Title V Permit Renewal Application

Kingsford Manufacturing Company

Parsons, West Virginia Facility

Submitted to:

State of West Virginia
Department of Environmental Protection
Division of Air Quality
601 57th Street, SE
Charleston, WV 25304

Prepared by:

Liberty Environmental, Inc.
505 Penn Street, Suite 400
Reading, PA 19601

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TABLE OF CONTENTS

LIST OF TABLES

1. INTRODUCTION

1.1 OVERVIEW

Kingsford Manufacturing Company (KMC) operates a charcoal briquet manufacturing facility in Parsons, Tucker County, West Virginia. Char is produced from bark/wood material and is used as an ingredient in the production of charcoal briquets. The Parsons facility is subject to Title V air permitting requirements because potential emissions of particulate matter (PM), PM_{10}, $PM_{2.5}$, and nitrogen oxides (NO_x) exceed 100 tons per year (tpy). KMC submitted an initial Title V operating permit application in 1996. KMC was issued an initial Title V permit in June 2003. The Title V permit was subsequently been renewed as required and the Parsons facility currently operates under Permit No. R30-09300004-2014 that was issued on February 11, 2014 and expires on February 11, 2019. This Title V permit renewal application is being submitted six (6) months prior to expiration date of the permit. The application addresses facility changes that have occurred since 2014 and addresses new regulatory requirements.

The changes to the facility include: (1) modifications to limestone receipt and handling operations (PDF, Administrative Update 01/21/2016); (2) modifications to material handling operations (Permit R13-1608H, Minor Modification 10/25/2016): and (3) replacement of an existing chiller heat exchanger and solvent tank associated with the existing solvent treated briquet operations (Administrative Amendment 10/23/2017). Kingsford also removed a dry starch storage bin and its associated fabric filter. Several 500-gallon liquid (lube/hydraulic oils) storage tanks have been replaced with 55-gallon storage tanks. KMC is also requesting that an existing (installed 1988) 500-gallon kerosene tank be included in the permit. In addition, Kingsford recently notified (06/28/2018) WV DEP of intent to install a stack extension/cap on the existing After Combustion Chamber (ACC). Section 2 of this report provides a process description for the facility and summarizes facility changes that have occurred since 2014.

KMC is identifying the applicability of the gasoline distribution NESHAP (40 CFR 63 Subpart CCCCCC) to an existing 10,000-gallon gasoline storage tank (E-0A-01) at the Parsons facility which imposes work practice standards and monthly tracking of gasoline throughputs. Section 4 of this report addresses the applicability of new federal NESHAP and NSPS standards.

Section 3 of this report provides a facility-wide air emission inventory summarizing plant-wide emissions. Supporting emissions calculations are provided in Appendix B.

The WVDEP application forms are provided in Appendix A.

1.2 REPORT ORGANIZATION

This report has been prepared to provide WVDEP with the necessary information to renew KMC's Title V Operating Permit. The WVDEP permit application forms are provided in Appendix A of this report. The report consists of the following sections and appendices:

Section 1 – Introduction provides an overview of the renewal and the report organization.

Section 2 – Process Description describes current facility operations including changes to the plant that have occurred since 2014.

Section 3 – Emission Inventory summarizes criteria air pollutant potential emissions estimates for the facility, provides background documentation for the current emission estimates, and provides greenhouse gas (GHG) and fine particulate matter ($PM_{2.5)}$ potential emissions estimates.

Section 4 – Applicable Requirements summarizes new potentially applicable federal and WVDEP air quality requirements, provides an updated Permit Shield request, and proposes revisions to the current Title V permit.

Appendix A – WVDEP Application Forms includes applicable WVDEP air quality application forms.

Appendix B – Facility Emissions provides detailed potential emissions calculations for the Parsons facility.

2. PROCESS DESCRIPTION

2.1 FACILITY OPERATIONS

The KMC Parsons plant is located in Tucker County, West Virginia along WV Route 219. The location of the facility is shown in the WVDEP application forms (Appendix A, Attachment A).

KMC manufactures and packages Kingsford® brand charcoal briquets in several bag sizes at the Parsons plant. The plant receives wood, which is processed in a wood dryer and retort furnace to produce char. Char is also transported to the Parsons plant from the KMC Beryl, WV plant. The char is mixed with other additives including a starch binder and pressed into briquets. The briquets are then dried in two briquet dryers, cooled, and then stored in silos prior to bagging and packaging. The plant also operates a solvent treated briquet operation to produce the MatchLight® brand products.

The Parsons plant is classified as a major source of NO_x and PM emissions and therefore submitted a Title V application addressing all applicable state and federal air quality requirements in 1996. KMC was issued an initial Title V permit in June 2003, #R30-09300004-2003. The Title V permit was subsequently renewed as required and the Parsons facility currently operates under Permit No. R30-09300004-2014 that was issued on February 11, 2014 and expires on February 11, 2019. Several permit modifications have been made since 2014 and are summarized in the remainder of this section. The WVDEP application forms (Appendix A, Attachment D) list the plant emitting units that are defined in the current Title V permit. The table lists the emitting units, and their associated sources, control devices, and stacks.

2.2 PLANT MODIFICATIONS DURING PERMIT TERM

2.2.1 Alternative Lime Handling - 2016

KMC historically received limestone at the Parsons plant via tank truck and the limestone was pneumatically conveyed to a Bulk Lime Tank designated Source ID E-06-06. KMC modified the limestone operations to receive limestone from another supplier that provides the material in bulk dump trucks equipped with tarps. The limestone can now be unloaded onto a storage pile inside an existing shed building and a front-end loader transfers the material to a feed hopper and

a covered belt conveyor system. This "alternative lime handling" system handles limestone with a moisture content in the range of 1% - 4%, which results in minor fugitive dust emissions. These modifications were addressed with a Permit Determination Form (PDF) and the Title V Operating Permit was updated to reflect these changes via an Administrative Amendment on 01/21/2018.

2.2.2 Material Handling Modifications - 2016

KMC replaced one (1) existing screening operation (E-02-03) on the raw material handling system, removed a retort char surge bin (E-06-0G) and its associated fabric filter dust collector (C-33), installed a pneumatic conveyor to transfer lime from the existing bulk lime unloading operation (EU-02-0E) to the existing bulk lime tank (EU-06-06) and replaced an existing fabric filter (C-15) on the lime use tank (EU-06-09). These changes were addressed via Permit R13-1608H and the Title V was updated via a Minor Modification on 10/25/2016. However, the Minor Modification did not identify the revised specifications of the C-15 bin vent filter (Adaptive Engineering and Fabrication, Model 9X27, 600 cfm). KMC requests that the permit be revised accordingly and has identified the revision in the Title V Equipment Table in Attachment D of the application forms.

2.2.3 STB Tank and Chiller Heat Exchanger Replacement - 2017

KMC replaced a solvent storage tank and one of the solvent chiller heat exchangers associated with Source ID E-05-01, the Solvent Treated Briquet Operation. These changes did not impact the allowable VOC emission rates or any permit conditions associated with E-05-01. The changes were as follows:

1. Replaced a 1,300-gal solvent recovery tank with a new 1,300-gal tank to facilitate removal of charcoal fines.

2. Replace one of the chiller heat exchangers (tubular) with a more efficient plate heat exchanger.

These changes were addressed in a Minor Modification to the Title V Operating Permit on 10/23/2017.

