Mounted on Bulk Truck Trailer #52

Device ID #	**000070**	***Device Name***	**IC Engine: Air Compressor Mounted on Bulk Truck Trailer #52**
Rated Heat Input		*Physical Size*	43.00 Brake Horsepower
Manufacturer	White G	*Operator ID*	#8780
Model	1600X191	*Serial Number*	10943 A-26-H
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108258; ARB Tracking #20001097.		

11 IC Engine: Air Compressor Mounted on Bulk Truck Trailer #21

Device ID #	**000071**	***Device Name***	**IC Engine: Air Compressor Mounted on Bulk Truck Trailer #21**
Rated Heat Input		*Physical Size*	43.00 Brake Horsepower
Manufacturer	White G	*Operator ID*	#8786
Model	1600X191	*Serial Number*	A9289 K-1-HG
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108261; ARB Tracking #20001100.		

12 IC Engine: Air Compressor Mounted on Bulk Truck Trailer #84

Device ID #	**000072**	***Device Name***	**IC Engine: Air Compressor Mounted on Bulk Truck Trailer #84**
Rated Heat Input		*Physical Size*	43.00 Brake Horsepower
Manufacturer	White G	*Operator ID*	#8795
Model	1600X191	*Serial Number*	XL4918334
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108250; ARB Tracking #20001088.		

13 IC Engine: Air Blower

Device ID #	**000074**	***Device Name***	**IC Engine: Air Blower**
Rated Heat Input		*Physical Size*	49.00 Brake Horsepower
Manufacturer	Wisconsin	*Operator ID*	#8700
Model	V465D	*Serial Number*	446183 6193564
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108249; ARB Tracking #20001087.		

14 IC Engine: Air Compressor Mounted on Bulk Truck Trailer #39

Device ID #	**000075**	***Device Name***	**IC Engine: Air Compressor Mounted on Bulk Truck Trailer #39**
Rated Heat Input		*Physical Size*	43.00 Brake Horsepower
Manufacturer	White G	*Operator ID*	#8771
Model	1600X191	*Serial Number*	XL4918336
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108251; ARB Tracking #20001089.		

15 IC Engine: Arc Welder - Truck Bed Mounted

Device ID #	**000077**	***Device Name***	**IC Engine: Arc Welder - Truck Bed Mounted**
Rated Heat Input		*Physical Size*	36.00 Brake Horsepower
Manufacturer	Continental	*Operator ID*	#8700-2
Model	F163	*Serial Number*	F1634527-332264
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108254; ARB Tracking #20001092.		

16 IC Engine: Arc Welder - Trailer Mounted

Device ID #	**000078**	***Device Name***	**IC Engine: Arc Welder - Trailer Mounted**
Rated Heat Input		*Physical Size*	36.00 Brake Horsepower
Manufacturer	Continental	*Operator ID*	#8700-1
Model	F163	*Serial Number*	F163A-606M
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108253; ARB Tracking #20001091.		

17 IC Engine: Quarries and Mines Lake Pump

Device ID #	**008919**	***Device Name***	**IC Engine: Quarries and Mines Lake Pump**
Rated Heat Input		*Physical Size*	250.00 Brake Horsepower
Manufacturer		*Operator ID*	#8198
Model		*Serial Number*	RG6076A525686
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration #108260; ARB Tracking #20001099.		

18 ICE: Emergency Electrical Power Generator

Device ID #	**009079**	***Device Name***	**ICE: Emergency Electrical Power Generator**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	#8790
Model		*Serial Number*	WS4486N1200651
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PERP Registration # unknown; ARB Tracking #20013333 - Not a valid tracking number		

19 Shrink Wrap Unit 1

Device ID #	**008045**	***Device Name***	**Shrink Wrap Unit 1**
Rated Heat Input	0.800 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

20 Shrink Wrap Unit 2

Device ID #	**008047**	***Device Name***	**Shrink Wrap Unit 2**
Rated Heat Input	0.800 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

21 Shrink Wrap Gun

Device ID #	**008053**	***Device Name***	**Shrink Wrap Gun**
Rated Heat Input	0.200 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

22 IC Engine: Air Compressor

Device ID #	**103524**	***Device Name***	**IC Engine: Air Compressor**
Rated Heat Input		*Physical Size*	30.00 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	One 30 bhp ICE used to drive an air compressor.		

23 IC Engine: Portable Air Compressor

Device ID #	**008054**	***Device Name***	**IC Engine: Portable Air Compressor**
Rated Heat Input		*Physical Size*	16.00 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	drive a portable air compressor.		

24 IC Engine: Portable Concrete Mixer

Device ID #	**008056**	***Device Name***	**IC Engine: Portable Concrete Mixer**
Rated Heat Input		*Physical Size*	9.00 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	gasoline-fired ICE used to drive a portable concrete mixer.		

25 IC Engine: Portable Striper

Device ID #	**103522**	***Device Name***	**IC Engine: Portable Striper**
Rated Heat Input		*Physical Size*	3.50 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

26 IC Engine: Power Mobile Quarry Flood Lights

Device ID #	**103523**	***Device Name***	**IC Engine: Power Mobile Quarry Flood Lights**
Rated Heat Input		*Physical Size*	10.50 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	diesel-fired ICEs used to power mobile quarry flood lights.		

27 IC Engine: Vacuum System

Device ID #	**008055**	***Device Name***	**IC Engine: Vacuum System**
Rated Heat Input		*Physical Size*	18.00 Brake Horsepower
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	Propane-fired ICE used to drive a vacuum system.		

