FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
SOUTHEAST DISTRICT OFFICE
400 NORTH CONGRESS AVENUE 3RD FLOOR
WEST PALM BEACH, FLORIDA 33401-2913

RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

July 17, 2013
Sent by Electronic Mail – Received Receipt Requested

NOTICE OF AIR OPERATION PERMIT

In the Matter of an
Application for Permit Renewal:

Mr. Robert Nothof, Plant Manager
S&B Industrial Minerals North America, Inc
3505 65th Street
Vero Beach, FL 32967

FINAL Permit Project No.: 0610002-007-AO
S&B Industrial Minerals, Inc. Vero Beach
Indian River County, Florida

Mr. Nothof:

Enclosed is an Operation Permit No. 0610002-007-AO for the operation of a source of air pollution located in Indian River County. This permit is issued pursuant to Chapter 403.087 of the Florida Statutes (F.S.) and Chapters 62-4, 62-210, 62-212, 62-296, and 62-297 of the Florida Administrative Code.

A person whose substantial interests are affected by the Department's permitting decision may petition for an administrative hearing in accordance with Sections 120.569 and 120.57, F.S. The petition must contain the information set forth below and must be filed with (received by) the Department's Agency Clerk in the Office of General Counsel of the Department of Environmental Protection at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000 (Telephone: 850/245-2241). Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this final permit. A petitioner must mail a copy of the petition to the applicant at the address indicated above, at the time of filing. The failure of any person to file a petition within the appropriate time period shall constitute a waiver of that person's right to request an administrative determination (hearing) under sections 120.569 and 120.57, F.S., or to intervene in this proceeding and participate as a party to it. Any subsequent intervention will be only at the approval of the presiding officer upon the filing of a motion in compliance with Rule 28-106.205, F.A.C.

A petition that disputes the material facts on which the Permitting Authority's action is based must contain the following information: (a) The name and address of each agency affected and each agency's file or identification number, if known; (b) The name, address, and telephone number of the petitioner; the name, address and telephone number of the petitioner's representative, if any, which shall be the address for service purposes during the course of the proceeding; and an explanation of how the petitioner's substantial interests will be affected by the agency determination; (c) A statement of when and how each petitioner received notice of the agency action or proposed decision; (d) A statement of all disputed issues of material fact. If there are none, the petition must so state; (e) A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the agency's proposed action; (f) A statement of the specific rules or statutes the petitioner contends require reversal or modification of the agency's proposed action including an explanation of how the alleged facts relate to the specific rules or statutes; and, (g) A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the agency to take with respect to the agency's proposed action.

A petition that does not dispute the material facts upon which the permitting authority's action is based shall state that no such facts are in dispute and otherwise shall contain the same information as set forth above, as required by Rule 28-106.301, F.A.C.

Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this final permit. Persons whose substantial interests will be affected by any such final decision of the Department on the application have the right to petition to become a party to the proceeding, in accordance with the requirements set forth above.

Mediation is not available for this action.

Any party to this Order (Permit) has the right to seek judicial review pursuant to Section 120.68, F.S., by the filing of a Notice of Appeal pursuant to Rule 9.110, Florida Rules of Appellate Procedure with the Department at the address listed below and by filing a copy of the Notice of Appeal accompanied by the applicable filing fees with the appropriate District Court of Appeal. The Notice of Appeal must be filed within 30 days from the date this Order (Permit) is filed with the Clerk of the Department.

Executed in West Palm Beach, Florida.
Department of Environmental Protection

_____ 07-16-13
Jill S. Creech, P.E. Date
Southeast District Director

JSC/JKS/JL /lh /sdt

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this NOTICE OF PERMIT and the FINAL AIR OPERATION PERMIT were sent electronically (with Received Receipt) before the close of business on July 17, 2013 to the person(s) listed or as otherwise noted:

Mr. Robert Nothof, Plant Manager, S&B Industrial Minerals North America, Inc.: r.nothof@sandb.com

The undersigned duly designated deputy agency clerk hereby certifies that a copy of this NOTICE OF PERMIT and the FINAL AIR OPERATION PERMIT were sent electronically (with Received Receipt) before the close of business on July 17, 2013 to the person(s) listed or as otherwise noted:

Mr. Jerome J. Guidry, P.E., Q.E.P., Perigee Technical Services, Inc. jerome.guidry@att.net
Mr. Joe Lurix, DEP, SED: joe.lurix@dep.state.fl.us (for Compliance Information)

Clerk Stamp

FILING AND ACKNOWLEDGMENT FILED, on this date, pursuant to §120.52(7), Florida Statutes, with the designated Department Clerk, receipt of which is hereby acknowledged.

Lilwanda Martin 7/17/13
(Clerk) (Date)

S&B Industrial Minerals, North America, Inc.

Facility ID No. 0610002
Indian River County

Air Operation Permit Renewal

Permit No. 0610002-007-AO
Renewal of Air Operation Permit No. 0610002-006-AO

Permitting and Compliance Authority:

State of Florida
Department of Environmental Protection
Air Resource Management, Southeast District

400 North Congress Ave. 3rd Floor
West Palm Beach, Florida 33401-2913

Telephone: (561) 681-6600
Fax: (561) 681-6655

July 17, 2013

Title V Air Operation Permit Renewal
Permit No. 0610002-007-AO

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FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
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RICK SCOTT
GOVERNOR

HERSCHEL T. VINYARD JR.
SECRETARY

PERMITTEE:
S & B Industrial Minerals North America, Inc.
225 New Castle Street
Brunswick, Georgia 31520

Permit No.: 0610002-007-AO
Facility Id No. 0610002
Plant Name: Vero Beach Facility
Project: Air Operation Permit Renewal

The purpose of this permit is to renew the Air Operation Permit for the above referenced facility. The existing S & B Industrial Minerals North America Inc. Vero Beach Facility is located in Indian River County at 3505 65th Street in Vero Beach, Florida. Latitude is: 27° 42′ 41″ North; and, Longitude is: 80° 25′ 17″ West.

