AIR TESTING & CONSULTING

333 FALKENBURG RD. N. B-214 • TAMPA, FLORIDA 33619 • (813)651-0878 • Fax(813)653-9082

May 11, 2012

Cindy Zhang-Torres
Department of Environmental Protection
13051 North Telecom Parkway
Temple Terrace, FL 33637-0926

Re: Standard Carbon, LLC
Facility ID: 0830011

Dear Cindy:

Enclosed are two copies of an application for a non-Title V air construction permit and a check for $2,750 to cover the application fee.

If you have any questions please call me at (813) 651-0878.

Sincerely,

Kenneth E. Given, P.E.
President

cc: Kristine Switt, Standard Carbon LLC

AIR CONSTRUCTION PERMIT APPLICATION

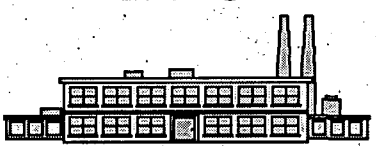
PREPARED FOR:

STANDARD CARBON LLC
DUNNELLON, FLORIDA

FACILITY ID: 0830170

PREPARED BY:

ATC



AIR TESTING & CONSULTING, INC.
333 FALKENBURG ROAD, SUITE B-214
TAMPA, FLORIDA 33619

STANDARD CARBON, LLC

PROCESS DESCRIPTION

PROPOSED

Fly Ash Truck Receiving/Unloading (EU 001)

Fly ash will be received via trucks and unloaded by dumping into four new fly ash receiving hoppers which will be housed in a new truck receiving building to control fugitive dust emissions. Emissions from the fly ash unloading activities in this building will be controlled by a new pulse-jet baghouse dust control device (Baghouse PJ-T). The new fan 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') will also be equipped with plastic sheets to contain fugitive dust emissions.

Fly Ash Truck Receiving/Unloading/Storage (EU 001) – Alternative

Fly ash will sometimes be received at approximately 70% moisture content. The material is too wet to be handled in the new unloading system. The wet fly ash is dumped on the pavement and covered with tarps. There is a water hose available to wet the surface of the pile if necessary. Since the fly ash is approximately 70% moisture, dusting is not a problem when received. Precautions are taken to prevent dusting in case the pile surface dries and it becomes windy enough to blow fly ash off the pile surface. In order to load the kilns the wet fly ash is loaded into a bin and taken by forklift to the kilns. The bin is elevated above the kiln's fly ash hopper which has its lid removed. The fly ash is then dumped into the hopper where it feeds into the kiln.

Fly Ash Storage Silos (EU 002)

Fly Ash, if dry, from the two north receiving hoppers (with Blower BLT-1) and the two south receiving hoppers (with Blower BLT-2) will be pneumatically transferred to the Fly Ash storage silos (FA Silo Nos. 3, 5, 9, 11 and Tank 1). The silos will exhaust to a new pulse-jet receiver baghouse (Baghouse PJ-1).

Kiln Fly Ash Hoppers (EU 003)

Fly ash from the storage piles is transferred to three kiln fly ash hoppers, one for each of the three kilns (Hopper K1 for Kiln No. 1, Hopper K2 for Kiln No. 2 and Hopper K3 for Kiln No. 3). Particulate matter emissions from the fly ash transfer to Hoppers K1, K2 and K3 will not be a problem since the flyash is 70% moisture.

Activated Carbon Kilns (EU 004, 005 and new unit)

Fly ash from the kiln fly ash hoppers will be gravity fed into their respective kilns (Kiln Nos. 1, 2 and 3) for conversion into activated carbon. The kilns each have a separate combustion chamber such that the kiln itself is heated indirectly and the combustion gases do not come into direct contact with the fly ash. The combustion chambers are fired with natural gas and exhaust through separate stacks from the kilns. Steam for injection into the kilns will be supplied by new electric boilers (future addition if needed). Now because the flyash is so wet no steam is needed. Exhaust gases from each of the kilns will pass through cyclone separator pre-cleaners and separate heat exchangers prior to the emission

control devices (SDC Model 48-SL-108 baghouse or equivalent with a design air flow rate of 2,500 dscfm). The total estimated carbon product from each kiln is expected to be 1.0 ton/hour. Fines removed from the exhaust stream collect in a fines hopper from the baghouses. The fines then pass through a rotary lock valve and are transferred pneumatically (BL-2) to the Raymond Mill Receiving Hopper. A pulse-jet baghouse (PJ-3) will control particulate matter emissions from the transfer of the fines to the RM Receiving Hopper.

#4 Tank (EU017)
In addition to its use as a blending tank, when the Rotex Shaker Screen is in use, or the Dynamic Classifier is installed, the sand discharge will fall by gravity through a rotary valve and be pneumatically conveyed (BL-1) to #4 tank when piping is reconfigured. A pulse jet baghouse (PJ-4), repurposed under construction permit 08030170-005-AC, will recapture any carbon particulate matter emissions in the sand stream and transfer them to the carbon storage tanks through the EU009 system. The material in #4 tank will then be blended or packaged through existing pathways.

Raymond Mill (EU 006)
The activated carbon from each kiln discharges via a cooling screw conveyor which cools and transfers the activated carbon to a surge hopper. The unground activated carbon then passes through a rotary valve and is pneumatically transferred (BL-2) to the Raymond Mill Receiving Hopper. A pulse-jet baghouse (PJ-3) will control particulate matter emissions from the transfer of the carbon to the RM Receiving Hopper. The Model 5057 Raymond Mill (EU 006) 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. A new Dynamic Classifier will be installed on the mill to remove sand from the carbon. The Raymond Mill will operate at a maximum material input rate of 4.0 tons/hour. Particulate matter emissions from the Raymond Mill will be controlled by an existing Mikro-Pulsaire Type 65810 baghouse with a maximum design air flow rate of 3,400 dscfm. The collected sand will go to a small vessel with a bin vent for breathing, or be pneumatically conveyed using BL-1 to #4 tank and vented through PJ-4 as described, above. Any carbon captured by PJ-4 will be sent to carbon storage.

Raymond Mill (new)

A second Raymond Mill will be added with the same milling capacity as the existing mill, 4 tons/hour. The facility is looking for a new or refurbished unit. The project would include the installation of a mill with a new baghouse, a receiver hopper with a baghouse, an outlet hopper and two new blowers, one to transfer material to the receiving hopper and one to transfer ground carbon to storage. It will be set up to perform multiple functions:

1) **It would be a backup for the present mill.**
2) **A second use would be to grind a separate product. The feed for either mill could come from a kiln, a supersack, a storage silo, a tank truck or a railcar. Another baghouse would be installed for the storage silos so both units could operate simultaneously without cross contamination.**

Carbon Storage Silos (EU's 009) (Note: Silo #4 was refurbished under a separate construction permit. However, this expands its potential use to be equal to any storage tank, not just a blending tank.

The Raymond Mill discharges the activated carbon to the Raymond Mill Outlet Hopper. From the Outlet Hopper the carbon is pneumatically transferred (using Blower BL-3) to Carbon Storage Silos (Nos. 1, 2, 3, 4, 6, 8, 10, and 12). (Silos Nos. 1, 2, 3 & 6 will be refurbished and put into service). A pulse-jet baghouse (Baghouse PJ-2) will control particulate matter emissions from the transfer of carbon to Carbon Silos. Only one silo would be in use at a time so the load on the baghouse will not increase. The silos would be piped so that each could receive carbon from multiple sources: RM milled product; supersack dumping; tank truck discharge or railcar discharge.

Alternative Carbon Storage
Fly Ash Storage Silos Nos. 9 and 11 may be used for carbon storage at a future time. Piping for pneumatic transfer exists and would only require minor changes in the piping.

Bulk Truck/Railcar Carbon Loading (EU 011)
Carbon for bulk truck/railcar loading will be transferred to Carbon Silo 14 or 16 from the Carbon Storage Silos. When the carbon is pneumatically (BL-5) transferred from one of the carbon silos, it vents through a new pulse jet baghouse (Baghouse PJ-6). Carbon Silos 14 and 16 are located above the railroad tracks where trucks or railcars are loaded with finished carbon product for shipment. Trucks/railcars are loaded from the silo by gravity through a Rotor Lock valve. Particulate matter emissions from transfer of carbon to Carbon Silos 14 and 16 and from truck/ railcar loading are controlled by Baghouse PJ-6. Carbon Silos 14 and 16 will be vented through PJ-6.

Bagging System (EU's 012 and 013)
Carbon for bagging will be transferred pneumatically (using Blower BL-5) from the carbon silos to the Bagging Storage Tower (EU 012). From this tower the carbon will drop into the Bagging Hopper, and from the hopper drop into the Bagging Unit (EU 013), which consists of a manual operation bagging machine. The Bagging Unit operates at a maximum design rate of 1.0 ton/hour. Particulate matter emissions from the Bagging Storage Tower are vented to and controlled by an existing Flex-Kleen Model 84BVBS-25 baghouse with a maximum design air flow rate of 600 dscfm. The Bagging Hopper and Bagging Unit exhaust to a small baghouse.

Bagging Unit (new)

A second bagging unit will be installed beside the present unit. It will be the same size as the existing unit, 1.0 ton/hour. It will use the existing exhaust system as the present unit.

Blower Note: All of the blowers (BL) used to move flyash and activated carbon are fixed speed.

Department of
Environmental Protection

Division of Air Resources Management

APPLICATION FOR AIR PERMIT - NON-TITLE V SOURCE

See Instructions for Form No. 62-210.900(3)

I. APPLICATION INFORMATION

Identification of Facility

1. Facility Owner/Company Name: **STANDARD CARBON LLC**	
2. Site Name: **(dba) STANDARD PURIFICATION**	
3. Facility Identification Number: **0830170** [ ] Unknown	
4. Facility Location: Street Address or Other Locator: **551 North U.S. Highway 41, 1 mile south of Romeo** City: **DUNNELLON** County: **MARION** Zip Code: **34432**	
5. Relocatable Facility? [ ] Yes [X] No	6. Existing Permitted Facility? [X] Yes [ ] No

Application Contact

1. Name and Title of Application Contact: **JAMES SHARPE / CEO**
2. Application Contact Mailing Address: Organization/Firm: **STANDARD CARBON LLC** Street Address: **551 North U.S. Highway 41** City: **DUNNELLON** County: **MARION** Zip Code: **34432**
3. Application Contact Telephone Numbers: Telephone: **(352) 465 - 5959** Fax: **(352) 465 - 0679**

Application Processing Information (DEP Use)

1. Date of Receipt of Application:	
2. Permit Number:	

Purpose of Application

Air Operation Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[ ] Initial non-Title V air operation permit for one or more existing, but previously unpermitted, emissions units.

[ ] Initial non-Title V air operation permit for one or more newly constructed or modified emissions units.

Current construction permit number:_____

[ ] Non-Title V air operation permit revision to address one or more newly constructed or modified emissions units.

Current construction permit number:_____

Operation permit number to be revised:_____

[ ] Initial non-Title V air operation permit under Rule 62-210.300(2)(b), F.A.C., for an existing facility seeking classification as a synthetic non-Title V source.

Current operation/construction permit number(s):

_____

[ ] Non-Title V air operation permit revision for a synthetic non-Title V source. Give reason for revision; e.g., to address one or more newly constructed or modified emissions units.

Operation permit number to be revised:_____

Reason for revision:_____

Air Construction Permit Application

This Application for Air Permit is submitted to obtain: (Check one)

[X] Air construction permit to construct or modify one or more emissions units.

[ ] Air construction permit to make federally enforceable an assumed restriction on the potential emissions of one or more existing, permitted emissions units.

[ ] Air construction permit for one or more existing, but unpermitted, emissions units.

Owner/Authorized Representative

1. Name and Title of Owner/Authorized Representative:
   James Sharpe / CEO
2. Owner/Authorized Representative Mailing Address:
   Organization/Firm: Standard Carbon LLC
   Street Address: 551 North U.S. Highway 41
   City: Dunnellon State: Florida Zip Code: 34432
3. Owner/Authorized Representative Telephone Numbers:
   Telephone: (352) 465 – 5959 Fax: (352) 465 - 0679
4. Owner/Authorized Representative Statement:

   I, the undersigned, am the owner or authorized representative of the facility addressed in this application. I hereby certify, based on information and belief formed after reasonable inquiry, that the statements made in this application are true, accurate and complete and that, to the best of my knowledge, any estimates of emissions reported in this application are based upon reasonable techniques for calculating emissions. The air pollutant emissions units and air pollution control equipment described in this application will be operated and maintained so as to comply with all applicable standards for control of air pollutant emissions found in the statutes of the State of Florida and rules of the Department of Environmental Protection and revisions thereof. I understand that a permit, if granted by the Department, cannot be transferred without authorization from the Department, and I will promptly notify the Department upon sale or legal transfer of any permitted emissions unit.*

   Signature 5/14/12 Date

* Attach letter of authorization if not currently on file.

Professional Engineer Certification

1. Professional Engineer Name: Kenneth E. Given
   Registration Number: 23023 Authorization Number: 27706
2. Professional Engineer Mailing Address:
   Organization/Firm: Air Testing & Consulting, Inc.
   Street Address: 333 N. Falkenburg Rd. Unit B-214
   City: Tampa State: Florida Zip Code: 33619
3. Professional Engineer Telephone Numbers:
   Telephone: (813) 651 - 0878 Fax: (813) 653 - 9082

4. Professional Engineer Statement:

I, the undersigned, hereby certify, except as particularly noted herein, that:*

(1) To the best of my knowledge, there is reasonable assurance that the air pollutant emissions unit(s) and the air pollution control equipment described in this Application for Air Permit, when properly operated and maintained, will comply with all applicable standards for control of air pollutant emissions found in the Florida Statutes and rules of the Department of Environmental Protection; and

(2) To the best of my knowledge, any emission estimates reported or relied on in this application are true, accurate, and complete and are either based upon reasonable techniques available for calculating emissions or, for emission estimates of hazardous air pollutants not regulated for an emissions unit addressed in this application, based solely upon the materials, information and calculations submitted with this application.

