

Moore, Carol

From: Jim Sharpe [jsharpe@standardpurification.com]
Sent: Monday, September 03, 2012 9:12 AM
To: Moore, Carol
Cc: kswitt@standardpurification.com; Ken@airtest.fdn.com; Zhang-Torres; Zell, David
Subject: RE: STANDARD CARBON, LLC; 0830170-007-AO

Carol,

Thanks for the note. We were able to access the documents.

Jim

Jim Sharpe
Chief Executive Officer
Standard Purification
O: 352.465.5959
C: 917.583.0834
jsharpe@standardpurification.com
www.standardpurification.com

From: Moore, Carol [<mailto:Carol.Moore@dep.state.fl.us>]
Sent: Thursday, August 30, 2012 11:21 AM
To: jsharpe@standardpurification.com
Cc: kswitt@standardpurification.com; Ken@airtest.fdn.com; Zhang-Torres; Zell, David
Subject: STANDARD CARBON, LLC; 0830170-007-AO
Importance: High

Attention: Mr. James Sharpe, CEO

Owner/Company Name: STANDARD CARBON, LLC
Facility Name: STANDARD CARBON, LLC
Project Number: 0830170-007-AO
Permit Status: FINAL
Permit Activity: OPERATION
Facility County: MARION

Click on the following link to access the permit project documents:
http://ARM-PERMIT2K.dep.state.fl.us/adh/prod/pdf_permit_files/0830170.007.AO.F_pdf.zip

Dear Mr. Sharpe:

IMPORTANT: We must receive verification, by email, stating that you are able to access the documents. Your immediate reply will preclude subsequent e-mail transmissions to verify accessibility of the document(s).

Attached is the **Signature Page** for the Official Permit for the project referenced above. The Final Air Permit (including the Final Permit and the Attachments) has been posted on the Department of Environmental Protection's Southwest District website.

Click on the link displayed above to access the permit project documents and send a "reply" message verifying receipt of the document(s) provided in the link; this may be done by selecting "Reply" on the menu bar of your e-mail software, noting that you can view the documents, and then selecting "Send".

Permit project documents that are addressed in this email may require immediate action within a specified time frame. Please open and review the document(s) as soon as possible, and verify that they are accessible. Please advise this office of any changes to your e-mail address or that of the Engineer-of-Record.

The Southwest District is issuing electronic documents for permits, notices and other correspondence in lieu of hard copies through the United States Postal System, to provide greater service to the applicant and the engineering community. Access these documents by clicking on the link provided above, or search for other project documents using the "Air Permit Documents Search" website at <http://www.dep.state.fl.us/air/emission/apds/default.asp>.

If you should have any questions, please contact David Zell, the Permit Engineer at David.Zell@dep.state.fl.us.

Carol L. Moore
Administrative Assistant
Florida Dept. of Environmental Protection
Southwest District Air Resources
13051 N. Telecom Parkway
Temple Terrace, Florida 33637-0926
(813) 632-7600, ext. 111
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carol.moore@dep.state.fl.us

Please Note: Florida has a very broad Public Records Law. Most written communications to or from State and Local Officials regarding State or Local business are public records available to the public and media upon request. Your email communications may therefore be subject to public disclosure.

Please take a few minutes to share your comments on the service you received from the department by clicking on this link. [DEP Customer Survey](#).

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Attachments: 0830170.007.ao.f.Standard Carbon.Signature Page.pdf

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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

FINAL PERMIT

PERMITTEE

Standard Carbon LLC
551 North U.S. Highway 41
Dunnellon, FL 34432

Air Permit No. 0830170-007-AO
Permit Expires: 01/24/2016
Minor Air Operation Permit

Authorized Representative:
Mr. James Sharpe, CEO

Operation Permit Revision to Incorporate
Construction Permit Nos. 0830170-004-AC
and 0830170-005-AC

This is the final permit for the revision of Air Operation Permit No. 0830170-002-AO for 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.