28 Steam Cleaner

Device ID #	**103525**	***Device Name***	**Steam Cleaner**
Rated Heat Input	0.350 MMBtu/Hour	*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	PUC NG fired		

29 Sulfuric Acid Tank

Device ID #	**108396**	***Device Name***	**Sulfuric Acid Tank**
Rated Heat Input		*Physical Size*	5000.00 Gallons
Manufacturer		*Operator ID*	CP47
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

30 Drums of Additives

Device ID #	**108397**	***Device Name***	**Drums of Additives**
Rated Heat Input		*Physical Size*	55.00 Gallons
Manufacturer		*Operator ID*	CP48
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description			

31 Tailings Tank

Device ID #	**108398**	***Device Name***	**Tailings Tank**
Rated Heat Input		*Physical Size*	3500.00 Gallons
Manufacturer		*Operator ID*	CP49
Model		*Serial Number*	
Part 70 Insig?	No	*District Rule Exemption:*	
Location Note			
Device Description	Wastewater		

Eq List 10.4.1 Celpure Baghouse Specifications

Equipment Description				Bag Specifications									
Device Name	Celite ID	District DeviceNo	General Process Description	Manufacturer	Pos./Neg	No. of Socks	Diam. (in)	Length (ft)	Total Cloth Area (ft^2)	Air Flow (cfm)	Air/Cloth Ratio	Fabric Material	Cleaning Method
Crude Bin Ventilation Baghouse		8073		DCE, Inc.		20			409	2,811	3.96	PTFE-Coated Polyethlene	
Soda Ash Bin Baghouse		8074		DCE, Inc.		6			123	600	4.88	PTFE-Coated Polyethlene	
Kiln Feed (Calciner Surge) Bin Bahouse		8075		Hosokawa Mikropul	N		4.5		547	2,621	3.47	PTFE-Surfaced Polyester	Pulse Jet
Flash Cooler Baghouse		8076		Hosokawa Mikropul	N	69	4.5	8	686	2,793	3.5	PTFE-Surfaced Nomex	Pulse Jet
Second Stage Dryer Baghouse		8077								8,134		PTFE-Surfaced Nomex	
Packing Station Baghouse		8078		Hosokawa Mikropul	N	31	4.5	8	308	1,441	3.89	Mikro-tex Surfaced Polyester	Pulse Jet
Refeed Station Baghouse		8079		DCE, Inc.		12			336	2,397	5.4	PTFE-Coated Polyethlene	
1st Stage (Flotation) Dryer Baghouse		8082		Hosokawa Mikropul		133	4.5	8	1,323	6,150	4.54	PTFE-Surfaced Nomex	Pulse Jet
Kiln (Calciner) Exhaust Baghouse		8083		Hosokawa Mikropul	N	85	4.5	8	846	6,700	4.26	PTFE-coated PPS Ryton	Pulse Jet

Eq List 10.4.2 Depermitted Equipment – Celpure Plant

The following equipment is being removed from permit as requested by Celite, and is no longer permitted to operate unless Celite submits an ATC application for the equipment.

Device Name	Eqpt #	District DeviceNo
Deacidfying Filter	CP29	106250
Pug Mill	CP7	106230
Attrition Scrubber	CP8	106231
Calcined Product Bag Filler	CP54	106258
DE Bin Baghouse	CP51	8080
Alternate Materials Bin Baghouse	CP53	8081

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10.5. *Track List of Device Names and Numbers used for Celpure Equipment*