If the purpose of this application is to obtain an air construction permit for one or more proposed new or modified emissions units (check here [X], if so), I further certify that the engineering features of each such emissions unit described in this application have been designed or examined by me or individuals under my direct supervision and found to be in conformity with sound engineering principles applicable to the control of emissions of the air pollutants characterized in this application.

If the purpose of this application is to obtain an initial air operation permit or operation permit revision for one or more newly constructed or modified emissions units (check here [ ], if so), I further certify that, with the exception of any changes detailed as part of this application, each such emissions unit has been constructed or modified in substantial accordance with the information given in the corresponding application for air construction permit and with all provisions contained in such permit.

Signature

5-11-12
Date

(seal)

* Attach any exception to certification statement.

Scope of Application

Emissions Unit ID	Description of Emissions Unit	Permit Type	Processing Fee
	Kiln No. 3 w/combustion chamber No. 3 - with baghouse SDC Model 48-SL-108 (or equal)	AC1E	$1000
006	Raymond Mill and Raymond Mill Outlet Hopper (addition of classifier to mill)	ACM2	$250
	Raymond Mill and Raymond Mill Outlet Hopper (second mill) w/Baghouse	AC1E	$1000
	Raymond Mill Receiving Hopper w/Baghouse	AC1F	$250
009	Carbon Silos' 2nd Baghouse	AC1F	-
013	Bagging unit – second unit	ACM2	$250

Application Processing Fee

Check one: [X] Attached - Amount: $2,750 [ ] Not Applicable

Construction/Modification Information

1. Description of Proposed Project or Alterations:
   Refurbish existing Kiln #3 or install equivalent next to existing kilns 1 & 2.

   Install a classifier to sit atop the Raymond Mill. The unit will be used to separate sand from the carbon and remove it to a receiver to keep it from accumulating in the mill. A small baghouse (bin vent) will be installed on the sand receiver to handle any dust associated with the sand or the sand will be pneumatically conveyed (BL-1) to #4 tank (PJ-4). When operating, the sand discharge from the Rotex Shaker Screen, will be pneumatically conveyed (BL-1) to #4 tank (PJ-4).

   The material collected from the baghouses discharges into a fines hopper which vents to PJ-3. The new baghouse will have its own fines hopper which will vent to PJ-3. A new fines hopper will be added for Kiln #2 so each baghouse will have its own fines hopper. All three fines hoppers will vent to PJ-3.

   Silos 1, 2, 3 and 6 will be refurbished to be used to store activated carbon. They will be piped so they can received carbon from the Raymond Mill Outlet Hopper, supersacks, railcars or from tank trucks. Only one silo will receive carbon at a time so the load on the baghouse, PJ-2 will not increase.

   Install another Raymond Mill, a new or refurbished unit of the same capacity as the existing unit. Also include inlet and outlet hoppers. It will be set up to: 1) be a back up for the existing mill; 2) A second use would be to grind a separate product. The system would be designed to separate the different products.

   Install a second bagging unit.

2. Projected or Actual Date of Commencement of Construction:

3. Projected Date of Completion of Construction:

Application Comment

Kiln #3 was permitted by the previous owners, Acticarb, Inc. but was not included in the Standard Carbon construction permit. The facility will either refurbish Kiln #3 or will replace it with a used unit.

II. FACILITY INFORMATION

A. GENERAL FACILITY INFORMATION

Facility Location and Type

1. Facility UTM Coordinates: Zone: 17 East (km): 360.2 North (km): 3230.0			
2. Facility Latitude/Longitude: Latitude (DD/MM/SS): 29/11/33 N Longitude (DD/MM/SS): 82/26/17 W			
3. Governmental Facility Code: 0	4. Facility Status Code: A	5. Facility Major Group SIC Code: 28	6. Facility SIC(s): 2819
7. Facility Comment (limit to 500 characters):			

Facility Contact

1. Name and Title of Facility Contact: Kristine Switt/Plant Manager
2. Facility Contact Mailing Address: Organization/Firm: Standard Carbon LLC Street Address: 551 North U.S. Highway 41 City: Dunnellon State: Florida Zip Code: 34432
3. Facility Contact Telephone Numbers: Telephone: (352) 465 – 5959 Fax: (352) 465 - 0679

Facility Regulatory Classifications

Check all that apply:

1. [ ] Small Business Stationary Source?	[ ] Unknown
2. [X] Synthetic Non-Title V Source?	
3. [X] Synthetic Minor Source of Pollutants Other than HAPs?	
4. [ ] Synthetic Minor Source of HAPs?	
5. [ ] One or More Emissions Units Subject to NSPS?	
6. [ ] One or More Emission Units Subject to NESHAP Recordkeeping or Reporting?	
7. Facility Regulatory Classifications Comment (limit to 200 characters):	

Rule Applicability Analysis

Federal: None

State: Facility is subject to F.A.C.: 62-4 - permitting requirements, 62-210 - Administrative permit corrections, AOR, Circumvention, Excess emissions, Renewal, 62-296 - no objectionable odors, visible emission limitations, emission rates, unconfined emissions and 62-297 - testing requirements and 62.297.620(4) - Alternative Testing Procedures.

Local: None

B. FACILITY POLLUTANTS

List of Pollutants Emitted

1. Pollutant Emitted	2. Pollutant Classif.	3. Requested Emissions Cap lb/hour	tons/year	4. Basis for Emissions Cap	5. Pollutant Comment
PM	SM				
SO2	B				
NOx	B				
CO	B				
VOC	B				

C. FACILITY SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Area Map Showing Facility Location: [ ] Attached, Document ID:___ [ ] Not Applicable [X] Waiver Requested
2. Facility Plot Plan: [X] Attached, Document ID:__A_ [ ] Not Applicable [ ] Waiver Requested
3. Process Flow Diagram(s): [X] Attached, Document ID:__B__ [ ] Not Applicable [ ] Waiver Requested
4. Precautions to Prevent Emissions of Unconfined Particulate Matter: [ ] Attached, Document ID:____ [ ] Not Applicable [X] Waiver Requested
5. Supplemental Information for Construction Permit Application: [ ] Attached, Document ID:_____ [ ] Not Applicable
6. Supplemental Requirements Comment: Items 1 and 4 were recently submitted.

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Kiln No. 3 w/ Combustion Chamber No. 3

3. Emissions Unit Identification Number:
ID:
[X] No ID
[ ] ID Unknown

4. Emissions Unit Status Code: C	5. Initial Startup Date:	6. Emissions Unit Major Group SIC Code: 28

7. Emissions Unit Comment: (Limit to 500 Characters)
This project will include the installation of a third Kiln Fly Ash Feed Hopper, K3, and a water cooled screw conveyor. The combustion chamber will vent to the atmosphere.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):

Cyclone separator followed by a SDC Model 48-SL-108 baghouse (2).
Flow - 2,500 cfm

The material collected from the baghouses discharges into a fines hopper which vents to PJ-3. The new baghouse will have its own fines hopper which will vent to PJ-3. A new fines hopper will be added for Kiln #2 so each baghouse will have its own fines hopper. All three fines hoppers will vent to PJ-3.

2. Control Device or Method Code(s): 018

Emissions Unit Details

1. Package Unit:
   Manufacturer: Model Number:
2. Generator Nameplate Rating: MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: mmBtu/hr
2. Maximum Incineration Rate: lb/hr tons/day
3. Maximum Process or Throughput Rate: 4 TPH
4. Maximum Production Rate:
5. Requested Maximum Operating Schedule:
   hours/day days/week
   weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: V	6. Stack Height: 30 feet	7. Exit Diameter: 1foot
8. Exit Temperature: 400 °F	9. Actual Volumetric Flow Rate: 4,600 acfm	10. Water Vapor: 10 %
11. Maximum Dry Standard Flow Rate: 2,500 dscfm	12. Nonstack Emission Point Height: feet	
13. Emission Point UTM Coordinates: Zone:	East (km):	North (km):
14. Emission Point Comment (limit to 200 characters):		

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Processing of fly ash to activated carbon		
2. Source Classification Code (SCC): 3-05-009-01	3. SCC Units: Tons Processed	
4. Maximum Hourly Rate: 4	5. Maximum Annual Rate: 35,040	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): Process feed rate is 4 TPH at 75% moisture. The production rate will be one TPH dry 3-05-009-01- Dryer – Clay & Fly Ash Sintering		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Firing with natural gas		
2. Source Classification Code (SCC): 3-06-001-05	3. SCC Units: MMBTU/hr	
4. Maximum Hourly Rate: 0.0181	5. Maximum Annual Rate: 158.56	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit: 1050
10. Segment Comment (limit to 200 characters): For emissions see attachment – KILN EMISSIONS		

Emissions Unit Information Section 1 **of** 6

Pollutant Detail Information Page 1 **of** 1

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM	2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: 018	4. Secondary Control Device Code:	5. Total Percent Efficiency of Control:
6. Potential Emissions: 0.643 lb/hour 2.82 tons/year		7. Synthetically Limited? [ ]
8. Emission Factor: 0. 0.03 gr/dscf Reference: Supplier of filter bags		9. Emissions Method Code: 0
10. Calculation of Emissions (limit to 600 characters): E = 2,500 cfm x 60 min/hr x 0.03 grs/dscf x 1 lb/7,000 grs = 0.643 lbs/hr 0.643 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 2.82 tons/yr		
11. Pollutant Potential Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 5 lbs/hr	4. Equivalent Allowable Emissions: 5 lbs/hr 21.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 5	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Allowable emission per 296.320(a) 2 – $E = 3.59 \times 4^{0.62} = 8.48$ lbs/hr = 37.14 TPY	

E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE5	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
2. Visible Emissions Comment (limit to 200 characters): Per 62-297-620(4) – VE of 5% in place of particulate matter test (EPA Method 5)	

F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: B [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment: No. 3 – Unit same or equivalent to baghouses on Kilns 1 & 2

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Raymond Mill for grinding carbon

3. Emissions Unit Identification Number:
ID: 006
[ ] No ID
[ ] ID Unknown

4. Emissions Unit Status Code: A	5. Initial Startup Date:	6. Emissions Unit Major Group SIC Code: 28

7. Emissions Unit Comment: (Limit to 500 Characters)
The facility will install a classifier to sit atop the Raymond Mill to remove sand from the carbon. The unit will have a screw to remove the sand to prevent accumulation of sand in the mill. There will also be a sand receiver with a baghouse (bin vent) to control emissions associated with the sand. As an alternative the sand may be pneumatically conveyed to #4 tank and vented through PJ-4. The process rate will not be changed, nor will the emissions.

Emissions Unit Information Section 2 of 6

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method): Raymond Mill - Mikro-Pulsaire, Type 64S820 Air flow –3,600 acfm Sand collector bin vent – to be determined
2. Control Device or Method Code(s): 018

Emissions Unit Details

1. Package Unit: Manufacturer:	Model Number:	
2. Generator Nameplate Rating:	MW	
3. Incinerator Information: Dwell Temperature: Dwell Time: Incinerator Afterburner Temperature:		°F seconds °F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate:			mmBtu/hr
2. Maximum Incineration Rate:	lb/hr		tons/day
3. Maximum Process or Throughput Rate: 4 TPH			
4. Maximum Production Rate:			
5. Requested Maximum Operating Schedule: hours/day weeks/year		 8,760	days/week hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):			

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: V	6. Stack Height: feet	7. Exit Diameter: 1 feet
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: 3,600 acfm	10. Water Vapor: 2 %
11. Maximum Dry Standard Flow Rate: 3,400 dscfm	12. Nonstack Emission Point Height: 25 feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters): The baghouse has a vent in its side, there is no stack.		

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Milling of activated carbon		
2. Source Classification Code (SCC): 3-05-006-13	3. SCC Units: Tons Handled	
4. Maximum Hourly Rate: 4	5. Maximum Annual Rate: 35,040	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): SCC code for cement raw material Grinding and Drying		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

Emissions Unit Information Section 2 of 6

Pollutant Detail Information Page 1 of 1

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM	2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: 018	4. Secondary Control Device Code: 075	5. Total Percent Efficiency of Control:
6. Potential Emissions: 0.874 lb/hour 3.83 tons/year		7. Synthetically Limited? [X]
8. Emission Factor: 0.03 gr/dscf Reference: 62-296.320(a)2 F.A.C.		9. Emissions Method Code: 0
10. Calculation of Emissions (limit to 600 characters): E = 3,400 cfm x 60 min/hr x 0.03 grs/cf x 1 lb/7,000 grs = 0.874 lbs/hr 0.874 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 3.83 tons/yr		
11. Pollutant Potential Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: ESCTV	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 5 lbs/hr	4. Equivalent Allowable Emissions: 5 lb/hour 21.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 5	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Per 62-296.320(a)2 F.A.C. E = 3.59 x 4 $^{0.62}$ = 8.48 lbs/hr x hr/ 4 tons = 2.12 lbs/ton E = 8.48 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 37.14 tons/yr	

E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
3. Visible Emissions Comment (limit to 200 characters): Per 62-297-620(4) – VE of 5% in place of particulate matter test (EPA Method 5)	

F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: B [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: C [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Install a second Raymond Mill for grinding carbon

3. Emissions Unit Identification Number:
ID:
[X] No ID
[ ] ID Unknown

4. Emissions Unit Status Code: A	5. Initial Startup Date:	6. Emissions Unit Major Group SIC Code: 28

7. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Information Section 3 of 6

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):
   Raymond Mill - Mikro-Pulsaire, Type 64S820 Air flow –3,600 acfm
   (or equal)

2. Control Device or Method Code(s): 018

Emissions Unit Details

1. Package Unit:
   Manufacturer: Model Number:
2. Generator Nameplate Rating: MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: mmBtu/hr
2. Maximum Incineration Rate: lb/hr tons/day
3. Maximum Process or Throughput Rate: 4 TPH
4. Maximum Production Rate:
5. Requested Maximum Operating Schedule:
   hours/day days/week
   weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: V	6. Stack Height: feet	7. Exit Diameter: 1 feet
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: 3,600 acfm	10. Water Vapor: 2 %
11. Maximum Dry Standard Flow Rate: 3,400 dscfm	12. Nonstack Emission Point Height: 25 feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters): The baghouse has a vent in its side, there is no stack.		

