



**REGULATION 13
CLASS II ADMINISTRATIVE UPDATE
APPLICATION FOR MAMMOTH
PREPARATION PLANT**

Prepared for:

Jack's Branch Coal Company

PO Box 150
Cannelton, West Virginia 25036

Prepared by:

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Project No. 0101-15-0053

March 2015



POTESTA



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SECTION I - III

GENERAL APPLICANT INFORMATION



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION
DIVISION OF AIR QUALITY

601 57th Street, SE
Charleston, WV 25304
(304) 926-0475
www.dep.wv.gov/daq

**APPLICATION FOR NSR PERMIT
AND
TITLE V PERMIT REVISION
(OPTIONAL)**

PLEASE CHECK ALL THAT APPLY TO **NSR (45CSR13)** (IF KNOWN):

- CONSTRUCTION** **MODIFICATION** **RELOCATION**
 CLASS I ADMINISTRATIVE UPDATE **TEMPORARY**
 CLASS II ADMINISTRATIVE UPDATE **AFTER-THE-FACT**

PLEASE CHECK TYPE OF **45CSR30 (TITLE V)** REVISION (IF ANY):

- ADMINISTRATIVE AMENDMENT** **MINOR MODIFICATION**
 SIGNIFICANT MODIFICATION

IF ANY BOX ABOVE IS CHECKED, INCLUDE TITLE V REVISION INFORMATION AS **ATTACHMENT S** TO THIS APPLICATION

FOR TITLE V FACILITIES ONLY: Please refer to "Title V Revision Guidance" in order to determine your Title V Revision options (Appendix A, "Title V Permit Revision Flowchart") and ability to operate with the changes requested in this Permit Application.

Section I. General

1. Name of applicant (as registered with the WV Secretary of State's Office): Jacks Branch Coal Company		2. Federal Employer ID No. (FEIN): 55-0734230	
3. Name of facility (if different from above): Mammoth Preparation Plant		4. The applicant is the: <input type="checkbox"/> OWNER <input type="checkbox"/> OPERATOR <input checked="" type="checkbox"/> BOTH	
5A. Applicant's mailing address: PO Box 150 Cannelton, WV 25036		5B. Facility's present physical address: 11720 East Dupont Avenue London, WV 25126	
6. West Virginia Business Registration. Is the applicant a resident of the State of West Virginia? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ⇒ If YES , provide a copy of the Certificate of Incorporation/Organization/Limited Partnership (one page) including any name change amendments or other Business Registration Certificate as Attachment A . ⇒ If NO , provide a copy of the Certificate of Authority/Authority of L.L.C./Registration (one page) including any name change amendments or other Business Certificate as Attachment A .			
7. If applicant is a subsidiary corporation, please provide the name of parent corporation: Alpha Natural Resources			
8. Does the applicant own, lease, have an option to buy or otherwise have control of the <i>proposed site</i> ? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO ⇒ If YES , please explain: Owner ⇒ If NO , you are not eligible for a permit for this source.			
9. Type of plant or facility (stationary source) to be constructed, modified, relocated, administratively updated or temporarily permitted (e.g., coal preparation plant, primary crusher, etc.): Coal Preparation Plant		10. North American Industry Classification System (NAICS) code for the facility: 212111	
11A. DAQ Plant ID No. (for existing facilities only): 039-00023		11B. List all current 45CSR13 and 45CSR30 (Title V) permit numbers associated with this process (for existing facilities only): R13-1975F	

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

<p>12A.</p> <p>⇒ For Modifications, Administrative Updates or Temporary permits at an existing facility, please provide directions to the <i>present location</i> of the facility from the nearest state road;</p> <p>⇒ For Construction or Relocation permits, please provide directions to the <i>proposed new site location</i> from the nearest state road. Include a MAP as Attachment B.</p> <p>Facility is located on U.S. Route 60, approximately 1 mile west of Smithers, West Virginia</p>		
12.B. New site address (if applicable): NA	12C. Nearest city or town: Montgomery	12D. County: Kanawha
12.E. UTM Northing (KM): 4,226.123	12F. UTM Easting (KM): 470.03	12G. UTM Zone: 17
13. Briefly describe the proposed change(s) at the facility: Construction of a lime addition system.		
14A. Provide the date of anticipated installation or change: March 23, 2015 ⇒ If this is an After-The-Fact permit application, provide the date upon which the proposed change did happen:		14B. Date of anticipated Start-Up if a permit is granted: March 23, 2015
14C. Provide a Schedule of the planned Installation of/Change to and Start-Up of each of the units proposed in this permit application as Attachment C (if more than one unit is involved).		
15. Provide maximum projected Operating Schedule of activity/activities outlined in this application: Hours Per Day 24 Days Per Week 7 Weeks Per Year 52		
16. Is demolition or physical renovation at an existing facility involved? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO		
17. Risk Management Plans. If this facility is subject to 112(r) of the 1990 CAAA, or will become subject due to proposed changes (for applicability help see www.epa.gov/ceppo), submit your Risk Management Plan (RMP) to U. S. EPA Region III.		
18. Regulatory Discussion. List all Federal and State air pollution control regulations that you believe are applicable to the proposed process (<i>if known</i>). A list of possible applicable requirements is also included in Attachment S of this application (Title V Permit Revision Information). Discuss applicability and proposed demonstration(s) of compliance (<i>if known</i>). Provide this information as Attachment D .		
Section II. Additional attachments and supporting documents.		
19. Include a check payable to WVDEP – Division of Air Quality with the appropriate application fee (per 45CSR22 and 45CSR13).		
20. Include a Table of Contents as the first page of your application package.		
21. Provide a Plot Plan , e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is or is to be located as Attachment E (Refer to Plot Plan Guidance). ⇒ Indicate the location of the nearest occupied structure (e.g. church, school, business, residence).		
22. Provide a Detailed Process Flow Diagram(s) showing each proposed or modified emissions unit, emission point and control device as Attachment F .		
23. Provide a Process Description as Attachment G . ⇒ Also describe and quantify to the extent possible all changes made to the facility since the last permit review (if applicable).		
All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.		
24. Provide Material Safety Data Sheets (MSDS) for all materials processed, used or produced as Attachment H . ⇒ For chemical processes, provide a MSDS for each compound emitted to the air.		

25. Fill out the **Emission Units Table** and provide it as **Attachment I**.

26. Fill out the **Emission Points Data Summary Sheet (Table 1 and Table 2)** and provide it as **Attachment J**.

27. Fill out the **Fugitive Emissions Data Summary Sheet** and provide it as **Attachment K**.

28. Check all applicable **Emissions Unit Data Sheets** listed below:

<input type="checkbox"/> Bulk Liquid Transfer Operations	<input checked="" type="checkbox"/> Haul Road Emissions	<input type="checkbox"/> Quarry
<input type="checkbox"/> Chemical Processes	<input type="checkbox"/> Hot Mix Asphalt Plant	<input checked="" type="checkbox"/> Solid Materials Sizing, Handling and Storage Facilities
<input type="checkbox"/> Concrete Batch Plant	<input type="checkbox"/> Incinerator	<input type="checkbox"/> Storage Tanks
<input type="checkbox"/> Grey Iron and Steel Foundry	<input type="checkbox"/> Indirect Heat Exchanger	
<input type="checkbox"/> General Emission Unit, specify		

Fill out and provide the **Emissions Unit Data Sheet(s)** as **Attachment L**.

29. Check all applicable **Air Pollution Control Device Sheets** listed below:

<input type="checkbox"/> Absorption Systems	<input checked="" type="checkbox"/> Baghouse	<input type="checkbox"/> Flare
<input type="checkbox"/> Adsorption Systems	<input type="checkbox"/> Condenser	<input type="checkbox"/> Mechanical Collector
<input type="checkbox"/> Afterburner	<input type="checkbox"/> Electrostatic Precipitator	<input type="checkbox"/> Wet Collecting System
<input type="checkbox"/> Other Collectors, specify		

Fill out and provide the **Air Pollution Control Device Sheet(s)** as **Attachment M**.

30. Provide all **Supporting Emissions Calculations** as **Attachment N**, or attach the calculations directly to the forms listed in Items 28 through 31.

31. **Monitoring, Recordkeeping, Reporting and Testing Plans.** Attach proposed monitoring, recordkeeping, reporting and testing plans in order to demonstrate compliance with the proposed emissions limits and operating parameters in this permit application. Provide this information as **Attachment O**.

➤ Please be aware that all permits must be practically enforceable whether or not the applicant chooses to propose such measures. Additionally, the DAQ may not be able to accept all measures proposed by the applicant. If none of these plans are proposed by the applicant, DAQ will develop such plans and include them in the permit.

32. **Public Notice.** At the time that the application is submitted, place a **Class I Legal Advertisement** in a newspaper of general circulation in the area where the source is or will be located (See 45CSR§13-8.3 through 45CSR§13-8.5 and **Example Legal Advertisement** for details). Please submit the **Affidavit of Publication** as **Attachment P** immediately upon receipt.

33. **Business Confidentiality Claims.** Does this application include confidential information (per 45CSR31)?

YES NO

➤ If **YES**, identify each segment of information on each page that is submitted as confidential and provide justification for each segment claimed confidential, including the criteria under 45CSR§31-4.1, and in accordance with the DAQ's "**Precautionary Notice – Claims of Confidentiality**" guidance found in the **General Instructions** as **Attachment Q**.

Section III. Certification of Information

34. **Authority/Delegation of Authority.** Only required when someone other than the responsible official signs the application. Check applicable **Authority Form** below:

<input type="checkbox"/> Authority of Corporation or Other Business Entity	<input type="checkbox"/> Authority of Partnership
<input type="checkbox"/> Authority of Governmental Agency	<input type="checkbox"/> Authority of Limited Partnership

Submit completed and signed **Authority Form** as **Attachment R**.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

35A. **Certification of Information.** To certify this permit application, a Responsible Official (per 45CSR§13-2.22 and 45CSR§30-2.28) or Authorized Representative shall check the appropriate box and sign below.

Certification of Truth, Accuracy, and Completeness

I, the undersigned **Responsible Official** / **Authorized Representative**, hereby certify that all information contained in this application and any supporting documents appended hereto, is true, accurate, and complete based on information and belief after reasonable inquiry I further agree to assume responsibility for the construction, modification and/or relocation and operation of the stationary source described herein in accordance with this application and any amendments thereto, as well as the Department of Environmental Protection, Division of Air Quality permit issued in accordance with this application, along with all applicable rules and regulations of the West Virginia Division of Air Quality and W.Va. Code § 22-5-1 et seq. (State Air Pollution Control Act). If the business or agency changes its Responsible Official or Authorized Representative, the Director of the Division of Air Quality will be notified in writing within 30 days of the official change.

Compliance Certification

Except for requirements identified in the Title V Application for which compliance is not achieved, I, the undersigned hereby certify that, based on information and belief formed after reasonable inquiry, all air contaminant sources identified in this application are in compliance with all applicable requirements.

SIGNATURE Craig Boggs (Please use blue ink) DATE: 3-4-15 (Please use blue ink)

35B. Printed name of signee: Craig Boggs		35C. Title: Vice President
35D. E-mail: scboggs@alphanr.com	36E. Phone: (304) 369-8500	36F. FAX: (304) 595-3256
36A. Printed name of contact person (if different from above): Randy Cunningham		36B. Title: Environmental Engineer
36C. E-mail: rcunningham@alphanr.com	36D. Phone: (304) 595-6935	36E. FAX: (304) 595-3256

PLEASE CHECK ALL APPLICABLE ATTACHMENTS INCLUDED WITH THIS PERMIT APPLICATION:

<input checked="" type="checkbox"/> Attachment A: Business Certificate	<input checked="" type="checkbox"/> Attachment K: Fugitive Emissions Data Summary Sheet
<input checked="" type="checkbox"/> Attachment B: Map(s)	<input checked="" type="checkbox"/> Attachment L: Emissions Unit Data Sheet(s)
<input checked="" type="checkbox"/> Attachment C: Installation and Start Up Schedule	<input checked="" type="checkbox"/> Attachment M: Air Pollution Control Device Sheet(s)
<input checked="" type="checkbox"/> Attachment D: Regulatory Discussion	<input checked="" type="checkbox"/> Attachment N: Supporting Emissions Calculations
<input checked="" type="checkbox"/> Attachment E: Plot Plan	<input checked="" type="checkbox"/> Attachment O: Monitoring/Recordkeeping/Reporting/Testing Plans
<input checked="" type="checkbox"/> Attachment F: Detailed Process Flow Diagram(s)	<input checked="" type="checkbox"/> Attachment P: Public Notice
<input checked="" type="checkbox"/> Attachment G: Process Description	<input type="checkbox"/> Attachment Q: Business Confidential Claims
<input checked="" type="checkbox"/> Attachment H: Material Safety Data Sheets (MSDS)	<input type="checkbox"/> Attachment R: Authority Forms
<input checked="" type="checkbox"/> Attachment I: Emission Units Table	<input type="checkbox"/> Attachment S: Title V Permit Revision Information
<input checked="" type="checkbox"/> Attachment J: Emission Points Data Summary Sheet	<input checked="" type="checkbox"/> Application Fee

Please mail an original and three (3) copies of the complete permit application with the signature(s) to the DAQ, Permitting Section, at the address listed on the first page of this application. Please DO NOT fax permit applications.