This final permit is organized by the following sections:

- Section 1. General Information
- Section 2. Administrative Requirements and Facility-wide Conditions
- Section 3. Emissions Unit Specific Conditions
- Section 4. Appendices

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

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.

A person whose substantial interests are affected by the proposed permitting decision may petition for an administrative proceeding (hearing) under sections 120.569 and 120.57 of the Florida Statutes. The petition must contain the information set forth below and must be filed (received) in the Office of General Counsel of the Department at 3900 Commonwealth Boulevard, Mail Station #35, Tallahassee, Florida 32399-3000. Petitions filed by the permit applicant or any of the parties listed below must be filed within fourteen days of receipt of this notice of final permit. Petitions filed by any persons other than those entitled to written notice under section 120.60(3) of the Florida Statutes must be filed within fourteen days of publication of the public notice or within fourteen days of receipt of this notice of final permit, whichever

occurs first. Under section 120.60(3), however, any person who asked the Department for notice of agency action may file a petition within fourteen days of receipt of that notice, regardless of the date of publication. A petitioner shall 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 of the Florida Administrative Code.

All petitions filed under these rules shall contain:

- (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 the petitioner received notice of the agency decision;
- (d) A statement of all disputed issues of material fact. If there are none, the petition must so indicate;
- (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 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 Department'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 of the Florida Administrative Code.

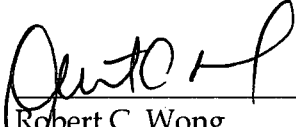
Because the administrative hearing process is designed to formulate final agency action, the filing of a petition means that the Department's final action may be different from the position taken by it in this notice. Persons whose substantial interests will be affected by any such final decision of 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 in this proceeding.

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, 3900 Commonwealth Boulevard, Mail Station #35, 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 thirty days after this order is filed with the clerk of the Department.

Executed in Hillsborough County, Florida


Robert C. Wong
District Air Program Administrator
Southwest District

8/30/12
Effective Date

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 8/30/12 to the persons listed below.

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

Ms. Kristine Switt, Plant Manager, Standard Carbon, LLC
(kswitt@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.

Carol S. Moore 8/30/12
(Clerk) (Date)

SECTION 1. GENERAL INFORMATION (FINAL)

FACILITY AND PROJECT DESCRIPTION

Existing Facility

This facility produces activated carbon using recovered fly ash as a raw material. Raw material in the form of flyash (from coal or wood combustion) is received at the facility and fed into indirectly heated kilns for conversion into activated carbon (carbon). The carbon from the kiln is transported to a Raymond Mill for grinding and sizing into desired product size. Powdered activated carbon produced offsite is also received at the facility in large supersacks and unloaded to silos for mixing with the carbon produced at the facility to produce final carbon product to meet customer specifications. Finished carbon product is transferred to loading silos and loaded to covered trucks or railcars for final shipment. The production process is described in more detail in the emission units sections of the permit (Section 3. Emissions Unit Specific Conditions).

The existing facility consists of the following emissions units (EUs)*.

Facility ID No. 0830170			
EU ID No.	Emission Unit Description	PM Emission Control Device	
		Baghouse ID*	Baghouse Description
001	Dry Fly Ash Truck Receiving/Unloading, and Bagged (Super Sacks) Activated Carbon Unloading	DC-1 <i>(previous ID was PJ-T)</i>	Kinetic Air Model 100-SL-120
002	Material Transfer to Fly Ash/Carbon Storage Silo Nos. 9 and 11	DC-2 <i>(previous ID was PJ-1)</i>	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) <i>(currently not operating)</i>	--	<i>none currently (however an emission control device is required if dry fly ash is transferred pneumatically)</i>
004	Kiln No. 2 (inner drying chamber)	K2 BH	Cyclone followed by SDC Model 48-SL-108 Baghouse)
005	Kiln No. 1 (inner drying chamber)	K1 BH	Cyclone followed by SDC Model 48-SL-108 Baghouse
006	Raymond Mill No. 1 and Raymond Mill No. 1 Outlet Hopper	RM1 BH	Mikro-Pulsaire Model 64S820 Baghouse
007	Kiln Surge Hopper, Shaker Screen, and Raymond Mill No. 1 Receiving Hopper	DC-4 <i>(previous ID was PJ-3)</i>	Kinetic Air Model 12-RS-84

