Florida Department of Environmental Protection

Southwest District
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926

Rick Scott
Governor

Jennifer Carroll
Lt. Governor

Herschel T. Vinyard, Jr.
Secretary

DRAFT PERMIT

PERMITTEE

Standard Carbon LLC
551 North U.S. Highway 41
Dunnellon, FL

Authorized Representative:
Mr. James Sharpe, CEO

Air Permit No. 0830170-004-AC
Permit Expires: 12/31/2012
Minor Air Construction Permit

Construction Permit for Modifications

This is the final air construction permit, which authorizes modifications to this existing activated carbon production facility (Standard Industrial Classification No. 2819). The facility is located in Marion County at 551 North US Highway 41 in Dunnellon, Florida. The UTM coordinates are Zone 17, 360.2 km East, and 3230.0 km North. As noted in the Final Determination provided with the final permit, no changes or only minor changes and clarifications were made to the draft permit.

This final document is organized by the following sections:

Section 1. General Information

Section 2. Administrative Requirements

Section 3. Facility-wide and Emissions Unit Specific Conditions

Section 4. Appendices

Because of the technical nature of the project, this document contains numerous acronyms and abbreviations, which are defined in Appendix A of Section 4 of this document.

This air pollution permit is issued under the provisions of: Chapter 403 of the Florida Statutes (F.S.) and Chapters 62-4, 62-204, 62-210, 62-212, 62-296 and 62-297 of the Florida Administrative Code (F.A.C.). The permittee is authorized to conduct the proposed work in accordance with the conditions of this permit. This project is subject to the general preconstruction review requirements in Rule 62-212.300, F.A.C. and is not subject to the preconstruction review requirements for major stationary sources in Rule 62-212.400, F.A.C. for the Prevention of Significant Deterioration (PSD) of Air Quality.

Upon issuance of this final permit, any party to this order has the right to seek judicial review of it under Section 120.68 of the Florida Statutes by filing a notice of appeal under Rule 9.110 of the Florida Rules of Appellate Procedure with the clerk of the Department of Environmental Protection in the Office of General Counsel (Mail Station #35, 3900 Commonwealth Boulevard, Tallahassee, Florida, 32399-3000) 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 must be filed within 30 days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida

DRAFT

_____ _____

Cindy Zhang-Torres, P.E. Effective Date
Air Permitting Manager
Southwest District

CERTIFICATE OF SERVICE

The undersigned duly designated deputy agency clerk hereby certifies that this Final Air Permit package (including the Final Determination, the Final Permit and the Appendices) was sent by electronic mail (or a link to these documents made available electronically on a publicly accessible server) with received receipt requested before the close of business on _____ to the persons listed below.

Mr. James Sharpe, CEO, Standard Carbon LLC
(jsharpe@standardpurification.com)

Mr. Kenneth E. Given, P.E., Air Testing & Consulting, Inc.
(ken@airtest.fdn.com)

Clerk Stamp

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

DRAFT

_____ _____

(Clerk) (Date)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This facility produces activated carbon using recovered fly ash as a raw material. The production process is described in the emission units sections of the permit (Section 3. Emissions Unit Specific Conditions).

The existing facility consists of the following emissions units*.

Facility ID No. 0830170

EU ID No.	Emission Unit Description	Associated PM Emission Control Device
001	Dry Fly Ash Truck Receiving/Unloading	Baghouse PJ-T (Kinetic Air Model 100-SL-120)
002	Transfer to Fly Ash/Carbon Storage Silo Nos. 9 & 11	Baghouse PJ-1 (Kinetic Air Model 72-SL-120)
003	Transfer to Kiln Fly Ash Feed Hoppers K1 (for Kiln No. 1) & K2 (for Kiln No. 2)	Baghouse PJ-2 (Kinetic Air Model 36-BV-84)
004	Kiln No. 2	SDC Model 48-SL-108
005	Kiln No. 1	SDC Model 48-SL-108
006	Raymond Mill and Raymond Mill Outlet Hopper	Mikro-Pulsaire Model 64S820
007	Kiln Surge Hopper and Raymond Mill Receiving Hopper	Baghouse PJ-3 (Kinetic Air Model 12-RS-84)
009	Transfer from Raymond Mill Outlet Hopper to Carbon Storage Silo Nos. 8, 10 & 12	Baghouse PJ-4 (Kinetic Air Model 12-RS-84)
010	Transfer from Carbon Storage Silos 8, 10 & 12 (or Fly Ash/Carbon Storage Silos 9 and 11) to Carbon Storage Silo Nos. 14 & 16	Baghouse PJ-6 (Kinetic Air Model 16-RS-84)
011	Bulk Truck/Railcar Loading from Carbon Storage Silos 14 & 16	Baghouse PJ-6 (Kinetic Air Model 16-RS-84)
012	Material Transfer to Carbon Bagging Storage Tower	Flex-Kleen Model 84BVBS-25
013	Material Transfer to Carbon Bagging Hopper, and to Bagging Unit	Mahle Model 25-K

(EU No. Note - EU No. 008 is no longer included in the facility as permitted. (See the Technical Evaluation and Preliminary Determination for Construction Permit 0830170-003-AC for details).*

Project Description and Affected/Proposed Emission Units

This construction permit, which replaces Air Construction Permit 0830170-003-AC, authorizes the modifications described below. *(See the Technical Evaluation document for the effect on potential emissions from each of these modifications.)*

- Increasing the maximum permitted kiln combustion chamber fuel heat input rates from 8 MMBtu/hr to 19 MMBtu/hr for Kiln No. 1, and from 8 MMBtu/hr to 11.8 MMBtu/hr for Kiln No. 2, through combustion chamber blower modifications.

(This affects existing EU Nos. 004 (Kiln No. 2) and 005 (Kiln No. 1), and will require creation of new EU Nos. 015 (Kiln No. 1 Combustion Chamber) and 016 (Kiln No. 2 Combustion Chamber)*.) *(* Note – These kiln combustion chambers were previously considered exempt from air permitting under Rule 62-210.300(3), F.A.C.)*

- Replacement of existing Carbon Storage Silo Nos. 8, 10 and 12 emission control Baghouse PJ-4 with, currently not being used, existing EU 003 Baghouse PJ-2.

(This modification will affect EU No. 009, and also EU No. 003, which currently shows Baghouse PJ-2 as the PM emissions control device. EU No. 003 which is currently not being used to pneumatically transfer dry fly ash due to the use of wet fly ash as a raw material instead of dry fly ash) will be shown without an associated PM emission control device.)

- Modification of the fly ash receiving/unloading area (EU No. 001) to receive and unload very large bags (super sacks) of powdered activated carbon (from fly ash from combustion of coal). This powdered activated carbon will be pneumatically transferred to Fly Ash/Carbon Silo Nos. 9 or 11 (EU No. 002), or to Carbon Storage Silo Nos. 8, 10, or 12 (EU No. 009). This powdered activated carbon will be mixed with activated carbon (from fly ash from combustion of wood) produced by the Standard Carbon facility to create a blended final product.