FOR AGENCY USE ONLY – IF THIS IS A TITLE V SOURCE:

Forward 1 copy of the application to the Title V Permitting Group and:

For Title V Administrative Amendments:

NSR permit writer should notify Title V permit writer of draft permit,

For Title V Minor Modifications:

Title V permit writer should send appropriate notification to EPA and affected states within 5 days of receipt,

NSR permit writer should notify Title V permit writer of draft permit.

For Title V Significant Modifications processed in parallel with NSR Permit revision:

NSR permit writer should notify a Title V permit writer of draft permit,

Public notice should reference both 45CSR13 and Title V permits,

EPA has 45 day review period of a draft permit.

All of the required forms and additional information can be found under the Permitting Section of DAQ's website, or requested by phone.

ATTACHMENT A
BUSINESS CERTIFICATE

**WEST VIRGINIA
STATE TAX DEPARTMENT
BUSINESS REGISTRATION
CERTIFICATE**

ISSUED TO:
**JACKS BRANCH COAL COMPANY
RT 85
MADISON, WV 25130-0000**

BUSINESS REGISTRATION ACCOUNT NUMBER: 1043-1336

This certificate is issued on: **07/5/2011**

*This certificate is issued by
the West Virginia State Tax Commissioner
in accordance with Chapter 11, Article 12, of the West Virginia Code*

*The person or organization identified on this certificate is registered
to conduct business in the State of West Virginia at the location above.*

This certificate is not transferrable and must be displayed at the location for which issued.

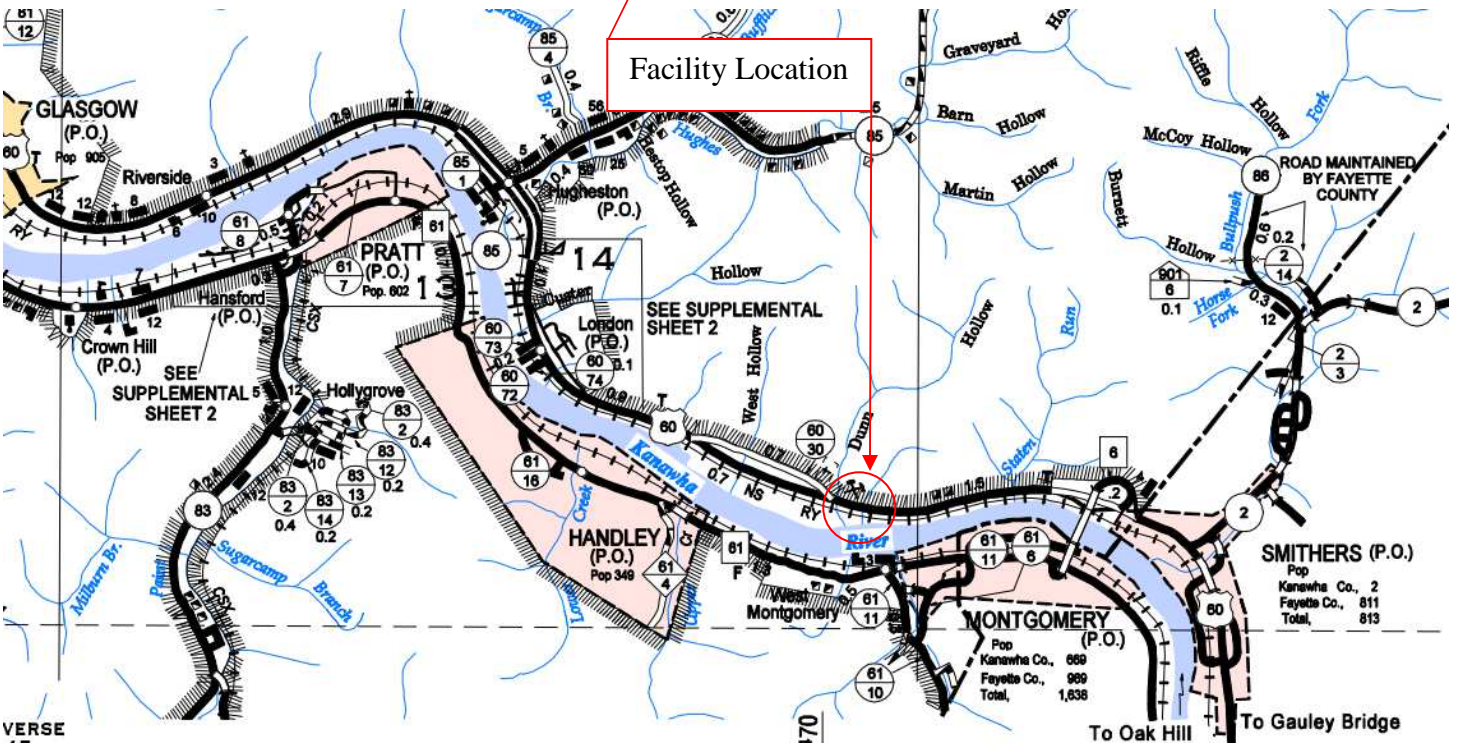
This certificate shall be permanent until cessation of the business for which the certificate of registration was granted or until it is suspended, revoked or cancelled by the Tax Commissioner.

Change in name or change of location shall be considered a cessation of the business and a new certificate shall be required.

TRAVELING/STREET VENDORS: Must carry a copy of this certificate in every vehicle operated by them.
CONTRACTORS, DRILLING OPERATORS, TIMBER/LOGGING OPERATIONS: Must have a copy of this certificate displayed at every job site within West Virginia.

ATTACHMENT B

AREA MAP



7012 MacCorkle Avenue, S.E
 Charleston, West Virginia 25304
 Phone: (304) 342-1400
 Fax: (304) 343-9031

Jack's Branch Coal Company
Mammoth Preparation Plant
 Kanawha County, West Virginia

ATTACHMENT C

INSTALLATION AND START UP SCHEDULE

ATTACHMENT C

INSTALLATION AND START UP SCHEDULE

The lime silo and screw conveyor are a portable, wheeled unit which can be set up in a short time period. The facility anticipates construction on or about March 23, 2015.

ATTACHMENT D

REGULATORY DISCUSSION

ATTACHMENT D

REGULATORY DISCUSSION

The facility proposed herein is subject to the following State and Federal regulations based on our review of potential air quality regulations:

State Regulations:

1. 45CSR7 – *To Prevent and Control Particulate Matter Air Pollution from Manufacturing Processes and Associated Operations.*

The facility must meet the process weight rate and visible emissions requirements of the rule. The existing facility is already subject to 45CSR7.

2. 45CSR13 – *Permits for Construction, Modification, Relocation and Operation of Stationary Sources of Air Pollutants, Notification Requirements, Temporary Permits, General Permits, and Procedures for Evaluation.*

The facility is required to obtain a permit prior to the start of construction, modification and/or relocation. This application is being submitted based on the requirements of 45CSR13 to obtain said permit for the proposed modifications.

ATTACHMENT E

PLOT PLAN



No.	Date	Revision

-02
 CAD File No.
 BEL
 Drawn
 CCS
 Checked
 CCS
 Approved
 NOT TO SCALE
 Scale:
 FEB. 2015
 Date:
 15-0053
 Project No.

POTESTA & ASSOCIATES, INC.
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS
 7012 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (804) 342-1400 FAX: (804) 342-9031
 E-Mail Address: potesta@potesta.com