Table 10.3 List of Celpure Equipment with Existing and Revised Equipment Names

District Device No.	Celpure Common Name	Eqpt #	Original Permitted Name	PFD Tag	Manufacturer	Model	Rule 202 Exempt?
	Loading station	CP1	Loading station		Spokane Machinery	custom	
106226	Hammermill	CP2	Hammermill		Jeffry	45AB	
106227	Crude Bin	CP3	Crude bin		Steel Structures	custom	
106228	Transfer Belt Conveyor	CP4	Transfer belt conveyor		Power Industries	NA	
106229	Metering Belt Conveyor	CP5	Metering belt conveyor		Bulk Material Handling	custom	
8073	Crude Bin Ventilation Baghouse	CP6	Crude bin dust collector	DC1	DCE Sintamatic	CS138FP	
106230	Detritor	CP7	Pug mill		Scott Equipment Co	PM246	
106231	Attrition Scrubber	CP8	Attrition Scrubber		Quinn Process Eqpt Co	24"x25"x4'	
106232	Wet Screen	CP9	Wet Screen		Derrick Corp	2124-60W-2M	
106220	Hydroclone Station	CP10	Hydroclone Station		Krebs Engineers	28 Model PCI-1421	
106234	Flotation Conditioning Tanks	CP11	Flotation Conditioning Tanks		Paramount Fabricators	NA	
106234	East and West Flotation Cells	CP12	Flotation Cells		Quinn Process Equipment Co	18SPL 6 cell	
106262	Dewatering Filter	CP13	Dewatering Filter		Filtration Systems Technology	VP-50-1 Ver-tipress filter	
8920	1st Stage Dryer	CP14	Flotation Dryer	CS1	The National Drying Machinery Company	Apron dryer	
8920	1st Stage Dryer burner	CP14	Flotation dryer burner	CS1	Cyclomax	3.2 MMBtu/hr	
8082	1st Stage Dryer Baghouse	CP15	Flotation dryer dust collector	DC4	Mikropul	133-8-100 "C"	
106236	Dispersing screen	CP16	Dispersing screen		Kemutec Group	K650	
106240	Kiln Feed Cyclone	CP17	Cyclone		Peterson	custom	
8075	Kiln Feed Bin Bahouse	CP18	Calciner Surge Bin Bahouse	DC5	Mikropul	55-8-55 "C"	
106241	Kiln Feed Bin	CP19	Calciner surge bin		Steel Structures	NA	
8921	Kiln	CP20	Calciner	CS2	Vulcan	6' ID x 40'	
8921	Kiln burner	CP20	Calciner burner	CS2	North American, 4425-7-A	2.46 MMBtu/hr	
8083	Kiln Exhaust Baghouse	CP21	Calciner Exhaust Baghouse	DC6	Micropul	85-8-35 "C"	
106243	350 Scrubber	CP22	1st Stage Drying Scrubber	SR1	Met Pro Corporation		
106244	Refeed Station	CP23	Bag breaking station		Celite	custom	
106245	Flash Cooling Cyclone	CP24	Flash cooling cyclone		Peterson	custom	
8076	Flash Cooler Baghouse	CP25	Flash cooling dust collector	DC7	Mikropul	69-8-35 "C"	
106246	Product Mix tank	CP26	Mix tank		Paramount Fabricators	NA	
106247	Leach Tank	CP27	Leach vessel		Ametek	NA	
106248	Leach Slurry Storage Tank	CP28	Leach slurry storage		Paramount Fabricators	NA	
106250	Deacidifying Filter	CP29	Deacidifying filter		Filtration Systems Technology	VP-50-1 Ver-tipress filter	
106251	Rinsing Filter	CP30	Rinsing filter		Filtration Systems Technology	VP-50-4 Ver-ti-press filter	
8922	2nd Stage Dryer	CP31	2nd Stage Dryer	CS3	The National Drying Machine Company	6' x 30'	
8922	2nd Stage Dryer burner	CP31	Product dryer burner	CS3	Cyclomax	3.2 MMBtu/hr	
8077	Second Stage Dryer Baghouse	CP32	Dryer exhaust dust collector	DC8	Mikropul	133-8-100 C	
8077	Blower motor	CP32	Blower motor	DC8	Baldor	EM411-5T	
106252	Packaging Station Cyclone	CP33	Packaging Station Cyclone		Peterson	custom	
106253	Product Dispersing Screen	CP34	Product dispersing screen		Kemutec Group	K650	
106254	Packaging Bin	CP35	Packaging bin		Steel Structures	custom	
106255	Manual Packing Station	CP36	Bag filler		PAC 21	NA	
8078	Packing Station Baghouse	CP37	Packing Station Baghouse	DC9	Mikropul	31-8-85 "C"	
8079	Refeed Station Baghouse	CP38	Refeed Station Baghouse	DC11	DCE Sintamatic	CSI 32F10	
106237	Soda Ash Bin	CP39	Soda Ash Bin		Steel Structures Inc.	Custom	
106238	Soda Ash Mix Tank	CP40	Soda ash mix tank		LW LeFort	Custom	
106239	Soda Ash Mill	CP41	Soda Ash Mill		Micron Powder Systems	Model 10 w/ gravity feed	
8074	Soda Ash Bin Baghouse	CP42	Soda ash bin dust collector	DC2	DCE Sintamatic	CSI 12K5	
108394	Vacuum system	CP43	Vacuum system		Hoffman (blower)	4207A	
8923	Package Boiler	CP44	Package Boiler[2]	CS4	Parker Industries	3.78 MMBtu/hr	
8084	Vacuum Station Baghouse	CP45	Vacuum baghouse	DC12	Mikropul	12-8-220 "C"	
103521	Emergency Power Generator	CP46	Emergency Generator ICE		Caterpillar CDO 50	50 hp	No
108396	Sulfuric acid tank	CP47	Sulfuric acid tank			5000 gal	Yes
108397	Drums of additives	CP48	Drums of additives			55 gal	Yes
108398	Tailings Tank (wastewater)	CP49	Tailings Tank (wastewater)			3500 gal	Yes
106256	DE bin	CP50	DE bin		Steel Structures, Inc.	Custom	
8080	DE Bin Baghouse	CP51	DE bin baghouse	DC13	DCE Sintamatic	CSI 12K5	
106257	Alternate Materials Bin	CP52	Alternate Materials Bin		Steel Structures, Inc	Custom	
8081	Alternate Materials Bin Baghouse	CP53	Alternate matls bin BH	DC14	DCE Sintamatic	CSI 12K5	
106258	Calcined Product Bag Filler	CP54	Calcined Product Bag Filler		PAC21	Custom	
106249	Refeed Pump Packer	CP55	Refeed stn powder pump		Bulk Materials Handling	Custom	
106242	370 Scrubber	CP56	Calcining Leaching scrubber	SR2	Met Pro Corporation		

Notes:

Some of the Original Permitted Names have been modified in the "Celpure Common Name" column based on the equipment name familiar to the operators at Celpure. There is no change to the actual equipment. In addition, Celpure does not use the PFD Tags or the Eqpt # previously referenced in the permits, so these numbers have been removed from the current permit. The District Device No. will be the permit reference number.

10.6. District Response to Comments

The notice for public comment on the draft of this permit was published January 15, 2012. The public comment period extended from January 16, 2012 through February 15, 2012. Comments were received from Celite Corporation and also from Mr. Mukasa Kezala. The District response to each comment follows.

Comments on Celite Title V Renewal Permit Submitted by Celite Corporation (2/15/2012) and District Responses

Part I, Main Plant

Celite Comment 1:
Celite notes that 7 System has been modified as permitted in ATC 12105-01 and subsequent revisions. Celite understands that at issuance of PTO 12105, all 7 System equipment references will be clarified in PTO 5840.