(This modification affects EU Nos. 001, 002, and 009.)

- Addition of a shaker screen between the Kiln Surge Hopper and the Raymond Mill Receiving Hopper (EU No. 007) to remove sand from the kiln product prior to milling. All of the equipment associated with this shaker screen (feeder equipment, shaker screen, and outlet equipment) is enclosed such that there are no direct air emissions from this operation. Sand separated out in the shaker screen will pass through a rotary air lock into an enclosed bin, dropping by gravity. This bin will be changed out periodically. The remainder of the material stream (product) will drop into the Kiln Surge Hopper. Any PM from the screening operation will be carried by the air stream to the Raymond Mill Receiving Hopper and the associated Baghouse PJ-3 emission control device.

(This modification indirectly affects EU No. 007, as the shaker screen will be added to the description of this emission unit.)

- Refurbishment and operation of an existing currently not-in-use baghouse PM emission control device located on top of Carbon Storage Silo No. 16 to control emission from transfer of carbon product to Carbon Storage Silo No. 16 (previously part of EU No. 010), and from the loading of truck or railcars from Carbon Storage Silo Nos. 14 and 16 (EU No. 011). Emissions from these operations, and the transfer of carbon product to Carbon Storage Silo No. 14, were previously all controlled by PM emissions control Baghouse PJ-6. This meant that carbon product could not be transferred to Carbon Storage Silo Nos. 14 and 16 at the same time. With the modification, Baghouse PJ-6 will control only Carbon Storage Silo No. 14 (EU No. 010) and the refurbished baghouse will control Carbon Storage Silo No. 16 (new EU No. 014) (along with truck/railcar loading (EU No. 011)), thereby allowing both silos to be loaded at the same time.

(This modification affects EU Nos. 010 and 011, and will require creation of new EU No. 014.)

This project will modify *(EU Nos. 001 thru 005, 007, and 009 thru 011)*, or create *(EU Nos. 014, 015 and 016),* the following emissions units *(shown as modified/created)*:

EU ID No.	Emission Unit Description	Associated PM Emission Control Device
001	Dry Fly Ash Truck Receiving/Unloading, and Bagged (Super Sacks) Activated Carbon Unloading	Baghouse PJ-T (Kinetic Air Model 100-SL-120)
002	Material Transfer to Fly Ash/Carbon Storage Silo Nos. 9 and 11	Baghouse PJ-1 (Kinetic Air Model 72-SL-120)
003	Material Transfer to Kiln Fly Ash Feed Hoppers K1 (for Kiln No. 1) and K2 (for Kiln No. 2) *(currently not operating)*	*none currently (however an emission control device is required if dry fly ash is transferred pneumatically)*
004	Kiln No. 2 (inner drying chamber)	SDC Model 48-SL-108
005	Kiln No. 1 (inner drying chamber)	SDC Model 48-SL-108
007	Kiln Surge Hopper, Shaker Screen, and Raymond Mill Receiving Hopper	Baghouse PJ-3 (Kinetic Air Model 12-RS-84)
009	Material Transfer to Carbon Storage Silo Nos. 8, 10 and 12	Baghouse PJ-2 (Kinetic Air Model 36-BV-84)
010	Material Transfer to Carbon Storage Silo No. 14	Baghouse PJ-6 (Kinetic Air Model 16-RS-84)
011	Bulk Truck/Railcar Loading	Flex-Kleen Model 84BVBS 1611G *(common control device with EU 014)*
014 *(new)*	Material Transfer to Carbon Storage Silo No. 16	Flex-Kleen Model 84BVBS 1611G *(common control device with EU 011)*
015 *(new)*	Kiln No. 1 Combustion Chamber	*none*
016 *(new)*	Kiln No. 2 Combustion Chamber	*none*

*(**Affected EU Note** – Existing EU Nos. 006, 012 and 013 (see Existing Facility EU Table) are not affected by the modifications being authorized by this construction permit.)*

***NOTE** - Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

Exempt Emission Units/Activities

The wet fly ash handling operations (*see description below)* are exempt from air permitting in accordance with the provisions of Rule 62-4.040(1)(b), F.A.C., based on insignificant potential particulate matter emissions from the handling of wet material.

Wet Fly Ash Handling

Fly ash can be received at approximately 66-80% moisture content (wet fly ash). This material is too wet to be handled by the normal (dry) fly ash handling system *(see EU Nos. 001, 002 and 003)* without causing pluggage and other operational problems. The wet fly ash is dumped directly on the pavement. Due to the high moisture content dusting is not a problem when wet fly ash is received. Precautions are taken to prevent dusting in case the pile surface dries and it becomes windy enough to potentially blow fly ash off the pile surface. The wet fly ash pile is covered with tarps and there is a water hose available to wet the surface of the pile if necessary. In order to directly load the wet fly ash to the kilns, the wet fly ash is loaded into a bin and taken by forklift to the kilns. The bin is elevated above the either one of the kiln fly ash feed hoppers (EU No. 003), which has its lid removed. The wet fly ash is then dumped into the feed hopper from which it feeds into the kiln.

FACILITY REGULATORY CLASSIFICATION

– The facility is not a major source of hazardous air pollutants (HAP).

– The facility has no units subject to the acid rain provisions of the Clean Air Act (CAA).

– The facility is not a Title V major source of air pollution in accordance with Chapter 213, F.A.C.

– The facility is not a major stationary source in accordance with Rule 62-212.400(PSD), F.A.C.

– This permit establishes the facility as a synthetic non-Title V source by requiring the use of air pollution control equipment (i.e., baghouse PM emission control devices) such that the facility's particulate matter (PM) emissions are less than the threshold limits required for the facility to be considered a major source per Chapter 62-213, F.A.C.

PERMIT HISTORY/AFFECTED PERMITS

This air construction permit (0830170-004-AC) modifies and replaces facility Construction Permit No. 0830170-003-AC.

ADMINISTRATIVE REQUIREMENTS

1. Permitting Authority - The permitting authority for this project is the Florida Department of Environmental Protection (Department), Southwest District's Air Resource Management Section. The Southwest District's mailing address and phone number is:

Florida Department of Environmental Protection
Southwest District Office
Air Resource Management Section
13051 North Telecom Parkway
Temple Terrace, Florida 33637-0926
Telephone: 813-632-7600

All documents related to applications for permits shall be submitted to the above address.

2. Compliance Authority - All documents related to compliance activities such as reports, tests, and notifications shall be submitted to the Southwest District Office's Air Resource Management Section (see above mailing address and phone number).

3. Appendices - The following Appendices are attached as part of this document: (add appendices as necessary)

a. Appendix A. Citation Formats and Glossary of Common Terms;
b. Appendix B. General Conditions;
c. Appendix C. Common Conditions; and
d. Appendix D. Common Testing Requirements.