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Milling of activated carbon		
2. Source Classification Code (SCC): 3-05-006-13	3. SCC Units: Tons Handled	
4. Maximum Hourly Rate: 4	5. Maximum Annual Rate: 35,040	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): SCC code for cement raw material Grinding and Drying		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

Emissions Unit Information Section 3 of 6

Pollutant Detail Information Page 1 of 1

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM	2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: 018	4. Secondary Control Device Code: 075	5. Total Percent Efficiency of Control:
6. Potential Emissions: 0.874 lb/hour 3.83 tons/year		7. Synthetically Limited? [X]
8. Emission Factor: 0.03 gr/dscf Reference: 62-296.320(a)2 F.A.C.		9. Emissions Method Code: 0
10. Calculation of Emissions (limit to 600 characters): E = 3,400 cfm x 60 min/hr x 0.03 grs/cf x 1 lb/7,000 grs = 0.874 lbs/hr 0.874 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 3.83 tons/yr		
11. Pollutant Potential Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code: ESCTV	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units: 5 lbs/hr	4. Equivalent Allowable Emissions: 5 lb/hour 21.9 tons/year
5. Method of Compliance (limit to 60 characters): EPA Method 5	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters): Per 62-296.320(a)2 F.A.C. E = 3.59 x 4 $^{0.62}$ = 8.48 lbs/hr x hr/ 4 tons = 2.12 lbs/ton E = 8.48 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 37.14 tons/yr	

E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
4. Visible Emissions Comment (limit to 200 characters): Per 62-297-620(4) – VE of 5% in place of particulate matter test (EPA Method 5)	

F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: B [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: C [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Raymond Mill inlet hopper w/ baghouse

3. Emissions Unit Identification Number:
ID:
[X] No ID
[ ] ID Unknown

4. Emissions Unit Status Code: A	5. Initial Startup Date:	6. Emissions Unit Major Group SIC Code: 28

7. Emissions Unit Comment: (Limit to 500 Characters)

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):
   Raymond Mill – Kinetic Air Model 12-RS-84 Air flow –600 acfm
   (or equal)

2. Control Device or Method Code(s): 018

Emissions Unit Details

1. Package Unit:
   Manufacturer: Model Number:
2. Generator Nameplate Rating: MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: mmBtu/hr
2. Maximum Incineration Rate: lb/hr tons/day
3. Maximum Process or Throughput Rate: 4 TPH
4. Maximum Production Rate:
5. Requested Maximum Operating Schedule:
   hours/day days/week
   weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: V	6. Stack Height: feet	7. Exit Diameter: 1 feet
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: 600 acfm	10. Water Vapor: 2 %
11. Maximum Dry Standard Flow Rate: 600 dscfm	12. Nonstack Emission Point Height: 25 feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters): The baghouse has a vent in its side, there is no stack.		

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Transfer of activated carbon		
2. Source Classification Code (SCC): 3-05-006-13	3. SCC Units: Tons Handled	
4. Maximum Hourly Rate: 4	5. Maximum Annual Rate: 35,040	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): SCC code for cement raw material Grinding and Drying		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM	2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: 018	4. Secondary Control Device Code: 075	5. Total Percent Efficiency of Control:
6. Potential Emissions: 0.041 lb/hour 0.18 tons/year		7. Synthetically Limited? [X]
8. Emission Factor: 0.03 gr/dscf Reference: 62-296.320(a)2 F.A.C.		9. Emissions Method Code: 0
10. Calculation of Emissions (limit to 600 characters): E = 600 cfm x 60 min/hr x 0.008 grs/cf x 1 lb/7,000 grs = 0.041 lbs/hr 0.041 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 0.18 tons/yr		
11. Pollutant Potential Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
5. Visible Emissions Comment (limit to 200 characters): Per 62-297-620(4) – VE of 5% in place of particulate matter test (EPA Method 5)	

F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: B [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: C [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Carbon Storage Silos Additional Baghouse

3. Emissions Unit Identification Number:
ID:
[X] No ID
[ ] ID Unknown

4. Emissions Unit Status Code: A	5. Initial Startup Date:	6. Emissions Unit Major Group SIC Code: 28

7. Emissions Unit Comment: (Limit to 500 Characters)
A second baghouse will be installed so ground carbon from the second Raymond Mill can be isolated from that coming from the first RM if required.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):
   Raymond Mill – Kinetic Air Model 12-RS-84 Air flow –1,000 acfm
   (or equal)

2. Control Device or Method Code(s): 018

Emissions Unit Details

1. Package Unit:
   Manufacturer: Model Number:
2. Generator Nameplate Rating: MW
3. Incinerator Information:
   Dwell Temperature: °F
   Dwell Time: seconds
   Incinerator Afterburner Temperature: °F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: mmBtu/hr
2. Maximum Incineration Rate: lb/hr tons/day
3. Maximum Process or Throughput Rate: 8 TPH
4. Maximum Production Rate:
5. Requested Maximum Operating Schedule:
   hours/day days/week
   weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: V	6. Stack Height: feet	7. Exit Diameter: 1 feet
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: 1000 acfm	10. Water Vapor: 2 %
11. Maximum Dry Standard Flow Rate: 1000 dscfm	12. Nonstack Emission Point Height: 25 feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters): The baghouse has a vent in its side, there is no stack.		

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 1

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Transfer of activated carbon		
2. Source Classification Code (SCC): 3-05-006-13	3. SCC Units: Tons Handled	
4. Maximum Hourly Rate: 8	5. Maximum Annual Rate: 35,040	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters): SCC code for cement raw material Grinding and Drying		

Segment Description and Rate: Segment _____ of _____

1. Segment Description (Process/Fuel Type) (limit to 500 characters):		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate:	5. Maximum Annual Rate:	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM	2. Pollutant Regulatory Code: EL	
3. Primary Control Device Code: 018	4. Secondary Control Device Code: 075	5. Total Percent Efficiency of Control:
6. Potential Emissions: 0.069 lb/hour 0.3 tons/year		7. Synthetically Limited? [X]
8. Emission Factor: 0.03 gr/dscf Reference: 62-296.320(a)2 F.A.C.		9. Emissions Method Code: 0
10. Calculation of Emissions (limit to 600 characters): E = 1,000 cfm x 60 min/hr x 0.008 grs/cf x 1 lb/7,000 grs = 0.069 lbs/hr 0.069 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 0.3 tons/yr		
11. Pollutant Potential Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions _____ of _____

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
6. Visible Emissions Comment (limit to 200 characters): Per 62-297-620(4) – VE of 5% in place of particulate matter test (EPA Method 5)	

F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram [X] Attached, Document ID: B [ ] Not Applicable [ ] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [X] Attached, Document ID: C [ ] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

III. EMISSIONS UNIT INFORMATION

A separate Emissions Unit Information Section (including subsections A through G as required) must be completed for each emissions unit addressed in this Application for Air Permit. If submitting the application form in hard copy, indicate, in the space provided at the top of each page, the number of this Emissions Unit Information Section and the total number of Emissions Unit Information Sections submitted as part of this application.

A. GENERAL EMISSIONS UNIT INFORMATION

Emissions Unit Description and Status

1. Type of Emissions Unit Addressed in This Section: (Check one)

[X] This Emissions Unit Information Section addresses, as a single emissions unit, a single process or production unit, or activity, which produces one or more air pollutants and which has at least one definable emission point (stack or vent).

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, a group of process or production units and activities which has at least one definable emission point (stack or vent) but may also produce fugitive emissions.

[ ] This Emissions Unit Information Section addresses, as a single emissions unit, one or more process or production units and activities which produce fugitive emissions only.

2. Description of Emissions Unit Addressed in This Section (limit to 60 characters):
Activated carbon bagging system – add a second bagger to system

3. Emissions Unit Identification Number:
ID: 008
[ ] No ID
[ ] ID Unknown

4. Emissions Unit Status Code: A	5. Initial Startup Date:	6. Emissions Unit Major Group SIC Code: 28

7. Emissions Unit Comment: (Limit to 500 Characters)

Carbon is pneumatically transferred from the carbon silos to the bagging storage tower, venting through Baghouse Flex-Kleen Model 84BVBS-25. It gravity feeds to the bagging hopper, venting through a bin vent. The carbon drops into the bagging machines with emissions venting into the Flex-Kleen baghouse.

Emissions Unit Control Equipment

1. Control Equipment/Method Description (limit to 200 characters per device or method):
Flex-Kleen Model 84BVBS-25. The unit is a pulse-jet bin vent filter including 25 filter bags each 6" diameter and 84' in length. The airflow is approximately 1000 cfm and the filter area is 265 ft^2 giving an air to clothe ratio of 3.9 to 1. Efficiency is stated to be 99.99%.

Hopper/Bagger baghouse – Mahle Model 25 K – 600 dscfm

2. Control Device or Method Code(s): 018

Emissions Unit Details

1. Package Unit:
Manufacturer: Model Number:
2. Generator Nameplate Rating: MW
3. Incinerator Information:
Dwell Temperature: °F
Dwell Time: seconds
Incinerator Afterburner Temperature: °F

Emissions Unit Operating Capacity and Schedule

1. Maximum Heat Input Rate: mmBtu/hr
2. Maximum Incineration Rate: lb/hr tons/day
3. Maximum Process or Throughput Rate: 2 TPH
4. Maximum Production Rate:
5. Requested Maximum Operating Schedule:
hours/day days/week
weeks/year 8,760 hours/year
6. Operating Capacity/Schedule Comment (limit to 200 characters):

B. EMISSION POINT (STACK/VENT) INFORMATION

Emission Point Description and Type

1. Identification of Point on Plot Plan or Flow Diagram?	2. Emission Point Type Code: 1	
3. Descriptions of Emission Points Comprising this Emissions Unit for VE Tracking (limit to 100 characters per point):		
4. ID Numbers or Descriptions of Emission Units with this Emission Point in Common:		
5. Discharge Type Code: P	6. Stack Height: feet	7. Exit Diameter: feet
8. Exit Temperature: 77 °F	9. Actual Volumetric Flow Rate: 1,000 acfm	10. Water Vapor: 3 %
11. Maximum Dry Standard Flow Rate: dscfm	12. Nonstack Emission Point Height: 40 feet	
13. Emission Point UTM Coordinates: Zone: East (km): North (km):		
14. Emission Point Comment (limit to 200 characters):		

C. SEGMENT (PROCESS/FUEL) INFORMATION

Segment Description and Rate: Segment 1 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Bagging of activated carbon		
2. Source Classification Code (SCC):	3. SCC Units: Tons Handled	
4. Maximum Hourly Rate: 2	5. Maximum Annual Rate: 17,520	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

Segment Description and Rate: Segment 2 of 2

1. Segment Description (Process/Fuel Type) (limit to 500 characters): Transfer of carbon to bagging system.		
2. Source Classification Code (SCC):	3. SCC Units:	
4. Maximum Hourly Rate: 12	5. Maximum Annual Rate: 105,120	6. Estimated Annual Activity Factor:
7. Maximum % Sulfur:	8. Maximum % Ash:	9. Million Btu per SCC Unit:
10. Segment Comment (limit to 200 characters):		

Emissions Unit Information Section 6 of 6

Pollutant Detail Information Page 1 of 1

D. EMISSIONS UNIT POLLUTANT DETAIL INFORMATION

Potential Emissions

1. Pollutant Emitted: PM		2. Pollutant Regulatory Code:
3. Primary Control Device Code: 018	4. Secondary Control Device Code:	5. Total Percent Efficiency of Control:
6. Potential Emissions: 0.154 lb/hour 0.676 tons/year		7. Synthetically Limited? [ ]
8. Emission Factor: 0.03 grs/cf Reference: baghouse supplier		9. Emissions Method Code: 0
10. Calculation of Emissions (limit to 600 characters): Flex-Kleen: E = 600 cfm x 60 min/hr x 0.03 grs/cf x 1 lb/7,000 grs = 0.154 lbs/hr 0.154 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 0.676 tons/yr Mahle : E = 600 cfm x 60 min/hr x 0.03 grs/cf x 1 lb/7,000 grs = 0.154 lbs/hr 0.154 lbs/hr x 8,760 hrs/yr x ton/2,000 lbs = 0.676 tons/yr		
11. Pollutant Potential Emissions Comment (limit to 200 characters):		