2.2.4 ACC Stack Cap – Proposed

As part of the char-making process, wood is dried and charred in an existing wood drying and charring system (E-03-01). Air emissions from the char manufacturing process are controlled by an existing After Combustion Chamber (ACC) thermal oxidizer (C-08) and exhausted through the ACC stack (S-01-01). In order to reduce fuel use and to reduce thermal stresses on the ACC refractory, KMC intends to install a stack cap that can be closed when the ACC is not in use. The cap will allow KMC to retain heat in the ACC that would otherwise be lost to atmosphere when the ACC is taken offline.

The stack cap will consist of a stack extension with articulated dampers that will close the stack when it is not in use). Installation of this stack cap will raise the height of the ACC stack.

The existing stack parameters are as follows:

Height 102.625 ft
Diameter 11.5 ft (I.D. with refractory)

The addition of the stack cap will increase the height of the stack by 96.125 inches. The stack diameter will be unchanged.

Height 110.635 ft
Diameter 11.5 ft (I.D. with refractory)

The new stack cap will have no effect on volumetric flowrate, exhaust temperature or emissions. KMC plans on beginning installation of the stack cap in September 2018.

2.2.5 Miscellaneous Changes

KMC has removed the Dry Starch Use Tank and its associated bin vent fabric filter (E-06-0B, C-17, and S-19) and requests that they be removed from the Title V Operating Permit. KMC is also requesting that an existing (installed 1988) 500-gallon kerosene tank (E-0A-03 be included in the permit.

2.3 REVISED INSIGNIFICANT ACTIVITIES LIST

A revised insignificant activities checklist list is attached with the WVDEP application forms (Attachment A – General Forms). This table lists the current types of insignificant sources in operation at the facility and reflects the modifications to the plant that have taken place since 2014. Note that several changes have been made to the liquid storage tanks at the facility.

3. EMISSION INVENTORY

3.1 FACILITY-WIDE EMISSIONS

Table 3-1 summarizes potential emission rates from the Parsons facility. Supporting emissions calculations are provided in Appendix B. The table demonstrates that the facility is a major source of PM, PM_{10}, $PM_{2.5}$, and NO_x emissions because potential emission rates exceed 100 tons per year (tpy) based on maximum rated capacities and permit throughput restrictions.

TABLE 3-1
POTENTIAL FACILITY EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Source	Potential Annual Emissions (tons/yr)										
	NO_x	**CO**	**VOC**	**SO_2**	**PM**	**PM_{10}**	**$PM_{2.5}$**	**Methanol**	**Lead**	**Total HAPs**	**Non-Biogenic CO_2e**
Wood & Char Piles (E-01)					15.00	7.05	1.05		5.25E-05	5.25E-05	
Raw Material Handling (E-02)					0.71	0.34	0.05		2.97E-06	2.97E-06	
Charring & Briquet Dryers (E-03)	237.50	13.31	6.65	64.60	175.78	129.07	66.97	3.70	1.36E-02	3.71E+00	5722.68
Briquet Coolers (E-04)					38.50	19.25	11.55		6.43E-04	6.43E-04	
Solvent Treated Briquet Production (E-05)			83.00								
Minor Ingredient Batching/Dry Storage (E-06)					2.94	2.94	2.94		9.73E-06	9.73E-06	
Natural Gas Burning (E-07)	10.00	8.40	0.55	0.06	0.76	0.76	0.76		5.00E-05	5.00E-05	51,247.11
Briquet Handling (E-08)					29.47	29.47	29.47		4.92E-04	4.92E-04	
Plant Roads (E-09)					5.81	1.16	0.29				
Liquid Storage (E-10)			1.10								
Emergency Equipment (E-11)	3.29	0.89	0.32	0.28	0.27	0.27	0.27			5.50E-03	
Total	**250.79**	**22.60**	**91.62**	**64.94**	**269.23**	**190.31**	**113.35**	**3.70**	**1.48E-02**	**3.72**	**56,969.79**

Source	Operating Schedule (hr/yr)	Units	Maximum Annual Production (dry ton/yr)	Maximum Hourly Production (dry ton/hr)
ACC	8,760	Wood (dry)	209,000	38.5
		Wood (wet)	418,000	
Briquet Dryers	8,760	Dry Briquets	154,000	24

Potential to emit assumptions
Natural gas throughput - 200 MMcf/yr
Solvent treaded briquet (STB) production - 20 tph, 64,000 tpy
Baghouses - outlet grain loading 0.01 gr/scf, 8.760 hours/yr
Wood pile throughput - 500,000 tpy

4. APPLICABLE REQUIREMENTS

The following subsections contain an assessment of new federal and state air regulations that are potentially applicable to the Parsons plant operations. Applicable requirements are identified on the "Applicable Requirement" section of the WVDEP "Emission Unit Form" provided in Appendix A, Attachment E. The summary provided in Subsections 4.1 and 4.2 below is intended to supplement the application checklist and to provide the WVDEP with KMC's assessment of the non-applicability of various newly promulgated air regulations. Several revisions to the existing Parsons plant Title V permit conditions are requested in Subsection 4.3.

4.1 NEW FEDERAL REGULATIONS

The potential applicability of the following federal air quality regulations are discussed in this subsection:

- National Emissions Standards for Hazardous Air Pollutants (NESHAP)
- New Source Performance Standards (NSPS)
- Title V and Compliance Assurance Monitoring (CAM) Requirements

4.1.1 National Emission Standards for Hazardous Air Pollutants (NESHAP)

NESHAP promulgated prior to the 1990 Clean Air Act Amendments (CAAA) found in 40 CFR 61, applies to seven specific compounds emitted from specific sources. Pursuant to the CAAA of 1990, NESHAP specific to processes identified that emit an additional 188 air pollutants are promulgated in 40 CFR 63. There are currently no pollutant specific or process specific NESHAP promulgated or proposed which would specifically apply to charcoal manufacturing operations.

The KMC Parsons plant is a minor source of HAP and is therefore not subject to any of the major source NESHAP "MACT" standards. However, there are several area source NESHAP regulations that have the potential to apply to the KMC Parsons plant, including the Industrial, Commercial, and Institutional (ICI) Boiler NESHAP at 40 CFR 63 Subpart JJJJJJ, the Reciprocating Internal Combustion Engine (RICE) NESHAP at 40 CFR 63 Subpart ZZZZ and the Gasoline Distribution NESHAP (40 CFR 63 Subpart CCCCCC).

The ICI Boiler NESHAP was promulgated in March of 2011. The Parsons facility contains no sources affected by the regulations due to the fact that the boiler can only fire natural gas. Gas-fired boilers are not regulated by Subpart JJJJJJ. The rotary wood dryer, retort furnace and ACC are not classified as "process heaters" because they are not indirect heat exchangers and these sources are not regulated by Subpart JJJJJJ. The regulation therefore does not apply to the Parsons facility.

The RICE NESHAP affects stationary RICE sources including diesel or natural gas-fired emergency generators located at area sources of HAP emissions. The Parsons facility operates four (4) diesel-fired portable flood pump engines (E-0B-01). The Parsons facility also operates several small portable IC engines including portable welders. The portable engines do not meet the definition of "stationary RICE" and are therefore not subject to the RICE NESHAP.

However the RICE NESHAP is applicable to the natural gas-fired emergency generator (E-0B-02) and to the diesel fire pump (FP-2). Because these are new engines they are required to meet the NSPS requirements for IC engines (40 CFR 60 Subpart IIII for the diesel CI engine and 40 CFR 60 Subpart JJJJ for the natural gas SI engine). The NSPS requirements include use of engines capable of meeting the NSPS emissions standards, use of compliant fuels (ultra low sulfur diesel), and limitations on the hours of operation. All of these standards have already been incorporated into the permit.