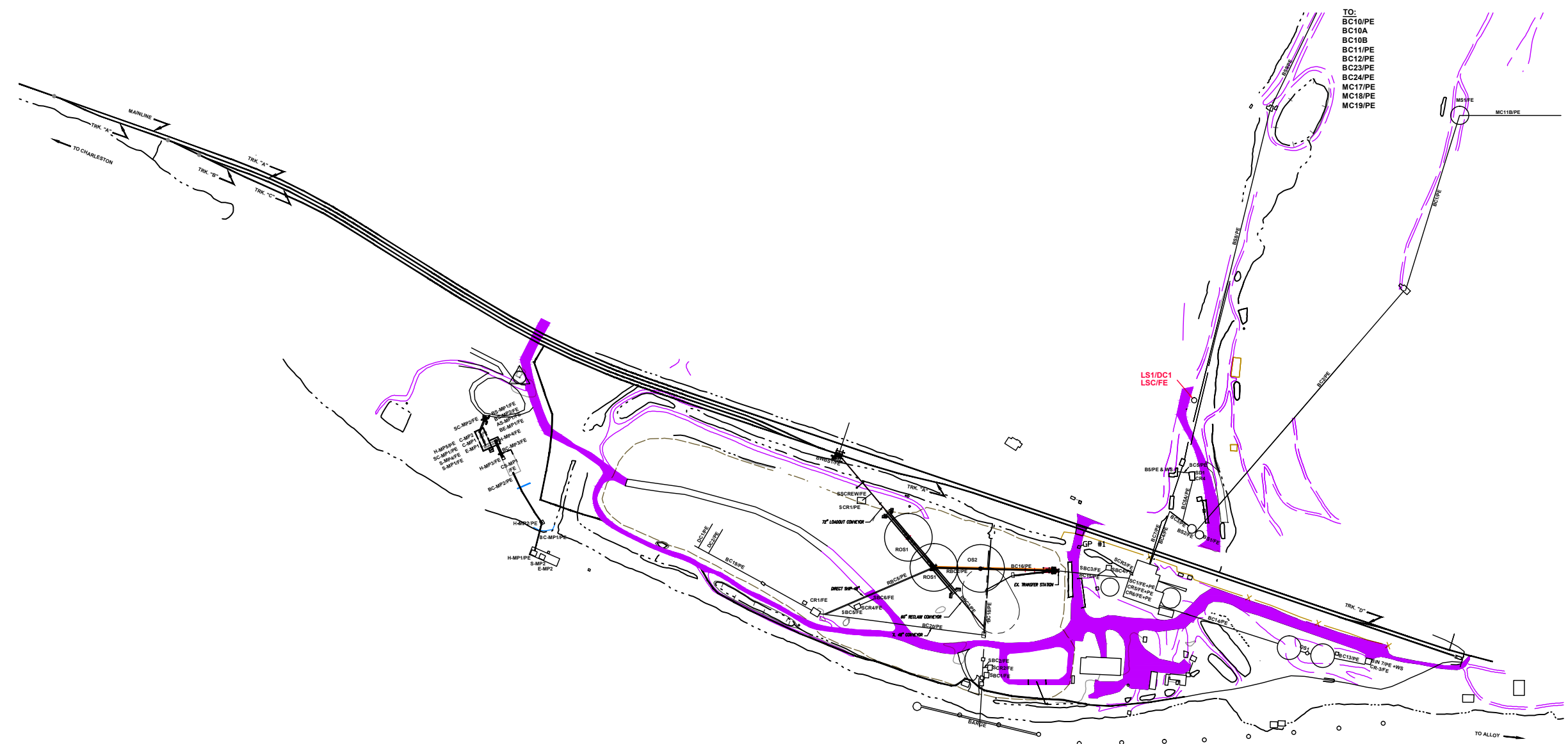


Client
JACK'S BRANCH COAL COMPANY
 KANAWHA COUNTY, WV

Title
SITE PLAN
JACK'S BRANCH COAL COMPANY
 KANAWHA COUNTY, WV

Drawing No.
1

ISSUE DATE 2/13/2015



MAPPING REFERENCE:
 BASE TOPOGRAPHIC MAPPING AS PROVIDED TO POTESTA & ASSOCIATES, INC. BY

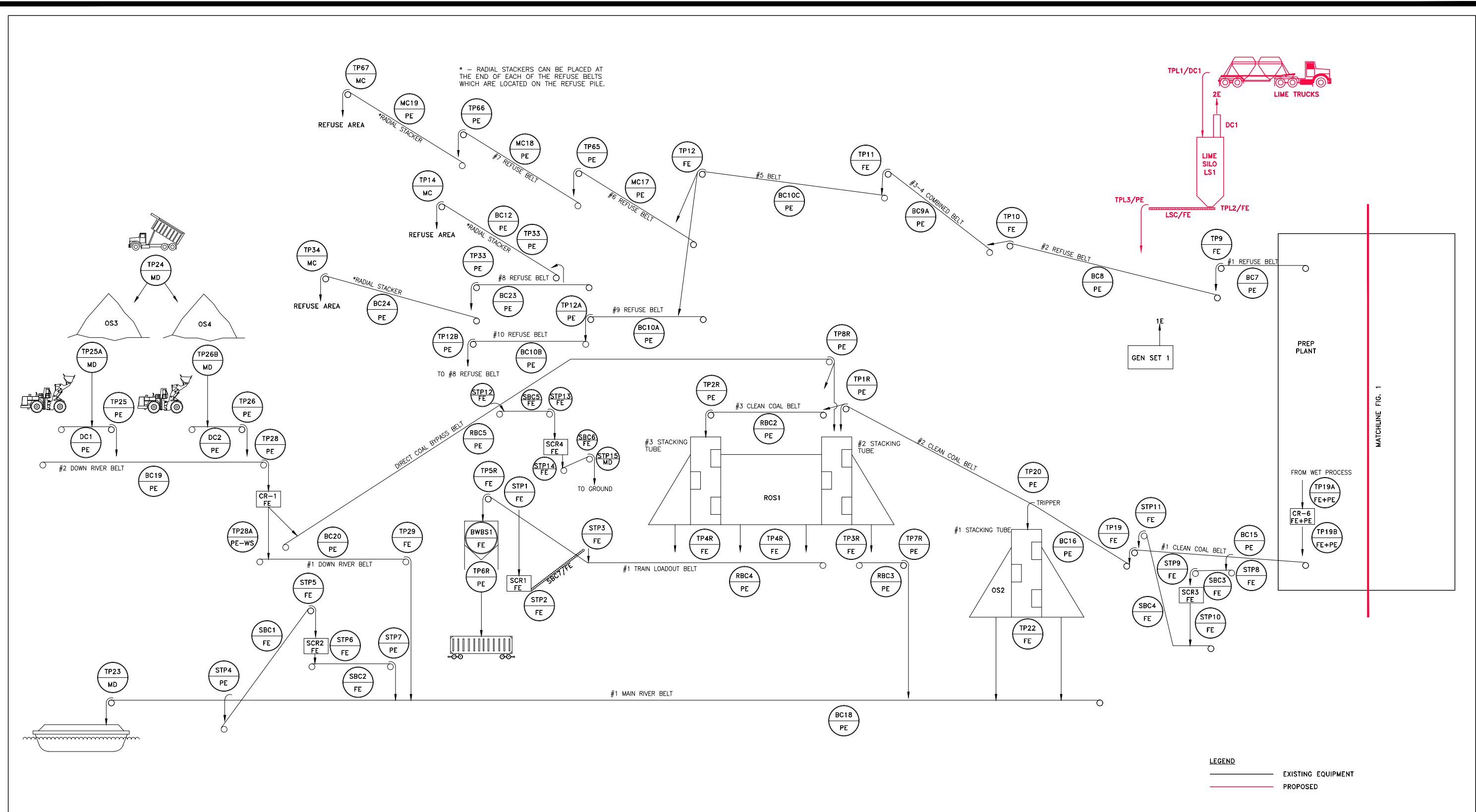
PRELIMINARY

Plot Date: 2/13/2015 11:45:05 AM
 Plot Size: 11.00 x 17.00
 Plot Scale: 1/8" = 1'-0"
 Plot Path: C:\Users\jbel\Documents\15-0053-02.dwg
 Plot Device: HP DesignJet 2500
 Plotter Driver: hp-jetplot

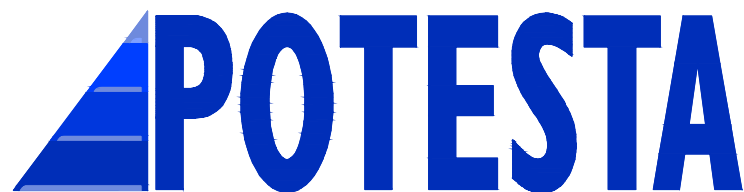
ATTACHMENT F

PROCESS FLOW DIAGRAM

XREF Files:
 IMAGE Files:
 File: S:\C3D-Prod-2015\15-0053-JACKS BRANCH\B15-0053-01.dwg
 Plot Date/Time: Feb 13, 2015 - 1:17pm
 Plotted By: mbsankoff



PROJECT #: 15-0053 FILENAME: B15-0053-01



POTESTA & ASSOCIATES, INC.
 ENGINEERS AND ENVIRONMENTAL CONSULTANTS

7012 MacCorkle Ave. SE, Charleston, WV 25304
 TEL: (304) 342-1400 FAX: (304) 343-9031
 E-Mail Address: potesta@potesta.com

Project	
MAMMOTH PREPARATION PLANT JACK'S BRANCH COAL COMPANY KANAWAHA COUNTY, WEST VIRGINIA	
Scale NOT TO SCALE	Dwg. No.
Date FEB. 2015	FIGURE 2

ATTACHMENT G

PROCESS DESCRIPTION

ATTACHMENT G

PROCESS DESCRIPTION

Jack's Branch Coal Company operates the Mammoth Preparation Plant (Mammoth) located on U.S. Route 60 near Montgomery, Kanawha County, West Virginia. The facility proposes to construct a lime silo and screw conveyor for addition of lime to the refuse pile to aid in the compaction of the pile.

Lime is delivered by truck to silo LS1/DC1 (TPL1/DC1). Emissions from silo loading are controlled by dust collector DC1. Lime transfers (TPL2/FE) to a screw conveyor (LSC/FE) to (TPL3/PE) the existing No. 2 Refuse Belt (BC8/PE).

There are no changes proposed to the hourly rates or yearly throughputs for the refuse system. Lime addition will be a ton per ton replacement for refuse.

The material safety data sheet shown in Attachment H is representative of lime. Actual suppliers may vary.

ATTACHMENT H

MATERIAL SAFETY DATA SHEETS



MATERIAL SAFETY DATA SHEET

SECTION I - CHEMICAL PRODUCT AND COMPANY INFORMATION

Product Name: HIGH CALCIUM QUICKLIME	WHMIS – CLASSIFICATION: D2A: MATERIALS CAUSING OTHER TOXIC EFFECTS E: CORROSIVE MATERIAL	
MANUFACTURER'S AND SUPPLIER'S NAME:		
GRAYMONT (NB) INC	4634, Route 880, Havelock, New Brunswick, E4Z 5K8.	
GRAYMONT (PA) INC.	194, Match Factory Place, Bellefonte, Pennsylvania, 16823	
GRAYMONT (QC) INC.	25 – 206, rue De Lauzon, Boucherville, Québec, J4B 1E7.	
GRAYMONT (WESTERN CANADA) INC.	#260 – 4311, 12 th Street N.E., Calgary, Alberta, T2E 4P9	
GRAYMONT WESTERN LIME INC.	206 N. 6 th Avenue, West Bend, Wisconsin, 53095	
GRAYMONT (WESTERN US) INC.	3950 South, 700 East, Suite 301, Salt Lake City, Utah, 84107	
GRAYMONT (WI) INC.	Foot of Hill Avenue, Superior, Wisconsin, 54880	
EMERGENCY TEL. No.: (613) 996 – 6666 CANUTEC (Canada) (800) 424 – 9300 CHEMTREC (US)		
Chemical Name Calcium oxide	Chemical Family Alkaline earth oxide	Chemical Formula Complex mixture - mostly CaO
Molecular Weight CaO = 56.08	Trade Name and Synonyms High Calcium Quicklime, Lime, Quicklime, Calcium Oxide, Burnt Lime, Unslaked Lime, Fluxing Lime.	Material Use Neutralization, Flocculation, Flux (met.), Caustic agent, absorption

SECTION II - COMPOSITION AND INFORMATION ON INGREDIENTS

Hazardous Ingredients	Approximate Concentration	C.A.S. Number	Exposure limits (mg/m ³)					
			OSHA PEL	ACGIH TLV	RSST VEMP	MSHA PEL	NIOSH REL	NIOSH IDLH
(Complex Mixture)	(% by weight)		(TWA) 8/40h	(TWA) 8/40h	(TWA) 8/40h	(TWA) 8/40h	(TWA) 10/40h	
Calcium Oxide	90 to 100	1305-78-8	5	2	2	5	2	25
Crystalline Silica, Quartz	0 à 0.1 Or 0.1 à 1 (Note 1)	14808-60-7	30/(%SiO₂)+2 (T) 10/(%SiO₂)+2 (R)	0.025 (R)	0.1 (R)	30/(%SiO₂)+2 (T) 10/(%SiO₂)+2 (R)	0.05 (R)	50

(Note 1) : Concentration of crystalline silica in a series of lime products will vary from source to source. It was not detected on some samples (< 0.1% w/w). Therefore two ranges are being disclosed. (Note 2) : ACGIH TLV Version 1973 has been adopted by the Mine Safety Health Administration (MSHA) as the regulatory Exposure Standard. (Note 3): (T) Total Dust; (R): Respirable Dust.

SECTION III - PHYSICAL AND CHEMICAL DATA

Physical State Gas <input type="checkbox"/> Liquid <input type="checkbox"/> Solid <input checked="" type="checkbox"/>	Odor and Appearance Slight earthy odor - White crystalline substance		Odor Threshold (p.p.m.) Not applicable	Specific Gravity 3.25 - 3.38
Vapor Pressure (mm) Not applicable	Vapor Density (Air = 1) Not applicable	Evaporation Rate Not applicable	Boiling Point (°C) 2850	Melting Point (°C) 2570 - 2625
Solubility in Water (20°C) 0.125g/100g Solution	Volatiles (% by volume) Not applicable	pH (25 °C) Sat. soln CaO 12.45	Bulk Density (kg/m ³) 720 - 1200	Coefficient of water/oil distribution Not applicable

SECTION IV - FIRE OR EXPLOSION HAZARD DATA

Flammability Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, under which conditions?			
Extinguishing Media Quicklime does not burn. Use extinguisher appropriate for material burning.			
Special Fire Fighting Procedures Avoid using water unless necessary for other materials, in which case, flood to absorb heat generated. (Contact with water will evolve heat and could cause ignition of paper, cardboard, etc.). Wear self-contained breathing equipment approved by NIOSH.			
Flash point (°C) and Method Not applicable	Upper flammable limit (% by volume) Not applicable	Lower flammable limit (% by volume) Not applicable	
Auto Ignition Temperature (°C) Not applicable	TDG Flammability Classification Non-flammable	Hazardous Combustion Products None	
Dangerous Combustion Products None			
EXPLOSION DATA			
Sensitivity to Chemical Impact Not applicable	Rate of Burning Not applicable	Explosive Power Not applicable	Sensitivity to Static Discharge Not applicable

SECTION V - REACTIVITY DATA

Chemical Stability Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	If no, under which conditions?	Absorbs moisture and carbon dioxide in the air to form calcium hydroxide and calcium carbonate.
Incompatibility to other substances Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If so, which ones?	Boron tri-fluoride, chlorine tri-fluoride, ethanol, fluorine, hydrogen fluoride, phosphorus pentoxide; water and acids (violent reaction with generating heat and possible explosion in confined area).
Reactivity Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If so, under which conditions?	Reacts violently with strong acids. Reacts with water to form calcium hydroxide. The heat generated when mixed with water or moist air is sufficient enough to ignite surrounding materials such as paper, wood or cloth.
Hazardous Decomposition Products	None.	
Hazardous Polymerization Products	Will not occur.	

SECTION VI - TOXICOLOGICAL PROPERTIES

Route of Entry
 Skin Contact Skin Absorption Eye Contact Acute Inhalation Chronic Inhalation Ingestion

Effects of Acute Exposure to Product

Skin Severe irritation or burning of mucous and skin. Dehydration of tissues.

Eyes Severe eye irritation and burning, intense watering of the eyes, possible lesions, possible blindness when exposed for prolonged period. (Draize >80).

Inhalation If inhaled in form of dust: nose, oral cavity and throat irritation, cough, sneezing, inflammation of breathing passages, ulceration and perforation of nasal septum, bronchitis, possible pneumonia.

Ingestion If ingested, burning and edema of digestive tracts, abundant salivation, difficulties in swallowing and breathing, vomiting blood, drop in blood pressure (indicates perforation of esophagus or stomach).

Effects of Chronic Exposure to Product:

Contact dermatitis. Following repeated or prolonged contact, this product can cause redness, desquamation and fissures. This product may contain trace amounts of crystalline silica. Excessive inhalation of respirable crystalline silica dust may result in respiratory disease, including silicosis, pneumoconiosis and pulmonary fibrosis.

LD ₅₀ of Product (Specify Species and Route) 3059 mg/kg (Mouse/Intraperitoneal)	Irritancy of Product Severe to moist tissues	Exposure limits of Product Unavailable
LC ₅₀ of Product (Specify Species) Unavailable	Sensitization to Product None	Synergistic materials None reported

SECTION VI - TOXICOLOGICAL PROPERTIES (Cont'd)

Carcinogenicity Reproductive effects Tératogenicity Mutagenicity

Quicklime is not listed as a carcinogen by ACGIH, MSHA, OSHA, NTP, DFG, RSST or IARC. It may, however, contain trace amounts of Crystalline Silica listed carcinogens by these organizations.

Crystalline Silica, which inhaled in the form of quartz or crystobalite from occupational sources, is classified by **IARC** as carcinogenic to humans. (Group 1)

Silica, crystalline (Airborne particles of respirable size) is regulated under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (**Proposition 65**). Crystalline silica is listed as a chemical known to the State to cause cancer.

NIOSH considers crystalline silica to be potential occupational carcinogen as defined by the OSHA carcinogen policy [29 CFR 1990]. (Ca).

NTP lists respirable Crystalline Silica as known to be human carcinogens based on sufficient evidence of carcinogenicity in humans. (K).

ACGIH lists respirable Crystalline Silica (quartz) as suspected human carcinogen. (A2).

DFG lists respirable Crystalline Silica as a substance that causes cancer in man (1)

RSST lists respirable Crystalline Silica (quartz) as suspected human carcinogen.