Allowable Emissions Allowable Emissions 1 of 1

1. Basis for Allowable Emissions Code:	2. Future Effective Date of Allowable Emissions:
3. Requested Allowable Emissions and Units:	4. Equivalent Allowable Emissions: lb/hour tons/year
5. Method of Compliance (limit to 60 characters):	
6. Allowable Emissions Comment (Desc. of Operating Method) (limit to 200 characters):	

Emissions Unit Information Section 6 of 6

E. VISIBLE EMISSIONS INFORMATION
(Only Emissions Units Subject to a VE Limitation)

Visible Emissions Limitation: Visible Emissions Limitation 1 of 1

1. Visible Emissions Subtype: VE20	2. Basis for Allowable Opacity: [X] Rule [ ] Other
3. Requested Allowable Opacity: Normal Conditions: 5 % Exceptional Conditions: % Maximum Period of Excess Opacity Allowed: min/hour	
4. Method of Compliance: DEP Method 9	
7. Visible Emissions Comment (limit to 200 characters): Per 62-297-620(4) – VE of 5% in place of particulate matter test (EPA Method 5)	

F. CONTINUOUS MONITOR INFORMATION
(Only Emissions Units Subject to Continuous Monitoring)

Continuous Monitoring System: Continuous Monitor _____ of _____

1. Parameter Code:	2. Pollutant(s):
3. CMS Requirement:	[ ] Rule [ ] Other
4. Monitor Information: Manufacturer: Model Number: Serial Number:	
5. Installation Date:	6. Performance Specification Test Date:
7. Continuous Monitor Comment (limit to 200 characters):	

G. EMISSIONS UNIT SUPPLEMENTAL INFORMATION

Supplemental Requirements

1. Process Flow Diagram [ ] Attached, Document ID:____ [ ] Not Applicable [X] Waiver Requested
2. Fuel Analysis or Specification [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
3. Detailed Description of Control Equipment [ ] Attached, Document ID:_____ [ ] Not Applicable [X] Waiver Requested
4. Description of Stack Sampling Facilities [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
5. Compliance Test Report [ ] Attached, Document ID:_____ [ ] Previously submitted, Date:_____ [X] Not Applicable
6. Procedures for Startup and Shutdown [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
7. Operation and Maintenance Plan [ ] Attached, Document ID:_____ [X] Not Applicable [ ] Waiver Requested
8. Supplemental Information for Construction Permit Application [ ] Attached, Document ID:_____ [X] Not Applicable
9. Other Information Required by Rule or Statute [ ] Attached, Document ID:_____ [X] Not Applicable
10. Supplemental Requirements Comment:

A. FACILITY PLOT PLAN

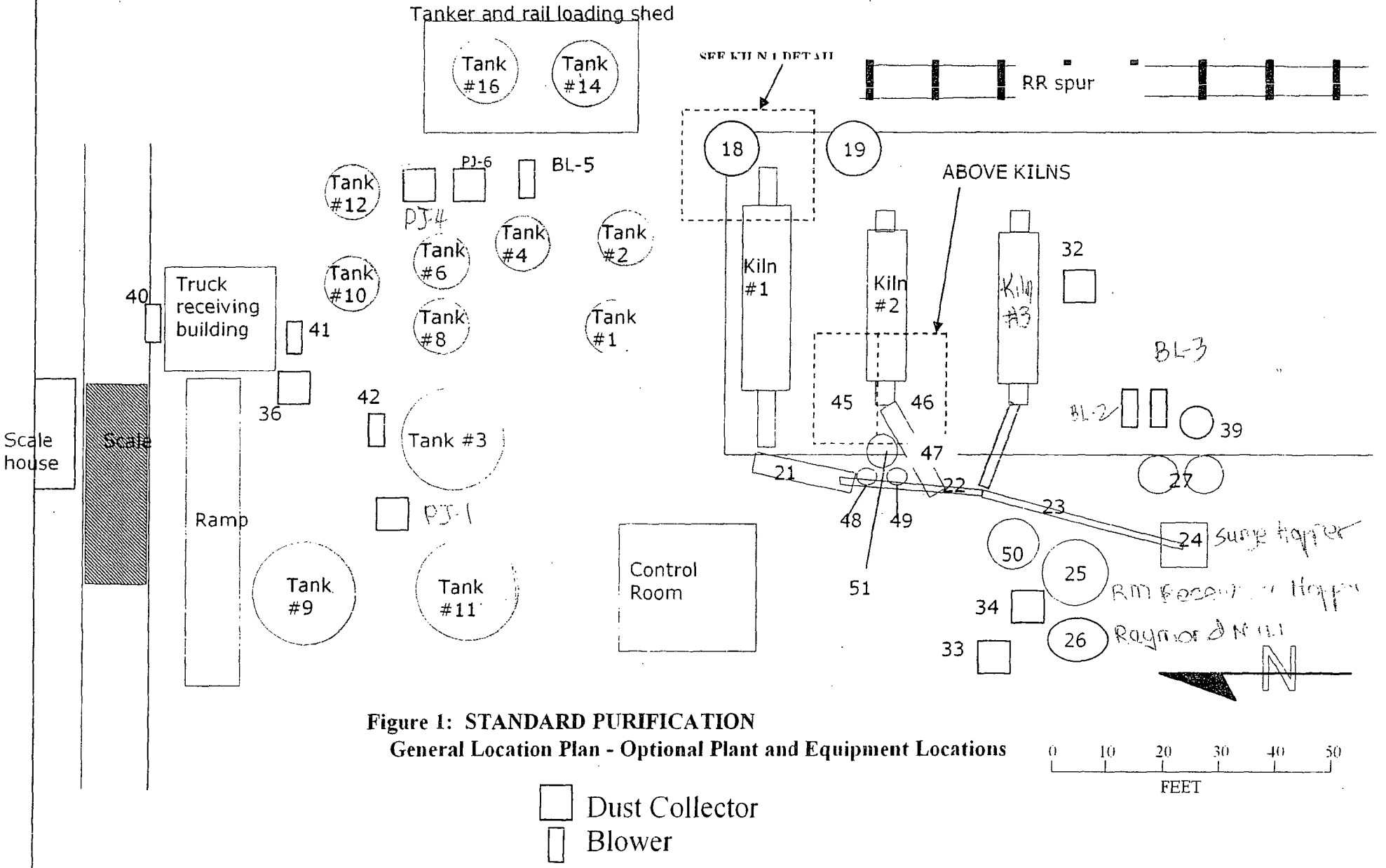
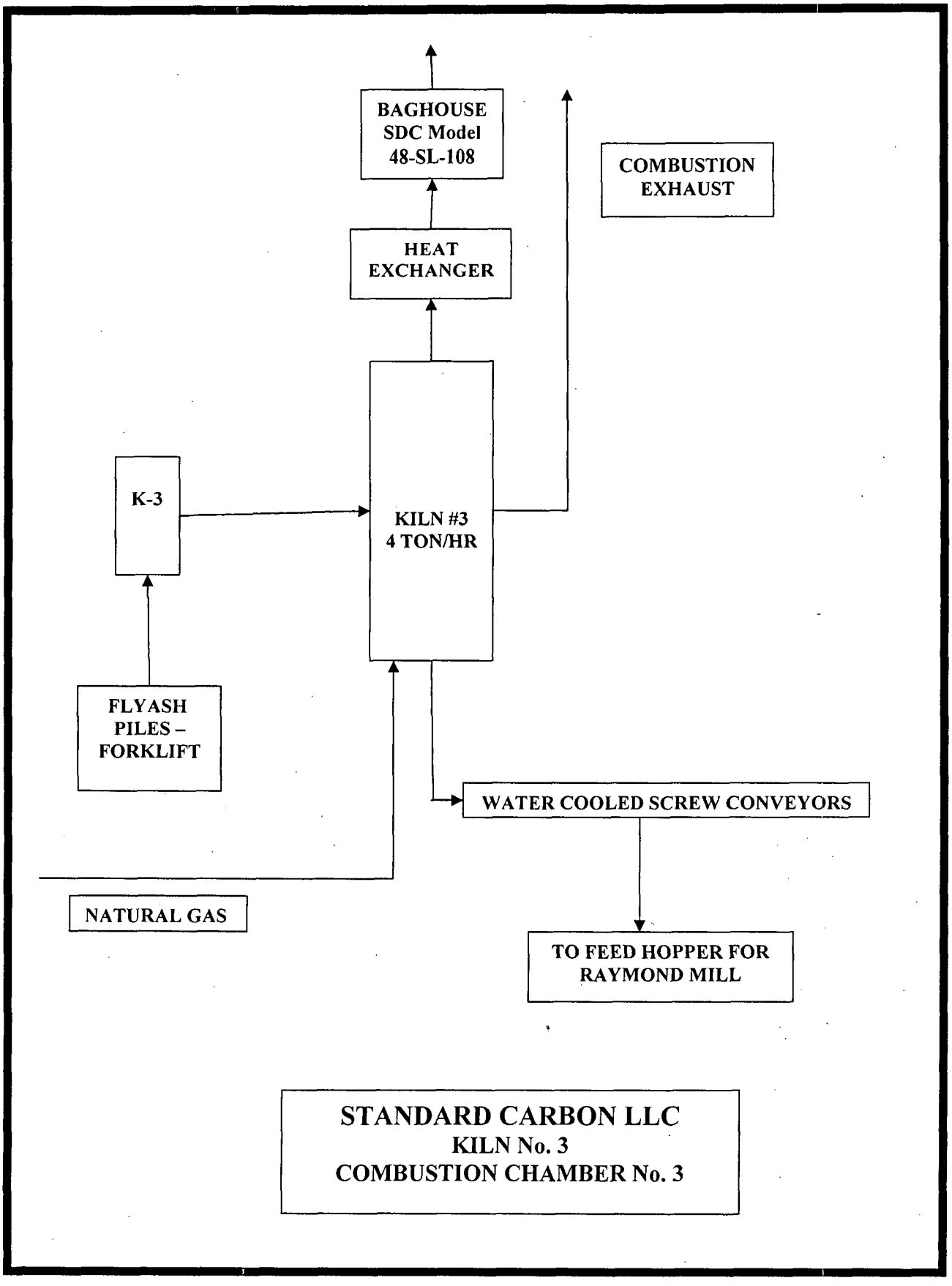


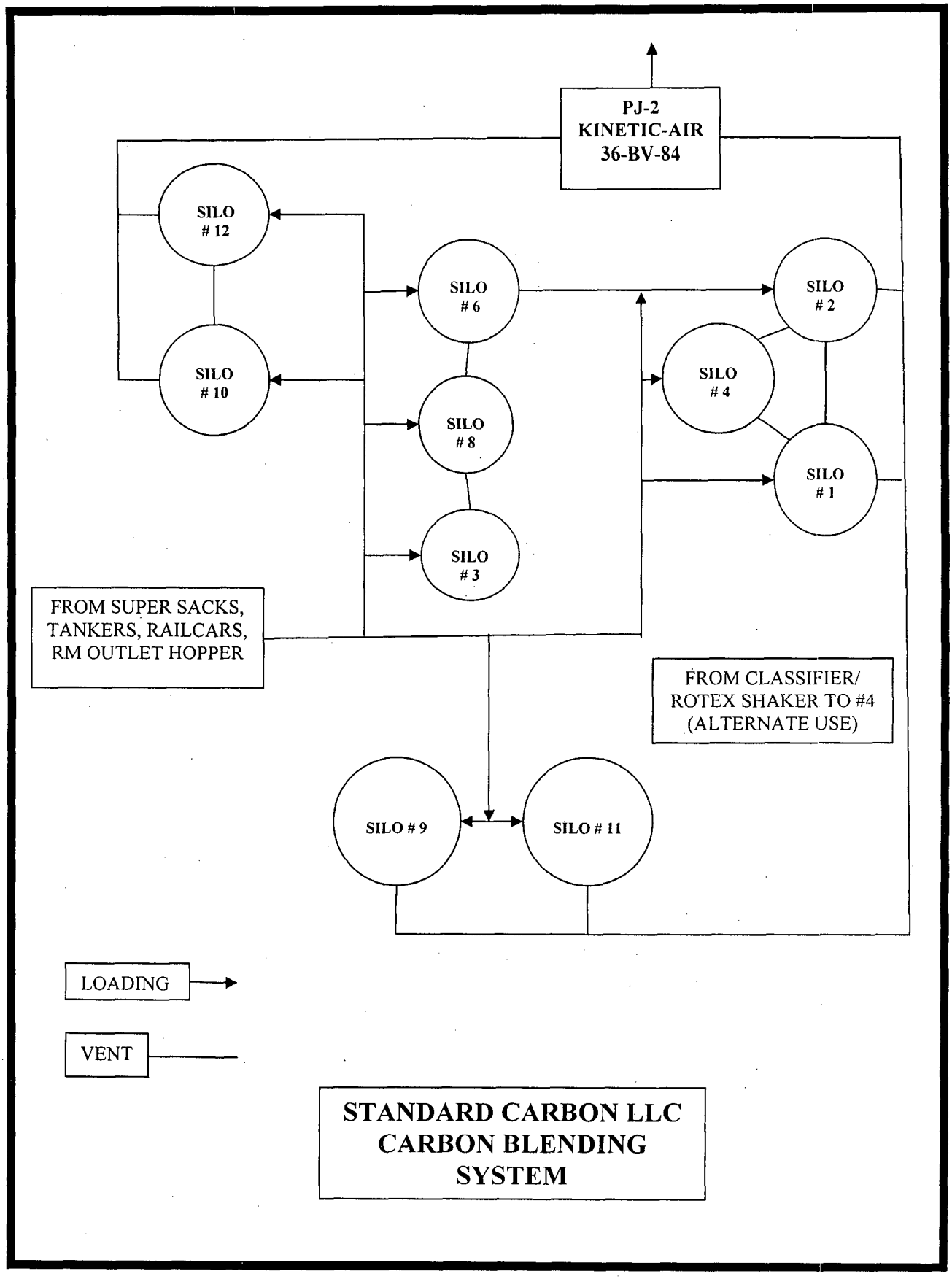
Figure 1: STANDARD PURIFICATION
General Location Plan - Optional Plant and Equipment Locations