The Gasoline Distribution NESHAP (40 CFR 63 Subpart CCCCCC) also applies to the Parsons facility. KMC operates a 10,000-gallon gasoline storage tank (E-0A-01) which is used to refill vehicles at the facility. Monthly gasoline throughput is less than 10,000 gallons. KMC requests that the applicable requirements of Subpart CCCCCC be added to the permit including: (1) the requirement to track monthly gasoline throughput; (2) the requirement to operate and maintain the affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions; and, (3) the permitted must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; (portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with this requirement)

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

4.1.2 New Source Performance Standards (NSPS)

The federal NSPS regulations are promulgated at 40 CFR Part 60. There are currently no process specific NSPS promulgated or proposed which would specifically apply to charcoal manufacturing operations. However there are NSPS regulations that may apply to individual types of operations within the Parson facility. These regulations are discussed below.

The waste heat boiler burner is rated at 7.83 million Btu/hr and fires natural gas. The boiler is therefore exempt from the NSPS Subpart Dc requirements for industrial boilers rated between 10-100 million Btu/hr.

The bulk solvent storage tanks consist of two (2) 15,000 gallon and three (3) 10,000 gallon tanks that are used to store solvent before use at the STB operation. The facility also operates assorted fuel and lubricant storage tanks with capacities less than or equal to 10,000 gallons. Due to the fact that KMC's storage tanks each have capacities less than 75 cubic meters (19,813 gallons), the tanks are not subject to the NSPS Subpart Kb requirements.

The Parsons facility's coal handling operations exceeded the Coal Preparation NSPS (40 CFR Subpart Y) applicability threshold of 200 tons per day in 2003. This action triggered the visible emissions standards for coal sizing and handling. KMC completed the initial performance testing for visible emissions on January 6, 2004 and demonstrated compliance with the Subpart Y standard.

As detailed in subsection 4.1.1, the RICE NSPS requirements at 40 CFR 60 Subpart IIII and JJJJ apply to the natural gas-fired emergency generator and to the diesel fire pump, respectively.

These NSPS requirements have been incorporated into the Title V permit and are detailed in the Class II General Permit G-60C which is attached to the permit as Attachment 2.

4.1.3 Title V and CAM Requirements

The federal Compliance Assurance Monitoring (CAM) Rule at 40 CFR Part 64 requires Title V sources to prepare CAM Plans for certain large sources employing air pollution control devices. CAM Plans must identify emissions monitoring or equipment parametric monitoring procedures that will provide compliance assurance for affected control devices. The CAM Rule applicability provisions (40 CFR 64.2) specify that CAM-applicability must be assessed on a pollutant-by-pollutant basis and that affected sources are determined based on the following criteria: (1) the source must be equipped with a control device for the pollutant; (2) the source must be subject to an emission limitation for the pollutant; and, (3) potential emissions prior to control must exceed the major source threshold for the pollutant.

The deadline for submission of the CAM Plans is set forth in 40 CFR 64.5. This regulation states that sources to which the CAM requirements are applicable, which have complete Title V applications by April 20, 1998, and which have post control emissions less than major source status may submit CAM plans at the time of the Title V operating permit renewal. The KMC Parsons plant submitted a complete and timely Title V application for existing operations in 1996 and therefore the deadline for CAM Plan submittal was June 2008 when the initial Title V permit was due for renewal. The KMC Parsons plant proposed CAM parametric monitoring requirements which have been incorporated into the current Title V permit for the After Combustion Chamber (C-08) that controls VOC and PM emissions from the rotary wood dryer and retort furnace (E-03-01) and the three (3) large fabric filter dust collectors (C-01, C-02, and C-03) that control PM emissions from the briquet handling operations (E-08).

KMC is providing Table H-1 as Attachment H to the permit application forms detailing CAM applicability to each of the control devices at the Parsons facility. KMC has addressed the potential applicability of CAM to the new Bulk Lime Tank fabric filter dust collector (C-15) that has been installed at the Parsons plant since the Title V permit was issued in 2014. CAM is not applicable to the Bulk Lime Tank bin vent filter because the filter is an integral component of the lime pneumatic transfer system and is therefore not primarily a “control device”. The CAM Rule

excludes devices that are primarily used for product recovery from the definition of “control device”.

4.2 NEW WEST VIRGINIA REGULATIONS

The WVDEP recently promulgated regulations at §45-1 allowing for the establishment of alternative emission limitations during startup, shutdown, or maintenance (SSM) activities. The current operation permit requires that the ACC combustion chamber maintain a minimum three-hour average temperature of 1,600 ˚F to demonstrate compliance, except during periods of system startup, shutdown, or maintenance (Condition 5.2.2). KMC believes the Parsons facility can comply with the WV opacity standards at §45-7 during periods of system startup based on the ACC burner capacity and standard operating practices that are employed during startups, and is therefore not requesting an alternative emission limit during SSM conditions under this new regulation.

4.3 REQUESTED REVISIONS TO TITLE V PERMIT

KMC is requesting several minor revisions to the current Title V permit conditions. The revisions to the current Title V permit conditions that are requested consist of the following:

- Request that an alternative CAM monitoring requirement be identified in Condition 8.2.2 to allow weekly pressure drop monitoring in lieu of daily monitoring. KMC has found the pressure drops to be stable over time and routine maintenance/good operating practices sufficient to ensure compliance.

- Add federal Gasoline Distribution NESHAP (40 CFR 63 Subpart CCCCCC) to list of applicable air quality requirements for the 10,000 gallon gasoline storage tank (E-0A-01). Monthly gasoline throughput is less than 10,000 gallons. KMC requests that the applicable requirements of Subpart CCCCCC be added to the permit including: (1) the requirement to track monthly gasoline throughput; (2) the requirement to operate and maintain the affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions; and, (3) the permitted must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:
    - (1) Minimize gasoline spills;
    - (2) Clean up spills as expeditiously as practicable;
    - (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use; (portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with this requirement)
    - (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

APPENDIX A
WVDEP APPLICATION FORMS

WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE

Charleston, WV 25304

Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

1. **Name of Applicant (As registered with the WV Secretary of State's Office):** Kingsford Manufacturing Company	**2. Facility Name or Location:** Parsons Plant Parsons, Tucker County, West Virginia
3. DAQ Plant ID No.: 093-00004	**4. Federal Employer ID No. (FEIN):** 943240524

5. **Permit Application Type:**

☐ Initial Permit — When did operations commence? MM/DD/YYYY

☒ Permit Renewal — What is the expiration date of the existing permit? 02/11/2019

☐ Update to Initial/Renewal Permit Application

6. Type of Business Entity:

☒ Corporation ☐ Governmental Agency ☐ LLC ☐ Partnership ☐ Limited Partnership

8. Number of onsite employees:

Approx. 100

7. Is the Applicant the:

☐ Owner ☐ Operator ☒ Both

If the Applicant is not both the owner and operator, please provide the name and address of the other party.

_____

9. Governmental Code:

☒ Privately owned and operated; 0

☐ Federally owned and operated; 1

☐ State government owned and operated; 2

☐ County government owned and operated; 3

☐ Municipality government owned and operated; 4

☐ District government owned and operated; 5

10. 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.