SECTION VII - PREVENTIVE MEASURES

Personal Protective Equipment (PPE)	Wear clean, dry gloves, full length pants over boots, long sleeved shirt buttoned at the neck, head protection and approved eye protection selected for the working conditions.
Gloves (Specify)	Gauntlets Cuff style.
Respiratory (Specify)	<p>NIOSH approved respirator.</p> <p><u>Up to 10 mg/m³</u>: (APF = 5) Any quarter-mask respirator.</p> <p><u>Up to 20 mg/m³</u>: (APF = 10) Any particulate respirator equipped with an N95, R95 or P95 filter except quarter-mask respirator. Any supplied-air respirator.</p> <p><u>Up to 25 mg/m³</u>: (APF = 25) Any supplied-air respirator operated in a continuous-flow mode. Any powered, air purifying respirator with a high-efficiency particulate filter.</p> <p>For <u>respirable quartz levels</u> that exceed or are likely to exceed an 8-hr TWA of <u>0.1 mg/m³</u>, a NIOSH approved (N/R/P95) dust respirator is recommended.</p> <p>For respirable quartz levels that exceed or are likely to exceed an 8-hr TWA of <u>0.5 mg/m³</u>, a NIOSH approved HEPA (N/R/P100) filter respirator is recommended.</p> <p>For respirable quartz levels that exceed or are likely to exceed an 8-hr TWA of <u>5.0 mg/m³</u>, a NIOSH approved positive pressure (SAR), full face respirator or equivalent is recommended.</p>
Eyes (Specify)	ANSI, CSA or ASTM approved safety glasses with side shields. Tight fitting dust goggles should be worn when excessive (visible) dust conditions are present. Do not wear contact lenses without tight fitting goggles when handling this chemical.
Footwear (Specify)	Resistant to caustics.
Clothing (Specify)	Fully covering skin. Remove when wet or contaminated. Change daily.
Other (Specify)	Evaluate degree of exposure and use PPE if necessary. After handling lime, employees must shower. If exposed daily, use oil, Vaseline, silicone base crème etc. to protect exposed skin, particularly neck, face and wrists.

SECTION VII - PREVENTIVE MEASURES (Cont'd)

Engineering Controls (e.g. ventilation, enclosed process, specify)

Enclose dust sources; use exhaust ventilation (dust collector) at handling points, keep levels below Max. Concentration Permitted.

Leak and Spill Procedure

Limit access to trained personnel. Use industrial vacuums for large spills. Ventilate area.

Waste Disposal

Transport to disposal area or bury. Review Federal, Provincial and local Environmental regulations.

Handling Procedures and Equipment

Avoid skin and eye contact. Minimize dust generation. Wear protective goggles and in cases of insufficient ventilation, use NIOSH approved dust respirator. An eye wash station and safety shower should be readily available where this material or its water dispersions are used. Contact lenses should not be worn when working with this chemical.

Storage Requirements

Keep tightly closed containers in a cool, dry and well ventilated area, away from acids. Keep out of reach of children.

Special Shipment Information

Quicklime is neither regulated by the Transportation of Dangerous Goods (TDG) Regulations (Canada) nor by the Hazardous Materials Regulations (USA) unless this material is offered or intended for transportation by aircraft.

SECTION VIII - FIRST AID MEASURES

Skin

Carefully and gently brush the contaminated body surfaces in order to remove all traces of lime. Use a brush, cloth or gloves. Remove all lime-contaminated clothing. Rinse contaminated area with lukewarm water for 15 to 20 minutes. Consult a physician if exposed area is large or if irritation persists.

Eyes

Immediately rinse contaminated eye(s) with gently running lukewarm water (saline solution is preferred) for 15 to 20 minutes. In the case of an embedded particle in the eye, or chemical burn, as assessed by first aid trained personnel, contact a physician.

Inhalation

Move source of dust or move victim to fresh air. Obtain medical attention immediately. If victim does not breathe, give artificial respiration.

Ingestion

If victim is conscious, give 300 ml (10 oz) of water, followed by diluted vinegar (1 part vinegar, 2 parts water) or fruit juice to neutralize the alkali. Do not induce vomiting. Contact a physician immediately.

General Advise

Consult a physician for all exposures except minor instances of inhalation.

SECTION IX - REGULATORY INFORMATION

Superfund Amendments and Reauthorization Act of 1986 (SARA Title III). / The Emergency Planning and "Community Right-to-Know" Act (EPCRA). / Comprehensive Environmental Response, Compensation and Liability Act (CERCLA). / Resource Conservation and Recovery Act (RCRA).

Component Calcium Oxide has been reviewed against the following regulatory listings:

- SARA Section 302 – Emergency Planning Notification. Extremely Hazardous Substances (EHS) List and Threshold Planning Quantity (TPQ). (40 CFR, Part 355, Section 30): Not listed.
- SARA Section 304 – Emergency Release Notification. Extremely Hazardous Substances (EHS) and Reportable Quantity (RQ) List. (40 CFR, Part 355, Section 40): Not listed.
- SARA Section 311/312 – Hazard Categories (40 CFR, Part 370): This product is regulated under CFR 1910.1200 (OSHA Hazard Communication) as Immediate (Acute) Health Hazards – Irritant.
- SARA Section 313 – Toxics Release Inventory (TRI). Toxic Chemical List (40 CFR, Part 372). Not listed.
- CERCLA – Hazardous Substance (40 CFR, Part 302): Not listed in Table 302.4.
- RCRA – Hazardous Waste Number (40 CFR, Part 261, Subpart D): Not listed.
- RCRA – Hazardous Waste Classification (40 CFR, Part 261, Subpart C): Not classified.

CWA 311. - Clean Water Act List of Hazardous Substances.

Calcium Oxide has been withdrawn from the Clean Water Act (CWA) list of hazardous substances. (11/13/79) (44FR65400)

California Proposition 65.

Component Calcium Oxide does not appear on the above regulatory listing. This product may contain small amounts of crystalline silica. Silica, crystalline (Airborne particles of respirable size) is regulated under California's Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65). Crystalline silica is listed as a chemical known to the State to cause cancer.

Transportation - Hazardous Materials Regulations (USA) & Transportation of Dangerous Goods (TDG) Regulations (Can).

Calcium Oxide is listed in both table 172.101 of Title 49 CFR 172 and in schedule 18 D.G. List (Chapter 34 TDG ACT, SOR/DORS 93-525). Application of requirements is restricted to material offered or intended for transportation by aircraft. - Calcium oxide. By aircraft only. Class 8 - Corrosives. PIN UN1910. Packing group III. Maximum net quantity per package - passenger vehicles, 25kg.

Toxic Substances Control Act (TSCA).

All naturally occurring components of this product are automatically included in the USEPA TSCA Inventory List per 40 CFR 710.4 (b). All other components are listed on the USEPA TSCA Chemical Substances Inventory. Calcium Oxide is subject to inventory update reporting (IUR).

Canadian Environmental Protection Act 1999 (CEPA) – Substances Lists (DSL/NDSL).

Calcium Oxide is specified on the public Portion of the Domestic Substances List (DSL).

ANSI/NSF 60 - Drinking Water Treatment Additives.

Quicklime has been investigated with respect to elements identified by EPA as toxic and it has been classified for use in direct contact with drinking water. (In accordance with Standard ANSI/NSF 60). For a list of classified products, refer to Underwriters Laboratories Inc.'s Online Certifications Directory.



FDA - U.S. Food and Drug Administration, Department of Health and Human Services.

Calcium Oxide has been determined as "Generally Recognized As Safe" (GRAS) by FDA. See 21CFR184.1210. (CFR Title 21 Part 184 - - Direct food substances affirmed as generally recognized as safe).

SECTION X - OTHER INFORMATION

<p>Hazardous Materials Identification System (U.S.)</p>		<p>National Fire Protection Association (U.S.) NFPA 704</p> <p>Health Hazard</p>	<p>Fire Hazard</p>  <p>Instability / Thermal Hazard</p> <p>Specific hazard</p>
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<p>WHMIS – Classification: “E” Corrosive Material.</p>	<p>WHMIS – Classification: “D2A”: Materials causing other toxic effects.</p>
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<p>Symbol:</p> 	<p>Symbol:</p> 
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Additional Information/Comments:

The technical data contained herein is given as information only and is believed to be reliable. GRAYMONT makes no guarantee of results and assumes no obligation or liability in connection therewith.

Sources Used:

NFPA, NLA, TDG, CSST, RSST, (LSRO-FASEB), Hazardous Products Act, Environment Canada, Enviroguide, OSHA, ACGIH, IARC, NIOSH, CFR, NTP, HSDB, EPA SRS, RTECS, DFG, Chemistry and Technology of Lime and Limestone (John Wiley and Sons, Inc.), Lime and Limestone (WILEY-VCH).

SECTION XI - PREPARATION INFORMATION

<p>Prepared by: GRAYMONT (QC) INC. Quality Assurance & Technical Services</p>	<p>Telephone number: (450) 449-2262</p>	<p>Date : May 2012</p>
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An electronic version of this MSDS is available at: www.graymont.com under the PRODUCTS section.

ATTACHMENT I
EMISSION UNIT TABLE

Attachment I
Emission Units Table
 (includes all emission units and air pollution control devices
 that will be part of this permit application review, regardless of permitting status)

Emission Unit ID ¹	Emission Point ID ²	Emission Unit Description	Year Installed/Modified	Design Capacity	Type ³ and Date of Change	Control Device ⁴
LS1	2E	Lime Silo	2015	50 Tons	New	DC1
LSC	LSC	Screw Conveyor	2015	2 TPH	New	FE

¹ For Emission Units (or Sources) use the following numbering system:1S, 2S, 3S,... or other appropriate designation.
² For Emission Points use the following numbering system:1E, 2E, 3E, ... or other appropriate designation.
³ New, modification, removal
⁴ For Control Devices use the following numbering system: 1C, 2C, 3C,... or other appropriate designation.
 *Not yet constructed

ATTACHMENT J

EMISSION POINTS DATA SUMMARY SHEET

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 1: Emissions Data-COAL PREPARATION PLANT															
Emission Point ID No. (Must match Emission Units Table & Plot Plan)	Emission Point Type ¹	Emission Unit Vented Through This Point (Must match Emission Units Table & Plot Plan)		Air Pollution Control Device (Must match Emission Units Table & Plot Plan)		Vent Time for Emission Unit (chemical processes only)		All Regulated Pollutants - Chemical Name/CAS ³ (Speciate VOCs & HAPS)	Maximum Potential Uncontrolled Emissions ⁴		Maximum Potential Controlled Emissions ⁵		Emission Form or Phase (At exit conditions, Solid, Liquid or Gas/Vapor)	Est. Method Used ⁶	Emission Concentration ⁷ (ppmv or mg/m ⁴)
		ID No.	Source	ID No.	Device Type	Short Term ²	Max (hr/yr)		lb/hr	ton/yr	lb/hr	ton/yr			
2E	Vert. Stack	LS1	Lime Silo	DC1	Dust Collector	NA	NA	PM/PM10/PM2.5	110.00	5.50	0.011	0.0006	Solid	AP42	NA
TPL2-3	NA	TPL2-3	Transfer Points	Varies	Varies	NA	NA	PM/PM10/PM2.5	8.80	11.00	3.08	3.85	Solid	AP42	NA

The EMISSION POINTS DATA SUMMARY SHEET provides a summation of emissions by emission unit. Note that uncaptured process emission unit emissions are not typically considered to be fugitive and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET. Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions). Please complete the FUGITIVE EMISSIONS DATA SUMMARY SHEET for fugitive emission activities.

¹ Please add descriptors such as upward vertical stack, downward vertical stack, horizontal stack, relief vent, rain cap, etc.

² Indicate by "C" if venting is continuous. Otherwise, specify the average short-term venting rate with units, for intermittent venting (ie., 15 min/hr). Indicate as many rates as needed to clarify frequency of venting (e.g., 5 min/day, 2 days/wk).

³ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. **LIST** Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. **DO NOT LIST** H₂, H₂O, N₂, O₂, and Noble Gases.

⁴ Give maximum potential emission rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁵ Give maximum potential emission rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁶ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

⁷ Provide for all pollutant emissions. Typically, the units of parts per million by volume (ppmv) are used. If the emission is a mineral acid (sulfuric, nitric, hydrochloric or phosphoric) use units of milligram per dry cubic meter (mg/m³) at standard conditions (68 °F and 29.92 inches Hg) (see 45CSR7). If the pollutant is SO₂, use units of ppmv (See 45CSR10).

**Attachment J
EMISSION POINTS DATA SUMMARY SHEET**

Table 2: Release Parameter Data								
Emission Point ID No. <i>(Must match Emission Units Table)</i>	Inner Diameter (ft.)	Exit Gas			Emission Point Elevation (ft)		UTM Coordinates (km)	
		Temp. (°F)	Volumetric Flow ¹ (acfm) <i>at operating conditions</i>	Velocity (fps)	Ground Level <i>(Height above mean sea level)</i>	Stack Height ² <i>(Release height of emissions above ground level)</i>	Northing	Easting
2E	NA	Ambient	NA	NA	~690 ft	~39 ft	~4,226.608	~470.119

¹ Give at operating conditions. Include inerts.
² Release height of emissions above ground level.

ATTACHMENT K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

Attachment K

FUGITIVE EMISSIONS DATA SUMMARY SHEET

The FUGITIVE EMISSIONS SUMMARY SHEET provides a summation of fugitive emissions. Fugitive emissions are those emissions which could not reasonably pass through a stack, chimney, vent or other functionally equivalent opening. Note that uncaptured process emissions are not typically considered to be fugitive, and must be accounted for on the appropriate EMISSIONS UNIT DATA SHEET and on the EMISSION POINTS DATA SUMMARY SHEET.