District Response:
Comment noted.

Celite Comment 2:
Section 1.2.1. Celite notes that the Mobile Plant is not part of the Powder Mills; it is a part of the Quarries.

District Response:
Section revised to reference the Mobile Plant as part of the Quarries.

Celite Comment 3:
Section 1.2.2. Celite has received ATC 12105-16 issued 12/1/2011 for operations of the modified 7 System.

District Response:
Comment noted.

Celite Comment 4:
Section 1.2.2. Celite notes a typo for ATC/PTO 13478 was issued for access "doors."

District Response:
Summary section of entry for ATC/PTO 13478 corrected to read "access doors."

Celite Comment 5:
Section 2.1. Celite notes that all Celite ICEs are either permitted under the Statewide Portable Equipment Registration Program (PERP) or are emergency generators.

District Response:
Comment noted.

Celite Comment 6:
Section 2.1.1. Celite requests the last sentence be revised to delete the word "Conveying."

District Response:
The word conveying was removed from Section 2.1.1.

Celite Comment 7:
Section 3.1.1. Celite notes that there is no longer a Powder Mill Tank. Also, oil "totes" (not tanks) are used for unused and waste oil as storage of lubricating oils.

District Response:
Reference to Powder Mill Tank removed from permit, and reference to oil tanks revised to oil "totes."

Celite Comment 8:
Section 3.2.2. The footnote of this table references Section 4.9.3, but this should be 4.10.3.

District Response:
Footnote reference section corrected.

Celite Comment 9:
Section 3.2.5. The references to permit sections are incorrect:
4.10.3 is now 4.11.3 and 9.C.12 is now 9.C.14.

District Response:
Section references corrected.

Celite Comment 10:
Section 3.2.6. There is no longer a Table 3.4 in the permit. Dates for unit-specific rules are included in Table 3.2.

District Response:
Table reference corrected.

Celite Comment 11:
Section 3.5.1. Celite notes that although Case 01-11-E variance was granted through February 3, 2011, Celite operations were returned to compliance as of January 26, 2011.

District Response:
Comment noted.

Celite Comment 12:
Section 3.5.1. Celite notes that although Case 02-11-E variance was granted through February 7, 2011, Celite operations under the variance were only through 2/1/11 at 1:00am.

District Response:
Comment noted

Celite Comment 13:
Section 3.5.1. Celite notes that although variance 06-11-E was granted, Celite never used it and was never out of compliance.

District Response:
Comment noted.

Celite Comment 14:
Section 9.C.3. Celite notes that the Fuel Oil Heater is not in use. Celite will submit a PTO-Mod application to remove it from permit.

District Response:
Comment noted.

Celite Comment 15:
Section 4.3.3. Celite notes that the reference to 4.2.2.4 may need to be revised to Section 4.2.3.4.

District Response:
Section reference corrected.

Celite Comment 16:
Section 4.7.1. Celite requests that the second sentence "ore is then removed from piles to the glory holes..." be deleted as this is no longer valid.

District Response:
Reference to "glory holes" removed.

Celite Comment 17:
Section 4.7.2. Celite requests that this section reference the "creation of 7.4 acres of stockpiles."

District Response:
Reference to size of stockpiles added.

Celite Comment 18:
Section 4.7.2. Celite requests the date of the AP-42 Section 13.2.4 be included.

District Response:
AP-42 Section 13.2.4 version date (November 2006) added.

Celite Comment 19:
Section 4.10.1. Celite notes that the bagging and packing equipment serves both 6 System and 7 System and requests that it be called "powder mill bagging and packing equipment."

District Response:
All references to 7 System bagging and packing equipment changed to powder mill bagging and packing.

Celite Comment 20:
Section 4.11.2. Celite notes that as documented in PTO 12315, Comment 8, Celite does not monitor individual water flows as depicted; only the total water flow is monitored.

District Response:
Comment noted.

Celite Comment 21:
Section 4.11.3. Celite notes that the QIP submitted in 2006 was prepared in response to District comments and has been implemented by Celite.

District Response:
Comment noted.

Celite Comment 22:
Table 4.3. Celite notes that as documented in PTO 12398, the baghouses BH125, BH121A1, BH121A2, BH121B1, BH121B2, BH131A1, BH131A2, BH131B1, and BH131B2 are not subject to CAM. The precontrol PTE is below threshold to be subject.

District Response:
Baghouses BH125, BH121A1, BH121A2, BH121B1, BH121B2, BH131A1, BH131A2, BH131B1, and BH131B2 removed from Table 4.3 (Baghouses Subject to CAM Requirements)

Celite Comment 23:
Tables 5.1, 5.2, 5.3, 5.4. Celite requests that reference to specific process lines be removed from baghouse equipment. Line 11 has long been removed from service, and the other baghouse equipment are not dedicated to specific process lines.

District Response:
The District agrees that removing references to specific process lines for baghouses that are not dedicated to specific process lines is appropriate, but in order to do so a list of process line independent baghouses must be provided by Celite. At this time, the tables will remain unchanged from the draft permit, and can be modified at a later date.

Celite Comment 24:
Table 5.3. Please confirm the PM2.5 emissions listed for the Soda Ash Baghouse, DevNo 5656.

District Response:
Emissions (PM, PM_{10}, $PM_{2.5}$) for Soda Ash Baghouse (District Dev.No. 5656) corrected.

Celite Comment 25:
Table 5.3 and 5.4. Please confirm the emissions for the 678BH, DevNo 103363.