4. Applicable Regulations, Forms and Application Procedures - Unless otherwise specified in this document, the construction and operation of the subject emissions units shall be in accordance with the capacities and specifications stated in the application. The facility is subject to all applicable provisions of: Chapter 403, F.S.; and Chapters 62-4, 62-204, 62-210, 62-212, 62-213, 62-296 and 62-297, F.A.C. Issuance of this permit does not relieve the permittee from compliance with any applicable federal, state, or local permitting or regulations.

5. New or Additional Conditions - For good cause shown and after notice and an administrative hearing, if requested, the Department may require the permittee to conform to new or additional conditions. The Department shall allow the permittee a reasonable time to conform to the new or additional conditions, and on application of the permittee, the Department may grant additional time.
[Rule 62-4.080, F.A.C.]

6. Modifications - Unless otherwise exempt by rule, the permittee shall not initiate any construction, reconstruction, or modification at the facility and shall not install/modify any pollution control device at the facility without obtaining prior authorization from the Department. Modification is defined as: Any physical change or changes in the method of operations or addition to a facility that would result in an increase in the actual emissions of any air pollutant subject to air regulations, including any not previously emitted, from any emission unit or facility.
[Rules 62-210.200 - Definition of "Modification" and 62-210.300(1)(a), F.A.C.]

7. Annual Operating Report - On or before **April 1** of each year, the permittee shall submit a completed DEP Form 62-210.900(5), "Annual Operating Report for Air Pollutant Emitting Facility" (AOR) for the preceding calendar year. The report may be submitted electronically in accordance with the instructions received with the AOR package sent by the Department, or a hardcopy may be sent to the Compliance Authority.
[Rule 62-210.370(3), F.A.C.]

8. Application for Non-Title V Air Operation Permit Revision - This permit authorizes modification of the permitted emissions unit(s) and initial operation to determine compliance with Department rules. A Non-Title V air operation permit revision is required for continued operation of the permitted emissions unit(s). The permittee shall apply for a Non-Title V air operation permit revision at least 90 days prior to expiration of this permit, but no later than 180 days after commencing operation of the modified baghouse emission control devices (EU No. 009 w/Baghouse PJ-2; and EU Nos. 011 and 014 w/common Flex-Kleen Model 84BVBS 1611G baghouse). Commencing operation means setting into operation of any emissions unit for any purpose. To apply for a Non-Title V air operation permit revision, the applicant shall submit the following:

a. the appropriate permit application form *(see current version of Rule 62-210.900, F.A.C. (Forms and Instructions), and/or FDEP Division of Air Resource Management website at: http://www.dep.state.fl.us/air/)*;

b. the appropriate operation permit application fee from Rule 62-4.050(4)(a), F.A.C.;

c. copies of the most recent month of product loadout records specified in Specific Condition No. E.6.

[Rules 62-4.030, 62-4.050, 62-4.070(3), 62-4.090, 62-210.300(2), and 62-210.900, F.A.C.]

FACILITY-WIDE SPECIFIC CONDITIONS

9. General Pollutant Emission Limiting Standards: 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. In addition to the measures specified in Rule 62-296.320(4)(c), F.A.C. (*see Item 9. In Section 4, Appendix C.)*, fly ash piles shall be covered with tarps and a water hose shall be available and used to water piles if the surface dries.
[Rule 62-296.320(4)(c), F.A.C.]

A. EU Nos. 001 thru 003, 007, and 009 thru 014 - Material Handling and Storage

This section of the document addresses the following emissions units (EUs) (and associated particulate matter (PM) emission control devices). *(See more detailed descriptions below the emissions unit (EU) table.)*

EU ID No.	Emission Unit Description	Associated PM Emission Control Device
001	Dry Fly Ash Truck Receiving/Unloading, and Bagged (Super Sacks) Activated Carbon Unloading**	Baghouse PJ-T (Kinetic Air Model 100-SL-120, w/design airflow rate of 6,000 dscfm)
002	Material Transfer to Fly Ash/Carbon Storage Silo Nos. 9 and 11	Baghouse PJ-1 (Kinetic Air Model 72-SL-120, w/design airflow rate of 4,000 dscfm)
003	Dry Fly Ash Transfer to Kiln Fly Ash Feed Hoppers K1 (for Kiln No. 1) and K2 (for Kiln No. 2)	*None currently (However, an emission control device is required if dry fly ash is transferred pneumatically – see Specific Condition No. A.2.)*
007	Kiln Surge Hopper, Shaker Screen, and Raymond Mill	Baghouse PJ-3 (Kinetic Air Model 12-RS-84 , w/design airflow rate of 600 dscfm)
009	Material Transfer to Carbon Storage Silo Nos. 8, 10 and 12	Baghouse PJ-2 (Kinetic Air Model 36-BV-84) w/design airflow rate of 1,000 dscfm)
010	Material Transfer to Carbon Storage Silo No. 14	Baghouse PJ-6 (Kinetic Air Model 16-RS-84) w/design airflow rate of 800 dscfm)
011	Bulk Truck/Railcar Loading	Flex-Kleen Model 84BVBS 1611G w/design airflow rate of 600 dscfm *(common control device with EU No. 014)*
012	Material Transfer to Carbon Bagging Storage Tower	Flex-Kleen Model 84BVBS-25 w/design airflow rate of 600 dscfm
013	Material Transfer to Carbon Bagging Hopper, and to Bagging Unit	Mahle Model 25-K w/*estimated* design airflow rate of 600 dscfm
014	Material Transfer to Carbon Storage Silo No. 16	Flex-Kleen Model 84BVBS 1611G w/design airflow rate of 600 dscfm *(common control device with EU No. 011)*

NOTE *- Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

More Detailed Emission Unit Descriptions

EU No. 001 - Dry Fly Ash Truck Receiving/Unloading*, and Bagged (Super Sacks) Activated Carbon Unloading**

(**Optional operating alternative when dry fly ash is being received as the raw material for the facility**.)*

Dry fly ash (less than 45% moisture content (the maximum moisture content the fly ash handling system was designed to handle)) is received via trucks and unloaded by dumping into four fly ash receiving hoppers, which are housed in a truck receiving building to control fugitive dust emissions.

Powdered activated carbon from off-site (activated carbon produced from fly ash from coal combustion to be used for blending with the activated carbon produced at this facility, which is from flyash from wood combustion) is also received in very large bags (super sacks) in this same building and dumped/unloaded into two of the receiving hoppers. From the receiving hoppers, the powdered activated carbon is pneumatically transferred to Flyash/Carbon Storage Silo Nos. 9 and 11 (EU No. 002) or to Carbon Storage Silo Nos. 8, 10 and 12 (EU No. 009).