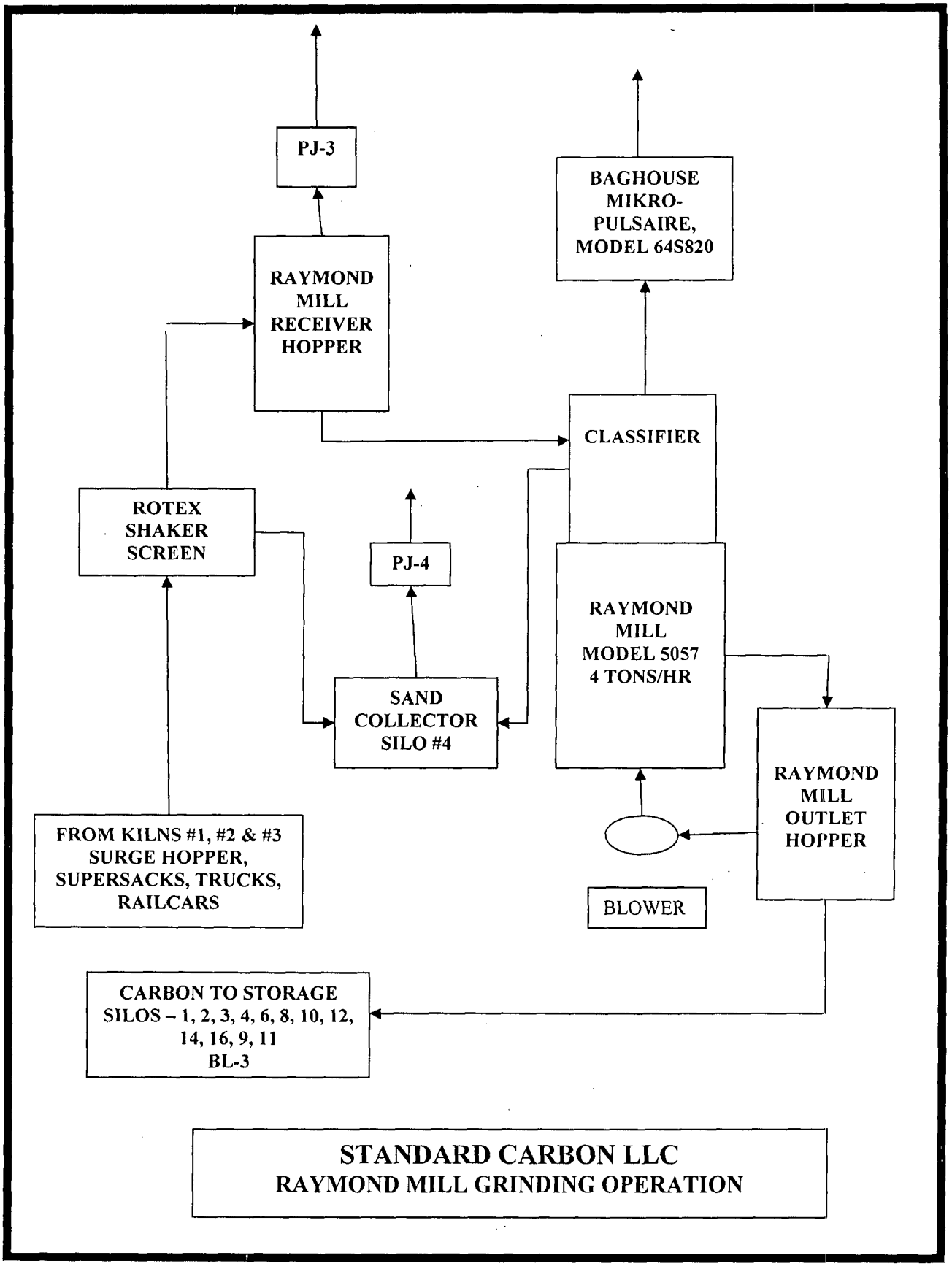
0 10 20 30 40 50
FEET

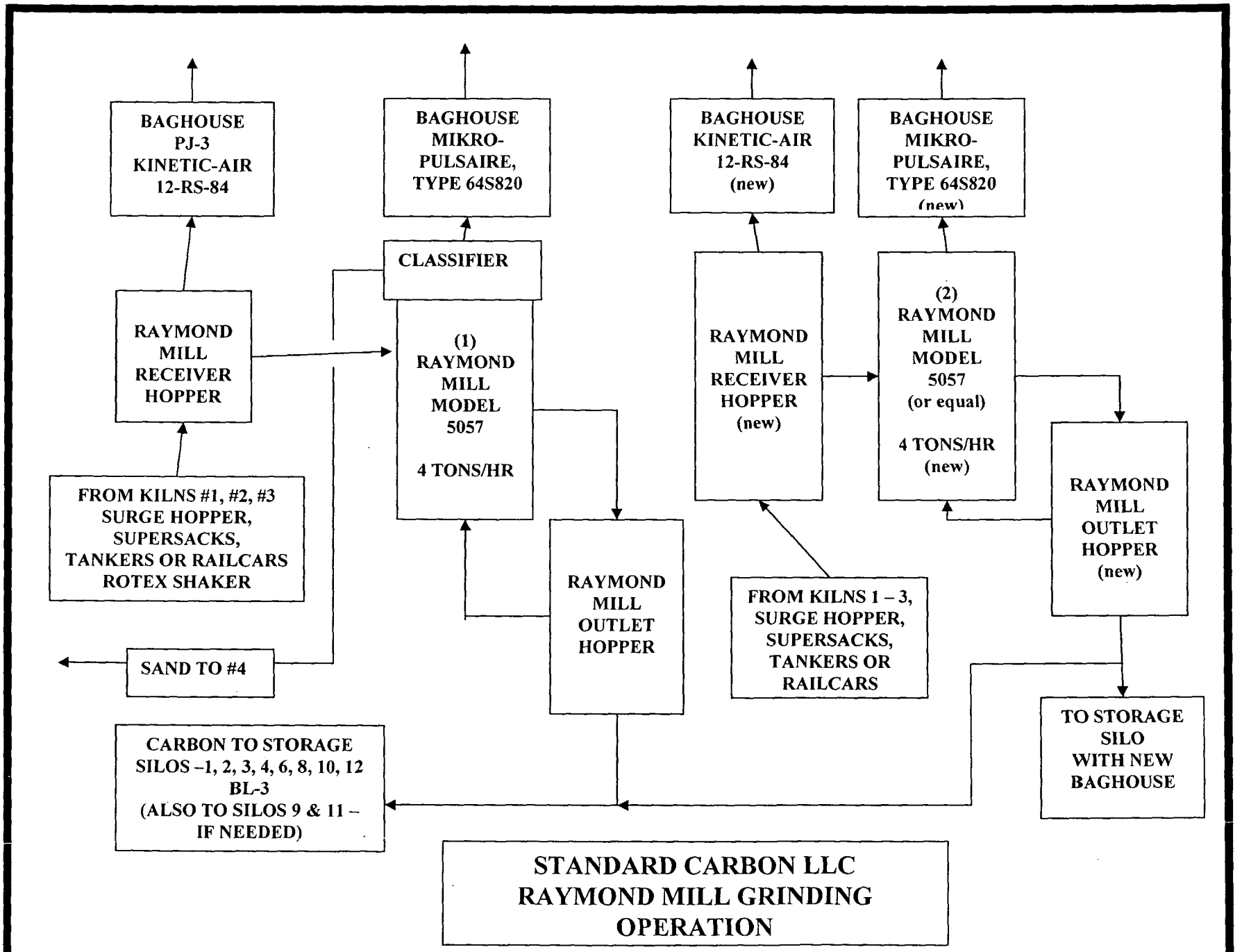
Dust Collector
Blower

B. PROCESS FLOW DIAGRAMS


BAGHOUSE
SDC Model
48-SL-108
COMBUSTION
EXHAUST
HEAT
EXCHANGER
K-3
KILN #3
4 TON/HR
FLYASH
PILES –
FORKLIFT
WATER COOLED SCREW CONVEYORS
NATURAL GAS
TO FEED HOPPER FOR
RAYMOND MILL
STANDARD CARBON LLC
KILN No. 3
COMBUSTION CHAMBER No. 3


PJ-2
KINETIC-AIR
36-BV-84
SILO
12
SILO
10
SILO
6
SILO
8
SILO
3
SILO
2
SILO
4
SILO
1
FROM SUPER SACKS,
TANKERS, RAILCARS,
RM OUTLET HOPPER
FROM CLASSIFIER/
ROTEX SHAKER TO #4
(ALTERNATE USE)
SILO # 9
SILO # 11
LOADING
VENT
STANDARD CARBON LLC
CARBON BLENDING
SYSTEM


PJ-3
BAGHOUSE MIKRO-PULSAIRE, MODEL 64S820
RAYMOND MILL RECEIVER HOPPER
CLASSIFIER
ROTEX SHAKER SCREEN
PJ-4
RAYMOND MILL MODEL 5057 4 TONS/HR
SAND COLLECTOR SILO #4
RAYMOND MILL OUTLET HOPPER
FROM KILNS #1, #2 & #3 SURGE HOPPER, SUPERSACKS, TRUCKS, RAILCARS
BLOWER
CARBON TO STORAGE SILOS – 1, 2, 3, 4, 6, 8, 10, 12, 14, 16, 9, 11 BL-3
STANDARD CARBON LLC
RAYMOND MILL GRINDING OPERATION


BAGHOUSE PJ-3 KINETIC-AIR 12-RS-84
BAGHOUSE MIKRO-PULSAIRE, TYPE 64S820
BAGHOUSE KINETIC-AIR 12-RS-84 (new)
BAGHOUSE MIKRO-PULSAIRE, TYPE 64S820 (new)
CLASSIFIER
RAYMOND MILL RECEIVER HOPPER
(1) RAYMOND MILL MODEL 5057 4 TONS/HR
RAYMOND MILL RECEIVER HOPPER (new)
(2) RAYMOND MILL MODEL 5057 (or equal) 4 TONS/HR (new)
RAYMOND MILL OUTLET HOPPER (new)
FROM KILNS #1, #2, #3 SURGE HOPPER, SUPERSACKS, TANKERS OR RAILCARS ROTEX SHAKER
SAND TO #4
RAYMOND MILL OUTLET HOPPER
FROM KILNS 1 – 3, SURGE HOPPER, SUPERSACKS, TANKERS OR RAILCARS
TO STORAGE SILO WITH NEW BAGHOUSE
CARBON TO STORAGE SILOS –1, 2, 3, 4, 6, 8, 10, 12 BL-3 (ALSO TO SILOS 9 & 11 – IF NEEDED)
STANDARD CARBON LLC RAYMOND MILL GRINDING OPERATION

PARTICULATE MATTER EMISSIONS

STANDARD CARBON LLC - 830011

UNIT	ID No.	TPH	HOURS	TPY	PTE gr/dscf	PTE lbs/hr	PTE TPY	BAGHOUSE	EXPECTED DSCFM	EXPECTED gr/dscf	EXPECTED lbs/hr	EXPECTED tons/yr
TRUCK RECEIVING BLD. Super Sack Unloading	001	20	8760	175200	0.03	0.00	0.00	PJ-T	0	0.008	0.00	0.00
TRANSFER TO STORAGE FLY ASH SILOS 9 & 11	002	20	8760	175200	0.03	1.03	4.51	PJ-1	4000	0.008	0.27	1.20
FLY ASH TO KILN HOPPERS #1	003	4	8760	35040	0.03	0.00	0.00	*REQUIRED FOR	0	0.008	0.00	0.00
FLY ASH TO KILN HOPPERS #2	003	4	8760	35040	0.03	0.00	0.00	DRY FLY ASH	0	0.008	0.00	0.00
FLY ASH TO KILN HOPPERS #3	?	4	8760	35040	0.03	0.00	0.00		0	0.008	0.00	0.00
KILNS #1	005	4.0	8760	35040	0.03	2.5	10.95	SDC 48-SL-108	2500	0.03	0.64	2.82
KILNS #2	004	4.0	8760	35040	0.03	2.5	10.95	SDC 48-SL-108	2500	0.03	0.64	2.82
KILNS #3	?	4.0	8760	35040	0.03	2.5	10.95	SDC 48-SL-108	2500	0.03	0.64	2.82
COMBUSTION CHAMBER #1	015		8760				0.60					0.60
COMBUSTION CHAMBER #2	016		8760				0.37					0.37
COMBUSTION CHAMBER #3	?		8760				0.60					0.60
RAYMOND MILL (1)	006	4.0	8760	35040	0.03	5.0	21.90	MIKROPULSE 64S820	3400	0.03	0.87	3.83
RAYMOND MILL (2)	?	4.0	8760	35040	0.03	5.0	21.90	MIKROPULSE 64S820	3400	0.03	0.87	3.83
RAYMOND MILL RECEIVING HOPPER KILN SURGE HOPPER SHAKER SCREEN	007	3	8760	26280	0.03	0.15	0.68	PJ-3	600	0.008	0.04	0.18
CARBON TO STORAGE SILOS 1, 2, 3, 6, 8, 10 & 12	009	8	8760	70080	0.03	0.26	1.13	PJ-2	1000	0.008	0.07	0.30
SILO #4	017	8	8760	70080	0.03	0.15	0.68	PJ-4	600	0.008	0.04	0.18
CARBON TO SILOS #14	010	12	8760	105120	0.03	0.21	0.90	PJ-6	800	0.008	0.05	0.24
BULK TRUCK/RAILCAR LOADING	011	12	8760	105120	0.03	0.15	0.68	FLEX-KLEEN	600	0.03	0.15	0.68
CARBON TO SILOS #16	014	12	8760	105120	0.03	0.15	0.68	84BVBS1611G	600	0.03	0.15	0.68
CARBON SILO TO BAGGING STORAGE TOWER	012	12	8760	105120	0.03	0.15	0.676	FLEX-KLEEN 84BVBS-25	600	0.03	0.15	0.68
BAGGING HOPPER/BAGGER (2)	013	1.8	8760	15768	0.03	0.15	0.676	MAHLE 25-K	600	0.03	0.15	0.68
			TOTAL =			19.92	88.82				4.62	21.82