11. Mailing Address		
Street or P.O. Box: P.O. Box 464		
City: Parsons	**State:** WV	**Zip:** 26287
Telephone Number: (304) 478-2911	**Fax Number:** (304) 478-2129	

12. Facility Location		
Street: Route 219	**City:** Parsons	**County:** Tucker
UTM Easting: 613.20 km	**UTM Northing:** 4.326.20 km	**Zone:** ☒ 17 or ☐ 18
Directions: The facility is located on Route 219, about 2 miles South of Parsons.		
Portable Source? ☐ Yes ☒ No		
Is facility located within a nonattainment area? ☐ Yes ☒ No		**If yes, for what air pollutants?**
Is facility located within 50 miles of another state? ☒ Yes ☐ No		**If yes, name the affected state(s).** Maryland
Is facility located within 100 km of a Class I Area[1]? ☒ Yes ☐ No **If no, do emissions impact a Class I Area[1]?** ☐ Yes ☐ No		**If yes, name the area(s).** Dolly Sods Otter Creek

[1] *Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.*

13. Contact Information		
Responsible Official: Carey Preston		**Title:** Plant Manager
Street or P.O. Box: P.O. Box 464		
City: Parsons	**State:** WV	**Zip:** 26287
Telephone Number: (304) 478-2911	**Fax Number:** (304) 478-2129	
E-mail address: carey.preston@clorox.com		
Environmental Contact: Eric Copenhaver		**Title:** Plant Engineering Manager
Street or P.O. Box: P.O. Box 464		
City: Parsons	**State:** WV	**Zip:** 26287-
Telephone Number: (304) 478-2911	**Fax Number:** (304) 478-2129	
E-mail address: eric.copenhaver@cloros.com		
Application Preparer: Michael D. Zeiders		**Title:** Project Manager
Company: Liberty Environmental, Inc.		
Street or P.O. Box: 505 Penn Street, Suite 400		
City: Reading	**State:** PA	**Zip:** 19601-
Telephone Number: (610) 375-9301	**Fax Number:** N/A	
E-mail address: mzeiders@libertyenviro.com		

14. Facility Description

List all processes, products, NAICS and SIC codes for normal operation, in order of priority. Also list any process, products, NAICS and SIC codes associated with any alternative operating scenarios if different from those listed for normal operation.

Process	Products	NAICS	SIC
Charcoal Briquet Manufacturing Facility	Charcoal briquets	325191	2861

Provide a general description of operations.

The Kingsford Manufacturing Company Parsons plant is a charcoal manufacturing facility. It manufactures charcoal briquets from raw materials including wood/sawdust, char produced on-site and received from the Beryl plant, coal, limestone, starch, borax, and solvent for briquets.

15. Provide an **Area Map** showing plant location as **ATTACHMENT A**.

16. Provide a **Plot Plan(s)**, e.g. scaled map(s) and/or sketch(es) showing the location of the property on which the stationary source(s) is located as **ATTACHMENT B**. For instructions, refer to "Plot Plan - Guidelines."

17. Provide a detailed **Process Flow Diagram(s)** showing each process or emissions unit as **ATTACHMENT C**. Process Flow Diagrams should show all emission units, control equipment, emission points, and their relationships.

Section 2: Applicable Requirements

18. Applicable Requirements Summary	
Instructions: Mark all applicable requirements.	
☒ SIP	☐ FIP
☒ Minor source NSR (45CSR13)	☐ PSD (45CSR14)
☒ NESHAP (45CSR34)	☐ Nonattainment NSR (45CSR19)
☒ Section 111 NSPS	☒ Section 112(d) MACT standards
☐ Section 112(g) Case-by-case MACT	☐ 112(r) RMP
☐ Section 112(i) Early reduction of HAP	☐ Consumer/commercial prod. reqts., section 183(e)
☐ Section 129 Standards/Reqts.	☐ Stratospheric ozone (Title VI)
☐ Tank vessel reqt., section 183(f)	☐ Emissions cap 45CSR§30-2.6.1
☐ NAAQS, increments or visibility (temp. sources)	☐ 45CSR27 State enforceable only rule
☒ 45CSR4 State enforceable only rule	☐ Acid Rain (Title IV, 45CSR33)
☐ Emissions Trading and Banking (45CSR28)	☒ **C**ompliance **A**ssurance **M**onitoring (40CFR64)
☐ CAIR NO_x Annual Trading Program (45CSR39)	☐ CAIR NO_x Ozone Season Trading Program (45CSR40)
☐ CAIR SO_2 Trading Program (45CSR41)	

19. Non Applicability Determinations

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

Existing (in current permit shield) Non-applicable Requirements		
Requirement	**Regulatory Citation**	**Basis for Non-Applicability**
PM mass emission limits for Waste Heat Boiler (Stack S-01-02)	45CSR§§2 - 4, 5, 6, 8 and 9	Per 45CSR§2-11.1. if any fuel burning unit(s) having a heat input under ten (10) million B.T.U.'s per hour it will be exempt from 45CSR§§2- 4, 5, 6, 8 and 9 (PM mass emission limits).
Coal Preparation and Handling Plants	45CSR5	Coal handling operations at Parsons facility (including screening, conveying, storing, and stockpiling operations) are subject to 45CSR7, therefore per 45CSR§7-10.1. They are exempt from the PM emission standards of 45CSR5.
PM emissions from an incinerator	45CSR§6-4.1.	The PM emission standard from 45CSR7 (45CSR§7-4.1.) also applies and is more stringent. Because of the "inconsistency between rules" provision in 45CSR6 and 7, the more stringent rule will apply and therefore the PM standard from 45CSR6 is moot and the Permit Shield applies.
Opacity limits for an incinerator	45CSR§6-4.3. and 4.4	The opacity standard from 45CSR7 (45CSR§§7- 3.1. and 3.2.) also applies and is more stringent. Because of the "inconsistency between rules" provision in 45CSR6 and 7, the more stringent rule will apply and therefore the opacity requirement from 45CSR6 is moot and the Permit Shield applies.
PM Emissions for wood charring and drying operations	45CSR§§7-2.39.b, c and d	Per Director's determination charring and drying operations are defined as type "a" for Parsons source, therefore they are not defined as type "b" or "c" or “d” sources operations for Parsons source also.
Testing, Monitoring, Recordkeeping and Reporting of Sulfur Oxides emissions	45 CSR 10-8	Facility's annual PTE for SO_2 is 129,200 lbs (>500 lbs), but per 45 CSR 10-10.3. partial wood combustion during the manufacture of charcoal shall be exempt from this requirement.
Preparation of standby plans for reducing the emissions of air pollution during periods of an Air Pollution Alert, Air pollution Warning, and Air pollution Emergency	45CSR§11-5.1.	This facility is not in Priority I or II regions, therefore it is not subject to this requirement

☒ Permit Shield

19. Non Applicability Determinations *(Continued)* - *Attach additional pages as necessary.*

List all requirements which the source has determined not applicable and for which a permit shield is requested. The listing shall also include the rule citation and the reason why the shield applies.