Emissions from the fly ash /activated carbon unloading activities in this building are controlled by a baghouse dust control device (Baghouse PJ-T). The blower system associated with this baghouse will also maintain a slight negative pressure in the receiving building to enhance fugitive dust control. The building's receiving door (approx 12' x 20') is equipped with plastic sheets to contain fugitive dust emissions.

> *** EU No. 001 Note - EU No. 001 is used for unloading and handling of dry (< 45% moisture content) fly ash. It is not used for fly ash handling when the facility is receiving and processing wet fly ash. Since the start of operation, the facility has received only wet fly ash and has not processed any dry fly ash. (See also Specific Conditions A.4. and A.6. related to initial operation of this emissions unit).*

EU No. 002 - Material Transfer to Dry Fly Ash*/Carbon** Storage Silo Nos. 9 and 11

(**Optional operating alternative when dry fly ash is being received as the raw material for the facility**.)*

Blower systems pneumatically transfer dry fly ash or powdered activated carbon received from offsite to these two dry fly ash storage/carbon storage silos.

Particulate matter emissions from the material transfer to both storage silos (the two storage silos are interconnected at the top) are controlled by a common baghouse dust collector (Baghouse PJ-1).

> *(** EU No. 002 Note - Storage Silo Nos. 9 and 11 are used for storage of dry (< 45% moisture content) fly ash. They are not used for fly ash storage when the facility is receiving and processing wet fly ash. Since the start of operation, the facility has received only wet fly ash and has not processed any dry fly ash. (See also Specific Conditions A.4. and A.6. related to initial operation of this emissions unit).)*
>
> *When they are not being used to store dry fly ash (i.e., when the facility is processing wet fly ash), Silo Nos. 9 and 11 can be used to store powdered activated carbon from offsite used to blend with activated carbon produced at this facility. From these two silos, the carbon can be pneumatically transferred to Carbon Storage Silo Nos. 14 or 16 (EU Nos. 010 and 014), or to the Carbon Bagging Storage Tower (EU No. 012) (the same as carbon from Carbon Storage Silos Nos. 8, 10 and 12 (EU No. 009).)*

EU No. 003 - Material Transfer to Kiln Fly Ash Feed Hoppers K1 (Kiln No. 1) and K2 (Kiln No. 2)*

Dry fly ash from the fly ash storage silos can be transferred pneumatically to two (2) kiln fly ash feed hoppers (Feed Hopper K1 for Kiln No. 1, and Feed Hopper K2 for Kiln No. 2). The facility is currently not conducting this transfer operation as only wet flyash is being received*. There is not currently a baghouse emission control device installed for this pneumatic transfer operation*. *(See also Specific Conditions A.2. related to restriction on operation of this emissions unit).*

> *(* EU No. 003 Note - Wet fly ash (which is how all the fly ash raw material has been received since start of operation of the facility) is loaded to these feed hoppers by dumping wet fly ash directly into the hoppers. Wet fly ash is loaded into a bin and taken by forklift to the kilns. The bin is elevated above the either one of the kiln fly ash feed hoppers which has its lid removed, and dumped. This loading of the wet fly ash does not produce any emissions and no baghouse emission control device is necessary or required. However, an emission control device is required if dry fly ash is transferred pneumatically to the kiln fly ash feed hoppers – see Specific Condition No. A.2.)*

EU No. 007 - Kiln Surge Hopper, Shaker Screen and Raymond Mill Receiving Hopper

Unmilled (unground) product (activated carbon) from the kilns is sent to the enclosed Kiln Surge Hopper shared by the two kilns via two (water cooled) cooling screw conveyors. (This surge hopper serves as an overflow reservoir for the kilns should the transfer of product to the Raymond Mill Receiving Hopper be interrupted, as the product must continue to be removed from the kilns even after the flow of feed is stopped. The surge hopper can hold about 1 ton of unground product, enough to clear the kiln if needed.) From this surge hopper the product is conveyed to a shaker screen to remove sand from the kiln product, and then pneumatically conveyed to the Raymond Mill Receiving Hopper. Fines from the kiln cyclone separator precleaners and other equipment are carried to a fines surge hopper and from there also conveyed to the Raymond Mill Receiving Hopper. Sand separated out in the shaker screen will pass through a rotary air lock into an enclosed bin, dropping by gravity. This bin will be changed out periodically. All of the equipment associated with the shaker screen (feeder equipment, shaker screen, and outlet equipment) is enclosed such that there are no direct air emissions from this operation. Particulate matter (PM) emissions from the Kiln Surge Hopper, Shaker Screen and the Raymond Mill Receiving Hopper are controlled by a common baghouse dust collector (Baghouse PJ-3).

EU No. 009 – Material Transfer to Carbon Storage Silo Nos. 8, 10 and 12

From the Raymond Mill Outlet Hopper the activated carbon (carbon) is pneumatically transferred to Carbon Storage Silo Nos. 8, 10 and 12. Activated carbon from Fly Ash/Carbon Storage Silo Nos. 9 and/or 11) (EU No. 002) can also be transferred to Carbon Storage Silo Nos. 8, 10 and 12. Particulate matter (PM) emissions from transfer of carbon to the Carbon Storage Silo Nos. 8, 10 and 12 (these three silos are interconnected at the top) are controlled by a common baghouse dust collector (Baghouse PJ-2).

EU No. 010 – Material Transfer to Carbon Storage Silo No. 14

Activated carbon product (carbon) for bulk truck/railcar loading is pneumatically transferred from Carbon Storage Silo Nos. 8, 10 or 12 to Carbon Storage Silo No. 14. Carbon Storage Silo No. 14 is located above the railroad tracks where trucks or railcars are loaded with finished carbon product for shipment (as is Carbon Storage Silo No. 16 (EU No. 014)). Particulate matter (PM) emissions from transfer of carbon to Carbon Storage Silo No. 14 are controlled by a baghouse dust collector (Baghouse PJ-6).

EU No. 011 - Bulk Truck/Railcar Carbon Loading

Truck or railcars are loaded from Carbon Storage Silo Nos. 14 and 16 (EU Nos. 010 and 014) (located above the railroad tracks where trucks or railcars are loaded) by gravity through a Rotor Lock valve. Particulate matter (PM) emissions from truck/railcar loading are controlled by a Flex-Kleen baghouse dust collector, which also controls emissions from Carbon Storage Silo No. 16 (EU No. 014).

EU No. 012 – Material Transfer to Carbon Bagging Storage Tower

Activated carbon product (carbon) for bagging is transferred pneumatically from Carbon Storage Silo Nos. 8, 10 and 12 to the Carbon Bagging Storage Tower. Particulate matter (PM) emissions from the Carbon Bagging Storage Tower are controlled by a Flex-Kleen baghouse dust collector.