NATURAL GAS EMISSIONS

STANDARD CARBON LLC
EMISSION FACTORS

FURNACE

Natural Gas: **SCC: 1-03-006-02**

PM =	7.6	lbs/MMCF x	MMCF x	Ton/2000 lb
SOx =	0.6	lbs/MMCF x	MMCF x	Tons/2000 lb
NOx =	100	lbs/MMCF x	MMCF x	Tons/2000 lb
VOC =	5.5	lbs/MMCF x	MMCF x	Tons/2000 lb
CO =	84	lbs/MMCF x	MMCF x	Tons/2000 lb

STANDARD CARBON LLC

KILN # 1 EMISSIONS - MCF

	MMCFH =	0.0181	
	HOURS =	8760	TOTAL
PM =	0.60		0.60
SOx =	0.05		0.05
NOx =	7.93		7.93
VOC =	0.44		0.44
CO =	6.66		6.66

KILN # 2 EMISSIONS - MCF

	MMCF =	0.01124	
	HOURS =	8760	
PM =	0.37		0.37
SOx =	0.03		0.03
NOx =	4.92		4.92
VOC =	0.27		0.27
CO =	4.14		4.14

KILN # 3 EMISSIONS - MCF

	MMCF =	0.0181	
	HOURS =	8760	
PM =	0.60		0.60
SOx =	0.05		0.05
NOx =	7.93		7.93
VOC =	0.44		0.44
CO =	6.66		6.66

PLANT TOTALS

	KILN #1	KILN #2	KILN #3	TOTAL
PM =	0.603	0.374	0.603	1.579
SOx =	0.048	0.030	0.048	0.125
Ox =	7.928	4.923	7.928	20.779
VOC =	0.436	0.271	0.436	1.143
CO =	6.659	4.135	6.659	17.454
MMCF =	158.56	98.46	158.56	415.57

CLASSIFIER

QUOTATION

FOR

STANDARD PURIFICATION
551 N US HIGHWAY 41
DUNNELLON, FLORIDA

FOR

L.V. TECHNOLOGY DYNAMIC CLASSIFIER

ON

C.E. RAYMOND 50 INCH RING ROLLER MILL

AT

DUNNELLON, FLORIDA

JULY 26, 2011

INTRODUCTION

INTRODUCTION

We are proposing a system that allows a Raymond Ring Roller Mill to be operated at a higher feed rate while maintaining a controlled air to material ratio at the mill system classifier outlet. The grinding system will be redefined to operate at a feed rate between 15 to 25% higher production rate at 95% to 99.99% passing 325 mesh.

The L.V. Separator

L.V. Technology was first introduced in Indonesia in 1998 when a Loesche LM41.1 was modified. The results of the modification, see enclosure, were so convincing that it was decided to introduce the L.V. Technology modification to a wider market within the Cement and Minerals Processing Industries. In June 1999, L.V. Technology Co., Ltd. started active marketing in East Asia.

Bradley Pulverizer Company formed a wholly owned subsidiary with L.V. Technology called BLVT, LLC at the end of 2000 to be able to market and sell the technology as new equipment and/or modification systems.

Until now, more than 600 orders have been placed for conversion and more than 600 mills have been commissioned, all with successful results. Seventy of these orders were for coal/coke grinding systems including vertical mills from various suppliers, including Raymond mills, and ball mill systems, ranging in capacity from 4 TPH to 50 TPH, for coal/coke grinding and up to 800 MTPH for limestone, various minerals, cement, and slag grinding applications.

L.V. Technology is not only a newly developed classifier on the top of the vertical mill, but a concept to control the entire flow of both material and air in the mill to be able to reduce the internal circulation of material in the mill.

A typical modification of a Raymond Ring Roller Mill by L.V. Technology involves a modification to the classifier on the top of the mill as well as an optimization of the material flow and the flow of gas in the mill.

The result of the modification is individual for each mill; but generally the production is increased by 10% to 15%, and the consumption of power is normally decreased by 1 kwh/ts to 2.0 kwh/ts of material.

By modifying a vertical mill to LV MODE, customers have reported lower wear on the wear parts and in some cases, have experienced up to 30% longer life on the wear parts.

Besides modification, the L.V. Technology Public Company Limited has its own design of a classifier for ball mills which includes a fluidized bed below the classifier to assure a uniform distribution to the rotor of the classifier, and its own design of a high efficiency cyclone with low pressure drop which can be installed in either mill departments or in the preheater.

L.V. Technology also supplies stand-alone classifiers for secondary classification to produce extremely fine products. Stand-alone units are currently operating on fly ash applications to upgrade the fly ash quality to an acceptable level.

PROCESS DESCRIPTION

PROCESS DESCRIPTION

LVT CLASSIFIER DESIGN

The LV Classifier is designed to provide 3 stages to the classification process (assuming a constant gas flow).

Stage 1:
Coarse feed material, recirculated oversize, and grits are directed down from the funnel cone chute onto the mill table where the change in flow direction helps to stir up the bed of material

Stage 2:
Material directed into the LV guide vane pocket will experience velocity changes, depending on the particle size. Coarser material will impact the guide vane, losing velocity and allowing gravity to direct it downward through the funnel cone. Near-product size particles will continue through and enter the space between the guide vanes and the rotor.

Stage 3:
The speed of the rotor will determine the actual classification point of the classifier system. Rotor speed can be easily varied by the operator in order to obtain the desired performance required by the plant.

Note that the classification in Stage 1 and 2 occur naturally by the design of the classifier. No adjustments or modifications are necessary. Changing the rotor speed is the only adjustment necessary to alter the classifier setting, and this is done simply by a change on the control panel.

Because the LV guide vane pocket is designed to separate coarse particles away from the rotor space, the classifier can provide efficient particle classification and achieve:

- Low power consumption
- High separation efficiency

CLASSIFIER CONCEPT

The central concept of the LV Classifier is aimed at improving the gas and material flow inside the mill. The main principles are:

- Allow more material to be directed to the classifier by optimizing the gas speed
- Avoid fines returning to the mill and creating excessive recirculation in the mill body
- Decrease the pressure loss in the separator

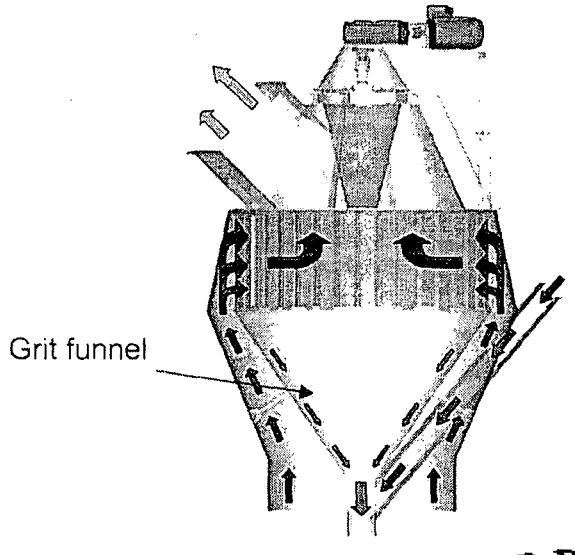
These attributes are accomplished by the unique design of the internal components of the classifier; namely, the LV guide vane pockets, the unique rotor design, and the design of the grit funnel cone.

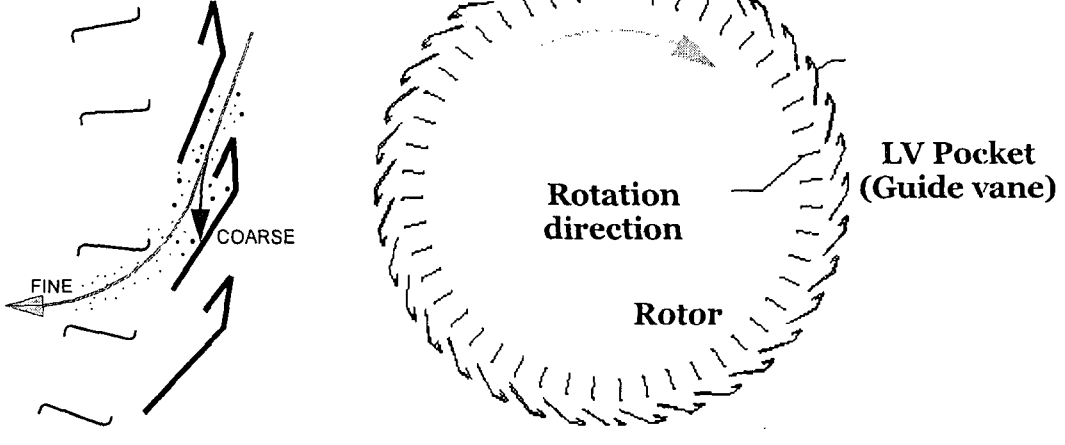
APPLICATION OF THE LV CLASSIFIER

LV Classifiers are applied to vertical roller mills and ball mills, handling a full range of materials. References are already more than 600 sets supplied to all over the world. All LV Classifiers show higher production rates, about 10-20%, and less specific power consumption, about 1.5 - 5 kwh/ton, comparing with other separators.

LV POCKET

Special construction of the LV pocket works as coarse material trap which material is carried by gas from mill mixing with fines. Coarse material caught by LV pocket moves down by gravity along LV pocket to funnel cone without mixing with fines. This construction makes "no fine in coarse, no coarse in fine". Since material on mill table has smaller fine portions, vibration becomes smaller.





FUNNEL CONE

Funnel cone is not only to collect reject from LV Pocket and to feed material to table but also to control gas speed distribution between Classifier casings and funnel cone. This makes it possible to get the desired gas velocity between casings and funnel cone and to eliminate material internal circulation. Pressure loss becomes lower by reducing internal circulation of material.

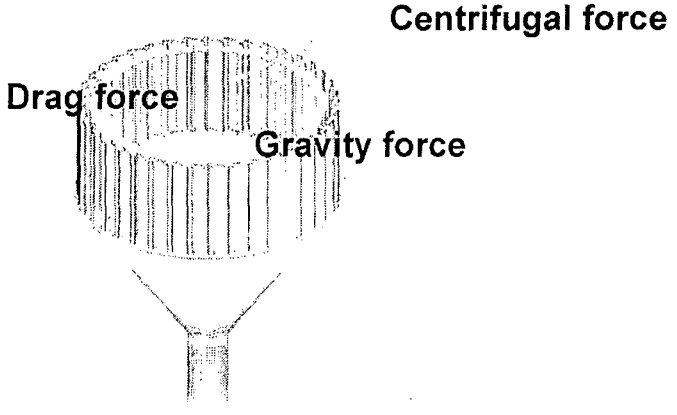
FUNNEL CHUTE

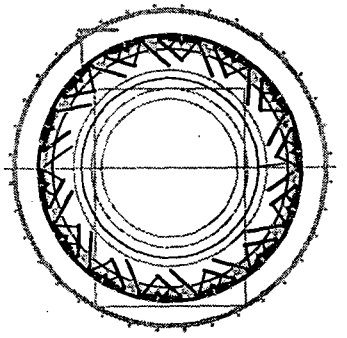
Reject from funnel cone feed back to center of mill table through funnel chute. The special funnel chute is designed to feed material on to mill table smoothly with minimum height.