Please note that total emissions from the source are equal to all vented emissions, all fugitive emissions, plus all other emissions (e.g. uncaptured emissions).

APPLICATION FORMS CHECKLIST - FUGITIVE EMISSIONS
1.) Will there be haul road activities? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If YES, then complete the HAUL ROAD EMISSIONS UNIT DATA SHEET.
2.) Will there be Storage Piles? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete Table 1 of the NONMETALLIC MINERALS PROCESSING EMISSIONS UNIT DATA SHEET.
3.) Will there be Liquid Loading/Unloading Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the BULK LIQUID TRANSFER OPERATIONS EMISSIONS UNIT DATA SHEET.
4.) Will there be emissions of air pollutants from Wastewater Treatment Evaporation? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
5.) Will there be Equipment Leaks (e.g. leaks from pumps, compressors, in-line process valves, pressure relief devices, open-ended valves, sampling connections, flanges, agitators, cooling towers, etc.)? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the LEAK SOURCE DATA SHEET section of the CHEMICAL PROCESSES EMISSIONS UNIT DATA SHEET.
6.) Will there be General Clean-up VOC Operations? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET.
7.) Will there be any other activities that generate fugitive emissions? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If YES, complete the GENERAL EMISSIONS UNIT DATA SHEET or the most appropriate form.
If you answered "NO" to all of the items above, it is not necessary to complete the following table, "Fugitive Emissions Summary."

FUGITIVE EMISSIONS SUMMARY	All Regulated Pollutants Chemical Name/CAS ¹	Maximum Potential Uncontrolled Emissions ²		Maximum Potential Controlled Emissions ³		Est. Method Used ⁴
		lb/hr	ton/yr	lb/hr	ton/yr	
Haul Road/Road Dust Emissions Paved Haul Roads	PM PM10 PM2.5	1.15 0.23 0.05	0.06 0.01 0.003	0.35 0.07 0.02	0.02 0.003 0.001	EE
Unpaved Haul Roads						
Storage Pile Emissions						
Loading/Unloading Operations						
Wastewater Treatment Evaporation & Operations						
Equipment Leaks						
General Clean-up VOC Emissions						
Other						

¹ List all regulated air pollutants. Speciate VOCs, including all HAPs. Follow chemical name with Chemical Abstracts Service (CAS) number. LIST Acids, CO, CS₂, VOCs, H₂S, Inorganics, Lead, Organics, O₃, NO, NO₂, SO₂, SO₃, all applicable Greenhouse Gases (including CO₂ and methane), etc. DO NOT LIST H₂, H₂O, N₂, O₂, and Noble Gases.

² Give rate with no control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

³ Give rate with proposed control equipment operating. If emissions occur for less than 1 hr, then record emissions per batch in minutes (e.g. 5 lb VOC/20 minute batch).

⁴ Indicate method used to determine emission rate as follows: MB = material balance; ST = stack test (give date of test); EE = engineering estimate; O = other (specify).

ATTACHMENT L

EMISSIONS UNIT DATA SHEET(S)

Affected Source Sheet

Source Specific Emissions Data: Solid Materials Sizing, Handling and Storage Facilities

Required Information Regarding Dust Control Equipment Measures

1. If water or chemical sprays are to be used on conveyors, transfer points, stockpiles, etc... for dust control, the location of all spray bars or spray systems should be shown on the plot plans and/or line drawings. The following information should be provided for each spray system:
 - a. Design water flow through spray bar
 - b. Type and amount of chemicals used and the mix ratio of chemical to water used at the sprays.
 - c. Methods employed to winterize sprays (e.g. keep sprays from freezing and becoming inoperable during cold weather)

2. A detailed written description should be submitted of dust control measures/programs that will be employed on haul roads and in areas of vehicle activity around material stockpiled. The haulways and areas to be treated should be shown by shading or similar description on the plant plan. The following points should be specifically addressed:
 - a. Equipment (e.g. water trucks, fixed spray bars, wheel and truck underbody washers, etc...) that will be used in this dust control program.
 - b. Frequency of application of water and chemical to roads and stockpile areas during dry periods.
 - c. Amount of chemical suppressants to be used, if applicable, in pounds or gallons per square yard of surface to be treated.
 - d. Type of haulroad or haulway surface(s) that will be maintained (e.g. coarse gravel, reddog, etc...)
 - e. Approximate maximum length of haulroads (miles or feet).
 - f. Maximum daily truck traffic on haulroads (number of trucks).

3. If full or partial enclosures are to be used to minimize dust entrainment, a drawing of each such enclosure should be submitted (for example at truck dump bins, breakers, conveyor transfer points).

4. If particulate control devices such as baghouses or scrubbers are to be used, complete an appropriate Air Pollution Control Device Sheet and furnish a drawing showing details of enclosures and ductwork associated with these control systems.

AFFECTED SOURCE SHEET

Source Specific Emissions Data: Solid Materials Sizing, Handling, and Storage Facilities

Plot Plan(s) and Line Drawing(s)

- a. Finish the plot plan(s) of the plant area which contains sufficient detail to show the scaled layout of the equipment involved in each materials handling system (e.g. conveyors, transfer points, crushers, screens, bins, stockpiles, truck dump bins, etc...). Show equipment or buildings described in other sections of this application on the plot plan as appropriate. The guidelines for Plot Plans should be followed to the extent possible.
- b. Furnish the line drawing(s) or schematic(s) showing each component or facet of each materials handling system (e.g. conveyors, transfer points, stockpiles, crushers, screens, bins etc...). Show process equipment described in other sections of this application as needed for clarity.
- c. On the line drawing(s) or schematic(s) furnished in accordance with item (b) assign an ID number to each conveyor, transfer point (including truck, barge and rail car loading/unloading etc...), storage structure, stockpile, crusher, and screening unit. If any equipment is shown on the line drawing(s) which was described in other sections of this application, use the ID numbers assigned to the equipment in those other sections and indicate equipment name or type (e.g. rotary dryer, vertical kiln etc...)
- d. To the extent possible, note the numbers assigned for equipment and storage facilities as per item (c) on the Plot Plans(s).
- e. The assigned ID numbers for equipment and transfer points must be used to complete Tables 1, 2, and 3 following.

Table 1: Affected Storage Activity

ID Number	LS1				
Affected Source Name	Lime Silo				
Type Storage¹	B				
Material Stored	Lime				
Typical Moisture Content (%)	<0.1				
Avg % of material passing 200 mesh sieve	NA*				
Maximum Total Yearly Throughput in storage (tons)	5,000				
Maximum Quantity of Material in Storage² (tons)	50				
Maximum Stockpile Base Area (sq. ft.)	NA*				
Maximum Stockpile height (ft)	NA*				
Type dust controls during storage³	NA*				
Method of material load-in to bin or stockpile⁴	P				
Type dust controls during load-in⁵	EB				
Method of material load-out to bin or stockpile⁴	FC				
Type dust controls during load-out⁵	FE				

NA- Not Applicable or Not Available

Table 2: Conveying and Transfer

ID Number	Type Conveyor or Transfer Point ⁶	Material Handled [(Note nominal size of material transferred)] ⁷	Material Conveying or Transfer Rate		Type Dust Control Measures ⁵	Approximate Material Moisture Content (%)
			Max. TPH	Max. TPY		
Conveyors						
LSC	SC	Lime	2	5,000	FE	<1
Transfer Points						
TPL1	05	Lime	50	5,000	EB	<1
TPL2	OTH1	Lime	2	5,000	FE	<1
TPL3	01	Lime	2	5,000	PE	<1
OTH1 – Silo to screw conveyor						

1 Type Storage - Code as follows: (Note capacity of each bin, building or enclosure)

- OS - Open Stockpile
- B - Bin or Storage Silo (full enclosure)
- SB - Storage Building (full enclosure)
- E- Enclosure (walls but no top)
- SWF- Stockpiles with wind fences
- OTH- Other - Specify in footnote or attachment

2. Give maximum and average quantity of material in storage at any given time (e.g. silo capacity, stockpile size, etc...)

3. TYPE DUST CONTROLS DURING STORAGE

If storage is by other than by bin or full enclosure Code as follows:

- N - None
- WS- Water Sprays
- C- Spraying with chemical surfactant
- OTH- Other - Specify in footnote or attachment

4. METHOD OF PLACING MATERIAL ONTO STOCKPILE OR INTO BINS OR LOADING OUT FROM STOCKPILES OR BINS - Code as follows:

- C- Clamshell
- TD- Truck Dumping
- FE- Front Endloader
- ST- Stacking Tubes
- MS- Mobile Conveyor - Stacker
- SS- Stationary Conveyor - Stacker
- P- Pneumatic Conveyor - Stacker
- FC- Fixed Height Chute from bins
- TC- Telescoping Chute from bins
- UC- Under-pole or under-bin reclaim conveyor
- RC- Reclaim Conveyor (rake or bucket reclaim conveyor reclaiming from surface of stockpile)
- OTH- Other - Describe in a footnote or attachment

5. TYPE DUST CONTROLS - Code as follows:

- N- None
- WS- Water Sprays
- WSA- Water Sprays with Wetting Agents
- CS- Chemical Dust Suppressant (sprays, etc...)
- FE- Full Enclosures
- PE- Partial Enclosures
- MD- Minimization of material drop height
- EM- Enclosure and evacuation to mechanical collector
- EB- Enclosure and evacuation to baghouse
- ES- Enclosure and evacuation to scrubber
- OTH- Other - describe in footnote or attachment

6. TYPE CONVEYOR OR TRANSFER POINT - Code as follows: Conveyors

- BC- Belt Conveyor
- VC- Vibrating Conveyor
- SC- Screw Conveyor
- DL- Drag-link conveyor
- BE- Bucket Elevator
- PS- Pneumatic System
- OTH- Other describe in footnote or attachment

Transfer Points

- 01- Conveyor to Conveyor
- 02- Conveyor to Bucket Elevator
- 03- Conveyor to Hopper or Bin
- 04- Bucket Elevator to Hopper or Bin
- 05- Pneumatic conveyor to bin
- 06- Truck Dumping onto ground
- 07- Truck Dumping into hopper
- 08- Loading trucks through stationary chute
- 09- Loading trucks through telescoping chute
- 10- Loading Trucks by endloader
- 11- Railcar unloading-side or bottom dumping
- 12- Railcar unloading-rotary unloader
- 13- Railcar loading /unloading by pneumatic system
- 14- Railcar loading through stationary source
- 15- Railcar loading through telescopic chute
- 16- Railcar loading by front end-loader
- 17- Railcar loading by railcar
- 18- Barge loading/unloading by clamshell
- 19- Barge unloading - bucket ladder unloader
- 20- Barge unloading - from a fixed-height conveyor or stationary chute
- 21- Barge loading - variable height conveyor or telescoping chute
- 22- Other - describe in footnote or attachment

7. If more than one material is handled by the listed conveyor or transfer point list each material and furnish the requested data in the table for each material.

8. Describe type of unit such as hammermill, ball mill, double-deck (DD) screen, double roll (DR) crusher, etc...

9. Describe nominal size reduction, example 2" / -3/8.

**Attachment L
FUGITIVE EMISSIONS FROM PAVED HAULROADS**

INDUSTRIAL PAVED HAULROADS (including all equipment traffic involved in process, haul trucks, endloaders, etc.)