EU No. 013 – Material Transfer to Carbon Bagging Hopper and to Bagging Unit

From the Carbon Bagging Storage Tower, the activated carbon product (carbon) drops into the Carbon Bagging Hopper, and from this hopper drops into the Bagging Unit, which consists of a manual operation bagging machine. The Bagging Unit operates at a maximum design rate of 1.0 ton/hour. Particulate matter (PM) emissions from the Carbon Bagging Hopper and from the Bagging Unit are both controlled by a common Mahle baghouse dust collector.

EU No. 014 – Material Transfer to Carbon Storage Silo No. 16

Activated carbon product (carbon) for bulk truck/railcar loading is pneumatically transferred from Carbon Storage Silo Nos. 8, 10 or 12 to Carbon Storage Silo No. 16. Carbon Storage Silo No. 16 is located above the railroad tracks where trucks or railcars are loaded with finished carbon product for shipment (as is Carbon Storage Silo No 14 (EU No. 010)). Particulate matter (PM) emissions from transfer of carbon to Carbon Storage Silo No. 16 are controlled by a Flex-Kleen baghouse dust collector which also controls emissions from EU No. 011 (Bulk Truck/Railcar Carbon Loading).

Material Transport Blowers Note *- All of the blowers used to transport fly ash and activated carbon product have fixed speeds (i.e., material is transported at a fixed rate).*

The following Specific Conditions apply to the above emission units (EUs).

EMISSIONS STANDARDS

A.1. Visible Emissions (VE) Limitation For Material Storage Silos/Hoppers - In order to provide reasonable assurance that the material (fly ash and activated carbon product) handling and storage silo baghouses PM emission control devices are operating properly in accordance with Section 4. Appendix C, Condition 2. (Circumvention of Control Equipment), the Department establishes a visible emission (VE) limitation not to exceed an opacity of 5% from each of these baghouse exhausts. This VE limit applies to all of the baghouses shown in the Emission Unit table above.
[Rules 62-4.070(3), and 62-210.650, F.A.C.; Construction Permit 0830170-003-AC]

OPERATION RESTRICTIONS

A.2. Prohibition on Dry Fly Ash Transfer to Kiln Fly Ash Feed Hoppers K1 and K2 (EU No. 003) – Transfer of dry fly ash to Kiln Fly Ash Hoppers K1 and K2 is not permitted and shall not be conducted until such time as baghouse dust collector emission control equipment is installed to control emissions from Kiln Fly Ash Hoppers K1 and K 2. In accordance with Rule 62-210.300(1)(a). F.A.C., installation of any new pollution control equipment requires an air construction permit prior to the installation of the control equipment.
[Rules 62-4.070(3), 62-210.300(1(a), and 62-210.650, F.A.C.]

COMPLIANCE TESTING REQUIREMENTS

A.3. Annual Visible Emissions (VE) Compliance Tests - During each federal fiscal year (October 1st to September 30th), the exhaust vents for the baghouse PM emission control devices listed below shall be tested to demonstrate compliance with the visible emissions (VE) standards of Specific Condition No. A.1. The processes/activities required to be in operation during the testing periods are also shown below. Testing of emissions from material transfer operations shall be conducted during material transfer/silo loading conditions that are representative of normal transfer operations[1].

EU ID No(s).	Baghouse ID/ Description	Operation(s) to be conducted during emissions testing
001	PJ-T	Dry fly ash truck unloading; or bagged activated carbon unloading
002	PJ-1	Transfer of dry fly ash, or activated carbon, to Fly Ash/Carbon Storage Silos 9 or 11 [2]
007	PJ-3	Transfer of material to Kiln Surge Hopper, **and** Raymond Mill Receiving Hopper, with Shaker Screen also operating.
009	PJ-2	Transfer of activated carbon from Raymond Mill to Carbon Storage Silos 8, 10 or 12 [2]
010	PJ-6	Transfer of carbon to Carbon Storage Silo 14
011 & 014	Flex-Kleen Model 84BVBS 1611G	Loading of carbon product into trucks* or railcars* (EU No. 011) **and** Transfer of carbon to Carbon Storage Silo 16 (EU No. 014) *(both EUs have common baghouse)*
012	Flex-Kleen Model 84BVBS-25	Transfer of carbon product to Carbon Bagging Storage Tower
013	Mahle Model 25-K	Transfer of carbon to the Carbon Bagging Hopper **and** operation of Bagging Unit (bagging machine)

** Compliance testing is not required for this mode if this mode of shipping of final product (i.e., by truck or by railcar) has not been used during the current federal fiscal year.*

A.3. *(continued)*

Notes -

[1] *Material Transfer Rate Operations Permitting Note - Based on the fact that the material transfer blowers will operate at fixed speeds, the material transfer rate is assumed to be constant.*

[2] *Material Transfer Operations Permitting Note - The baghouses for these EUs control emissions from multiple silos. It does not matter which of the multiple silo/hopper(s) controlled by the baghouse the material is being transferred to as the transfer rate will be the same.*

[Rule 62-297.310, F.A.C.]

A.4. Initial Visible Emissions (VE) Compliance Tests for Dry Fly Ash and Bagged Activated Carbon Unloading and Handling Operations (EU Nos. 001 and 002 with Baghouses PJ-T and PJ-1)* - Within 45 days of their initial operation, the permittee shall conduct initial visible emissions (VE) compliance tests on the baghouse control devices for the dry fly ash and bagged powdered activated carbon unloading and handling operations (i.e., EU No. 001 with emission control device Baghouse PJ-T and EU No. 002 with emission control device Baghouse PJ-1), to demonstrate compliance with the VE standards of Specific Condition No. A.1. The processes/activities required to be in operation during the testing periods are as shown in Specific Condition No. A.3.
[Rule 62-4.070(3), F.A.C.]

(Permitting Note – See also Specific Condition No. A.6. for notification requirements associated with the first use of the dry fly ash unloading and handling equipment.)

(EU No. 003 Dry Fly Ash Handling Note – Transfer of dry fly ash to Kiln Fly Ash Feed Hoppers K1 and K2 (EU No. 003) is not currently permitted or allowed – see Specific Condition No. A.2.)*

A.5. Process Operation Information to be Submitted with Compliance Test Reports – The compliance test reports *(also see Section 4 Appendix D., Condition 5 (Test Reports))* shall provide the following process operation information (where applicable) from the test period:

A. All test reports shall include a statement of the material transfer operations (as further described below) that were being done during the test period and a statement of whether they represented normal operating conditions.

B. For Dry Fly Ash Truck and Bagged Activated Carbon Unloading and Transfer to Fly Ash/Carbon Storage Silo Nos. 9 and 10 (EU Nos. 001 and 002 w/Baghouses PJ-T and PJ-1), the test report shall include a statement of the number of trucks unloaded during the test period and the weight of fly ash unloaded from each truck (tons), and a statement of what fly ash silo loading operations were being conducted. If Fly Ash/Carbon Storage Silos Nos. 9 and 11 are being used to store carbon, then the test report shall include a statement of what carbon storage silo loading operations were being conducted.