STATEMENT OF BASIS: This air operation permit is issued under the provisions of Chapter 403, Florida Statutes (F.S.) and Florida Administrative Code (F.A.C.) Chapters 62-4 and 62-210. The above named permittee is hereby authorized to perform the work or operate the facility shown on the application and approved drawing(s), plans, and other documents, attached hereto or on file with the permitting authority, in accordance with the terms and conditions of this permit.

Referenced attachments made a part of this permit:
Appendix A, Abbreviations, Acronyms, Citations and Identification Numbers
Appendix G, General Conditions
Appendix SS, Stack Sampling Facilities
40 CFR 60 subpart UUU

Effective Date: July 17, 2013
Renewal Application Due Date: May 17, 2018
Expiration Date: July 16, 2018

Jill S. Creech, P.E. — 07-16-13 Date
Southeast District Director

JSC/JKS/JL /lh /sdt

SECTION I. FACILITY INFORMATION.

Subsection A. Facility and Project Description.

The S & B Minerals North America Inc., Vero Beach Facility is a perlite expansion operation with two production lines. Perlite ore is off-loaded by conveyor belt from rail cars and then elevated into one of three silos. The silos feed the two expansion furnaces that expand the perlite. The expanded perlite is separated by cyclone classifiers and packed into bags. Exhausts are passed through a baghouse to remove particulates. Removed particulates are bagged for transport offsite for disposal or reuse.

EU002, Perlite Processing Furnace #2 is a 5.1 MMBtu/hr expansion furnace, permitted to burn natural gas, propane, or biodiesel fuel. The maximum process rate for Perlite Processing Furnace #2 is 1.0 ton of product per hour. Emissions are controlled with a Mikro-Pulsair Model 144S-8-20 baghouse with 144 Nomex bags, an air-to-cloth ratio of 5.5 to 1, and a particulate reduction efficiency of approximately 99.9 percent.

EU003, Perlite Processing Furnace #3 is a 7.4 MMBtu/hr expansion furnace, permitted to burn natural gas, propane, or biodiesel fuel. The maximum process rate for Perlite Processing Furnace #2 is 2.0 ton of product per hour. Emissions are controlled with an Incon Baghouse with 144 Nomex bags and an air to cloth ratio of 4.1 to 1.

Subsection B. Summary of Emissions Units.

EU No.	Brief Description
Regulated Emissions Units	
002	Perlite Processing Furnace #2: 5.1 MMBtu/hr producing 1.0 ton product per hour
003	Perlite Processing Furnace #3: 7.4 MMBtu/hr producing 2.0 ton product per hour

Please reference the Permit No., Facility ID No., and appropriate Emissions Unit(s) ID No(s). on all correspondence, test report submittals, applications, etc.

Subsection C. Relevant Documents

The document(s) listed below are not a part of this permit; however, they are specifically related to this permitting action.

These documents are on file with the permitting authority:
Permit Application received April 29, 2013

Subsection D. Applicable Regulations.

Based on the permit application received April 29, 2013, this facility is not a major source of hazardous air pollutants (HAPs).

A summary of applicable regulations is shown below.

State Regulations

Chapter 62-4, F.A.C.

Chapter 62-204, F.A.C.

Chapter 62-210, F.A.C.

Chapter 62-296, F.A.C.

Chapter 62-297, F.A.C.

The following conditions apply facility-wide to all emission units and activities:

FW1. Appendices. The permittee shall comply with all documents identified in Section IV, Appendices, listed in the Table of Contents. Each document is an enforceable part of this permit unless otherwise indicated.

Emissions and Controls

FW2. Not federally Enforceable. Objectionable Odor Prohibited. No person shall cause, suffer, allow or permit the discharge of air pollutants, which cause or contribute to an objectionable odor. An "objectionable odor" means any odor present in the outdoor atmosphere which by itself or in combination with other odors, is or may be harmful or injurious to human health or welfare, which unreasonably interferes with the comfortable use and enjoyment of life or property, or which creates a nuisance. [Rule 62-296.320(2) and 62-210.200(Definitions), F.A.C.]

FW3. General Visible Emissions. Except for emissions units that are subject to a particulate matter or opacity limit set forth or established by rule and reflected by conditions in this permit, no person shall cause, let, permit, suffer or allow to be discharged into the atmosphere the emissions of air pollutants from any activity equal to or greater than 20% opacity. EPA Method 9 is the method of compliance pursuant to Chapter 62-297, F.A.C. This regulation does not impose a specific testing requirement. [Rule 62-296.320(4)(b)1, F.A.C.]