District Response:
Emissions for 678BH (District Dev.No. 103363) are correct. The previous permit (PTO 5840-R3) listed incorrect emissions for this device.

Celite Comment 26:
Condition 9.C.1(c)(ii). Celite notes that there is a recordkeeping condition for Method 9 inspections, but no monitoring requirement. Celite requests that the District clarify the required monitoring. Celite proposes semi-annual Method 9 inspections for the emergency generator when it operates.

District Response:
The District notes that regular Method 9 inspections are not required as a monitoring requirement for the natural gas IC engine (District Dev.No. 8069). If a Method 9 inspection is conducted on this engine for any reason, Condition 9.C.1(c)(ii) requires the results to be recorded.

Celite Comment 27:
Condition 9.C.5(c)(i). Celite notes that the anniversary date for Source Testing has been changed from November to April. As discussed with the District, Celite will source test on an annual basis as controlled by production schedule.

District Response:
Comment noted.

Celite Comment 28:
Condition 9.C.5(c)(ix). Celite requests that if CHEAF and Scrubber Method 9 readings are negative for five (5) consecutive quarters that the frequency of Method 9 be reduced to semi-annual.

District Response:
The District is unable to process this request. Relaxation of monitoring requirements cannot be processed as part of a Part 70 permit reevaluation.

Celite Comment 29:
Condition 9.C.5(d)(vi). Celite notes that the location that soda ash is added is always the same. Celite will record this data as part of Daily Process and Operations Logs. Celite requests to delete third sentence "Celite shall also record the sample location...." Celite does not believe that reporting this location is necessary because the location does not change.

District Response:
The District is unable to process this request. In order to remove the requirement to record the location of soda ash addition, Celite must propose language to revise the permit condition and process description to specify the location soda ash is added.

Celite Comment 30:
Condition 9.C.6(b)(v). Celite requests the reference to "product silo" be removed from the last sentence. The referenced equipment is closed to the atmosphere and vented to a baghouse.

District Response:
Reference to product silo removed.

Celite Comment 31:
Condition 9.C.6(c)(iv). Celite requests the reference to bucket elevator specify that this is the "pellet plant bucket elevator." This will aid in clarifying for future integration of other facility permits.

District Response:
Section updated to reference pellet plant bucket elevator.

Celite Comment 32:
Condition 9.C.6.(c)(v)(1). Celite requests that Method 9 frequency be semi-annual for all baghosues. As required by this condition, Celite has submitted request and supporting documentation on May 21, 2010, and September 9, 2011.

District Response:
The District is unable to process this request. Relaxation of monitoring requirements cannot be processed as part of a Part 70 permit reevaluation. Due to Celite's poor compliance history with visible emissions inspections requirements, the District is removing Condition 9.C.6(c)(v)(1) from the final permit.

Celite Comment 33:
Condition 9.C.6.(c)(v). Celite requests that Method 9 is required for any operations of 8 consecutive hours or greater within each period.

District Response:
The District is unable to process this request. Relaxation of monitoring requirements cannot be processed as part of a Part 70 permit reevaluation.

Celite Comment 34:
Condition 9.C.6.(f). Celite notes that the use of alternate bag material is to help ensure and improve control device efficiency. It is our intent to submit requests for new bag material at least seven days prior to installation. We are optimistic that with adequate information provided, the District can work to approve these requests within 7 days.

District Response:
Comment noted.

Celite Comment 35:
Table 9.8. Celite notes that as documented in PTO 12315, Comment 8, Celite does not monitor individual water flows as depicted; only the total water flow is monitored.

District Response:
Comment noted.

Celite Comment 36:
Condition 9.C.8.(c)(iv) and 9.C.8.(d)(ii). Celite requests District modify language requiring daily crude moisture monitoring. Continuous moisture analyzers have proven to be unrealiable. Continuous monitoring is not currently technically feasible. Celite is able to run daily crude moisture analysis for compliance with this condition.

District Response:
The District is unable to process this request. Relaxation of monitoring requirements cannot be processed as part of a Part 70 permit reevaluation.

Celite Comment 37:
Condition 9.C.8(d)(iv). Celite notes that quarterly Method 9 readings are not required and a Method 9 opacity reading is only required if visible emissions are detected as required by 9.C.8.(c)(ii) Therefore, Celite proposes that Condition 9.C.8.(d)(iv) be re-worded to state: "Any Method 9 opacity reading report shall contain the….."

District Response:
Condition rewritten to remove reference to a quarterly Method 9 requirement.

Celite Comment 38:
Condition 9.C.8(g)(i). Celite obtains rain data daily from the county's weather station. Celite requests that this language be identical to Condition 9.C.12.a

District Response:
This condition revised to reflect the language in Condition 9.C.12.a.

Celite Comment 39:
Condition 9.C.8(g)(ii). Celite requests that all references to "Plant" in this condition be clarified to reference "Mobile Plant."

District Response:
Condition 9.C.8 revised to reference mobile plant.

Celite Comment 40:
Condition 9.C.6(d)(vi). Celite requests that the start time of all Pellet Plant Ventilation Baghouse operations be a monitoring and recordkeeping condition only. The General Waste Baghouse operates whenever 7 System or 6 System operates, therefore, Celite requests this condition be removed.

District Response:
Conditions 9.C.15(f)(v)(2) and (3) requiring the reporting of start times of Pellet Plant Ventilation Baghouse and General Waste Baghouse startup operations was removed from final permit. In addition, Condition 9.C.6(d)(vi)(2) requiring the recordkeeping of the start time of General Waste Baghouse startup operations was removed from the final permit.