C. For the Kiln Surge Hopper and Raymond Mill Receiving Hopper (EU No. 007 w/Baghouse PJ-3), the test report shall include a statement of what carbon transfer operations to the Kiln Surge Hopper and Raymond Mill Receiving Hopper were being conducted.

(continued)

A.5. *(continued)*

D. For Transfer of Carbon From Raymond Mill Outlet Hopper to Carbon Storage Silos 8, 10 and 12 (EU No. 009 w/Baghouses PJ-2), the test report shall include a statement of what carbon storage silo loading operations were being conducted.

E. For Transfer to Carbon Storage Silo No. 14 (EU No. 010 w/Baghouse PJ-6), as required in A. above, the test report shall also include a statement as to whether activated carbon was being transferred to Carbon Storage Silo 14 (*see EU No. 010 operation during testing requirements in Specific Condition No. A.3.)*.

F. For Transfer to Carbon Storage Silo No. 16, and Truck/Railcar Loading (EU Nos. 014 and 011 w/common Flex-Kleen baghouse), the test report shall include a statement of the estimated truck or railcar activated carbon loading rate (tons/hr) during the test period. As required in A. above, the test report shall also include a statement as to whether activated carbon was being transferred to Carbon Storage Silo No. 16 during the test period (*see EU Nos. 011 and 014 operation during testing requirements in Specific Condition No. A.3)*. If testing is not done during both truck and railcar loading (separate tests), then the test report shall include a statement of why that mode of product loading/shipping was not tested and when it is anticipated that this mode of loading shipping will be first used or used next.

G. For the Carbon Bagging Storage Tower (EU No. 012 w/Flex Kleen baghouse), the test report shall include a statement as to whether activated carbon was being transferred to the Carbon Bagging Storage Tower during the test period.

H. For the Carbon Bagging Hopper and Bagging Unit (EU 013 w/Mahle baghouse), the test report shall include the estimated bagging rate (tons/hour) during the test period. The test report shall also include a statement as to whether activated carbon was being transferred to the Carbon Bagging Hopper during the test period *(see EU No. 013 operation during testing requirement in Specific Condition No. A.3).*

[Rules 62-4.070(3) and 62-297.310(8), F.A.C.; Construction Permit 0830170-003-AC]

NOTIFICATION REQUIREMENTS

A.6. Notification of Start of Dry Fly Ash or Bagged Activated Carbon Unloading Operations - The permittee shall notify the Compliance Authority of the date of the first processing of dry fly ash, and the date of the first processing of bagged powdered activated carbon, using the dry fly ash and bagged activated carbon unloading and handling equipment (EU Nos. 001 and 002). The written notifications shall be sent within 15 days of the first such dry fly ash or bagged activated carbon processing.
[Rule 62-4.070(3), F.A.C.]

(Permitting Note – See also Specific Condition No. A.3. for initial VE testing requirements for this equipment/process.)

Recordkeeping Note *– See also Specific Condition No. E.6. (Section 3, Subsection E. Common Conditions) for product loadout recordkeeping requirements associated with Bulk Truck/Railcar Loadout (EU No. 011) and the Bagging Unit (EU No. 013).*

B. EU Nos. 004 and 005 - Kiln No. 2 and Kiln No. 1 (Drying Chambers)

This section of the document addresses the following emissions units (EUs) (and associated PM emission control devices). *(See more detailed description below the emission unit table.)*

EU ID No.	Emission Unit Description	Associated PM Emission Control Device
004	Kiln No. 2 (inner drying chamber)	SDC Model 48-SL-108 (w/design airflow rate of 2,500 dscfm)
005	Kiln No. 1 (inner drying chamber)	SDC Model 48-SL-108 (w/design airflow rate of 2,500 dscfm)

NOTE *- Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

Kiln Nos. 1 and 2 (EU Nos. 005 and 004)
Fly ash from the kiln fly ash hoppers is gravity fed into two (2) kilns (Kiln Nos. 1 and 2) for conversion into activated carbon. The kilns each have a separate combustion chamber *(see EU Nos. 015 and 016 in Subsection D.)* such that the kiln itself is heated indirectly and the combustion gases do not come into direct contact with the fly ash being processed. Exhaust gases from each of the kilns pass through a heat exchanger prior to the emission control devices. Particulate matter (PM) emissions from each kiln are controlled by a cyclone separator precleaner, followed by a baghouse dust collector. The total estimated activated carbon production rate from each kiln is approximately 1.0 ton/hour*.

(Kiln Process Feed/Production Rate Note – For wet fly ash of approximately 75% moisture it takes about 4 tons/hour of wet fly ash to produce 1 ton/hour of activated carbon from the kiln. When (dry) fly ash of approximately 25% moisture is processed, the ash feed rate would be about 1.3 tons/hour to produce 1.0 ton/hour of activated carbon.)

The following Specific Conditions apply to the above emission units (EUs).

EMISSIONS STANDARDS

(Particulate Matter (PM) Emission Limit Note - Rule 62-296.320(4)(a), F.A.C. (General Particulate Emission Limiting Standards - Process Weight Table) applies to several operations at this facility including Kiln No. 1 (EU No. 005) and Kiln No. 2 (EU No. 004), which "process raw materials to produce a finished product through a chemical or physical change". In order to limit the potential to emit particulate matter (PM) from these operations, the applicant has requested that more stringent PM emission limitations be established for these emission units than those that would be applicable from the Process Weight Table equation at higher process rates (see Specific Condition No. B.1. a.)

B.1. Maximum Allowable Particulate Matter Emissions from Kiln Nos. 1 and 2 (EU Nos. 005 and 004) - Particulate matter (PM) emissions from Kiln No. 1 (EU No. 005) and Kiln No. 2 (EU 004) shall each not exceed the lower limit (i.e., more stringent*) of the following:

a. 2.5 pounds/hour;

(continued)

B.1. *(continued)*

b. the maximum emission rate allowed by the following Process Weight Table equation contained in Rule 62-296.320(4(a)(2), F.A.C. (General Particulate Emission Limiting Standards - Process Weight Table):

Maximum Allowable Emission Rate (pounds/hour) = $3.59 \times P^{0.62}$

Where P = process (input) rate in tons/hour (TPH)

(* **Process Weight Table Based Limit Note -** At a kiln process (input) rate equal to and greater than 0.56 tons/hour, the 2.5 pounds/hour emission limit is more stringent (i.e., lower) than the process Weight Table equation limit. At a process rate less than 0.56 TPH, the above Process Weight Table equation limit will be more stringent.)

(Permitting Note - See Specific Condition No. B.2. for alternate visible emissions (VE) limitations associated with showing compliance with the above PM emission limitations.)