FW4. Unconfined Particulate Matter. No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials; construction; alteration; demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at this facility shall include:

a. Paving and maintenance of roads, parking areas and yards;
b. Application of water or chemicals to control emissions from such activities as demolition of buildings, grading roads, construction, and land clearing;
c. Application of asphalt, water, oil, chemicals or other dust suppressants to unpaved roads, yards, open stock piles and similar activities;
d. Removal of particulate matter from roads and other paved areas under the control of the owner or operator of the facility to prevent reentrainment, and from buildings or work areas to prevent particulate from becoming airborne.
e. Landscaping or planting of vegetation;
f. use of hoods, fans, filter, and similar equipment to contain, capture and/or vent particulate matter;
g. Confining abrasive blasting where possible;
h. Enclosing or covering conveyor systems;

In determining what constitutes reasonable precautions for a particular facility, the Department shall consider the cost of the control technique or work practice, the environmental impacts of the technique or practice, and the degree of reduction of emissions expected from a particular technique or practice. [Rule 62-96.320(4)(c), F.A.C.]

FW5. Special Compliance Tests. When the Department, after investigation, has good reason (such as complaints, increased visible emissions or questionable maintenance of control equipment) to believe that any applicable emission standards contained in a Department rule or in a permit issued pursuant to those rules is being violated, it may require the owner or operator of the emissions unit to conduct compliance tests that identify the nature and quantity of pollutant emissions from the emissions unit and to provide a report on the results of said tests to the Department. [Rule 62-297.310(7)(b), F.A.C.]

FW6. Asbestos. This permit does not authorize any demolition or renovation of the facility or its parts of components which involves asbestos removal. This permit does not constitute a waiver of any of the requirements of Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, National Emission Standard for

Asbestos, adopted and incorporated by reference in Rule 62-204.800, F.A.C. Compliance with Chapter 62-257, F.A.C., and 40 CFR 61, Subpart M, Section 61.145, is required for any asbestos demolition or renovation at the source. [40 CFR 61; Rule 62-204.800, F.A.C.; and Chapter 62-257, F.A.C.]

FW7. Sixty days prior to the expiration date of this operation permit, the Permittee shall submit two permit renewal applications using the current version of the renewal form along with the processing fee established in Rule 62-4.050(4), F.A.C., to the Southeast District office of the Department. [Rule 62-4.090, F.A.C.] Permit forms can be found online or submitted electronically at http://www.dep.state.fl.us/air/rules/forms/application.htm

FW8. The permittee shall submit all compliance related notifications and reports required of this permit to the Department's Southeast District office:

Department of Environmental Protection
Southeast District Office
400 North Congress Avenue, 3rd Floor
West Palm Beach, Florida 33401
Telephone: (561) 681-6600; Fax: (56) 681-6655

Notification of compliance testing may be submitted by electronic mail to joe.lurix@dep.state.fl.us, or as specified by the District office.

Subsection A. Emissions Units 002 and 003

The specific conditions in this section apply to the following emissions units:

EU No.	Brief Description
002	Perlite Processing Furnace #2: 5.1 MMBtu/hr producing 1.0 ton product per hour
003	Perlite Processing Furnace #3: 7.4 MMBtu/hr producing 2.0 ton product per hour

EU 002 - Perlite Processing Furnace #2. The maximum process rate is 1.0 ton of product per hour. Emissions are controlled with a Mikro-Pulsair Model 144S-8-20 baghouse with 144 Nomex bags, an air-to-cloth ratio of 5.5 to 1, and a particulate reduction efficiency of approximately 99.9 percent.

EU 003 - Perlite Processing Furnace #3. The maximum process rate is 2.0 ton of product per hour. Emissions are controlled with an Incon Baghouse with 144 Nomex bags and an air to cloth ratio of 4.1 to 1.

These emissions units are regulated in accordance with Rule 62-204.800(8)(b)72, F.A.C., that incorporates 40 CFR 60 subpart UUU, Standards of Performance for Calciners and Dryers in Mineral Industries. This subpart establishes standards for particulate matter (PM), 0.04 gr/dscf; and visible emissions (VE), 10% opacity. These emissions units are also subject to the requirements of Rule 62-296.320, F.A.C., (General Pollutant Emission Limiting Standards) including the process weight table. However, the more stringent requirements of subpart UUU are applicable, including the PM limit of 0.04 gr/dscf and a 10% opacity limit. The facility is subject to an alternate opacity limit of 5% allowed by Rule 62-297.620, F.A.C., as an alternate standard demonstrating compliance with the PM emissions limit.

Essential Potential to Emit (PTE) Parameters

A.1. Permitted Capacity. The maximum allowable heat input rate is as follows:

EU No.	MMBtu/hr Heat Input	Fuel Type
002	5.1	Natural Gas, Propane, or Biodiesel
003	7.4	Natural Gas, Propane, or Biodiesel

The maximum permitted firing rate for both furnaces combined is 924,000 gallons of propane per consecutive 12 months, 84.2 million cubic feet of natural gas per consecutive 12 months, or a combined prorated total heat input equivalent not to exceed 83,622 MMBTU per consecutive 12 months based on an average heating value for propane of 90,500 BTU per gallon. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C.]

A.2. Methods of Operation. (*Fuels).* The fuels that are allowed to be burned in these units are Natural Gas, Propane, or Biodiesel. [Permit No. 0610002-006-AO]

A.3. Hours of Operation. This emissions unit is allowed to operate continuously, i.e., 8,760 hours/year. [Rules 62-4.160(2) and 62-210.200(PTE), F.A.C]

A.4. Circumvention. No person shall circumvent any pollution control device or allow the emissions of air pollutants without the applicable air pollution control device operating properly. [Rule 62-210.650, F.A.C.]