Existing (in current permit shield) Non-applicable Requirements (Continued)		
Requirement	**Regulatory Citation**	**Basis for Non-Applicability**
Hazardous Air Pollutants Federal NESHAP standards	45 CSR 15 40 CFR 61	Parsons facility discharges less than 10 tpy of a single HAP and less than 25 tpy of aggregated HAPs, therefore it is not subject to these standards with the exception of the potential applicability of 40CFR61 Subpart M in the event the plant performs any demolition or renovation projects which could disturb asbestos containing materials.
Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification commenced after July 23, 1984	40CFR60 Subpart Kb	Storage tanks are not subject to NSPS Subpart Kb due to size and construction date (see **40 CFR60 Subpart Kb Applicability Table** in the Fact Sheet).
Fugitive emissions from material handling	45CSR17	Per 45CSR§7-6.1. if sources are subject to 45CSR7 they are exempt from the requirements of this Rule
NSR permitting for non-attainment areas	45CSR19	Parsons facility is not in affected areas
VOC emissions regulations	45CSR21	Parsons facility is not in affected areas
Emissions of toxic air pollutants	45CSR27	Parsons facility does not operate any "chemical processing units" and does not use listed chemicals
Federal Acid Rain provisions	45CSR33 Title IV of CAAA	No affected sources at Parsons facility
Emission Standards for Hot Mix Asphalt Plants	45CSR3	No affected sources at Parsons facility
Emission Standards for Municipal Solid Waste Landfills	45CSR23	No affected sources at Parsons facility
Emission Standards for Medical Waste Incinerators	45CSR24	No affected sources at Parsons facility
Emission Standards for Hazardous Waste Treatment, Storage or Disposal Facilities	45CSR25	No affected sources at Parsons facility
Transportation Plan Requirements	45CSR36	No affected sources at Parsons facility
Mercury Budget Trading Program	45CSR37	No affected sources at Parsons facility
CAIR NOx/SO2 Trading Program	45CSR39,40,41	No affected sources at Parsons facility
Regional Haze/BART Regulations	40CFR51.300	No affected sources at Parsons facility
New Non-applicable Requirements		
Requirement	**Regulatory Citation**	**Basis for Non-Applicability**

☐ Permit Shield

20. Facility-Wide Applicable Requirements

List all facility-wide applicable requirements. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*).

Existing Facility-Wide Requirements	
Requirement	**Regulatory Citation**
Odors	45CSR4
Open Burning	45CSR6
Fugitive Particulate Emissions and Opacity	45CSR7
SOx Emission Requirements	45CSR10
Air Pollution Episode Requirements	45CSR11
Construction Permitting	45CSR13
Fee Program	45CSR22
Title V Permitting	45CSR30
Confidential Information	45CSR31
Emission Inventory/Testing Requirements	WVa Code 22-5-4
Coal Preparation Plants NSPS	40CFR60, Subpart Y
Asbestos Demolition/Renovation	40CFR61
Risk Management Plan	40CFR68
Ozone Depleting Substances	40CFR82
Compliance Assurance Monitoring	40CFR64
Risk Management Plan	40CFR68
Please refer to the current Title V operating permit (R30-09300004-2014) for additional detail	

☒ Permit Shield

For all facility-wide applicable requirements listed above, provide monitoring/testing / recordkeeping / reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number and/or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

Facility-Wide Requirement Compliance Demonstration Methods		
Requirement	**Citation**	**Compliance Demonstration Method**
Existing Facility-Wide Requirements	See above	See existing Title V operating permit for details

Are you in compliance with all facility-wide applicable requirements? ☒ Yes ☐ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

21. Active Permits/Consent Orders		
Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit *(if any)*
Title V Operating Permit No. R30-09300004-2014	02/11/2014	See Section 2 of attached report
R13-1608H	8/29/2016	See Section 2 of attached report
R14-0001D	05/18/2009	Not applicable
G60-C012A	8/21/2018	Not applicable
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22. Inactive Permits/Obsolete Permit Conditions		
Permit Number	Date of Issuance	Permit Condition Number
Not applicable		
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	See Appendix B of attached report
Nitrogen Oxides (NO_X)	
Lead (Pb)	
Particulate Matter ($PM_{2.5}$)[1]	
Particulate Matter (PM_{10})[1]	
Total Particulate Matter (TSP)	
Sulfur Dioxide (SO_2)	
Volatile Organic Compounds (VOC)	
Hazardous Air Pollutants[2]	Potential Emissions
Lead	See Appendix B of attached report
Methanol	
Regulated Pollutants other than Criteria and HAP	Potential Emissions

[1]$PM_{2.5}$ and PM_{10} are components of TSP.
[2]For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)		
☒	1.	Air compressors and pneumatically operated equipment, including hand tools.
☐	2.	Air contaminant detectors or recorders, combustion controllers or shutoffs.
☒	3.	Any consumer product used in the same manner as in normal consumer use, provided the use results in a duration and frequency of exposure which are not greater than those experienced by consumer, and which may include, but not be limited to, personal use items; janitorial cleaning supplies, office supplies and supplies to maintain copying equipment.
☒	4.	Bathroom/toilet vent emissions.
☒	5.	Batteries and battery charging stations, except at battery manufacturing plants.
☒	6.	Bench-scale laboratory equipment used for physical or chemical analysis, but not lab fume hoods or vents. Many lab fume hoods or vents might qualify for treatment as insignificant (depending on the applicable SIP) or be grouped together for purposes of description.
☐	7.	Blacksmith forges.
☒	8.	Boiler water treatment operations, not including cooling towers.
☒	9.	Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
☐	10.	CO_2 lasers, used only on metals and other materials which do not emit HAP in the process.
☒	11.	Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
☒	12.	Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
☒	13.	Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
☐	14.	Demineralized water tanks and demineralizer vents.
☒	15.	Drop hammers or hydraulic presses for forging or metalworking.
☒	16.	Electric or steam-heated drying ovens and autoclaves, but not the emissions from the articles or substances being processed in the ovens or autoclaves or the boilers delivering the steam.
☐	17.	Emergency (backup) electrical generators at residential locations.
☐	18.	Emergency road flares.
☒	19.	Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO_2, VOC and PM) into the atmosphere at a rate of less than 1 pound per hour and less than 10,000 pounds per year aggregate total for each criteria pollutant from all emission units. Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis: E0A-02 through E-0A-08 See Attachment B for emissions information

24. Insignificant Activities (Check all that apply)		
☐	20.	Emission units which do not have any applicable requirements and which emit hazardous air pollutants into the atmosphere at a rate of less than 0.1 pounds per hour and less than 1,000 pounds per year aggregate total for all HAPs from all emission sources. This limitation cannot be used for any source which emits dioxin/furans nor for toxic air pollutants as per 45CSR27. Please specify all emission units for which this exemption applies along with the quantity of hazardous air pollutants emitted on an hourly and annual basis: _____ _____ _____ _____ _____
☐	21.	Environmental chambers not using hazardous air pollutant (HAP) gases.
☒	22.	Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
☐	23.	Equipment used exclusively to slaughter animals, but not including other equipment at slaughterhouses, such as rendering cookers, boilers, heating plants, incinerators, and electrical power generating equipment.
☒	24.	Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
☐	25.	Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
☐	26.	Fire suppression systems.
☒	27.	Firefighting equipment and the equipment used to train firefighters.
☐	28.	Flares used solely to indicate danger to the public.
☒	29.	Fugitive emission related to movement of passenger vehicle provided the emissions are not counted for applicability purposes and any required fugitive dust control plan or its equivalent is submitted.
☐	30.	Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
☒	31.	Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
☐	32.	Humidity chambers.
☐	33.	Hydraulic and hydrostatic testing equipment.
☒	34.	Indoor or outdoor kerosene heaters.
☒	35.	Internal combustion engines used for landscaping purposes.
☐	36.	Laser trimmers using dust collection to prevent fugitive emissions.
☐	37.	Laundry activities, except for dry-cleaning and steam boilers.
☒	38.	Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
☐	39.	Oxygen scavenging (de-aeration) of water.
☐	40.	Ozone generators.