SECTION 1. GENERAL INFORMATION (FINAL)

009	Material Transfer to Carbon Storage Silo Nos. 8, 10 and 12	BV-5 <i>(previous ID was PJ-2)</i>	Kinetic Air Model 36-BV-84
010	Material Transfer to Carbon Storage Silo No. 14	DC-6 <i>(previous ID was PJ-6)</i>	Kinetic Air Model 16-RS-84
011	Bulk Truck/Railcar Loading	16 Tank BH	Flex-Kleen Model 84BVBS 1611G <i>(common control device with EU 014)</i>
012	Material Transfer to Carbon Bagging Storage Tower	Bagging BH	Flex-Kleen Model 84BVBS-25
013	Material Transfer to Carbon Bagging Hopper, and to Bagging Unit	Mahle	Mahle Model 25-K Baghouse
014	Material Transfer to Carbon Storage Silo No. 16	16 Tank BH	Flex-Kleen Model 84BVBS 1611G <i>(common control device with EU 011)</i>
015	Kiln No. 1 Combustion Chamber	--	<i>none</i>
016	Kiln No. 2 Combustion Chamber	--	<i>none</i>
017	Material Transfer to Carbon Storage Silo No. 4	DC-5 <i>(previous ID was PJ-4)</i>	Kinetic Air Model 12-RS-84

(Baghouse Identification (ID) Permitting Note – At the request of the permittee, the existing baghouse ID's have been changed from those shown in previous permits (as shown in previous permit applications) to those more commonly in use by the facility personnel. The revised facility reference baghouse ID is now shown, with the baghouse ID previously used in the permit shown italicized in parenthesis.)*

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)

SECTION 1. GENERAL INFORMATION (FINAL)

without causing blockage and other operational problems. The wet fly ash is dumped directly on the pavement. Due to the high material 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 portable bin and taken by forklift to the kilns. The bin is elevated above 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, which then 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 operation permit replaces facility Operation Permit No. 0830170-002-AO. Reference also Construction Permit 0830170-006-AC, which authorizes additional modifications to this facility.

**SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC
CONDITIONS (FINAL)**

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.]

**SECTION 2. ADMINISTRATIVE REQUIREMENTS AND FACILITY-WIDE SPECIFIC
CONDITIONS (FINAL)**

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. Operation Permit Renewal Application - A completed application for renewal of the operation permit shall be submitted to the Permitting Authority no later than 60 days prior to the expiration date of the operation permit. To properly apply for an operation permit, 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.]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - 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	PM Emission Control Device	
		Baghouse ID*	Baghouse Description
001	Dry Fly Ash Truck Receiving/Unloading, and Bagged (Super Sacks) Activated Carbon Unloading	DC-1	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	DC-2	Kinetic Air Model 72-SL-120 (w/design airflow rate of 4,000 dscfm)
003	Material Transfer to Kiln Fly Ash Feed Hoppers K1 (for Kiln No. 1) and K2 (for Kiln No. 2) <i>(currently not operating)</i>	--	<i>none currently (however an emission control device is required if dry fly ash is transferred pneumatically)</i>
007	Kiln Surge Hopper, Shaker Screen, and Raymond Mill No. 1 Receiving Hopper	DC-4	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	BV-5	Kinetic Air Model 36-BV-84 (w/design airflow rate of 1,000 dscfm)
010	Material Transfer to Carbon Storage Silo No. 14	DC-6	Kinetic Air Model 16-RS-84 (w/design airflow rate of 800 dscfm)
011	Bulk Truck/Railcar Loading	16 Tank BH	Flex-Kleen Model 84BVBS 1611G (w/design airflow rate of 600 dscfm) <i>(common control device with EU 014)</i>
012	Material Transfer to Carbon Bagging Storage Tower	Bagging BH	Flex-Kleen Model 84BVBS-25 (w/design airflow rate of 600 dscfm)
013	Material Transfer to Carbon Bagging Hopper, and to Bagging Unit	Mahle	Mahle Model 25-K Baghouse (w/ <i>estimated</i> design airflow rate of 600 dscfm)
014	Material Transfer to Carbon Storage Silo No. 16	16 Tank BH	Flex-Kleen Model 84BVBS-1611G (w/design airflow rate of 600 dscfm) <i>(common control device with EU 011)</i>