Celite Comment 41:
Condition 9.C.10. Celite notes that the Silicates packers are not included (APCD DevNo 103402)

District Response:
Comment noted.

Celite Comment 42:
Condition 9.C.10(c)(viii) and 9.C.15(i)(vi). Celite notes that the Celite IDs for the equipment permitted under PTO 12398 has been changed. Please update as follows:
APCD DevNo 109822 and 109823 are 4AP-122A and 4AP-122B.
APCD DevNo 110526 and 110527 are 5BB-132A and 5BB-132B.

District Response:
The final permit has been revised to reflect the current Celite IDs for the equipment stated above.

Celite Comment 43:
Condition 9.C.11(a)(i). Celite notes that Boiler #1 source testing is only required if operations are over 200 hours per year. Celite requests that the words "if required" be added to this sentence for Boiler #1.

District Response:
Condition 9.C.11(a)(i) rewritten to clarify Boiler #1 source testing frequency requirements.

Celite Comment 44:
Condition 9.C.10(a)(ii). Celite requests that Source Test frequency be listed in the source test table for ease of compliance with required testing. As discussed with the District, Celite will draft a proposed table and submit under separate cover.

District Response:
Table 9.11 has been updated to include source testing frequency requirements for all baghouses at the Celite Lompoc Plant. Condition 9.C.11(a)(ii) has been revised to reflect the updated Table 9.11.

Celite Comment 45:
Condition 9.C.10. As discussed with the District, Celite can source test on an annual basis as allowed by production schedule. Celite will submit proposed source test schedule to APCD for approval.

District Response:
Comment noted.

Celite Comment 46:
Table 9.11. Celite requests that all facility baghouses be included in the Source Test Grouping table and groups be adjusted.

District Response:
Table 9.11 has been updated to include source testing frequency requirements for all baghouses at the Celite Lompoc Plant.

Celite Comment 47:
Condition 9.C.12 is identical to Condition 9.C.8. for Visual Survey, Wind Speed and Direction Monitor, Daily Monitor Operation Check, Alarm System, Corrective Action. Celite understands that the Mobile Plant is part of PTO 5840, and requests that redundant Fugitive Dust monitoring conditions be removed.

District Response:
The Mobile Plant offsite fugitive dust monitoring requirements of Condition 9.C.8(g) have been consolidated into permit Condition 9.C.12, and Condition 9.C.8(g) has been revised to reference Condition 9.C.12.

Celite Comment 48:
Condition 9.C.12.(f)(ii), (iii). Celite requests that references to strip charts be removed from the permit. The recordkeeping described in Condition 9.C.8(d)(v) and 9.C.8(d)(vi) accurately describe the wind speed data and data storage.

District Response:
Conditions 9.C.12(f)(ii) and 9.C.12(f)(iii) revised to reflect Celite's current recordkeeping methodology.

Celite Comment 49:
Condition 9.C.13. Celite notes that the SOx Protocol documents will need to be combined when PTO 12105 is issued.

District Response:
Comment noted.

Celite Comment 50:
Condition 9.C.14(b). Celite notes that the referenced 2007 approved QIP has been implemented.

District Response:
Comment noted.

Celite Comment 51:
Condition 9.C.13.(a) and 9.C.15.(k).(viii). Celite notes that Split Sample QC/QA sampling was relevant when there were four Systems running at the Celite facility. Request that Split Samples are only required when four Systems are running.

District Response:
The District is unable to process this request. Celite shall continue to collect and analyze daily crude samples for each crude type in use at the plant.

Celite Comment 52:
Condition 9.C.14. Celite notes that all required 7 System equipment is covered under the ATC 12105-01 CAM Plan

District Response:
Comment noted.

Celite Comment 53:
Condition 9.C.15(e)(v) and 9.C.15(k)(vii). Request that these reporting conditions be combined.

District Response:
The District is unable to process this request. These reporting requirements originate from two distinctly different monitoring requirements, and therefore will remain separate reporting requirements.

Celite Comment 54:
Condition 9.D.5(a)(viii). Celite requests that reporting condition for the AWFA system be removed as this system is no longer in service. Per Table 10.9, the equipment in this system has been depermitted.

District Response:
Reporting requirement for AWFA system removed.

Part II, Celpure Plant

Celite Comment 55:
Section 1.3. Please correct typo: "Plant" is misspelled when referencing "Celpure Plant."

District Response:
Typo corrected.

Celite Comment 56:
Section 3.5.2. Celite notes that the Celpure facility was inspected in 2011.

District Response:
District notes that the Celite facility was last visited by District personnel during source testing performed in 2011, but that the last complete Celpure facility inspection occurred on June 25, 2010.

Celite Comment 57:
Condition 9.C.1.(c)(ii) and 9.C.1(c)(iii). Celite notes that as permitted in PTO 9757, Baghouses 8082 and 8083 each operates together with the respective scrubber. Each baghouse exhaust is routed to the respective scrubber. All monitoring and testing of Baghouses 8082 and 8083 is done at the exhaust to atmosphere from the scrubber. Request that as part of this re-eval, the monitoring and operating requirements for the baghouses be converted to the respective scrubber.

District Response:
The Condition 9.C.1(c)(iii) Method 9 monitoring requirements for baghouses 8082 and 8083 were removed in the draft permit, and the final permit condition will remain as presented in the draft permit. The District notes that Method 9 monitoring requirements for these baghouses will be satisfied by the Method 9 monitoring requirements for the 350 and 370 scrubbers. The Condition 9.C.1(c)(ii) visible emissions observations requirements for baghouses 8082 and 8083 will remain unchanged, as these daily visible emissions checks are required for each baghouse whether or not they directly vent to atmosphere.