24. Insignificant Activities (Check all that apply)		
☒	41.	Plant maintenance and upkeep activities (e.g., grounds-keeping, general repairs, cleaning, painting, welding, plumbing, re-tarring roofs, installing insulation, and paving parking lots) provided these activities are not conducted as part of a manufacturing process, are not related to the source's primary business activity, and not otherwise triggering a permit modification. (Cleaning and painting activities qualify if they are not subject to VOC or HAP control requirements. Asphalt batch plant owners/operators must still get a permit if otherwise requested.)
☐	42.	Portable electrical generators that can be moved by hand from one location to another. "Moved by Hand" means that it can be moved without the assistance of any motorized or non-motorized vehicle, conveyance, or device.
☒	43.	Process water filtration systems and demineralizers.
☒	44.	Repair or maintenance shop activities not related to the source's primary business activity, not including emissions from surface coating or de-greasing (solvent metal cleaning) activities, and not otherwise triggering a permit modification.
☒	45.	Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
☒	46.	Routing calibration and maintenance of laboratory equipment or other analytical instruments.
☐	47.	Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
☐	48.	Shock chambers.
☐	49.	Solar simulators.
☒	50.	Space heaters operating by direct heat transfer.
☐	51.	Steam cleaning operations.
☐	52.	Steam leaks.
☐	53.	Steam sterilizers.
☐	54.	Steam vents and safety relief valves.
☐	55.	Storage tanks, reservoirs, and pumping and handling equipment of any size containing soaps, vegetable oil, grease, animal fat, and nonvolatile aqueous salt solutions, provided appropriate lids and covers are utilized.
☒	56.	Storage tanks, vessels, and containers holding or storing liquid substances that will not emit any VOC or HAP. Exemptions for storage tanks containing petroleum liquids or other volatile organic liquids should be based on size limits such as storage tank capacity and vapor pressure of liquids stored and are not appropriate for this list.
☐	57.	Such other sources or activities as the Director may determine.
☒	58.	Tobacco smoking rooms and areas.
☒	59.	Vents from continuous emissions monitors and other analyzers.

Section 5: Emission Units, Control Devices, and Emission Points

25. Equipment Table

Fill out the **Title V Equipment Table** and provide it as **ATTACHMENT D**.

26. Emission Units

For each emission unit listed in the **Title V Equipment Table**, fill out and provide an **Emission Unit Form** as **ATTACHMENT E**.

For each emission unit not in compliance with an applicable requirement, fill out a **Schedule of Compliance Form** as **ATTACHMENT F**.

27. Control Devices

For each control device listed in the **Title V Equipment Table**, fill out and provide an **Air Pollution Control Device Form** as **ATTACHMENT G**.

For any control device that is required on an emission unit in order to meet a standard or limitation for which the potential pre-control device emissions of an applicable regulated air pollutant is greater than or equal to the Title V Major Source Threshold Level, refer to the **Compliance Assurance Monitoring (CAM) Form(s)** for CAM applicability. Fill out and provide these forms, if applicable, for each Pollutant Specific Emission Unit (PSEU) as **ATTACHMENT H**.

No changes to existing CAM requirements or new sources subject to CAM requirements

Section 6: Certification of Information

28. Certification of Truth, Accuracy and Completeness and Certification of Compliance

*Note: This Certification must be signed by a responsible official. The **original**, signed in **blue ink**, must be submitted with the application. Applications without an **original** signed certification will be considered as incomplete.*

a. Certification of Truth, Accuracy and Completeness

I certify that I am a responsible official (as defined at 45CSR§30-2.38) and am accordingly authorized to make this submission on behalf of the owners or operators of the source described in this document and its attachments. I certify under penalty of law that I have personally examined and am familiar with the statements and information submitted in this document and all its attachments. Based on my inquiry of those individuals with primary responsibility for obtaining the information, I certify that the statements and information are to the best of my knowledge and belief true, accurate, and complete. I am aware that there are significant penalties for submitting false statements and information or omitting required statements and information, including the possibility of fine and/or imprisonment.

b. 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.

Responsible official (type or print)

Name: Carey Preston	Title: Plant Manager

Responsible official's signature:

Signature: Carey Preston Signature Date: 7/26/2018

(Must be signed and dated in blue ink)

Note: Please check all applicable attachments included with this permit application:

☒	ATTACHMENT A: Area Map
☒	ATTACHMENT B: Plot Plan(s)
☒	ATTACHMENT C: Process Flow Diagram(s)
☒	ATTACHMENT D: Equipment Table
☒	ATTACHMENT E: Emission Unit Form(s)
☒	ATTACHMENT F: Schedule of Compliance Form(s)
☒	ATTACHMENT G: Air Pollution Control Device Form(s)
☐	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/daq, requested by phone (304) 926-0475, and/or obtained through the mail.

Kingsford Manufacturing Company

KINGSFORD MANUFACTURING COMPANY

DELEGATION OF SIGNATURE AUTHORITY

Pursuant to the authority granted to the undersigned under the bylaws of Kingsford Manufacturing Company (the "Company"), in her capacity as Vice President - Secretary, the undersigned hereby delegates the right to execute the documents listed below, on behalf of the Company, to the Plant Manager designated below, or, in his/her absence, the acting plant manager, of the Company's facility designated below.

Carey D. Preston
Parsons Plant; Parsons, West Virginia

Documents and Authority:

Authority to sign all environmental reports, plans, and permits, environmental monitoring reports, applications, certifications and other documents for the facility documents requiring the signature of a "Responsible Official," "Responsible Corporate Officer," or other company representative under any federal, state or local environmental law or regulation.

This delegation of authority requires that the person signing any document pursuant to this delegation satisfy himself or herself that, based on information and belief formed after reasonable inquiry, the statements or information in the document are true, accurate, and complete and that the document is otherwise in accordance with any required certification.