Emission Limitations and Standards

A.5. The emissions units are subject to Rule 62-296.320(4)(a)2., Process Weight Table 296.320-1, F.A.C. For process weight rates up to 30 tons per hour, P_1, the respective allowable emission rate, E_1, in pounds per hour is given below:

$$E_1 = 3.59(P_1)^{0.62}$$

a. The maximum process weight for EU002 is 1.0 ton per hour resulting in an allowable particulate emissions rate of 3.59 pounds per hour or 15.72 tons per any consecutive 12-month period.

b. The maximum process weight for EU003 is 2.0 tons per hour resulting in an allowable particulate emissions rate of 5.52 pounds per hour or 24.17 tons per any consecutive 12-month period.

A.6. Visible Emissions. Visible emissions shall not exceed 5% opacity. This is an alternative to the limit of 10% established by 40 CFR 60.732. [40 CFR 60.732; Rules 62-204.800(8)(b)72 and 62-297.620, F.A.C.]

*{Permit Note: Compliance with the above opacity limit will demonstrate compliance with the particulate matter standard of Specific Condition **A.5** per Rule 62-297.620, F.A.C. However, if this opacity limit is exceeded, the permittee has 45 days to established compliance with the particulate matter limit, per Specific Condition **A.12**.}*

Excess Emissions

A.7. Excess Emissions Allowed. Excess emissions resulting from malfunction shall be permitted provided that best operational practices to minimize emissions are adhered to and the duration of excess emissions shall be minimized but in no case exceed two hours in any 24 hour period unless specifically authorized by the Department for longer duration. [Rule 62-210.700(1), F.A.C.]

A.8. Excess Emissions Prohibited. Excess emissions which are caused entirely or in part by poor maintenance, poor operation, or any other equipment or process failure which may reasonably be prevented during startup, shutdown or malfunction shall be prohibited. [Rule 62-210.700(1), F.A.C.]

Test Methods and Procedures

A.9. Test Methods. Required tests shall be performed in accordance with the following reference methods:

Method	Description of Method and Comments
5	Method for Determining Particulate Matter Emissions (All PM is assumed to be PM_{10}.)
9	Visual Determination of the Opacity of Emissions from Stationary Sources

[The above methods are described in 40 CFR 60, Appendix A, and adopted by reference in Rule 62-204.800, F.A.C. No other methods may be used unless prior written approval is received from the Department. [62-297.401, F.A.C., AC No. 0850002-AC]

A.10. Annual Compliance Tests.

a. Testing. During each federal fiscal year (October 1 to September 30), the emissions units shall be tested to demonstrate compliance with the emissions standards. Visible emissions tests are required to show compliance with the standards of the Department. The test results must provide reasonable assurance that the emissions units are capable of compliance at the permitted maximum operating rate. The visible emissions tests shall be conducted in accordance with EPA Method 9 for 30 minutes. The Department shall be notified at least 15 days prior to testing to allow witnessing. Results shall be submitted to the Department within 45 days after testing. Notification of compliance testing and completed test reports may be submitted by electronic mail to joe.lurix@dep.state.fl.us. [Rules 62-4.070, 62-297.310(4 & 8), and 62-297.401(9), F.A.C.]

{Permit Note: EU002 is currently in long term shutdown. If the unit is restarted, the facility shall conduct a compliance test on the unit within 30 days of startup. The Department shall be notified at least 15 days prior to testing to allow witnessing. Results shall be submitted to the Department within 45 days.}

b. Test Reports. The test reports shall comply with applicable portions of Rule 62-297.310(8), F.A.C., Test Reports. The Department can require special compliance tests in accordance with Rule 62-297.310(7), F.A.C. Other test methods and alternate compliance procedures may be used only after prior Departmental approval has been obtained in writing. [Rules 62-297.310(7) and 62-297.620(1), F.A.C.]

c. Operating Rate During Testing. Testing of emissions shall be conducted with the emissions unit operating at permitted capacity. Permitted capacity is defined as 90-100% of the maximum operation rate allowed by the permit. If it is impractical to test at permitted capacity, an emission unit may be tested at

less than the maximum permitted capacity; in this case, subsequent emissions unit operation is limited to 110% of the test rate until a new test is conducted. Once the unit is so limited, operation at higher capacities is allowed for no more than 15 consecutive days for purpose of additional compliance testing to regain the authority to operate at the permitted capacity, with prior notification to the Department. [Rules 62-297.310(2) and 62-4.070, F.A.C.]

A.11. Determination of Process Variables.

a. Required Equipment. The owner or operator of an emissions unit for which compliance tests are required shall install, operate, and maintain equipment or instruments necessary to determine process variables, such as process weight input or heat input, when such data are needed in conjunction with emissions data to determine the compliance of the emissions unit with applicable emission limiting standards.

b. Accuracy of Equipment. Equipment or instruments used to directly or indirectly determine process variables, including devices such as belt scales, weight hoppers, flow meters, and tank scales, shall be calibrated and adjusted to indicate the true value of the parameter being measured with sufficient accuracy to allow the applicable process variable to be determined within 10% of its true value.

[Rule 62-297.310(5), F.A.C.]

A.12. PM Test Waiver. Rule 62-297.620(4), F.A.C., allows the waiver of PM compliance test requirements for an emission unit that has the potential to emit less than 100 tons per year of particulate matter and is equipped with a baghouse. If the Department has reason to believe that the particulate weight emission standard applicable to such emission unit is not being met, it shall require that compliance be demonstrated by the applicable test method. Compliance with the PM emission limit shall be demonstrated by demonstration of compliance with the opacity standard of 5%. If compliance is not satisfactorily demonstrated, an EPA Method 5 test shall be conducted within 45 days of the visible emissions test. The Method 5 test shall consist of three test runs with a sampling time and volume for each test run of at least two hours and 1.7 dscm. [Rule 62-297.620(4), F.A.C.]