Celite Comment 58:
Condition 9.C.1(c)(iii). Celite requests that Method 9 frequency be semi-annual for all baghouses. See written request dated May 2010.

District Response:
The District is unable to process this request. Relaxation of monitoring requirements cannot be processed as part of a Part 70 permit reevaluation. Due to Celite's poor compliance history with visible emissions inspections requirements, the District is removing Condition 9.C.6(c)(v)(1) from the final permit.

Celite Comment 59:
Condition 9.C.1(c)(iii). Celite requests that Method 9 is required for any operations of 8 consecutive hours or greater within each period.

District Response:
The District is unable to process this request. Relaxation of monitoring requirements cannot be processed as part of a Part 70 permit reevaluation.

Celite Comment 60:
Condition 9.C.2.(d)(i)(2) and 9.C.2.(d)(v). Request removal of one of the duplicative conditions.

District Response:
Duplicate Condition 9.C.2(d)(i)(2) removed.

Celite Comment 61:
Condition 9.C.2.(c)(iv). Celite requests that if Scrubber Method 9 readings are negative for five (5) consecutive quarters that the frequency of Method 9 be reduced to semi-annual.

District Response:
The District is unable to process this request. Relaxation of monitoring requirements cannot be processed as part of a Part 70 permit reevaluation.

Celite Comment 62:
Table 9.5. Celite notes that the Vacuum Station baghouse is permit exempt and therefore exempt from source testing.

District Response:
Vacuum Station baghouse removed from footnote (f) of Table 9.5

Equipment List

Celite Comment 63:
Celite requests that a space is left between the Item Number and the Equipment Name. For equipment that is listed as starting with a numeral, current format is difficult to decipher.

District Response:
Due to the use of an automated program to generate the equipment list, the spacing between the Item Number and Equipment Name cannot be modified. The Device Name section of each equipment item entry can be referenced to avoid confusion.

Celite Comment 64:
Celite notes that 7 System has been modified as permitted in ATC 12105-01 and subsequent revisions. Celite understands that at issuance of PTO 12105, all 7 System equipment references will be clarified in PTO 5840 equipment list.

District Response:
Comment noted.

Celite Comment 65:
Device 103323 is the same as Device 106

District Response:
Duplicate Device 103323 removed.

Celite Comment 66:
Device 103324 is the same as Device 105

District Response:
Duplicate Device 103324 removed.

Celite Comment 67:
Device 103317 is the same as Device 6471

District Response:
Duplicate Device 103317 removed.

Celite Comment 68:
Table 10.4.2. Please see PTO 5840-R3, APCD Response to Celite Comment #29 and revise wording in this section to clarify. If the Celpure vacuum baghouse is permit exempt, it should not require an application to operate.

District Response:
Celpure Vacuum Station Baghouse removed from Table 10.4.2.

Celite Comment 69:
Please correct misspelling of "Machinery"

District Response:
Typo corrected.

Celite Comment 70:
Equipment Item 13.1. Please revise name to be Grizzly Feeder

District Response:
Equipment item 13.1 renamed to "Grizzly Feeder."

Celite Comment 71:
APCD DevNos 64, 65, 63, 66, 79, 8831, and 73 are no longer in service. Celite requests that they be removed from the equipment list.

District Response:
These devices have been removed from the permit exempt equipment list.

Celite Comment 72:
There is no longer a Line 11 at the Lompoc Plant. Celite requests that the section headers for Line 11 be removed from the equipment list. The blowers and cyclone for 11 Mill have been removed; APCD DevNos 106144 and 106145 can be removed from permit. Celite proposes that the Baghouse 1178 be listed under "Section 8, Baghouses Miscellaneous" in the equipment list.

District Response:
All references to Line 11 were removed from the final permit. Blowers (District Dev.No. 106144) and Cyclone (District Dev.No. 106145) have been removed. Baghouse 1178 moved to Baghouses-Miscellaneous category.

Celite Comment 73:
Equipment Item 13.21 and 13.22. Celite requests that the physical size of the storage piles be the device description and not the shape of the piles as the shape may vary based on production and inventory.

District Response:
Device descriptions revised to remove references to piles shapes.

Celite Comment 74:
Equipment Item 1.1. Celite requests that the name and description be clarified as "Storage piles (blend piles)." Celite no longer uses the glory holes to feed ore to the plant.

District Response:
Equipment item 1.1 renamed to be "Storage piles (blend piles)."

Comment on Celite Title V Renewal Permit Submitted by Mr. Mukasa Kezala (2/15/2012) and District Response

Comment:

Records in Section 3.5 of the draft permit clearly indicate a worsening pattern of non-compliance with the current Title V Permit requirements. Normally, compliance programs improve with time. Here we have exactly the opposite. Noteworthy, is Celite's failure to monitor plant equipment for fugitive dust emissions, and failure to monitor baghouse and scrubber exhaust stacks for visible particulate matter emissions.

The APCD should enhance its compliance oversight efforts and enforce Celite's Title V permit in a manner that deters a continuing pattern of non-compliance by, among the ways:

a) assessing progressively increasing monetary penalties, high enough to make it uneconomical for Celite to continue to violate the permit. Penalties should clearly be increasing with each successive violation(s), even if separate NOVs are settled at the same time. The APCD could be assessing low penalties while Celite is realizing cost savings by not committing resources to air permit compliance. Some Celite and/or World Minerals employees could be getting financial performance bonuses unfairly derived from cost savings due to air quality permit non-compliance.

b) filing, in Superior Court, complaint(s) against Celite Corporation, if the pattern of violations continues. The APCD has authority and has done it for against other facilities.