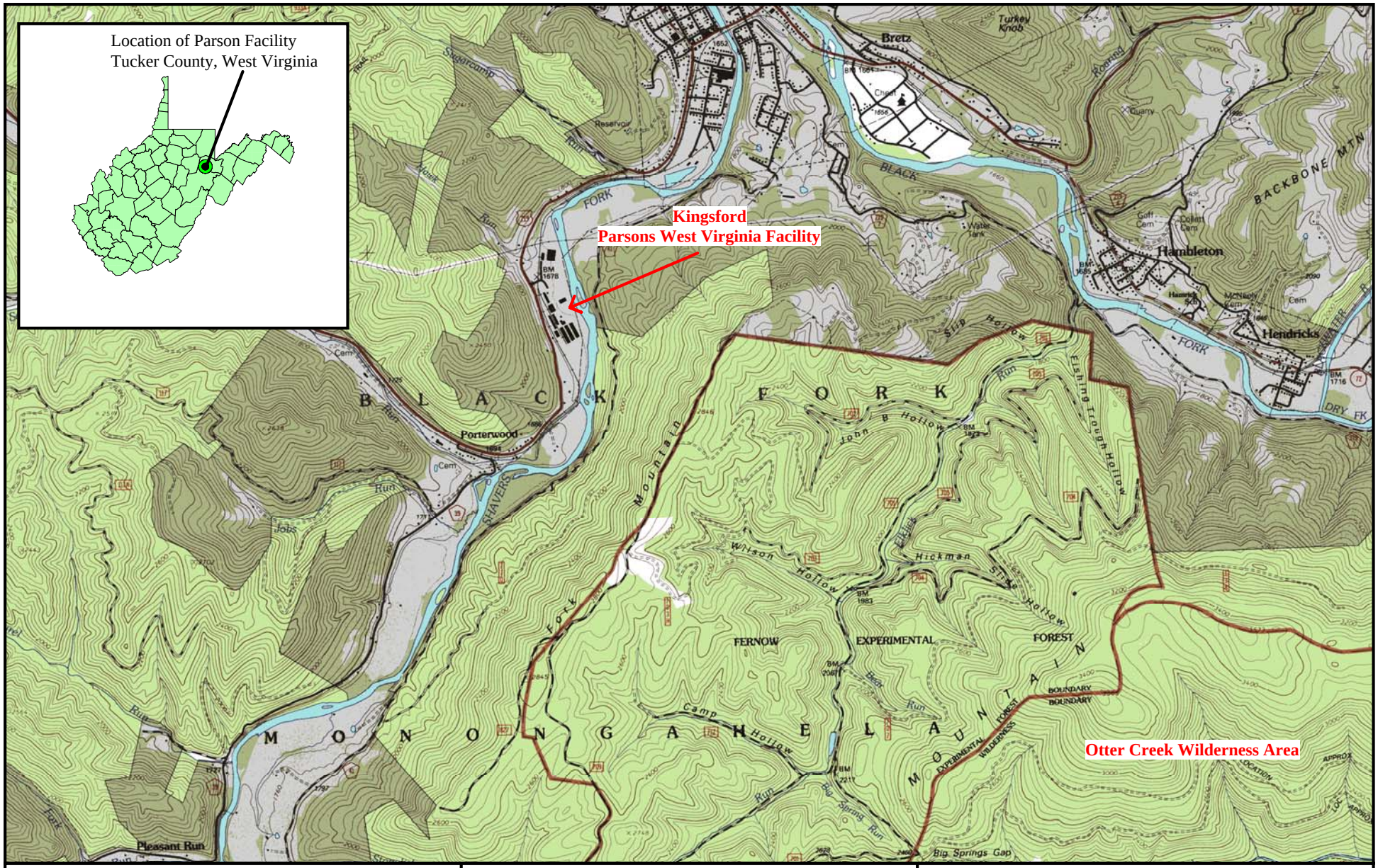
Dated: 12/15/2011

Angela Hilt
Vice President – Secretary
KINGSFORD MANUFACTURING COMPANY

Highway 219 S.
PO Box 464
Parsons, WV
26287

(304) 478-2911
FAX: (304) 478-2129

ATTACHMENT A
SITE LOCATION MAP



Att. A - Site Location
Kingsford Manufacturing Company
Parsons, WV Facility

ATTACHMENT B
PLOT PLAN

REF	EMISSION POINT ID	CONTROL DEVICE	EMISSION UNIT ID	EMISSION UNIT DESCRIPTION
			CONTROL DEVICES	
A	S-01-01 (19A)	C-08	CONTROL DEVICE	AFTER COMB. CHAMBER C-08
B	19A, 19B	C-08	CONTROL DEVICE	SOLVENT CHILLER
C	S-06	C-01	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-01)
D	S-07	C-02	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-02)
E	S-08	C-03	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-03)
F	S-10	C-07	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-07)
G	S-13	C-11	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-11)
H	S-14	C-12	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-12)
I	S-15	C-13	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-13)
J	S-16	C-14	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-14)
K	S-17	C-15	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-15)
L	S-18	C-16	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-16)
M	S-19	C-17	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-17) (REMOVED)
N	S-20	C-18	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-18)
O	S-23	C-21	CONTROL DEVICE	WET SCRUBBER (C-21)
P	S-24	C-15	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-15)
Q	S-34	C-34	CONTROL DEVICE	WET SCRUBBER (C-34)
R	S-35	C-15	CONTROL DEVICE	FABRIC FILTER DUST COLLECTOR (C-15)

REF	EMISSION POINT ID	CONTROL DEVICE	EMISSION UNIT ID	EMISSION UNIT DESCRIPTION
			WOOD AND CHAR PILES	
1	S-09	NONE	E-01-01	WOOD PILE MANAGEMENT
2	S-09	NONE	E-01-02	CHAR AND COAL PILE MANAGEMENT
			RAW MATERIAL HANDLING	
3	S-09	NONE	E-02-01	TRANSFER FROM DRAG PIT TO 48" BELT
4	S-09	NONE	E-02-02	PRIMARY SCREENING
5	S-09	NONE	E-02-03	SECONDARY SCREENING
6	S-09	NONE	E-02-04	600FT BELT TO DRYER FEED BIN
7	S-09	NONE	E-02-05	WOOD WITH METAL BYPASS BELT
8	S-09	NONE	E-02-06	WOOD DRYER BIN BYPASS SCREW
9	S-09	NONE	E-02-07	CHAR TRAILER TRANSPORT
10	S-34	C-34	E-02-09	CHAR & COAL TRUCK DUMPING
11	S-09	NONE	E-02-0A	BULK COAL TANK TO BELT TRANSFER: COARSE SCREENER, SCREW, & BELT
12	S-09	NONE	E-02-0B	RERUN CHAR TANK BYPASS SCREW
13	S-09	NONE	E-02-0C	CHAR HAMMER MILL
14	S-09	NONE	E-02-0D	WOOD SIZING PRIMARY AND SECONDARY HAMMER MILLS
14.A	S-09	NONE	E-02-0E	LIMESTONE HANDLING
			WOOD DRYING AND CHARRING SYSTEM	
15	S-01-01	C-08	E-03-01	WOOD DRYER & OUTLET BOX RETORT FURNACE FOUR DRYER CYCLONES (C-05) FOUR FURNACE CYCLONES (C-06)
			BRIQUET DRYERS AND COOLERS	
16	S-01-03 S-01-04	NONE	E-03-02	AEROGLIDE BRIQUET DRYER #1 & PORTION OF ACC EXHAUST GASES
17	S-01N-05 S-01N-06	NONE	E-03-03N	AEROGLIDE BRIQUET DRYER#2 & A PORTION OF ACC EXHAUST; GASES
18	S-02-01 S-02-02 S-02-03	NONE	E-04-01	BRIQUET COOLER #1
19	S-03N-01 S-03N-02 S-03N-03	NONE	E-04-02N	BRIQUET COOLER #2
			SOLVENT TREATED BRIQUET PRODUCTION	
20	19A (ACC STACK S-01-01)	C-08 SOLVENT CHILLER	E-05-01	CURTAIN COATER, CLEAN SOLVENT TANK, SUMP PUMP, PRODUCT OUTFEED CONVEYOR, TRANSFER CONVEYOR, PKG SURGE BIN, SCREENER, RECOVERY TANK (RT)
21	19B (BYPASS STACK S-04)	SOLVENT CHILLER		CURTAIN COATER, CLEAN SOLVENT TANK, SUMP PUMP, PRODUCT OUTFEED CONVEYOR, TRANSFER CONVEYOR, PKG SURGE BIN, SCREENER, RT
22	S-32	CONSERVATION VENT		SOLVENT TANK #1, #2, #3, #4, & #5
		NONE		STB/SOLVENT HANDLING EQUIPMENT
		NONE		STB BRIQUET FINES
			MINOR INGREDIENTS BATCHING SYSTEM/DRY STORAGE	
23	S-10	C-07	E-06-01	COAL TANK
24	S-10	C-07	E-06-02	BERYL CHAR TANK
25	S-11	NONE	E-06-03	RERUN CHAR TANK
26	S-12	NONE	E-06-04	CHAR TANK
27	S-13	C-11	E-06-05	CHAR TANKS AND TRANSFER
28	S-14	C-12	E-06-06	BULK LIME TANK
29	S-15	C-13	E-06-07	NOT USED (NITRATE BULK TANK)
30	S-16	C-14	E-06-08	BULK STARCH TANK
31	S-17	C-15	E-06-09	LIME USE TANK
32	S-18	C-16	E-06-0A	WET STARCH USE TANK
33	S-19	C-17	E-06-0B	DRY STARCH USE TANK (REMOVED)
34	S-20	C-18	E-06-0C	BORAX USE TANK
35	S-22	C-20	E-06-0E	MULLER VENT
36	S-23	C-21	E-06-0F	MINORS BATCH MIXING
37	S-24	C-33	E-06-0G	RETORT CHAR SURGE BIN
			NATURAL GAS BURNING	
38		NONE		NEW ACC BURNER #2
		C-08		ACC BURNER #1
	S-07-01	C-08	E-07-01	FURNACE BURNERS
		NONE		WASTE HEAT BOILER
		NONE		AUXILIARY HEAT BURNER
			BRIQUET HANDLING	
39	S-06	C-01	E-08-01	BRIQUET DRYER DISCHARGE CONVEYORS
40	S-07	C-02	E-08-02A	BRIQUET PKG LINE – WEIGH SCALES
41	S-07	C-02	E-08-02B	BRIQUET PKG LINE – BAG FILLING
42	S-08	C-03	E-08-03A	FINISHED BRIQUET HANDLING – SILO INFEED BUCKET ELEVATOR
43	S-08	C-03	E-08-03B	FINISHED BRIQUET HANDLING – SILO INFEED CONVEYOR
44	S-08	C-03	E-08-03C	FINISHED BRIQUET HANDLING – BRIQUET STROAGE SILOS
45	S-08	C-03	E-08-03D	FINISHED BRIQUET HANDLING – LINE A TAKE AWAY CONVEYORS
46	S-08	C-03	E-08-03E	FINISHED BRIQUET HANDLING – LINE B TAKE AWAY CONVEYORS
47	S-08	C-03	E-08-03F	FINISHED BRIQUET HANDLING – LINE A BUCKET ELEVATOR
48	S-08	C-03	E-08-03G	FINISHED BRIQUET HANDLING – LINE A TRANSFER CONVEYORS
49	S-35	C-35	E-08-03H	PACKAGING SCALE BIN INFEED
			PLANT ROADS	
50	S-09	NONE	E-09-01	PAVED PLANT ROADS
51	S-09	NONE	E-09-02	UNPAVED PLANT ROADS
			LIQUID STORAGE	
52	S-25	C-25	E-0A-01	UNLEADED GASOLINE
53	S-26	C-26	E-0A-02	DIESEL OIL
54	S-27	C-27	E-0A-03	KEROSENE
55	S-31	C-31	E-0A-07	NOT USED / OUT OF SERVICE
56	S-32	C-32	E-0A-08	USED OIL
			EMERGENCY EQUIPMENT	
57	N/A	NONE	E-0B-01	EMERGENCY FLOOD PUMPS
58	S-36	CATALYST	E-0B-02	EMERGENCY GENERATOR
59	S-33	NONE	FP-2	SOUTH FIRE PUMP
60	S-35	NONE	N/A	SOUTH DIESEL FUEL STORAGE TANK