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface material silt content (%)	
L =	Surface dust loading (lb/mile)	

Item Number	Description	Mean Vehicle Weight (tons)	Miles per Trip	Maximum Trips per Hour	Maximum Trips per Year	Control Device ID Number	Control Efficiency (%)
1	Lime Trucks	27.5	0.3	2	200	WT	70
2							
3							
4							
5							
6							
7							

Source: AP-42 Fifth Edition – 11.2.6 Industrial Paved Roads

$$E = 0.077 \times I \times (4 \div n) \times (s \div 10) \times (L \div 1000) \times (W \div 3)^{0.7} = \text{lb/Vehicle Mile Traveled (VMT)}$$

Where:

I =	Industrial augmentation factor (dimensionless)	
n =	Number of traffic lanes	
s =	Surface material silt content (%)	
L =	Surface dust loading (lb/mile)	
W =	Average vehicle weight (tons)	

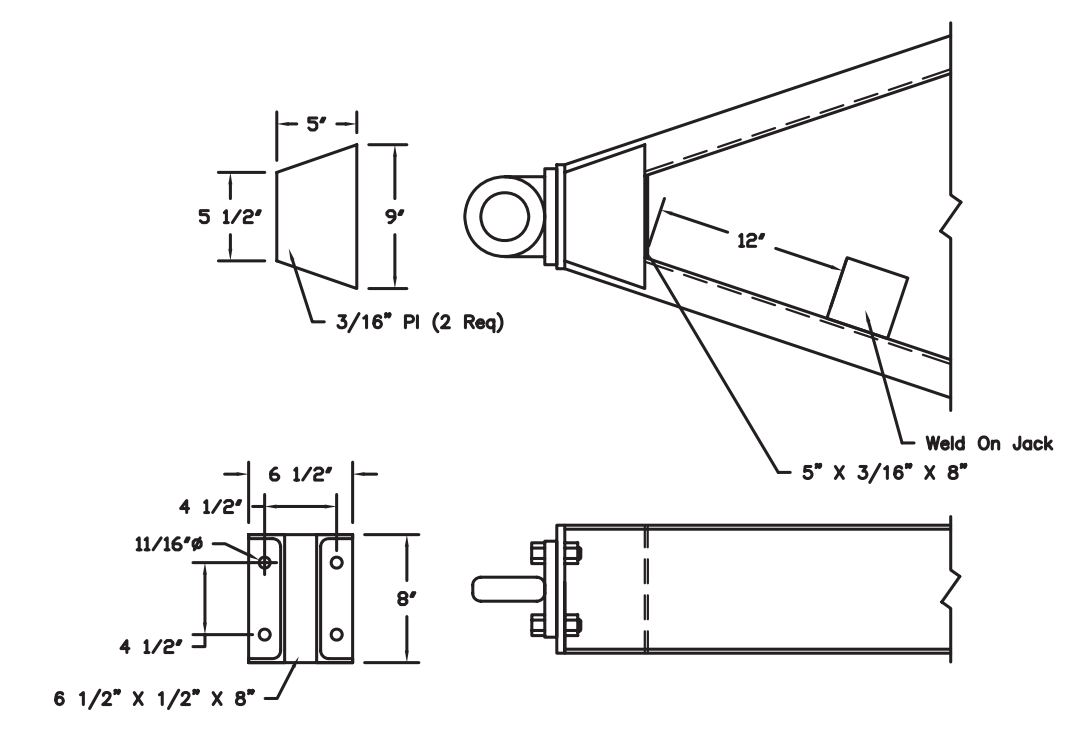
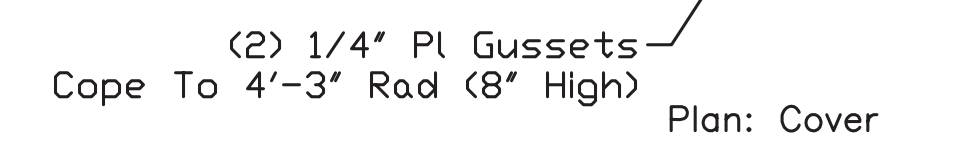
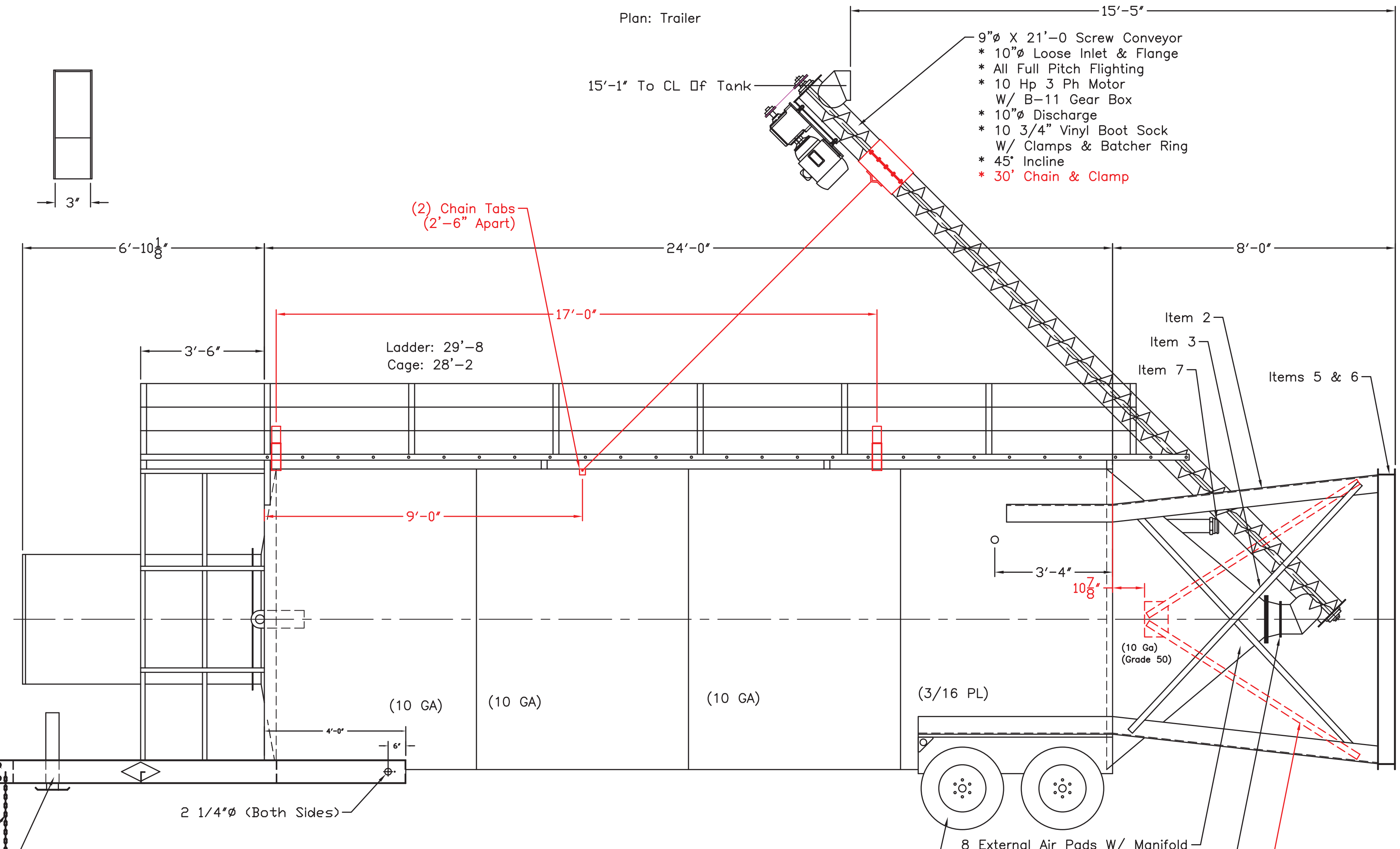
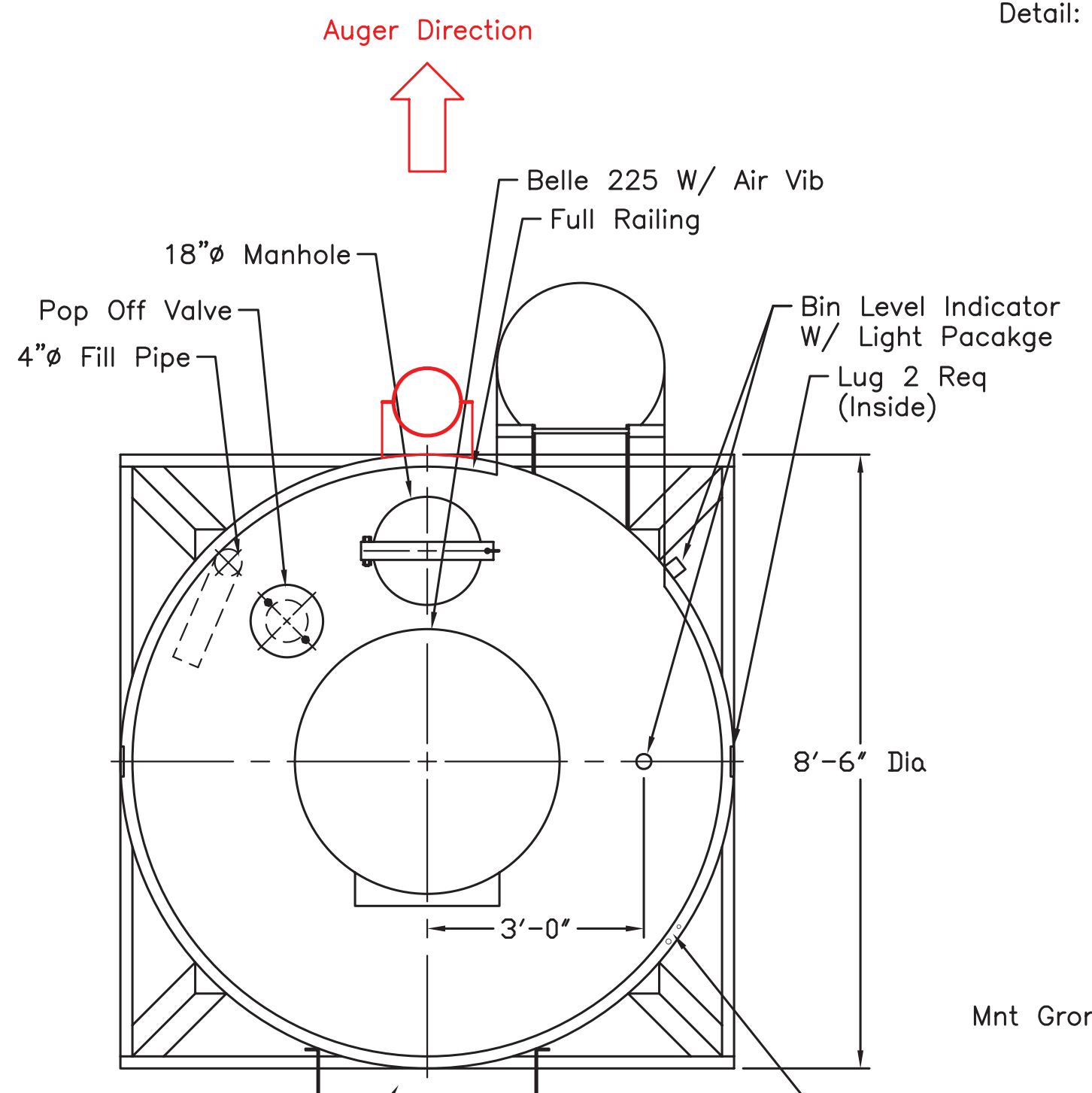
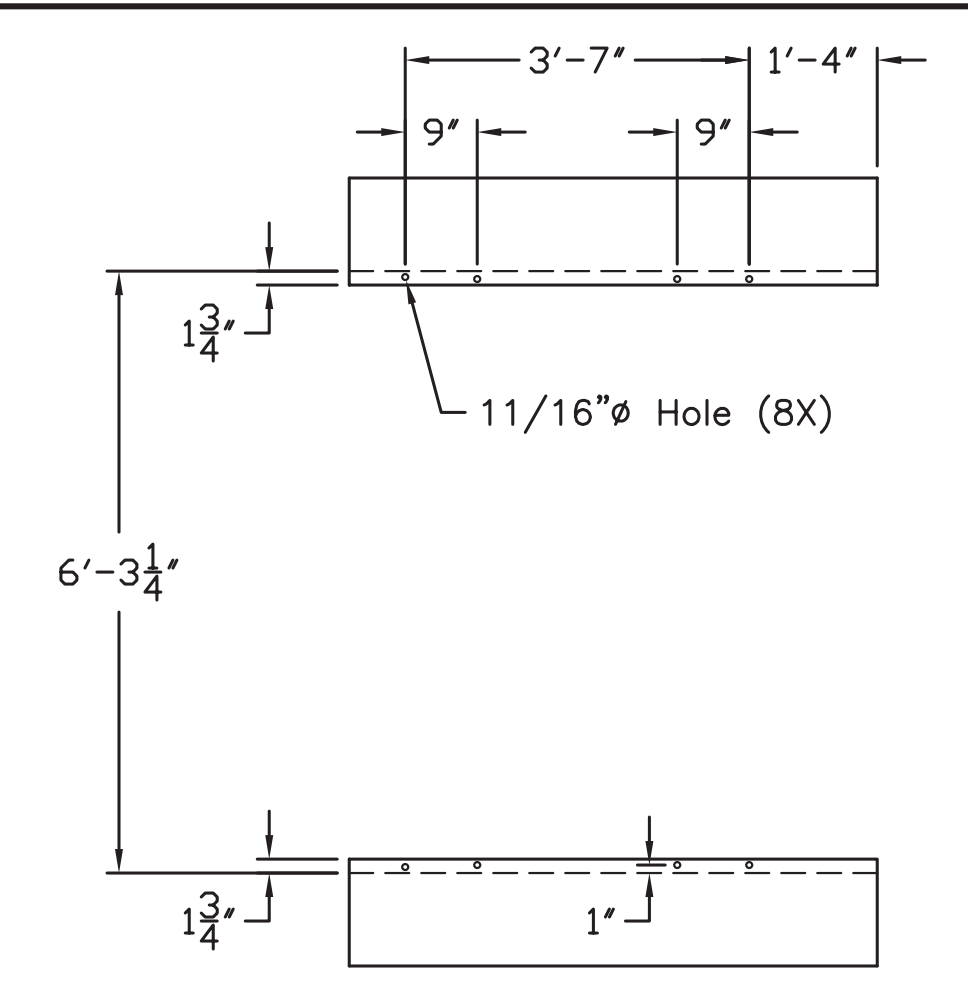
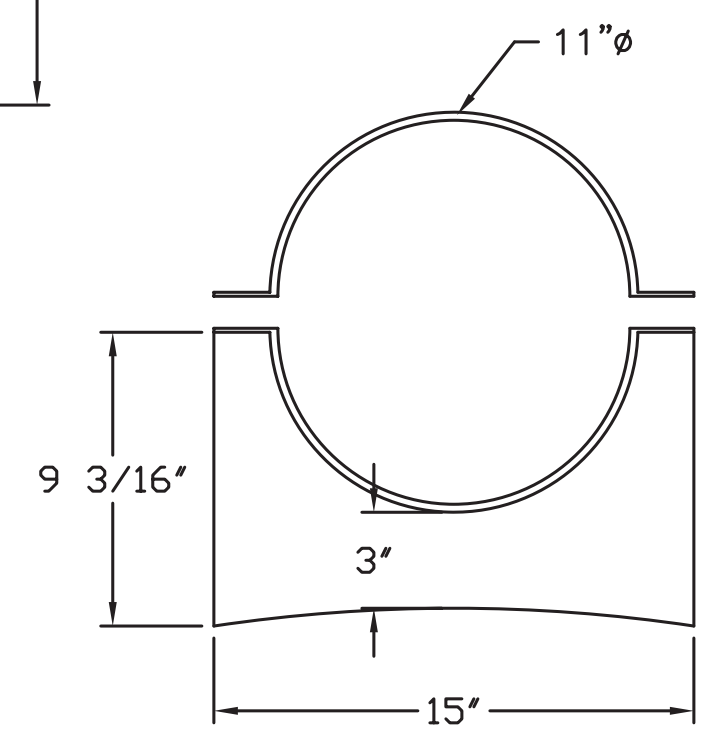
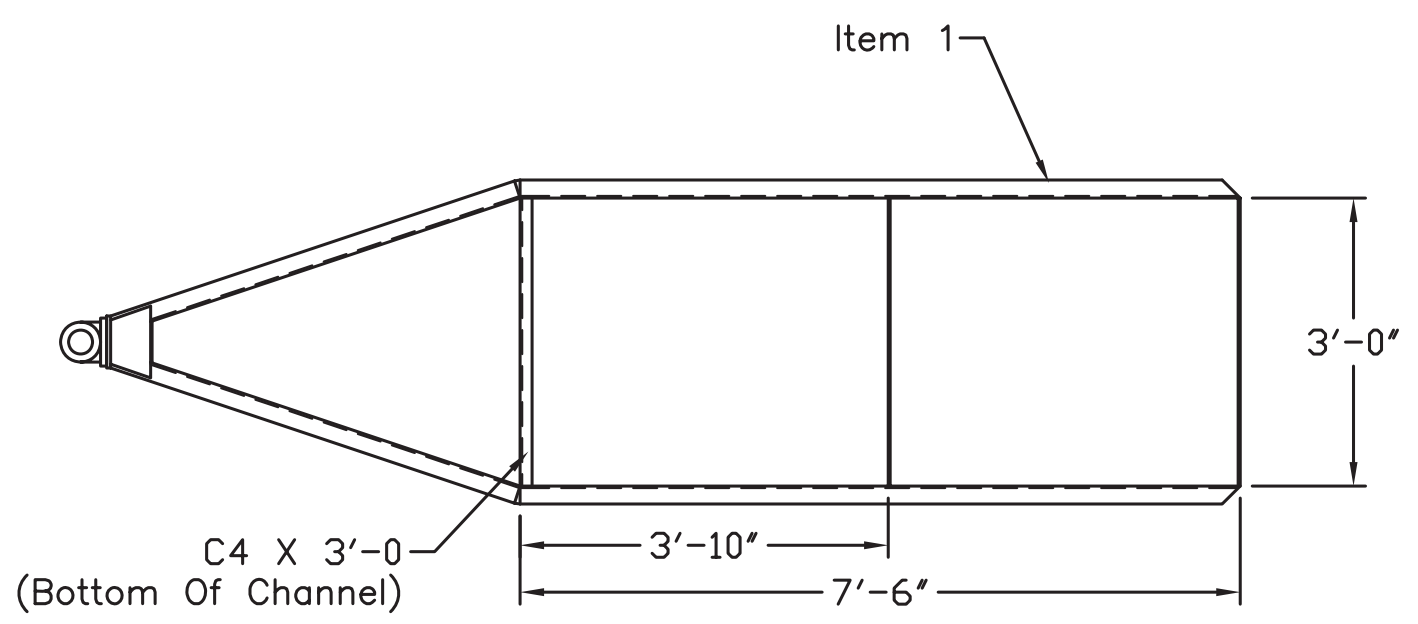
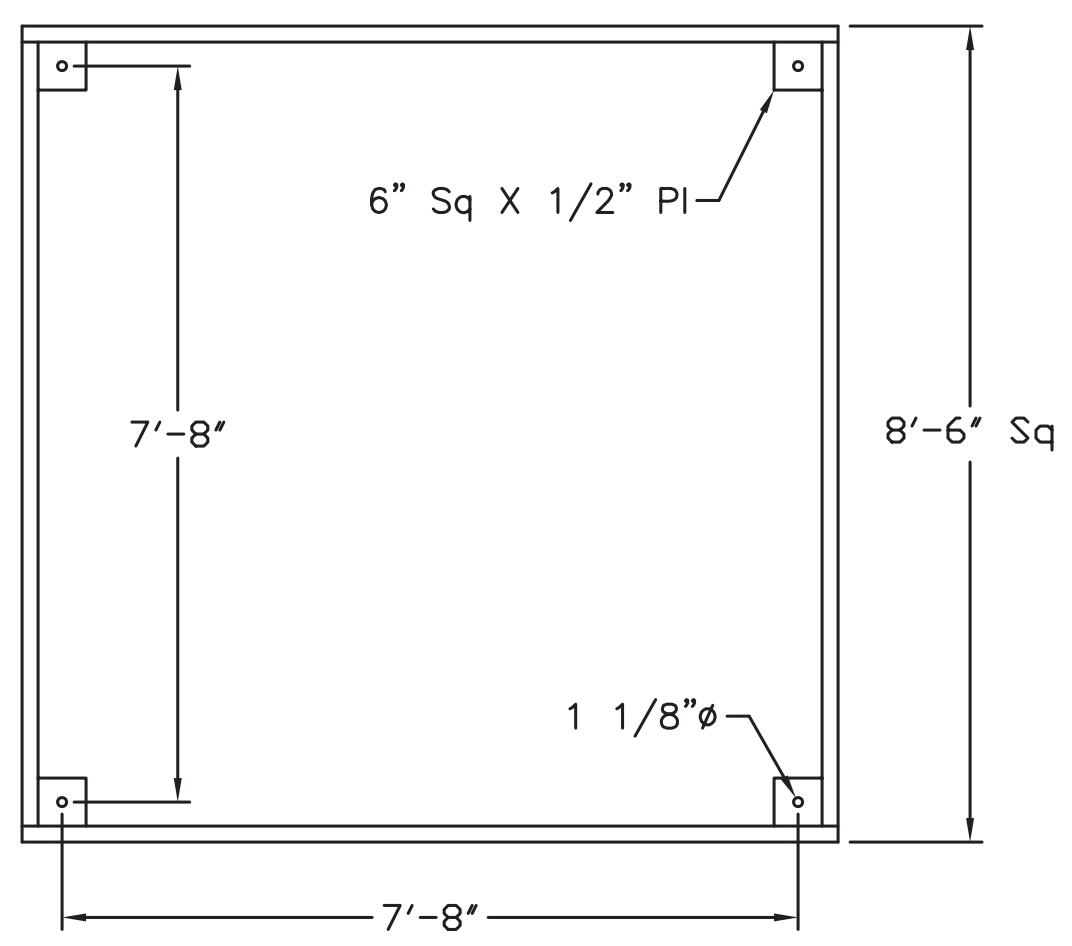
For lb/hr: $[lb \div VMT] \times [VMT \div trip] \times [Trips \div Hour] = \text{lb/hr}$