Recordkeeping and Reporting Requirements

A.13. In order to provide information to document compliance with the fuel heat input rate limitations of specific condition **A.1**., the permittee shall monitor and maintain daily record logs of the amount of fuel used and the hours of operation. The logs shall be maintained on file for a period of at least 5 years from the date the data is recorded, and shall be made available to the Department upon request. The logs at a minimum shall contain the following:

Monthly
a. Designation of month and year of operation for which records are being tabulated;
b. Consecutive 12-months total of heat input for the furnaces (combined) in units of MMBTUs;
c. Consecutive 12-months total of throughput rate (product) for each furnace; and
d. Monthly hours of operation for each furnace.
[Rule 62-4.070(3), F.A.C.]

Note: A consecutive 12-months total is equal to the total for the month in question plus the totals for the eleven months previous to the month in question. A consecutive 12-months total treats each month of the year as the end of a 12-month period. A 12-months total is not a year-to-date total. Facilities that have not been operating for 12 months should retain 12-months totals using whatever number of months of data is available until such a time as a consecutive 12-months total can be maintained each month. The monthly logs shall be completed by the end of the following month. [Rule 62-4.070(3), F.A.C.]

ABBREVIATIONS, ACRONYMS, CITATIONS AND IDENTIFICATION NUMBERS

Abbreviations and Acronyms:

° F: degrees Fahrenheit

acfm: actual cubic feet per minute

AOR: Annual Operating Report

ARMS: Air Resource Management System (Department's database)

BACT: best available control technology

Btu: British thermal units

CAM: compliance assurance monitoring

CEMS: continuous emissions monitoring system

cfm: cubic feet per minute

CFR: Code of Federal Regulations

CO: carbon monoxide

COMS: continuous opacity monitoring system

DARM: Division of Air Resources Management

DCA: Department of Community Affairs

DEP: Department of Environmental Protection

Department: Department of Environmental Protection

dscfm: dry standard cubic feet per minute

EPA: Environmental Protection Agency

ESP: electrostatic precipitator (control system for reducing particulate matter)

EU: emissions unit

F.A.C.: Florida Administrative Code

F.D.: forced draft

F.S.: Florida Statutes

FGR: flue gas recirculation

Fl: fluoride

ft^2: square feet

ft^3: cubic feet

gpm: gallons per minute

gr: grains

HAP: hazardous air pollutant

Hg: mercury

I.D.: induced draft

ID: identification

ISO: International Standards Organization (refers to those conditions at 288 Kelvin, 60% relative humidity and 101.3 kilopascals pressure.)

kPa: kilopascals

LAT: Latitude

lb: pound

lbs/hr: pounds per hour

LONG: Longitude

MACT: maximum achievable technology

mm: millimeter

MMBtu: million British thermal units

MSDS: material safety data sheets

MW: megawatt

NESHAP: National Emissions Standards for Hazardous Air Pollutants

NO_X: nitrogen oxides

NSPS: New Source Performance Standards

O&M: operation and maintenance

O_2: oxygen

ORIS: Office of Regulatory Information Systems

OS: Organic Solvent

Pb: lead

PM: particulate matter

PM_{10}: particulate matter with a mean aerodynamic diameter of 10 microns or less

PSD: prevention of significant deterioration

psi: pounds per square inch

PTE: potential to emit

RACT: reasonably available control technology

RATA: relative accuracy test audit

RMP: Risk Management Plan

RO: Responsible Official

SAM: sulfuric acid mist

scf: standard cubic feet

scfm: standard cubic feet per minute

SIC: standard industrial classification code

SNCR: selective non-catalytic reduction (control system used for reducing emissions of nitrogen oxides)

SOA: Specific Operating Agreement

SO_2: sulfur dioxide

TPH: tons per hour

TPY: tons per year

ULSD: Ultra Low Sulfur Diesel

UTM: Universal Transverse Mercator coordinate system

VE: visible emissions

VOC: volatile organic compounds

x: By or times

Citations:

The following examples illustrate the methods used in this permit to abbreviate and cite the references of rules, regulations, guidance memorandums, permit numbers and ID numbers.

Code of Federal Regulations:

Example: **[40 CFR 60.334]**

Where:	40	refers to	Title 40
	CFR	refers to	Code of Federal Regulations
	60	refers to	Part 60
	60.334	refers to	Regulation 60.334

Florida Administrative Code (F.A.C.) Rules:

Example: **[Rule 62-213.205, F.A.C.]**

Where:	62	refers to	Title 62
	62-213	refers to	Chapter 62-213
	62-213.205	refers to	Rule 62-213.205, F.A.C.

Identification Numbers:

Facility Identification (ID) Number:

Example: Facility ID No.: 1050221

Where:

105 = 3-digit number code identifying the facility is located in Polk County
0221 = 4-digit number assigned by state database.