[Rules 62-210.200 (Definition of Potential to Emit), and 62-296.320(4(a)(2), F.A.C., as requested by the applicant; Construction Permit 0830170-003-AC]

B.2. Alternate Visible Emissions (VE) Limitations in Lieu of PM Testing - Due to the expense and complexity of conducting a stack test on a minor source of particulate matter, and because a baghouse is used as the emission control devices, the Department, pursuant to the authority granted under Rule 62-297.620(4), F.A.C., hereby establishes a visible emission (VE) limitation not to exceed an opacity of five percent (5%) from the applicable exhaust stack in lieu of a particulate stack test to show compliance with the particulate matter emission limits of Specific Condition No. B.1. The applicable exhaust stacks are the Kiln No. 1 (EU No. 005) and Kiln No. 2 (EU No. 004) baghouses (both SDC Model 48-SL-108) exhaust vents. Should the Department have reason to believe the particulate emission standard is not being met, the Department shall require that compliance with the particulate emission standard be demonstrated by the applicable test method specified in the applicable rule *(see Section 4. Appendix D, Item 4.b. (Special Compliance Tests))*.
[Rules 62-4.070(3), and 62-297.620(4), F.A.C.; Construction Permit 0830170-003-AC]

TESTING REQUIREMENTS

B.3. Annual Visible Emissions (VE) Compliance Tests - During each federal fiscal year (October 1st to September 30th), the exhaust vents for the baghouse particulate matter (PM) emission control devices listed below shall be tested to demonstrate compliance with the visible emissions (VE) standards of Specific Condition No. B.2. The processes/activities required to be in operation during the testing periods are also shown below.

EU ID No.	Baghouse Description	Operation(s) to be conducted during emissions testing
004	SDC Model 48-SL-108	Material being processed thru Kiln No. 2 inner drying chamber
005	SDC Model 48-SL-108	Material being processed thru Kiln No. 1 inner drying chamber

[Rule 62-297.310, F.A.C.]

B.4. Process Operation Information to be Submitted with Compliance Test Reports – The compliance test reports *(also see Section 4, Appendix D., Item 5 (Test Reports))* shall include the estimated kiln fly ash process input rate (tons/hour) during the test period for the kiln being tested.
[Rules 62-4.070(3) and 62-297.310(8), F.A.C.; Construction Permit 0830170-003-AC]

C. EU No. 006 - Raymond Mill and Raymond Mill Outlet Hopper

This section of the document addresses the following emissions unit (EU) (and associated PM emission control device). *(See more detailed description below the emission unit table.)*

EU ID No.	Emission Unit Description	Associated PM Emission Control Device
006	Raymond Mill and Raymond Mill Outlet Hopper	Mikro-Pulsaire Model 64S820 (w/design airflow rate of 3,600 dscfm)

NOTE *- Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

Raymond Mill and Raymond Mill Outlet Hopper (EU No. 006)
From the Raymond Mill Receiving Hopper (part of EU No. 007) the unground product is fed to the Raymond Mill, a Model 5057 Raymond Mill that has rollers in it that grind (mill) the product into a smaller size. The mill includes a blower which supplies air to lift the ground carbon up through an internal whizzer which is part of the mill. The whizzer spins like a bicycle wheel with spokes, and the finely ground carbon passes through the whizzer while larger particles are knocked down. The fine activated carbon material discharges to the Raymond Mill Outlet Hopper as product. The Raymond Mill operates at a maximum material input rate of up to 4.0 tons/hour. Particulate matter (PM) emissions from the Raymond Mill and Raymond Mill Outlet Hopper are controlled by a common baghouse dust collector.

The following Specific Conditions apply to the above emission units (EUs).

EMISSIONS STANDARDS

(Particulate Matter (PM) Emission Limit Note - Rule 62-296.320(4)(a), F.A.C. (General Particulate Emission Limiting Standards - Process Weight Table) applies to several operations at this facility, including the Raymond Mill (part of EU No. 006)), which "process raw materials to produce a finished product through a chemical or physical change". In order to limit the potential to emit particulate matter (PM) from these operations, the applicant has requested that more stringent PM emission limitations be established for these emission units than those that would be applicable from the Process Weight Table equation at higher process rates (see Specific Condition Nos. C.1. a.)

C.1. Maximum Allowable Particulate Matter Emissions from the Raymond Mill and Raymond Mill Outlet Hopper (EU No. 006) - Particulate matter (PM) emissions from the baghouse PM emissions control device for the Raymond Mill and Raymond Mill Outlet Hopper shall not exceed the lower limit (i.e., more stringent*) of the following:

a. 5.0 pounds/hour; and

(continued)

C.1. *(continued)*

b. the maximum emission rate allowed by the following Process Weight Table equation contained in Rule 62-296.320(4(a)(2), F.A.C. (General Particulate Emission Limiting Standards - Process Weight Table):

Maximum Allowable Emission Rate (pounds/hour) = $3.59 \times P^{0.62}$

Where P = process (input) rate in tons/hour (TPH)

(***Process Weight Table Based Limit Note*** - At process (input) rates above 1.7 tons/hour the 5.0 pounds/hour emission limit is more stringent (i.e., lower). At a process rate equal to or less than 1.7 TPH, the above Process Weight Table equation limit will be more stringent.)

(Permitting Note - See Specific Condition No. C.2. for alternate visible emissions (VE) limitations associated with showing compliance with the above PM emission limitations.)

[Rules 62-210.200 (Definition of Potential to Emit), and 62-296.320(4(a)(2), F.A.C., as requested by the applicant; Construction Permit 0830170-003-AC]

C.2. Alternate Visible Emissions (VE) Limitations in Lieu of PM Testing for the Raymond Mill and Raymond Mill Outlet Hopper (EU No. 006) - Due to the expense and complexity of conducting a stack test on a minor source of particulate matter, and because a baghouse is used as the emission control devices, the Department, pursuant to the authority granted under Rule 62-297.620(4), F.A.C., hereby establishes a visible emission (VE) limitation not to exceed an opacity of five percent (5%) from the applicable exhaust stack in lieu of a particulate stack test to show compliance with the particulate matter emission limits of Specific Condition Nos. A.1. and A.2. The applicable exhaust stacks are the Mikro-Pulsaire Model 64S820 baghouse exhaust vent for the Raymond Mill and Raymond Mill Outlet Hopper (EU 006). Should the Department have reason to believe the particulate emission standard is not being met, the Department shall require that compliance with the particulate emission standard be demonstrated by the applicable test method specified in the applicable rule *(see Section 4. Appendix D, Item 4.b.(Special Compliance Tests))*.
[Rules 62-4.070(3), and 62-297.620(4), F.A.C.; Construction Permit 0830170-003-AC]

TESTING REQUIREMENTS

C.3. Annual Visible Emissions (VE) Compliance Tests - During each federal fiscal year (October 1st to September 30th), the exhaust vent for the baghouse particulate matter (PM) emission control device listed below shall be tested to demonstrate compliance with the visible emissions (VE) standards of Specific Condition No. C.2. The processes/activities required to be in operation during the testing periods are also shown below. Testing of emissions from material transfer operations shall be conducted during material transfer/silo loading conditions that are representative of normal transfer operations.