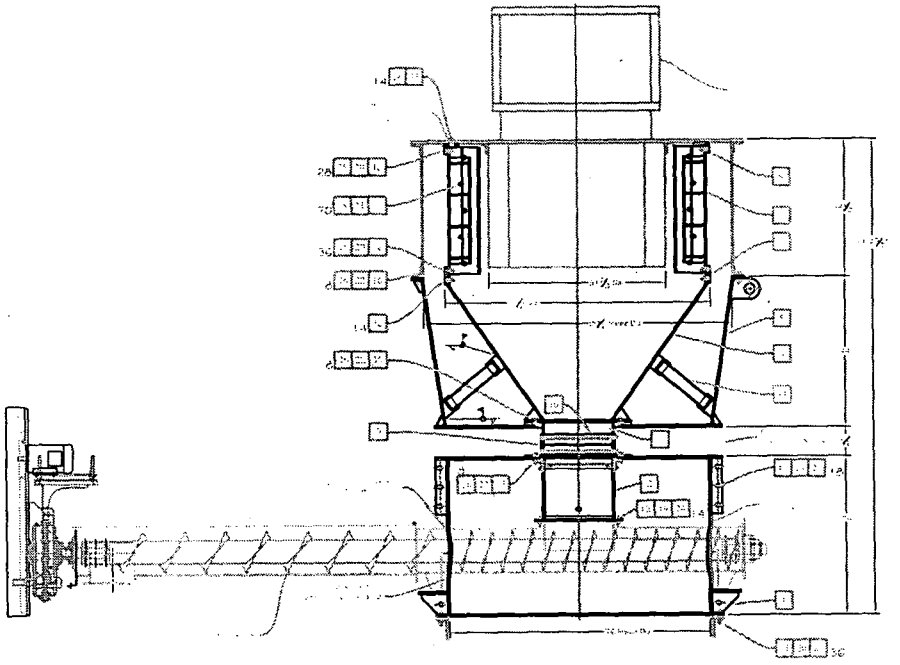
The hot gas and material enters the rotating cage through the guide vanes at a velocity approximately the same as the tip speed of the rotor. After entering into the separation zone, the solid particles carried by the airflow will be influenced by these three forces.

- ™ The "Centrifugal Force" generated by the rotor trying to reject the material into the pocket – shaped vanes;
- ™ The "Drag Force" generated by the air flow of the fan trying to pull the material into rotating cage;
- ™ The "Gravity Force" trying to pull the material down to the mill table below the classifier.

As the centrifugal forces have a greater influence on the bigger solid particles than the drag forces, the finer solid particles will be dragged into the rotating cage, whereas the coarse solid particles will be rejected into the pocket shaped guide vanes where the gravity force pulls the coarse particles into the grit funnel and rejects the material back to the mill. By regulating the speed of the cage it is possible to get a very exact size of the product. The special shape of LV pockets prevents the solids from spinning around the rotating cage inside the guide vanes which makes the LV Classifier ideal for classification of air swept material, as it always allows new feed to the classifier without conflicting with the material under classification.

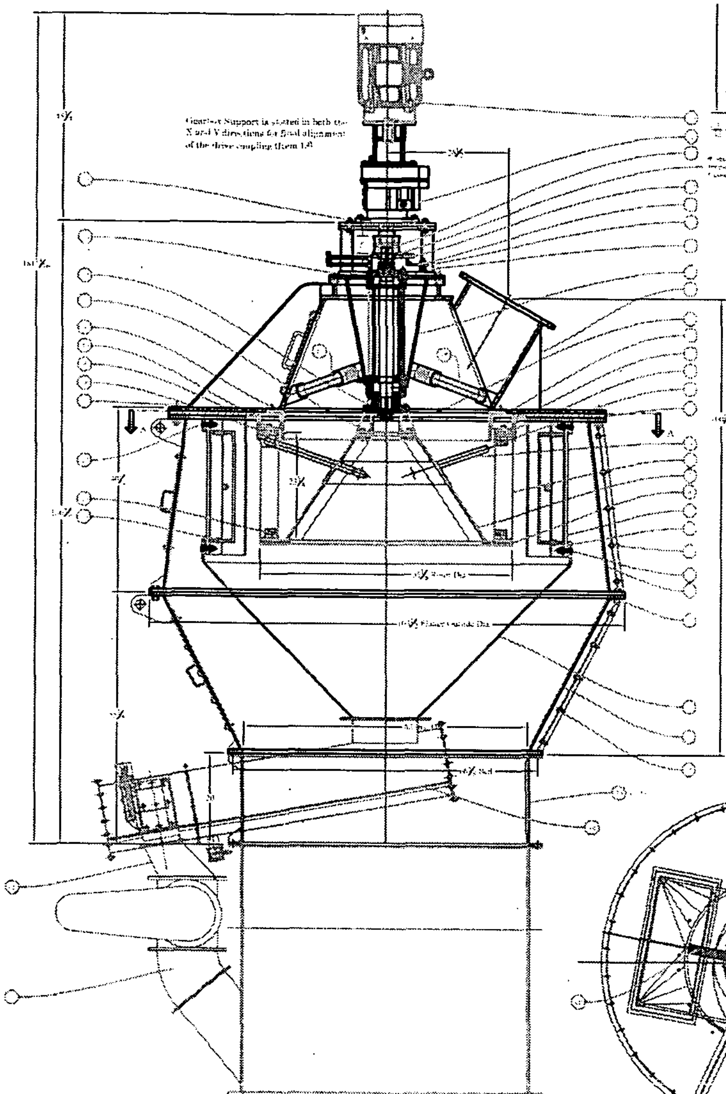


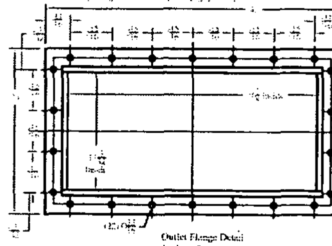


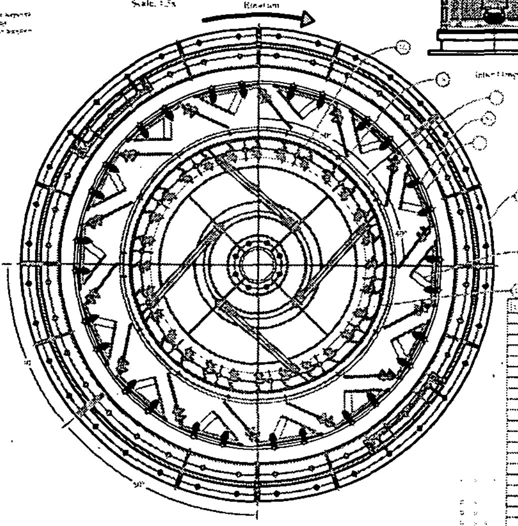


Item #	Description	Part No.	Total Unit: Material	Qty.	Unit

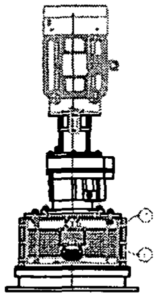
		PROJECT:	Bradley LV Technology Co.
	Unless Specified – .000" is ±.005", .00" is ±.010", Fractional is ±.015" Remove all burn and sharp edges		TITLE:
			DRAWING NO.



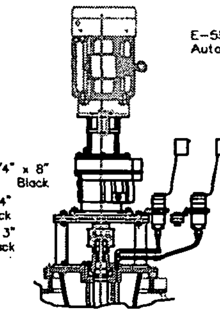




Section A-A



NIBL 1/4" x 8" Black
EL90 1/4" Black
NIBL 1/4" x 3" Black



E-558-30-LUB-BRK
Auto Luber Bracket 22

110V, 15A
duplex recepticle for power supply

110V to 6V power supply 23

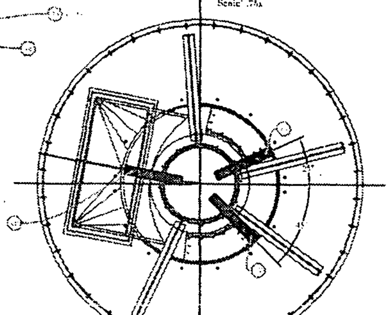
E-560-1-LUBE-B
Electro-Luber MD-2000
Ultimate Model 125
with 110V to 6V power supply 24

TFFCSS 3/8" x 1/2"
Stainless Female connector
3/8" tube x 1/2" npt.

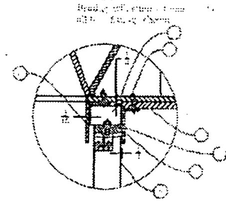
TUSS 3/8" x 3"
3/8" stainless tubing

TFFESS 3/8" x 1/4"
Female Elbow 3/8" x 1/4"

NIBL 1/4" x 1 1/2"
Black



Detail for Items 47 and 48
Bearing Assembly Supports
Scale: .75x



Grease instructions

1. The Bearing Assembly is shipped dry. Please make sure the top and bottom bearings are pumped full of grease. Make sure both grease lines are purged with grease. The greasers have dip switches to set the following grease supply.

2. Intervals for feeding grease
   A. For normal operation: 5 cc's (kg) every 24 hours to each bearing

3. Grease type:
   Mobilux EP2 or equivalent
   Technical data:
   - Product Number: 61127-4
   - NLGI consistency class: 2
   - Thickener (soap base): Li 12-OH
   - Base oil type: Mineral
   - Color: Amber
   - Base oil viscosity at 40°C, cSt: 170
     at 100°C, cSt: 13/16
   - Penetration at 77°F worked: 265/295
   - Drop point °F: 340
   - Operating temperature range °F: -10 to 250

Item	Description	Part No.	Rev.	Qty	Lbs	Total 14,088
1	Lower Casing	E-602-36	0	1	–	1,961
2	Exit Tunnel	E-602-27-2	0	1	–	763
3	Upper Casing	E-602-28	0	1	–	2,169
4	Lower Guide Vane Ring	370-04-CEC-303-003-2/2	1	1	–	376
5	Guide Vane	370-04-CEC-303-003-1/2	1	14	56	784
6	Rotor Lower Ring	370-04-CEC-303-002-4/4	0	1	–	246
7	Rotor Cone	370-04-CEC-303-002-2/4	C	1	–	377
8	Rotor Blade	370-04-CEC-303-002-1/4	0	28	7	196
9	Rotor Support Pipe	370-04-CEC-303-002-3	0	4	7	28
10	Rotor Upper Ring	370-04-CEC-303-002-3/4	1	1	–	172
11	Rotor Upper Blade Ring	E-602-21-5	2	1	–	181
12	Outer Seal Top Plate	E-602-50	1	1	–	1,372
13	Inner Seal	E-602-26	0	1	–	129
14	Drive Spool	E-588-31	0	1	–	53
15	Roof	E-602-25	1	1	–	2,533
16	Bearing Assembly	E-560-1-AS	3	1	–	495
17	Gearbox Support	E-565-30	2	1	–	370
18	Drive Coupling (Dodge Grid-Lign 1070T10)	E-566-32	–	1	–	14
19	Gearbox (SEW Eurodrive RF87AM286, 369 RPM)	E-602-33	–	1	–	300
20	30 hp, 1800 rpm Motor (Baldor)	CEM4104T	–	1	–	427
21	Gearbox Support Guard	E-565-30-GUARD	2	1	–	17
22	Electro-Luber Bracket	E-558-30-LUB-BRK	1	2	1	2
23	Electro-Luber Power Supply	–	–	2	–	–
24	Electro-Luber	E-560-1-LUBE-B	–	2	3	6
25	Hex Bolt 3/4 x 2, Hex Nut, Lock Washer	–	–	20	–	–
26	Hex Bolt 3/4 x 2 1/2, Hex Nut, Lock Washer	–	–	56	–	–
27	Coutersunk Socket 5/8 x 3, Lock Nut, Flat Washer	–	–	56	–	–
28	Hex Bolt 5/8 x 2, Lock Nut, Flat Washer	–	–	42	–	–
29	Hex Bolt 1/2 x 1 1/2, Lock Nut, Flat Washer	–	–	112	–	–
30	Hex Bolt 3/4 x 4, Hex Nut, Lock Washer	–	–	36	–	–
31	Hex Bolt 3/4 x 2, Lock Washer	–	–	8	–	–
32	Hex Bolt 5/8 x 2 1/2, Lock Nut, Flat Washer	–	–	8	–	–
33	Hex Bolt 5/8 x 1 1/2, Lock Washer	–	–	12	–	–
34	Hex Bolt 5/8 x 2, Flat Washer	–	–	7	–	–
	Stud 5/8 x 4 1/2	–	–	1		
	Lock Washer 5/8	–	–	2		
	Hex Nut 5/8	–	–	3		
35	Hex Bolt 5/8 x 2 1/2, Hex Nut, Lock Washer, Flat Washer	–	–	6	–	–
36	Hex Bolt 1/2 x 1 1/2, Lock Washer	–	–	14	–	–
37	Hex Bolt 3/8 x 1 1/2, Hex Nut, Lock Washer	–	–	8	–	–
38	Outer Seal	E-602-42	0	1	–	129
39	Coutersunk Socket 1/2 x 1	–	–	16	–	–
40	Coutersunk Socket 1/2 x 2, Hex Nut, Lock Washer	–	–	18	–	–
41	Tachometer Bracket	E-602-140	0	1	–	–
42	Tachometer (Allen Bradley RPM Sensor)	371-TM-BHSN18-N3	–	1	–	–
43	Spool Section	E-602-47	–	1	–	784
44	200mm Airslide	E-602-AR	1	1	–	–
45	Splitter Chute	E-602-600-21	0	1	–	17
46	Lower Chute	E-602-600-22	0	1	–	102
47	Bearing Assembly Support Pipe	E-586-48	0	2	18	36
48	Bearing Assembly Support Pipe	E-586-48-1	0	1	–	19