   Masking or sugar-coating a poor compliance record through the NOV settlement process is a disservice to those who consider a company's environmental compliance record by reviewing Securities and Exchange Commission 10-K Forms, before making investments. Avoidance of having to disclose an environmental non-compliance lawsuit is a compliance motivator (lawsuits effect company stock and investor relations). Where warranted, the APCD should file lawsuits against repeat violators when NOVs don't seem to work.

c) following MSHA's example of year 2009: Possibility of pulling employees out of the plant for being one of 15 mining companies (13 were coal mines), in the entire USA, is a compliance motivator (see Attachment "B", Pages 1-3). If NOVs are not bringing about compliance, the APCD should try something different.

   Is the MSHA example relevant to comments on the draft permit? Yes! The example paints a broader picture of Celite's compliance programs. There is a very close relationship between safety and environmental compliance. It took extreme measures to improve Celite's worker safety programs. APCD NOVs are not breaking the cycle of non-compliance with the Title V permit – getting worse. Try something different!

d) enhancing APCD plant inspections, knowledge of plant equipment and processes. I have good reason to believe, that APCD inspectors are not flushing out non-compliance situations at Celite's facility at the same level or same ease they do at oil and gas facilities. Most of the violations are self reported. Field compliance verification is a must. "Trust but verify", to quote President Reagan.

Discussion

I have good reason to believe that, a reasonable person would find Celite Corporation's history of non-compliance with the Title V permit, as documents in Section 3.5 of the Draft Permit 5840-R4, atrocious.

Noteworthy, is Celite's failure to monitor plant equipment for fugitive dust emissions, and baghouse and scrubber exhaust stacks for visible particulate matter emissions. Attachment "A" is a listing of Notices of Violations (NOVs) issued to Celite for failure to monitor, extracted from the Draft Permit. By all measures, the listing clearly shows a worsening pattern of non-compliance. These are their records - they cannot be sugar-coated. (Highlighting these NOVs does not mean that I take the other violations lightly).

Routine monitoring ensures compliance with the underlying air pollution control requirements. The requirements to monitor are clearly stated in the permit and are also contained in Celite's, APCD approved, Compliance Assurance Monitoring Plan (CAM), referenced by certain permit conditions. In one of the self reported failure to monitor violations, as a corrective measure, Celite wrote something to the effect that the maintenance manager will be re-trained. Really?

Failure to monitor can sometimes be due to benign reasons, e.g., an employee forgetting to complete a routine task, etc. Sometimes, failure to monitor can be attributable to economic reasons and/or choices or priorities in allocating available resources. Sometimes, the violations could be strategic (knowing violations but with no records to show how decisions are made) in that given a choice between assigning an employee to monitor baghouses for visible dust emissions and assigning the employee a task say to repair a blower or pump, necessary to keep the plant running and making product, what is a supervisor or manager to do.

The supervisor or manager weighs the benefits of monitoring and/or repairing the baghouse against the trouble he would get in if he has process downtime and does not make product. The chance of getting caught by the APCD, and if caught, the monetary penalty for resulting NOV goes into the calculus (APCD already has examples at Celite).

Another strategic move could involve knowingly skipping baghouse inspections so as to preclude the possibility of finding and documenting baghouses blowing dust – with visible emissions. Finding a baghouse with visible emissions means that a process may have to be shutdown to fix it or pulling maintainers from jobs or to pay over-time to fix it the affected baghouse (within permit timelines). Imagine if two or three baghouses were found blowing dust on the same day. That would be a drain on maintenance resources. Rather than risk that, strategically, one may choose not to assign a person to inspect baghouses known to be

blowing dust. Get my drift? Has a Celite salaried employee (not me) ever been in trouble for finding five or six baghouses blowing dust on the same day? You bet! Has a manager ever told someone, in writing, "*...I want you to look away*", with regards to baghouses blowing dust? You bet!

With increasing pressure to cut costs, and a limited number of areas a plant level manager or supervisor can cut costs, it is conceivable air permit compliance – failure to inspect, monitor, or maintain equipment in good working order could be likely candidates to skimp on and realize cost savings.

There is no free lunch, as the saying goes. There is a potential air pollution cost borne by the affected community when companies do not comply with air pollution laws. If a baghouse is not monitored, how do we know it is not blowing dust, not just dust but in some cases, crystalline silica, a substance known to the State of California to cause cancer.

Families with homes in the area of Miguelito Canyon Road or Jalama Road could be paying the price – increased risk of getting cancer, while Celite maximize profits so that Celite and World Minerals higher ups can get performance bonuses, in part due to savings gained from skimping on hourly labor costs or equipment maintenance costs.

Conclusion

NOV penalties should have a deterrent effect. Are they? While the non-compliance records discussed in my comments reflect Celite's non-compliance history, they are also a reflection on the effectiveness of the APCD in enforcing its programs. APCD staff should not be swayed by smiling faces, empty compliance proclamations or facades, etc. to believe that things are under control at Celite's facility. Look at the NOV record!

The community counts on you to protect it from the ravages of air pollution.

District Response:
The District has issued NOVs to document the Celite's violations and is initiating a mutual settlement process to settle the violations. Should the mutual settlement process fail to reach an acceptable outcome, the matter will be forwarded to the District Attorney's office. In addition, due to Celite's poor compliance history with visible emissions inspections requirements, the District is removing the permit conditions which allowed for possible relaxation of visible emissions monitoring requirements.