For TPY: $[lb \div VMT] \times [VMT \div trip] \times [Trips \div Hour] \times [Ton \div 2000 lb] = \text{Tons/year}$

SUMMARY OF PAVED HAULROAD EMISSIONS PM/PM10/PM2.5

Item No.	Uncontrolled		Controlled	
	lb/hr	TPY	lb/hr	TPY
1	1.15/0.23/0.05	0.06/0.01/0.003	0.35/0.07/0.02	0.02/0.003/0.001
2				
3				
4				
5				
6				
7				
TOTALS	1.15/0.23/0.05	0.06/0.01/0.003	0.35/0.07/0.02	0.02/0.003/0.001

Item	Material List	Qty
1	C8 X 12'-0	2
2	L6 X 6 X 3/8 X 8'-0	4
3	L2 X 2 X 1/4 X 9'-6	6
4	L2 X 2 X 1/4 X 7'-0	2
5	C6 X 8'-6	2
6	C6 X 8'-2	2
7	4"Ø Fill Pipe W/ Alum Adapter: 24'-0	1
8	8" X 1/4" X 12" Brace Plate	1
9	6,000# Axle W/ (4) Tires	2
10	C4 X 3'-0	1



GENERAL NOTES:
 1.) Paint Cat Yellow
 3.) Include (2) Bin Level Indicator W/ Light Package

ATTACHMENT M

AIR POLLUTION CONTROL DEVICE(S)

Attachment M
Air Pollution Control Device Sheet
(BAGHOUSE)

Control Device ID No. (must match Emission Units Table):

Equipment Information and Filter Characteristics

1. Manufacturer: Belgrade Steel Tank Co., Inc. Model No. Belle 225 Dust House	2. Total number of compartments: 1
3. Number of compartment online for normal operation: 1	
4. Provide diagram(s) of unit describing capture system with duct arrangement and size of duct, air volume, capacity, horsepower of movers. If applicable, state hood face velocity and hood collection efficiency.	
5. Baghouse Configuration: <input type="checkbox"/> Open Pressure <input type="checkbox"/> Closed Pressure <input type="checkbox"/> Closed Suction (check one) <input type="checkbox"/> Electrostatically Enhanced Fabric <input type="checkbox"/> Other, Specify	
6. Filter Fabric Bag Material: <input type="checkbox"/> Nomex nylon <input type="checkbox"/> Wool <input checked="" type="checkbox"/> Polyester <input type="checkbox"/> Polypropylene <input type="checkbox"/> Acrylics <input type="checkbox"/> Ceramics <input type="checkbox"/> Fiber Glass <input type="checkbox"/> Cotton Weight 9 oz./sq.yd <input type="checkbox"/> Teflon Thickness in <input type="checkbox"/> Others, specify	7. Bag Dimension: Diameter 8 in. Length 6 ft.
8. Total cloth area: 225 ft ²	
9. Number of bags: 18	
10. Operating air to cloth ratio: 3.0 ft/min	
11. Baghouse Operation: <input checked="" type="checkbox"/> Continuous <input type="checkbox"/> Automatic <input type="checkbox"/> Intermittent	
12. Method used to clean bags: <input type="checkbox"/> Mechanical Shaker <input type="checkbox"/> Sonic Cleaning <input type="checkbox"/> Reverse Air Jet <input checked="" type="checkbox"/> Pneumatic Shaker <input type="checkbox"/> Reverse Air Flow <input type="checkbox"/> Other: <input type="checkbox"/> Bag Collapse <input type="checkbox"/> Pulse Jet <input type="checkbox"/> Manual Cleaning <input type="checkbox"/> Reverse Jet	
13. Cleaning initiated by: <input type="checkbox"/> Timer <input type="checkbox"/> Frequency if timer actuated <input type="checkbox"/> Expected pressure drop range in. of water <input checked="" type="checkbox"/> Other Operator	
14. Operation Hours: Max. per day: 24 Max. per yr: 8,760	15. Collection efficiency: Rating: 99.99 % Guaranteed minimum: %

Gas Stream Characteristics

16. Gas flow rate into the collector: 675 ACFM at Ambient °F and Ambient PSIA ACFM: Design: PSIA Maximum: PSIA Average Expected: PSIA	
17. Water Vapor Content of Effluent Stream: lb. Water/lb. Dry Air	
18. Gas Stream Temperature: Ambient °F	19. Fan Requirements: No Fan hp OR ft ³ /min
20. Stabilized static pressure loss across baghouse. Pressure Drop: High 5 in. H ₂ O Low in. H ₂ O	
21. Particulate Loading: Inlet: NA grain/scf Outlet: 0.01 grain/scf	

22. Type of Pollutant(s) to be collected (if particulate give specific type):

Lime particulate matter.

23. Is there any SO₃ in the emission stream? No Yes SO₃ content: ppmv

24. Emission rate of pollutant (specify) into and out of collector at maximum design operating conditions:

Pollutant	IN		OUT	
	lb/hr	grains/acf	lb/hr	grains/acf
PM/PM10/PM2.5	110.00		0.011	

25. Complete the table:		Particle Size Distribution at Inlet to Collector	Fraction Efficiency of Collector
Particulate Size Range (microns)	Weight % for Size Range	Weight % for Size Range	Weight % for Size Range
0 – 2	See Attached Specification Sheet		
2 – 4			
4 – 6			
6 – 8			
8 – 10			
10 – 12			
12 – 16			
16 – 20			
20 – 30			
30 – 40			
40 – 50			
50 – 60			
60 – 70			
70 – 80			
80 – 90			
90 – 100			
>100			

26. How is filter monitored for indications of deterioration (e.g., broken bags)?

- Continuous Opacity
- Pressure Drop
- Alarms-Audible to Process Operator
- Visual opacity readings, Frequency: As requested by the director.
- Other, specify:

27. Describe any recording device and frequency of log entries:

NA

28. Describe any filter seeding being performed:

NA

29. Describe any air pollution control device inlet and outlet gas conditioning processes (e.g., gas cooling, gas reheating, gas humidification):

NA

30. Describe the collection material disposal system:

Returned to silo.