Permit Numbers:

Example: 1050221-002-AV, or
1050221-001-AC

Where:

AC = Air Construction Permit
AV = Air Operation Permit (Title V Source)
105 = 3-digit number code identifying the facility is located in Polk County
0221= 4-digit number assigned by permit tracking database
001 or 002= 3-digit sequential project number assigned by permit tracking database

Example: PSD-FL-185
PA95-01
AC53-208321

Where:

PSD = Prevention of Significant Deterioration Permit
PA = Power Plant Siting Act Permit
AC53 = old Air Construction Permit numbering identifying the facility is located in Polk County

GENERAL CONDITIONS

1. The terms, conditions, requirements, limitations, and restrictions set forth in this permit are "permit conditions", and are binding and enforceable pursuant to Sections 403.141, 403.727, or 403.859 through 403.861, Florida Statutes. The permittee is placed on notice that the Department will review this permit periodically and may initiate enforcement action for any violation of these conditions.

2. This permit is valid only for the specific processes and operations applied for and indicated in the approved drawings or exhibits. Any unauthorized deviation from the approved drawings, exhibits, specifications, or conditions of this permit may constitute grounds for revocation and enforcement action by the Department.

3. As provided in Subsections 403.087(6) and 403.722(5), Florida Statutes, the issuance of this permit does not convey any vested rights or any exclusive privileges. Neither does it authorize any injury to public or private property or any invasion of personal rights, nor any infringement of federal, state or local laws or regulations. This permit is not a waiver of or approval of any other Department permit that may be required for other aspects of the total project which are not addressed in the permit.

4. This permit conveys no title to land or water, does not constitute State recognition or acknowledgment of title, and does not constitute authority for the use of submerged lands unless herein provided and the necessary title or leasehold interests have been obtained from the State. Only the Trustees of the Internal Improvement Trust Fund may express State opinion as to title.

5. This permit does not relieve the permittee from liability for harm or injury to human health or welfare, animal, or plant life, or property caused by the construction or operation of this permitted source, or from penalties therefore; nor does it allow the permittee to cause pollution in contravention of Florida Statutes and Department rules, unless specifically authorized by an order from the Department.

6. The permittee shall properly operate and maintain the facility and systems of treatment and control (and related appurtenances) that are installed and used by the permittee to achieve compliance with the conditions of this permit, are required by Department rules. This provision includes the operation of backup or auxiliary facilities or similar systems when necessary to achieve compliance with the conditions of the permit and when required by Department rules.

7. The permittee, by accepting this permit, specifically agrees to allow authorized Department personnel, upon presentation of credentials or other documents as may be required by law and at reasonable times, access to the premises where the permitted activity is located or conducted for the purpose of:

a. Have access to and copy any records that must be kept under conditions of this permit;
b. Inspect the facility, equipment, practices, or operations regulated or required under this permit; and,
c. Sample or monitor any substances or parameters at any location reasonably necessary to assure compliance with this permit or Department rules.

Reasonable time may depend on the nature of the concern being investigated.

8. If, for any reason, the permittee does not comply with or will be unable to comply with any condition or limitation specified in this permit, the permittee shall immediately provide the Department with the following information:

a. A description of and cause of noncompliance; and
b. The period of noncompliance, including exact dates and times; or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate, and prevent recurrence of the noncompliance. The permittee shall be responsible for any and all damages that may result and may be subject to enforcement action by the Department for penalties or for revocation of this permit.

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9. In accepting this permit, the permittee understands and agrees that all records, notes, monitoring data and other information relating to the construction or operation of this permitted source which are submitted to the Department may be used by the Department as evidence in any enforcement case involving the permitted source arising under the Florida Statutes or Department rules, except where such use is proscribed by Sections 403.73 and 403.111, Florida Statutes. Such evidence shall only be used to the extent it is consistent with Florida Rules of Civil Procedure and appropriate evidentiary rules.

10. The permittee agrees to comply with changes in Department rules and Florida Statutes after a reasonable time for compliance, provided however, the permittee does not waive any other rights granted by Florida Statutes or Department rules.

11. This permit is transferable only upon Department approval in accordance with Florida Administrative Code Rules 62-4.120 and 62-730.300, as applicable. The permittee shall be liable for any noncompliance of the permitted activity until the Department approves the transfer.

12. This permit or a copy thereof shall be kept at the work site of the permitted activity.

13. The permittee shall comply with the following:

a. Upon request, the permittee shall furnish all records and plans required under Department rules. During enforcement actions, the retention period for all records will be extended automatically unless otherwise stipulated by the Department.

b. The permittee shall hold at the facility or other location designated by this permit records of all monitoring information (including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation) required by the permit, copies of all reports required by this permit, and records of all data used to complete the application for this permit. These materials shall be retained at least three years from the date of the sample, measurement, report or application unless otherwise specified by Department rule.

c. Records of monitoring information shall include:

- the date, exact place, and time of sampling or measurement;
- the person responsible for performing the sampling or measurements;
- the dates analyses were performed;
- the person responsible for performing the analyses;
- the analytical techniques or methods used;
- the results of such analyses.

14. When requested by the Department, the permittee shall within a reasonable time furnish any information required by law which is needed to determine compliance with the permit. If the permittee becomes aware the relevant facts were not submitted or were incorrect in the permit application or in any report to the Department, such facts or information shall be corrected promptly.

STACK SAMPLING FACILITIES

(Version Dated 10/07/1996)

Stack Sampling Facilities Provided by the Owner of an Emissions Unit. This section describes the minimum requirements for stack sampling facilities that are necessary to sample point emissions units. Sampling facilities include sampling ports, work platforms, access to work platforms, electrical power, and sampling equipment support. Emissions units must provide these facilities at their expense. All stack sampling facilities must meet any Occupational Safety and Health Administration (OSHA) Safety and Health Standards described in 29 CFR Part 1910, Subparts D and E.