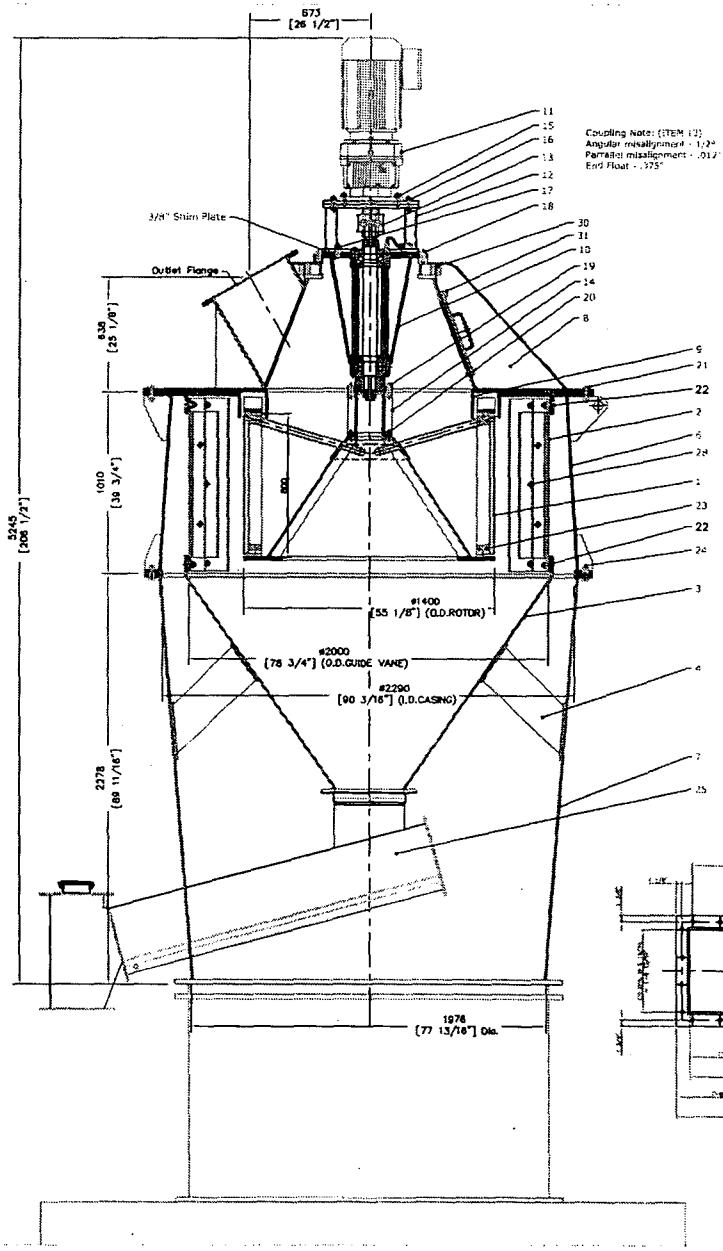
Drawn by: KMP DATE: 1/14/09
Scale: 1 1/2 = 12

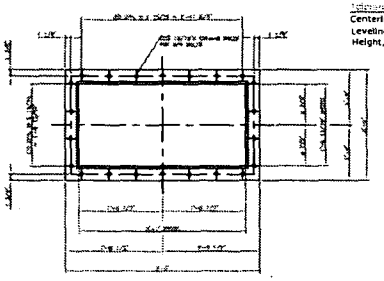
Tolerances Unless Specified – .000" is ±.005", .00" is ±.010", Fractional is ±.015"
Remove all burrs and sharp edges

PROJECT:

Bradley LV Technology Co.

TITLE:





ITEM	DESCRIPTION	DESCRIPTION LVT #	QTY	UNIT WEIGHT (KG)	TOTAL	PART #
	TOTAL				6591.79	
31	CSHX 5/8" x 1 1/2", LW	-	16	-	-	-
30	CSHX M12 x 40, LW, NUT	-	16	-	-	-
29	-	-	-	-	-	-
28	CSHX M16 X 45, HEX NUT, LW	-	238	-	-	-
27	-	-	-	-	-	-
26	-	-	-	-	-	-
25	8" AIR SLIDE	-	-	-	-	-
24	CSHX M20 x 70, LW, NUT	-	40	-	-	-
23	CSHX M12 x 40, LW, NUT	-	128	-	-	-
22	CSFS M16 x 60, LW, NUT	-	28	-	-	-
21	CSHX M20 x 70, LW, NUT	-	40	-	-	-
20	CSHX 5/8" x 1 3/4", LW	-	8	-	-	-
19	CSHX M16 x 65, LW, NUT	-	8	-	-	-
18	CSHX 5/8" x 1 1/2", LW	-	12	-	-	-
17	CSHX 5/8 x 2, LW	-	8	-	-	-
16	CSHX 5/8 x 2 1/2, FL, LW, NUT	-	6	-	-	-
15	CSHX 5/8 x 2, LW	-	4	-	-	-
14	DRIVE SPOOL	345-04-CBV-002-5/5	1	22.33	22.33	E-560-31
13	DRIVE COUPLING	1070T10 Dodge Grid-Lign	1	6.35	6.35	E-560-32
12	GEARMOTOR SUPPORT	-	1	77	77	E-560-30
11	GEARMOTOR	SEW RF97DV180L4	1	215	215	E-560-33
10	BEARING ASSEMBLY	-	1	225	225	E-560-1-AS
9	INNER SEAL	-	1	41.91	41.91	E-561-26
8	ROOF	345-04-CBV-303-013	1	1160.11	1160.11	E-560-25
7	LOWER CASING	-	1	1185	1185	-
6	UPPER CASING	345-04-CBV-303-007	1	1449.52	1449.52	E-561-28
5	-	-	-	-	-	-
4	SUPPORT PIPE	-	3	7.89	23.67	E-560-29
3	GRIT FUNNEL	345-04-CBV-303-004	1	457.55	457.55	E-560-27
2	POCKET ASSEMBLY	345-04-CBV-203-003	1	1172.54	1172.54	E-560-38-AS
1	ROTOR ASSEMBLY	345-04-CBV-203-002	1	555.81	555.81	E-560-21-AS

TIGHTENING TORGUE FOR BOLTS.

M 20 = 390 Nm.
M 16 = 195 Nm.
M 12 = 79 Nm.

Tightening of Classifier Rotor Assembly

Centering, driving flange to lower ring	within ±3 mm.
Leveling, driving flange (horizontally)	within 0.1 mm./m
Height, upper ring to lower ring	within ± 3 mm.

MOTOR (NEW)	Geared motor 22 kw.
GEAR BOX (NEW)	Output Speed 310 variable rpm.

PROJECT:

Bradley LV Technology Co.

TITLE:

Rotating Classifier Assembly

Zell, David

From: Zell, David
Sent: Tuesday, July 03, 2012 10:27 AM
To: 'Kristine Switt'
Cc: 'Jim Sharpe'; ken@airtest.fdn.com
Subject: RE: Add a new silo to draft construction permit (Project 0830170-006-AC)

Kristine and Jim,

Your request and description, along with Jim's confirmation of it, is exactly what we needed. I will include this new Silo No. 18 in the Draft construction permit for project 0830170-006-AC.

Thank you.

David

David Zell
FDEP SW District (Tampa)
Air Permit Engineering Specialist

From: Kristine Switt [mailto:kswitt@standardpurification.com]
Sent: Tuesday, July 03, 2012 10:00 AM
To: Zell, David
Cc: 'Jim Sharpe'; ken@airtest.fdn.com
Subject: Add a new silo to draft construction permit

David,

Thank you for this consideration:

In addition to refurbishment and operation of existing Silo Nos. 1, 2, 3, and 6 for carbon storage, add a new silo (#18). All silos (the above additional refurbished silos, the new silo, plus permitted Silo Nos. 4, 8, 9, 10, 11, and 12) would be piped so that they could receive carbon from multiple sources-either Raymond Mill No. 1 or No. 2, supersack dumping, tank truck discharge or railcar discharge. Only one silo would be loaded at any one time so no new baghouse will be required. Either BV-5 or DC2, or the new mill No. 2 baghouse will be utilized.

The new silo would be located north of silo No. 3 and east of silos No. 9 and 11.

Let me know if this description is adequate.

Kristine Switt
V.P. of Operations
Standard Purification
O: 352.465.5959
Fax: 352.465.0679
kswitt@standardpurification.com
www.standardpurification.com

Zell, David

From: ken@airtest.fdn.com
Sent: Tuesday, June 19, 2012 2:39 PM
To: Zell, David
Subject: Re: Standard Carbon Air Construction Permit Application Project No.0830170-006-AC - PM Emissions
Attachments: Emissions.xls

> David,

Thanks!

Ken,
>
> In preparing my technical evaluation for this project and reviewing
> the PM emissions increases associated with the requested
> modifications, I think I identified several thing missing from the
> Particulate Matter Emissions spreadsheet attached to the application. They are:
>
>
> 1. PM emissions from the new baghouse to be added to control
> emissions from the new Raymond Mill No. 2 receiving hopper. (Note - This
> will be new EU No. 020.) See application Emissions Unit Information
> Section 4 of 6, beginning page 32 of the application. (It should also
> be noted that on page 36, the PM emissions should be calculated based
> on the
> 0.03 gr/dscf emission factor (as shown in Box 8.) rather than the
> 0.008 gr/dscf used in Box. 10. (with results shown in Box 6.). This
> results in potential PM emissions of 0.154 lb/hr and 0.68 TPY.
>
>
> 2. PM emissions from the new baghouse to be added for the transfer
> of carbon from new Raymond Mill (RM) No. 2 outlet hopper to the carbon
> silos (so ground carbon from RM No. 2 can be isolated from that from RM
> No. 1). (Note - This will be new EU No. 022.) See application Emissions
> Unit Information Section 5 of 6, beginning page 39 of the application.
> (It should also be noted that on page 43, the PM emissions should be
> calculated based on the 0.03 gr/dscf emission factor (as shown in Box
> 8.) rather than the 0.008 gr/dscf used in Box. 10. (with results shown
> in Box 6.). This results in potential PM emissions of 0.26 lb/hr and 1.13 TPY.
>
> Please review the spreadsheet to verify if these are missing or not,
> and if so, please add them and email me the revised spreadsheet.
>
> Please let me know if you have any questions.
>
> Thanks,
>
> Dave
> David Zell
> FDEP SW District (Tampa)
> Air Permit Engineering Specialist
> PHONE: 813-632-7600 extension 118

STANDARD CARBON LLC - 830011

UNIT	ID No.	TPH	HOURS	TPY	PTE gr/dscf	PTE lbs/hr	PTE TPY	BAGHOUSE	EXPECTED DSCFM	EXPECTED gr/dscf	EXPECTED lbs/hr	EXPECTED tons/yr
TRUCK RECEIVING BLD. Super Sack Unloading	001	20	8760	175200	0.03	1.54	6.76	PJ-T	6000	0.008	0.41	1.80
TRANSFER TO STORAGE FLY ASH SILOS 9 & 11	002	20	8760	175200	0.03	1.03	4.51	PJ-1	4000	0.008	0.27	1.20
FLY ASH TO KILN HOPPERS #1	003	4	8760	35040	0.03	0.00	0.00	*REQUIRED FOR	0	0.008	0.00	0.00
FLY ASH TO KILN HOPPERS #2	003	4	8760	35040	0.03	0.00	0.00	DRY FLY ASH	0	0.008	0.00	0.00
FLY ASH TO KILN HOPPERS #3	?	4	8760	35040	0.03	0.00	0.00		0	0.008	0.00	0.00
KILNS #1	005	4.0	8760	35040	0.03	2.5	10.95	SDC 48-SL-108	2500	0.03	0.64	2.82
KILNS #2	004	4.0	8760	35040	0.03	2.5	10.95	SDC 48-SL-108	2500	0.03	0.64	2.82
KILNS #3	?	4.0	8760	35040	0.03	2.5	10.95	SDC 48-SL-108	2500	0.03	0.64	2.82
COMBUSTION CHAMBER #1	015		8760				0.60					0.60
COMBUSTION CHAMBER #2	016		8760				0.37					0.37
COMBUSTION CHAMBER #3	?		8760				0.60					0.60
RAYMOND MILL (1)	006	4.0	8760	35040	0.03	5.0	21.90	MIKROPULSE 64S820	3400	0.03	0.87	3.83
RAYMOND MILL (2)	?	4.0	8760	35040	0.03	5.0	21.90	MIKROPULSE 64S820	3400	0.03	0.87	3.83
RAY MILL RECEIVING HOPPER (1) KILN SURGE HOPPER SHAKER SCREEN	007	3	8760	26280	0.03	0.15	0.68	PJ-3	600	0.008	0.04	0.18
RAY MILL RECEIVING HOPPER (2)	020	3	8760	26280	0.03	0.04	0.18	**PJ-?**	600	0.008	0.04	0.180
CARBON TO STORAGE (1) SILOS 1, 2, 3, 6, 8, 10 & 12	009	8	8760	70080	0.03	0.26	1.13	PJ-2	1000	0.008	0.07	0.30
CARBON TO STORAGE (2)	022	8	8760	70080	0.03	0.26	1.13	**PJ-?**	1000	0.008	0.07	0.18
SILO #4	017	8	8760	70080	0.03	0.15	0.68	PJ-4	600	0.008	0.04	0.18
CARBON TO SILOS #14	010	12	8760	105120	0.03	0.21	0.90	PJ-6	800	0.008	0.05	0.24
BULK TRUCK/RAILCAR LOADING	011	12	8760	105120	0.03	0.15	0.68	FLEX-KLEEN	600	0.03	0.15	0.68
CARBON TO SILOS #16	014	12	8760	105120	0.03	0.15	0.68	84BVBS1611G	600	0.03	0.15	0.68
CARBON SILO TO BAGGING STORAGE TOWER	012	12	8760	105120	0.03	0.15	0.676	FLEX-KLEEN 84BVBS-25	600	0.03	0.15	0.68
BAGGING HOPPER/BAGGER (2)	013	1.8	8760	15768	0.03	0.15	0.676	MAHLE 25-K	600	0.03	0.15	0.68
			TOTAL =			**21.76**	**96.88**				**5.14**	**23.98**