31. Have you included **Baghouse Control Device** in the Emissions Points Data Summary Sheet? Yes

32. Proposed Monitoring, Recordkeeping, Reporting, and Testing

Please propose monitoring, recordkeeping, and reporting in order to demonstrate compliance with the proposed operating parameters. Please propose testing in order to demonstrate compliance with the proposed emissions limits.

MONITORING:

None proposed.

RECORDKEEPING:

None proposed.

REPORTING:

None proposed.

TESTING:

None proposed.

MONITORING: Please list and describe the process parameters and ranges that are proposed to be monitored in order to demonstrate compliance with the operation of this process equipment or air control device.

RECORDKEEPING: Please describe the proposed recordkeeping that will accompany the monitoring.

REPORTING: Please describe any proposed emissions testing for this process equipment on air pollution control device.

TESTING: Please describe any proposed emissions testing for this process equipment on air pollution control device.

33. Manufacturer's Guaranteed Capture Efficiency for each air pollutant.

NA

34. Manufacturer's Guaranteed Control Efficiency for each air pollutant.

99.99%

35. Describe all operating ranges and maintenance procedures required by Manufacturer to maintain warranty.

NA

BELGRADE STEEL TANK CO., INC.

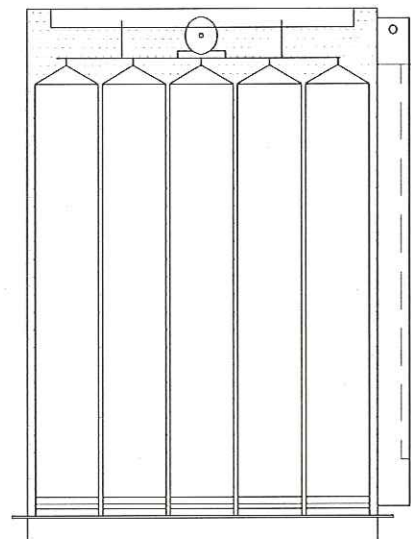
PO Box 220
405 Lowery Avenue
Belgrade, MN 56312
Phone 320-254-8246
Fax 320-254-3458

“BELLE” STYLE DUST HOUSE



“Belle” Filter Sock Specifications

Style	PE 37
Fiber	100% Polyester
Weight	9 oz./Sq. Yd.
Construction	Spun/Spun
Count	100W x 60F
Air Permeability	20-30 C.F.M.
Mullen Burst	500 PSI
Tensile Strength	Warp Direction 300# Fil Direction 275#
Max Operating Temp	275 Degrees F
Efficiency	99.99%



<u>Square Ft. Bag Area</u>	<u>Cap. Cement</u>
150	375 C.F.M.
225	675 C.F.M.

The dust house is equipped with either an air powered or electric powered vibrator used for cleaning of the bags. If air powered, connect air supply line to the 3/8” NPT coupling located on center above the door, and supply the vibrator with 80 psi oiled or non-oiled air. If electric powered, reconnect power cord which exits the top side of dust house to the control box supplied. Operate vibrator for approx. 10-15 minutes after each load of material has been blown in.

FABRIC FILTERS

Point Number (from flow diagram)		Manufacturer & Model No. (if available) Belgrade Steel Tank Co. - Belle 225		
Name of Abatement Device Belle 225 Dust House		Type of Particulate Controlled Cement Dust		
GAS STREAM CHARACTERISTICS				
Flow Rate (acfm)		Gas Stream Temperature (°F)	Particulate Grain Loading (grain/scf)	
Design Maximum 675	Average Expected 675	Ambient	Inlet N/A	Outlet 0.01
Pressure Drop (in H ₂ O) 5"		Water Vapor Content of Effluent Stream (lb water/lb dry air) Ambient	Fan Requirements (hp) (cubic ft/min) N/A N/A	
PARTICULATE DISTRIBUTION (by weight)				
Micron Range		Inlet	Outlet	
0.0 - 0.5		0%	99.98%	
0.5 - 1.0		3%	0.02%	
1.0 - 5.0		17%	0.00%	
5.0 - 10.0		18%	0.00%	
10.0 - 20.0		21%	0.00%	
over 20.0		41%	0.00%	
FILTER CHARACTERISTICS				
Filtering Velocity (acfm/sq ft of cloth) 3	Bag Diameter (inches) 8"	Bag Length (inches) 72"	Number of Bags 18	Number of Compartments in Baghouse 1
Bag rows will be: Staggered			Walkways will be provided between banks of bags: No	
Filtering Material: PE 37 100% Polyester 9oz.				
Describe Bag Cleaning Method and Cycle: Air Vibrator Shaker				

ATTACHMENT N

SUPPORTING EMISSIONS CALCULATIONS

By: CCS
Date: 02/10/2015

By: ADM
Date: 02/13/2015

Change in PTE

Pollutant	Uncontrolled		Controlled	
	(lb/hr)	(tpy)	(lb/hr)	(tpy)
PM	119.95	16.56	3.44	3.87
PM10	119.03	16.51	3.16	3.85
PM2.5	118.85	16.50	3.11	3.85

By: CCS
 Date: 02/10/2015

By: ADM
 Date: 02/13/2015

Lime Transfers

ID	Transfer Capacities		e lb/T	Control Device		Emissions			
	tph	tpy		Type	Effic(%)	Uncontrolled		Controlled	
						(lb/hr)	(tpy)	(lb/hr)	(tpy)
TPL1	50	5,000	2.2	DC	99.99	110.00	5.50	0.011	0.0006
TPL2	2	5,000	2.2	FE	80	4.40	5.50	0.88	1.10
TPL3	2	5,000	2.2	PE	50	4.40	5.50	2.20	2.75
PM/PM10/PM2.5						118.80	16.50	3.09	3.85

- Emission factor from AP42 Table 11.17-4 (2/98)
- PM10 and PM2.5 emissions for refuse prorated based on the following:
 Particulate size multipliers (k) AP-42 Section 13.2.4-4 (11/06).

	PM	PM10	PM2.5
	0.74	0.35	0.053
Conversion Factor		2.1	14

- Assume PM/PM10/PM2.5 emissions from lime are equivalent.

By: CCS
 Date: 02/10/2015

By: ADM
 Date: 02/13/2015

Existing Refuse System

Batch or Continuous Drops

Emission Equation AP-42 Section 13.2.4, Aggregate Handling and Storage Piles (January 1995):

$$e = k * (0.0032)[(U/5)^{1.3}/(M/2)^{1.4}] \quad (\text{lbs/ton})$$

e = Emissions factor, pound per ton, (lb/ton)

k = Particle size multiplier from AP-42 for particle size < 30 microns

U = Mean wind speed (mph)

M = Material moisture content (%)

Defining transfer point empirical expression variables, where:

e = ? lb/ton
 k = 0.74 dimensionless
 U = 7 mph
 M = 6.0 %

Calculating transfer point emission factor using equation below:

e = 0.0008 lb/ton

Rounding to = 2
 or (as shown) 2

ID	Transfer Capacities ¹		e lb/T	Control Device		Emissions			
	tph	tpy		Type	Effic(%)	Uncontrolled (lb/hr)	(tpy)	Controlled (lb/hr)	(tpy)
TP9	500	6,160,000	0.0008	FE	80	0.40	2.46	0.08	0.49
TP10	500	6,160,000	0.0008	FE	80	0.40	2.46	0.08	0.49
TP11	500	6,160,000	0.0008	FE	80	0.40	2.46	0.08	0.49
TP12	500	6,160,000	0.0008	FE	80	0.40	2.46	0.08	0.49
TP12A	500	6,160,000	0.0008	PE	50	0.40	2.46	0.20	1.23
TP12B	500	6,160,000	0.0008	PE	50	0.40	2.46	0.20	1.23
TP14	0	0	0.0008	MC	0	0	0	0	0
TP33	500	6,160,000	0.0008	PE	50	0.40	2.46	0.20	1.23
TP34	500	6,160,000	0.0008	MC	0	0.40	2.46	0.40	2.46
TP65	0	0	0.0008	PE	50	0	0	0	0
TP66	500	0	0.0008	PE	50	0.40	0	0.20	0
TP67	500	0	0.0008	MC	0	0.40	0	0.40	0
					PM	4.00	19.68	1.92	8.11
					PM10	1.90	9.37	0.91	3.86
					PM2.5	0.29	1.41	0.14	0.58

Notes:

- Transfer points that are set to zero avoid double counting emissions.
- PM10 and PM2.5 emissions prorated based on the following:

Particle size multipliers (k) AP-42 Section 13.2.4-4 (11/06).

	PM	PM10	PM2.5
	0.74	0.35	0.053
Conversion Factor		2.1	14

By: CCS
 Date: 02/10/2015

By: ADM
 Date: 02/13/2015

Lime Vehicle Activity- Paved Haul Roads

Material transported and estimated vehicle usage.

Material	Lime
tph	50
tpy	5,000
Load Weight (tons)	25
Vehicle Weight (tons)	15
Vehicles Per Hour	2
Vehicles Per Year	200
Mean Vehicle Weight (tons)	27.5
Unpaved round-trip travel (mi)	0
Paved round-trip travel (mi)	0.3

Roundup to = 0 Assuming no partial loads.

Source	Number of Trucks/Hour	Number of Trucks/Year	Miles Per Trip	Emission Factor ⁽¹⁾ (lb/VMT)	Control Device	Control Efficiency (%)	PM			
							Uncontrolled		Controlled	
							(lb/hr)	(tpy)	(lb/hr)	(tpy)
Lime Trucks	2	200	0.3	1.91	WT	70	1.15	0.06	0.35	0.02
Total							1.15	0.06	0.35	0.02

Source	Number of Trucks/Hour	Number of Trucks/Year	Miles Per Trip	Emission Factor ⁽¹⁾ (lb/VMT)	Control Device	Control Efficiency (%)	PM10			
							Uncontrolled		Controlled	
							(lb/hr)	(tpy)	(lb/hr)	(tpy)
Lime Trucks	2	200	0.3	0.38	WT	70	0.23	0.01	0.07	0.003
Total							0.23	0.01	0.07	0.003

Source	Number of Trucks/Hour	Number of Trucks/Year	Miles Per Trip	Emission Factor ⁽¹⁾ (lb/VMT)	Control Device	Control Efficiency (%)	PM2.5			
							Uncontrolled		Controlled	
							(lb/hr)	(tpy)	(lb/hr)	(tpy)
Lime Trucks	2	200	0.30	0.09	WT	70	0.05	0.003	0.02	0.001
Total							0.05	0.003	0.02	0.001

Emission Factors ⁽¹⁾				
	TSP	PM ₁₀	PM _{2.5}	
k =	0.011	0.0022	0.00054	dimensionless, particle size multiplier
sL =	8	8	8	surface material silt content (g/m ²)
W _{lime} =	27.5	27.5	27.5	tons, mean vehicle weight
P =	157	157	157	no. days/year with 0.01 in of rain
N =	365	365	365	days/year
e _{lime} =	1.91	0.38	0.09	lb/VMT truck

$$E = [k * (sL)^{0.91} * (W)^{1.02}] * (1 - (P/4*N)) = \text{lb} / \text{Vehicle Mile Traveled (VMT)}$$

1. AP42, 13.2.1.

ATTACHMENT O

**MONITORING, RECORDKEEPING, REPORTING,
AND TESTING PLANS**

ATTACHMENT O

**MONITORING, RECORDKEEPING, REPORTING
AND TESTING PLANS**

Applicant proposes to track the yearly amount of lime purchased.

ATTACHMENT P

PUBLIC NOTICE

AIR QUALITY PERMIT NOTICE

Notice of Application

Notice is given that Jack's Branch Coal Company has applied to the West Virginia Department of Environmental Protection, Division of Air Quality for a Class II Administrative Update to Regulation 13 Permit R13-1975F for the Mammoth Coal Preparation Plant to construct a lime silo with a screw conveyor. The facility is located off of U.S. Route 60 near Montgomery in Kanawha County, West Virginia. The latitude and longitude coordinates are: 38.1825, -81.3422.

The applicant estimates the increased potential to discharge the following Regulated Air Pollutants will be: PM of 3.87 tons per year (tpy) of which 0.02 tpy are fugitive; PM10 of 3.85 tpy of which 0.003 tpy are fugitive; and PM2.5 of 3.85 tpy of which 0.001 tpy are fugitive.

Start up of operation is anticipated to begin on or about March 23, 2015. Written comments will be received by the West Virginia Department of Environmental Protection, Division of Air Quality, 601 57th Street, SE, Charleston, WV 25304 for at least 30 calendar days from the date of publication of this notice.

Any questions regarding this permit application should be directed to the DAQ at (304) 926-0499, extension 1227, during normal business hours.

Dated this the **(Insert Date)** day of March, 2015.

By: Jack's Branch Coal Company
Craig Boggs
Vice President
PO Box 150
Cannelton, West Virginia 25036