(continued)

C.3. *(continued)*

EU ID No.	Baghouse Description	Operation(s) to be conducted during emissions testing
006	Mikro-Pulsaire Model 64S820	Simultaneous operation of the Raymond Mill and material transfer to the Raymond Mill Outlet Hopper *(emissions from both are controlled by this common baghouse control device)*

[Rule 62-297.310, F.A.C.]

C.4. Process Operation Information to be Submitted with Compliance Test Report – The compliance test report *(see Section 4, Appendix D., Condition 5 (Test Reports))* shall provide the following process operation information from the test period:

A. a statement of the material transfer operations that were being conducted during the test period and a statement of whether they represented normal operating conditions; and

B. the estimated carbon process input rates to the Raymond Mill (tons/hour) during the test period.

[Rules 62-4.070(3) and 62-297.310(8), F.A.C.; Construction Permit 0830170-003-AC]

D. EU Nos. 015 and 016 - Kiln Nos. 1 and 2 Combustion Chambers

This section of the document addresses the following emissions units (EUs). *(See more detailed description below the emission unit table.)*

EU ID No.	Emission Unit Description
015	Kiln No. 1 Combustion Chamber
016	Kiln No. 2 Combustion Chamber

NOTE *- Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.*

Kiln No. 1 Combustion Chamber (EU No. 015)
The Kiln No. 1 drying chamber is heated indirectly by a separate combustion chamber around the inner drying chamber. This combustion chamber has a series of natural gas fired burners with a total maximum design heat input rating of 19 MMBtu/hour. The products of combustion airflow from the combustion chamber is exhausted through a separate exhaust stack from the kiln drying chamber. There is no emission control device on this kiln combustion chamber exhaust.

Kiln No. 2 Combustion Chamber (EU No. 016)
The Kiln No. 2 drying chamber is heated indirectly by a separate combustion chamber around the inner drying chamber. This combustion chamber has a series of natural gas fired burners with a total maximum design heat input rating of 11.8 MMBtu/hour. The products of combustion airflow from the combustion chamber is exhausted through a separate exhaust stack from the kiln drying chamber. There is no emission control device on this kiln combustion chamber exhaust.

PERFORMANCE RESTRICTIONS

D.1. Authorized Fuel - The kilns are each permitted to burn natural gas only.
[Permit Application dated 06/19/11; Rule 62-210.200 (Definition of Potential to Emit), F.A.C.]

D.2. Permitted Hours of Operation – The kiln combustion chambers are each permitted to operate continuously (i.e., for 8760 hours/year).
[Rule 62-210.200 (Definition of Potential to Emit), F.A.C.]

(Maximum Heat Input Rate and Potential Emissions Permitting Note – The maximum kiln combustion chamber heat input rate values in the descriptions above represent the total combined maximum design (potential) heat input rate for all the burners on each kiln combustion chamber as provided by the equipment manufacturer. Worst case potential emissions from each kiln combustion chamber were calculated based on operation at these maximum design heat input rates for 8760 hours/year. This resulted in potential NOx (the pollutant with the highest emission rate) emissions of 18 tons/year from both kiln combustion chambers combined.)

This section of the document addresses specific conditions common to Emission Unit (EU) Nos. 001, 002 and 004 thru 014 (i.e., all of the EUs in Subsections A., B. and C. except EU No. 003).

PERFORMANCE RESTRICTIONS

E.1. Permitted Hours of Operation - All of these emission units are permitted to operate continuously (i.e., for 8760 hours/year).
[Rule 62-210.200 (Definition of Potential to Emit), F.A.C.; Construction Permit 0830170-003-AC]

E.2. Maximum Permitted Activated Carbon Production Rate - The production of activated carbon product from this facility shall not exceed 15,000 tons in any 12 consecutive month period. For the purpose of demonstrating compliance with this limitation, production shall be defined as the total activated carbon shipped from the facility by truck and railcar (EU No. 011); plus any activated carbon bagged in the Bagging Unit (EU No. 013). *(Note - See Specific Condition No. E.6. for associated recordkeeping requirements.)*
[Rule 62-210.200 (Definition of Potential to Emit), F.A.C.; Construction Permit 0830170-003-AC]

COMPLIANCE TESTING REQUIREMENTS

E.3 Compliance Test Requirements - Compliance tests shall be conducted in accordance with the applicable requirements specified in Appendix D (Common Testing Requirements) of this permit.
[Rule 62-297.310, F.A.C.]

E.4. Test Method - Required visible emissions compliance tests shall be performed in accordance with the following reference method.

Method	Description of Method and Comments
9	Visual Determination of the Opacity of Emissions from Stationary Sources The Method 9 VE compliance tests shall be conducted by a certified observer and be a minimum of 30 minutes in duration. The opacity test observation period shall include the period during which the highest opacity emissions can reasonably be expected to occur

The above method is described in Appendix A of 40 CFR 60 and is adopted by reference in Rule 62-204.800, F.A.C. No other method may be used unless prior written approval is received from the Department.
[Rules 62-204.800, 62-296.320(4)(b)4, 62-297.310(4)(a)(2), 62-297.320, and 62-297.401; and Appendix A of 40 CFR 60]

NOTIFICATION REQUIREMENTS

E.5. Compliance Test Notification - The permittee shall notify the Compliance Authority in writing at least 15 days prior to any required compliance tests. The notification must include the following information: the date, time, and location of each test; the name and telephone number of the facility's contact person who will be responsible for coordinating the test; and the name, company, and the telephone number of the person conducting the test.

(*Permitting Note - The notification should also include the relevant emission unit ID No(s)., test method(s) to be used, and pollutants to be tested.*)

[Rules 62-4.070(3) and 62-297.310(7)(a)9., F.A.C.]

RECORDKEEPING REQUIREMENTS

E.6. Activated Carbon Production Records - In order to demonstrate compliance the limits of Specific Condition No. E.2., the permittee shall maintain monthly activated carbon loadout records. At a minimum, the production records shall include the following for each calendar month:

A. the quantity of activated carbon product loaded out to trucks (tons) (EU No. 011);

B. the quantity of activated carbon loaded out to railcars (tons) (EU No. 011);

C. the quantity of activated carbon bagged in the Bagging Unit (tons) (EU No. 013);

D. the total monthly production (the sum of A., B., and C. above) (tons/month); and

E. the total production for the most recent consecutive 12-month period (the sum of the monthly totals in D. above for the most recent 12 consecutive months) (tons/12 consecutive months).

The above monthly records shall be completed within 15 days of the end of each month.
[Rule 62-4.070(3), F.A.C.; Construction Permit 0830170-003-AC]

E.7. Record Retention - The records required in this permit shall be maintained at the facility for a minimum of three years, and made available to the Department upon request.
[Rule 62-4.070(3), F.A.C.; Construction Permit 0830170-003-AC]