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - Material Handling and Storage

017	Material Transfer to Carbon Storage Silo No. 4	DC-5	Kinetic Air Model 12-RS-84 (w/ design airflow rate of 600 dscfm)
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NOTE - Please reference the Permit No., Facility ID, and Emission Unit ID in all correspondence, test report submittals, applications, etc.

More Detailed Emissions Units 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 DC-1, a Kinetic Air Model 100-SL-120). 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 DC-2, a Kinetic Air Model 72-SL-120).

**** 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.)

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - Material Handling and Storage

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. 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 DC-4, a Kinetic Air Model 12-RS-84).

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 BV-5, a Kinetic Air Model 36-BV-84).

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - Material Handling and Storage

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 DC-6, a Kinetic Air Model 16-RS-84).

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 baghouse dust collector (16 Tank BH, a Flex-Kleen Model 84BVBS 1611G), 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 baghouse dust collector (Bagging BH, a Flex-Kleen Model 84BVBS-25)..

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 baghouse dust collector (Mahle, a Mahle Model 25-K Baghouse).

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 baghouse dust collector (16 Tank BH, a Flex-Kleen Model 84BVBS 1611G), which also controls emissions from EU No. 011 (Bulk Truck/Railcar Carbon Loading).

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - Material Handling and Storage

EU No. 017 - Material Transfer to Carbon Storage Silo No. 4

Carbon Storage Silo No. 4 is used as a blending tank to combine the Carbon Storage Silo Nos. 9 and 11 (EU No. 002) tank super sack powdered activated carbon material with the activated carbon product stored in Carbon Storage Silo Nos. 8, 10 or 12 (EU No. 009). Material blended in Carbon Storage Silo No. 4 can then be transferred to bagging for packaging, back to Carbon Storage Silo Nos. 8, 10, or 12 for storage of the blended product, or to Carbon Storage Silo Nos. 14 or 16 (EU Nos. 010 and 014) for bulk load-out. Carbon Storage Silo No. 4 will not receive Raymond Mill carbon product directly. Emissions from transfer of carbon product to Carbon Storage Silo No. 4 are controlled by a baghouse dust collector (DC-5, a Kinetic Air Model 12-RS-84).

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 emissions units (EUs).

(Note - See also Subsection E. which contains common conditions applicable to these emissions units.)

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 baghouse 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 Permits 0830170-004-AC and 0830170-005-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.; Construction Permit 0830170-004-AC]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - Material Handling and Storage

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 operations¹.

EU ID No(s).	Baghouse ID	Operation(s) to be conducted during emissions testing
001	DC-1	Dry fly ash truck unloading; or bagged activated carbon unloading
002	DC-2	Transfer of dry fly ash, or activated carbon, to Fly Ash/Carbon Storage Silos 9 or 11 ²
007	DC-4	Transfer of material to Kiln Surge Hopper, and Raymond Mill Receiving Hopper, with Shaker Screen also operating
009	BV-5	Transfer of activated carbon from Raymond Mill to Carbon Storage Silos 8, 10 or 12 ²
010	DC-6	Transfer of carbon to Carbon Storage Silo 14
011 & 014	DC-6	Loading of carbon product into trucks ³ or railcars ³ (EU No. 011) and Transfer of carbon to Carbon Storage Silo 16 (EU No. 014) <i>(both EUs have common baghouse)</i>
012	Bagging BH	Transfer of carbon product to Carbon Bagging Storage Tower
013	Mahle	Transfer of carbon to the Carbon Bagging Hopper and operation of Bagging Unit (bagging machine)
017	DC-5	Transfer of activated carbon to Silo No. 4 from Carbon Storage Silos 8, 10 or 12, or powdered activated carbon from Flyash/Carbon Storage Silo Nos. 9 or 11 ⁴