(a) Permanent Test Facilities. The owner or operator of an emissions unit for which a compliance test, other than a visible emissions test, is required on at least an annual basis, shall install and maintain permanent stack sampling facilities.

(b) Temporary Test Facilities. The owner or operator of an emissions unit that is not required to conduct a compliance test on at least an annual basis may use permanent or temporary stack sampling facilities. If the owner chooses to use temporary sampling facilities on an emissions unit, and the Department elects to test the unit, such temporary facilities shall be installed on the emissions unit within 5 days of a request by the Department and remain on the emissions unit until the test is completed.

(c) Sampling Ports.

1. All sampling ports shall have a minimum inside diameter of 3 inches.
2. The ports shall be capable of being sealed when not in use.
3. The sampling ports shall be located in the stack at least 2 stack diameters or equivalent diameters downstream and at least 0.5 stack diameter or equivalent diameter upstream from any fan, bend, constriction or other flow disturbance.
4. For emissions units for which a complete application to construct has been filed prior to December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 15 feet or less. For stacks with a larger diameter, four sampling ports, each 90 degrees apart, shall be installed. For emissions units for which a complete application to construct is filed on or after December 1, 1980, at least two sampling ports, 90 degrees apart, shall be installed at each sampling location on all circular stacks that have an outside diameter of 10 feet or less. For stacks with larger diameters, four sampling ports, each 90 degrees apart, shall be installed. On horizontal circular ducts, the ports shall be located so that the probe can enter the stack vertically, horizontally or at a 45 degree angle.
5. On rectangular ducts, the cross sectional area shall be divided into the number of equal areas in accordance with EPA Method 1. Sampling ports shall be provided which allow access to each sampling point. The ports shall be located so that the probe can be inserted perpendicular to the gas flow.

(d) Work Platforms.

1. Minimum size of the working platform shall be 24 square feet in area. Platforms shall be at least 3 feet wide.
2. On circular stacks with 2 sampling ports, the platform shall extend at least 110 degrees around the stack.
3. On circular stacks with more than two sampling ports, the work platform shall extend 360 degrees around the stack.
4. All platforms shall be equipped with an adequate safety rail (ropes are not acceptable), toeboard, and hinged floor-opening cover if ladder access is used to reach the platform. The safety rail directly in line with the sampling ports shall be removable so that no obstruction exists in an area 14 inches below each sample port and 6 inches on either side of the sampling port.

(e) Access to Work Platform.

1. Ladders to the work platform exceeding 15 feet in length shall have safety cages or fall arresters with a minimum of 3 compatible safety belts available for use by sampling personnel.

2. Walkways over free-fall areas shall be equipped with safety rails and toeboards.

(f) Electrical Power.

1. A minimum of two 120-volt AC, 20-amp outlets shall be provided at the sampling platform within 20 feet of each sampling port.

2. If extension cords are used to provide the electrical power, they shall be kept on the plant's property and be available immediately upon request by sampling personnel.

(g) Sampling Equipment Support.

1. A three-quarter inch eyebolt and an angle bracket shall be attached directly above each port on vertical stacks and above each row of sampling ports on the sides of horizontal ducts.

a. The bracket shall be a standard 3 inch x 3 inch x one-quarter inch equal-legs bracket which is 1 and one-half inches wide. A hole that is one-half inch in diameter shall be drilled through the exact center of the horizontal portion of the bracket. The horizontal portion of the bracket shall be located 14 inches above the centerline of the sampling port.

b. A three-eighth inch bolt which protrudes 2 inches from the stack may be substituted for the required bracket. The bolt shall be located 15 and one-half inches above the centerline of the sampling port.

c. The three-quarter inch eyebolt shall be capable of supporting a 500 pound working load. For stacks that are less than 12 feet in diameter, the eyebolt shall be located 48 inches above the horizontal portion of the angle bracket. For stacks that are greater than or equal to 12 feet in diameter, the eyebolt shall be located 60 inches above the horizontal portion of the angle bracket. If the eyebolt is more than 120 inches above the platform, a length of chain shall be attached to it to bring the free end of the chain to within safe reach from the platform.

2. A complete monorail or dualrail arrangement may be substituted for the eyebolt and bracket.

3. When the sample ports are located in the top of a horizontal duct, a frame shall be provided above the port to allow the sample probe to be secured during the test.

[Rule 62-297.310(6), F.A.C.]

Federal Regulations Adopted by Reference

In accordance with Rule 62-204.800, F.A.C., the following federal regulation in Title 40 of the Code of Federal Regulations (CFR) was adopted by reference. The original federal rule numbering has been retained.

Federal Revision Date: October 17, 2000

Rule Effective Date: October 1, 2001

Standardized Conditions Revision Date: August 18, 2008

40 CFR Part 60, Subpart UUU—Standards of Performance for Calciners and Dryers in Mineral Industries

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

§ 60.730 Applicability and designation of affected facility.

(a) The affected facility to which the provisions of this subpart apply is each calciner and dryer at a mineral processing plant. Feed and product conveyors are not considered part of the affected facility. For the brick and related clay products industry, only the calcining and drying of raw materials prior to firing of the brick are covered.

(b) An affected facility that is subject to the provisions of subpart LL, Metallic Mineral Processing Plants, is not subject to the provisions of this subpart. Also, the following processes and process units used at mineral processing plants are not subject to the provisions of this subpart: vertical shaft kilns in the magnesium compounds industry; the chlorination-oxidation process in the titanium dioxide industry; coating kilns, mixers, and aerators in the roofing granules industry; and tunnel kilns, tunnel dryers, apron dryers, and grinding equipment that also dries the process material used in any of the 17 mineral industries (as defined in §60.731, "Mineral processing plant").