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.*
- ³ *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.*

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - Material Handling and Storage

A.3. (continued)

⁴ Silo No. 4 Material Transfer Operations Permitting Note - Silo No. 4 can receive activated carbon from any of the listed carbon storage silos. For compliance testing purposes, it does not matter which of the multiple silos material is being transferred from as long as material is being transferred to Silo No. 4 during the entire test period.

[Rule 62-297.310, F.A.C.; Construction Permits 0830170-004-AC and 0830170-005-AC]

A.4. Initial Visible Emissions (VE) Compliance Tests for Dry Fly Ash Unloading and Handling Operations (EU Nos. 001 and 002 with Baghouses DC-1 and DC-2)* - Within 45 days of their initial operation for bulk dry fly ash raw material unloading, the permittee shall conduct initial visible emissions (VE) compliance tests on the baghouse control devices for the dry fly ash unloading and handling operations (i.e., EU No. 001 with emission control device Baghouse DC-1 and EU No. 002 with emission control device Baghouse DC-2), to demonstrate compliance with the VE standards of Specific Condition No. A.1. Testing shall be conducted during dry fly ash unloading and transfer operations (see *Specific Condition Nos. A.3. and A.5.b.*). [Rule 62-4.070(3), F.A.C.; Construction Permit 0830170-004-AC]

(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 conducted 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 DC-1 and DC-2), the test report shall include a statement of the number of trucks and weight of dry fly ash unloaded, or the number of supersack bags and weight of bagged activated carbon (carbon) dumped (tons); and a statement of what fly ash/carbon 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 DC-4), 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.
- d. For Transfer of Carbon From Raymond Mill Outlet Hopper to Carbon Storage Silos 8, 10 and 12 (EU No. 009 w/Baghouses BV-5), the test report shall include a statement of what carbon storage silo loading operations were being conducted.

(continued)

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

A. EU Nos. 001 thru 003, 007, 009 thru 014, and 017 - Material Handling and Storage

A.5. (continued)

- e. For Transfer to Carbon Storage Silo No. 14 (EU No. 010 w/Baghouse DC-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 Baghouse 16 Tank BH), 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/Bagging BH 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 No. 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.*).
- i. For Material Transfer to Carbon Storage Silo No. 4. (EU No. 017 w/Baghouse DC-5), the compliance test reports shall include a statement of the Carbon Storage Silo No. 4 material transfer operations that were being conducted during the test period, and a statement of whether they represented normal operating conditions and transfer rates.

[Rules 62-4.070(3) and 62-297.310(8), F.A.C.; Construction Permits 0830170-004-AC and 0830170-005-AC]

NOTIFICATION REQUIREMENTS

- A.6. Notification of Start of Dry Fly Ash Unloading Operations - The permittee shall notify the Compliance Authority of the date of the first processing of bulk dry fly ash raw material using the dry fly ash 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 processing.

[Rule 62-4.070(3), F.A.C.; Construction Permit 0830170-004-AC]

(Permitting Note – See also Specific Condition No. A.4. 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).

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

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 descriptions below the emission unit table.)*

EU ID No.	Emission Unit Description	PM Emission Control Device	
		Baghouse ID*	Baghouse Description
004	Kiln No. 2 (inner drying chamber)	K2 BH	Cyclone followed by SDC Model 48-SL-108 Baghouse (w/design airflow rate of 2,500 dscfm)
005	Kiln No. 1 (inner drying chamber)	K1 BH	Cyclone followed by SDC Model 48-SL-108 Baghouse (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.

More Detailed Emissions Units Description

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 (Baghouses K1 BH and K2 BH). 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 emissions units (EUs).

(Note - See also Subsection E. which contains common conditions applicable to these emissions units.)

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

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

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

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;
- 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):

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

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 0830170-004-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 device, the Department, pursuant to the authority granted under Rule 62-297.620(4), F.A.C., established 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 limitations 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 (K1 BH and K2 BH) 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 0830170-004-AC]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

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

COMPLIANCE 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 ID	Operation(s) to be conducted during emissions testing
004	K2 BH	Material being processed thru <u>Kiln No. 2</u> inner drying chamber
005	K1 BH	Material being processed thru <u>Kiln No. 1</u> 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 0830170-004-AC]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

C. EU No. 006 - Raymond Mill No. 1 and Raymond Mill No. 1 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	PM Emission Control Device	
		Baghouse ID*	Baghouse Description
006	Raymond Mill No. 1 and Raymond Mill No. 1 Outlet Hopper	RM1 BH	Mikro-Pulsaire Model 64S820 Baghouse (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.

More Detailed Emissions Unit Description

Raymond Mill No. 1 and Raymond Mill No. 1 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 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 (Baghouse RM1 BH, a Mikro-Pulsaire Model 64S820).

The following Specific Conditions apply to the above emissions unit (EU).

(Note - See also Subsection E. which contains common conditions applicable to this emissions unit.)

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 No. C.1. a.)

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

- a. 5.0 pounds/hour; and

(continued)

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

C. EU No. 006 - Raymond Mill No. 1 and Raymond Mill No. 1 Outlet Hopper

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):

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

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 0830170-004-AC]

- C.2. Alternate Visible Emissions (VE) Limitations in Lieu of PM Testing for Raymond Mill No. 1 and Raymond Mill No. 1 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 device, the Department, pursuant to the authority granted under Rule 62-297.620(4), F.A.C., established a visible emission (VE) limitation not to exceed an opacity of five percent (5%) from the exhaust vent for Baghouse RM in lieu of a particulate stack test to show compliance with the particulate matter emission limitations of Specific Condition No. C.1. 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 0830170-004-AC]

COMPLIANCE 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)

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

C. EU No. 006 - Raymond Mill No. 1 and Raymond Mill No. 1 Outlet Hopper

C.3. (continued)

EU ID No.	Baghouse Description	Operation(s) to be conducted during emissions testing
006	RM1 BH	Simultaneous operation of the Raymond Mill and material transfer to the Raymond Mill Outlet Hopper (<i>emissions from both are controlled by this common baghouse control device</i>)

[Rule 62-297.310, F.A.C.; Construction Permit 0830170-004-AC]

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 Raymond Mill No. 1 (tons/hour) during the test period.

[Rules 62-4.070(3) and 62-297.310(8), F.A.C.; Construction Permit 0830170-004-AC]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

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 (no emission control device)
016	Kiln No. 2 Combustion Chamber (no emission control device)

More Detailed Emission Unit Description

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 are 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 are exhausted through a separate exhaust stack from the kiln drying chamber. There is no emission control device on this kiln combustion chamber exhaust.

The following Specific Conditions apply to the above emissions units (EU).

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.)

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

E. Common Specific Conditions for EU Nos. 001, 002, 004 thru 014 (EUs in Subsections A., B. and C.)

This section of the document addresses specific conditions common to Emissions 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 0830170-004-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 0830170-004-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]

SECTION 3. EMISSIONS UNIT SPECIFIC CONDITIONS (FINAL)

E. Common Specific Conditions for EU Nos. 001, 002, 004 thru 014 (EUs in Subsections A., B. and C.)

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 with the production limitations 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 0830170-004-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 0830170-004-AC]

SECTION 4. APPENDICES

Contents

Appendix A. Citation Formats and Glossary of Common Terms

Appendix B. General Conditions

Appendix C. Common Conditions

Appendix D. Common Testing Requirements

**SEE
ELECTRONIC
FILE
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APPENDICES**