(c) The owner or operator of any facility under paragraph (a) of this section that commences construction, modification, or reconstruction after April 23, 1986, is subject to the requirements of this subpart.

§ 60.731 Definitions.

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

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

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

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

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

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

§ 60.732 Standards for particulate matter.

Each owner or operator of any affected facility that is subject to the requirements of this subpart shall comply with the emission limitations set forth in this section on and after the date on which the initial performance test

required by §60.8 is completed, but not later than 180 days after the initial startup, whichever date comes first. No emissions shall be discharged into the atmosphere from any affected facility that:

(a) Contains particulate matter in excess of 0.092 gram per dry standard cubic meter (g/dscm) [0.040 grain per dry standard cubic foot (gr/dscf)] for calciners and for calciners and dryers installed in series and in excess of 0.057 g/dscm (0.025 gr/dscf) for dryers; and

(b) Exhibits greater than 10 percent opacity, unless the emissions are discharged from an affected facility using a wet scrubbing control device.

[57 FR 44503, Sept. 28, 1992, as amended at 65 FR 61778, Oct. 17, 2000]

§ 60.733 Reconstruction.

The cost of replacement of equipment subject to high temperatures and abrasion on processing equipment shall not be considered in calculating either the "fixed capital cost of the new components" or the "fixed capital cost that would be required to construct a comparable new facility" under §60.15. Calciner and dryer equipment subject to high temperatures and abrasion are: end seals, flights, and refractory lining.

§ 60.734 Monitoring of emissions and operations.

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

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

(c) The owner or operator of a ball clay rotary dryer, a diatomite rotary dryer, a feldspar fluid bed dryer, a fuller's earth rotary dryer, a gypsum rotary dryer, a gypsum flash calciner, gypsum kettle calciner, an industrial sand rotary dryer, a kaolin rotary dryer, a kaolin multiple hearth furnace, a perlite expansion furnace, a talc flash dryer, a talc rotary dryer, a titanium dioxide direct or indirect rotary dryer or a vermiculite expansion furnace who uses a dry control device is exempt from the monitoring requirements of this section.

(d) The owner or operator of an affected facility subject to the provisions of this subpart who uses a wet scrubber to comply with the mass emission standard for any affected facility shall install, calibrate, maintain, and operate monitoring devices that continuously measure and record the pressure loss of the gas stream through the scrubber and the scrubbing liquid flow rate to the scrubber. The pressure loss monitoring device must be certified by the manufacturer to be accurate within 5 percent of water column gauge pressure at the level of operation. The liquid flow rate monitoring device must be certified by the manufacturer to be accurate within 5 percent of design scrubbing liquid flow rate.

§ 60.735 Recordkeeping and reporting requirements.

(a) Records of the measurements required in §60.734 of this subpart shall be retained for at least 2 years.

(b) Each owner or operator who uses a wet scrubber to comply with §60.732 shall determine and record once each day, from the recordings of the monitoring devices in §60.734(d), an arithmetic average over a 2-hour period of both the change in pressure of the gas stream across the scrubber and the flowrate of the scrubbing liquid.

(c) Each owner or operator shall submit written reports semiannually of exceedances of control device operating parameters required to be monitored by §60.734 of this subpart. For the purpose of these reports, exceedances are defined as follows:

(1) All 6-minute periods during which the average opacity from dry control devices is greater than 10 percent; or

(2) Any daily 2-hour average of the wet scrubber pressure drop determined as described in §60.735(b) that is less than 90 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard; or

(3) Each daily wet scrubber liquid flow rate recorded as described in §60.735(b) that is less than 80 percent or greater than 120 percent of the average value recorded according to §60.736(c) during the most recent performance test that demonstrated compliance with the particulate matter standard.

(d) The requirements of this section remain in force until and unless the Agency, in delegating enforcement authority to a State under section 111(c) of the Clean Air Act, approves reporting requirements or an alternative means of compliance surveillance adopted by such State. In that event, affected facilities within the State will be relieved of the obligation to comply with this section provided that they comply with the requirements established by the State.

[57 FR 44503, Sept. 28, 1992, as amended at 58 FR 40591, July 29, 1993]

§ 60.736 Test methods and procedures.

(a) In conducting the performance tests required in §60.8, the owner or operator shall use the test methods in appendix A of this part or other methods and procedures as specified in this section, except as provided in §60.8(b).

(b) The owner or operator shall determine compliance with the particulate matter standards in §60.732 as follows:

(1) Method 5 shall be used to determine the particulate matter concentration. The sampling time and volume for each test run shall be at least 2 hours and 1.70 dscm.

(2) Method 9 and the procedures in §60.11 shall be used to determine opacity from stack emissions.

(c) During the initial performance test of a wet scrubber, the owner or operator shall use the monitoring devices of §60.734(d) to determine the average change in pressure of the gas stream across the scrubber and the average flowrate of the scrubber liquid during each of the particulate matter runs. The arithmetic averages of the three runs shall be used as the baseline average values for the purposes of §60.735(c).

§ 60.737 Delegation of authority.

(a) In delegating implementation and enforcement authority to a State under section 111(c) of the Act, the authorities contained in paragraph (b) of this section shall be retained by the Administrator and not transferred to a State.

(b) Authorities which will not be delegated to States: No restrictions.