REVISION	BY	DATE	REVISION	BY	DATE
△ UPDATED LAYOUT AND ADDED EMISSION POINTS	ETD	5/30/13	△		
△ UPDATED LAYOUT AND EMISSION POINTS	JFG	5/24/18	△		
△			△		
△			△		
△			△		
△			△		
△			△		

TOLERANCES (EXCEPT AS NOTED)	
DECIMAL	€
FRACTIONAL	€
ANGULAR	€
DRAWN BY	WAH
DATE	8/4/95
CK BY	
DATE	
APPROVED BY	
DATE	

The Kingsford Products Company

TITLE: STACK & FUGITIVE SOURCE LOCATIONS

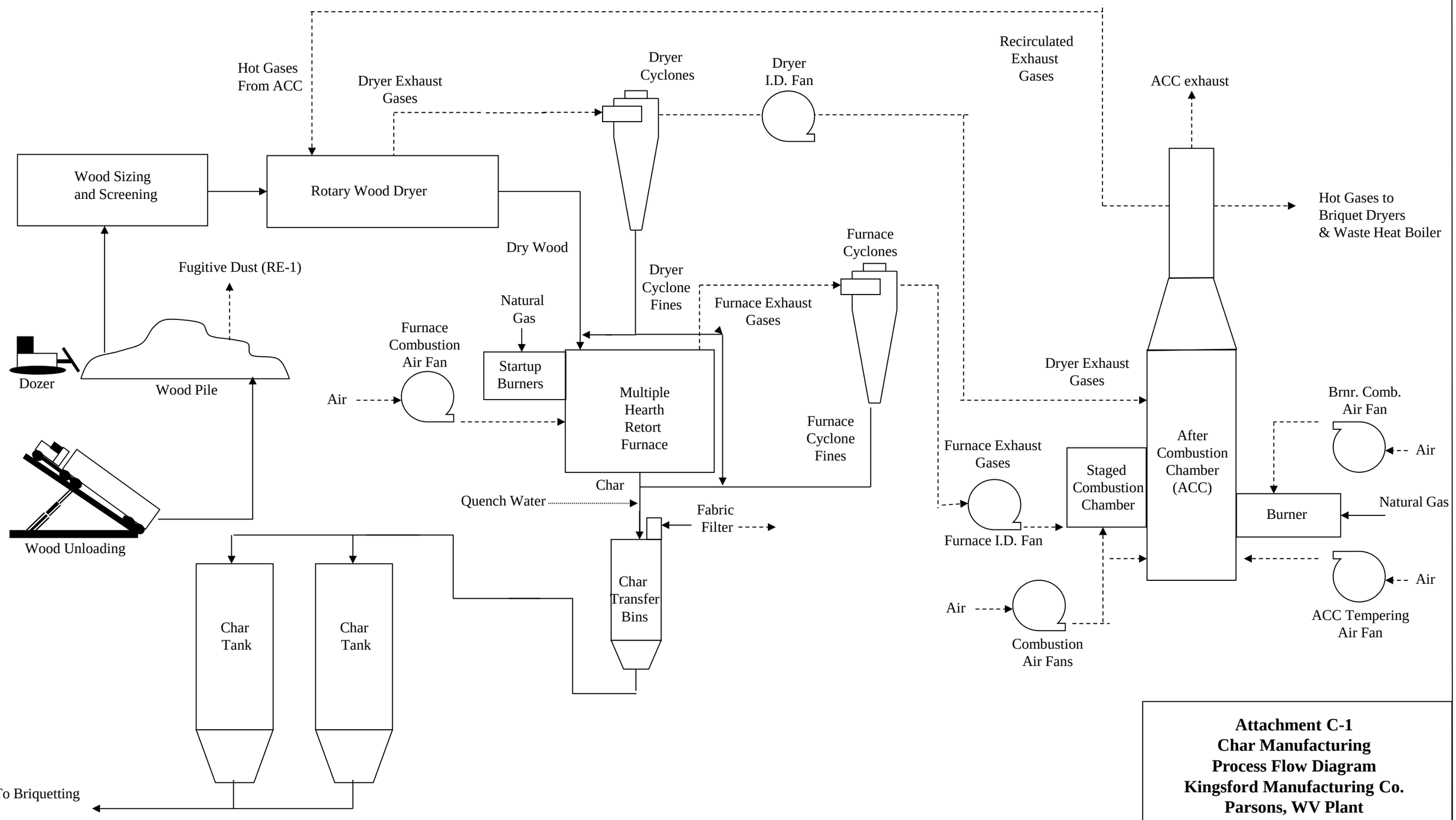
DIVISION OR SUBSIDIARY

LOCATION: PARSONS PLANT

SCALE: SCALE: 1"=100'

DRAWING NUMBER: 0020 -D- 0176 △

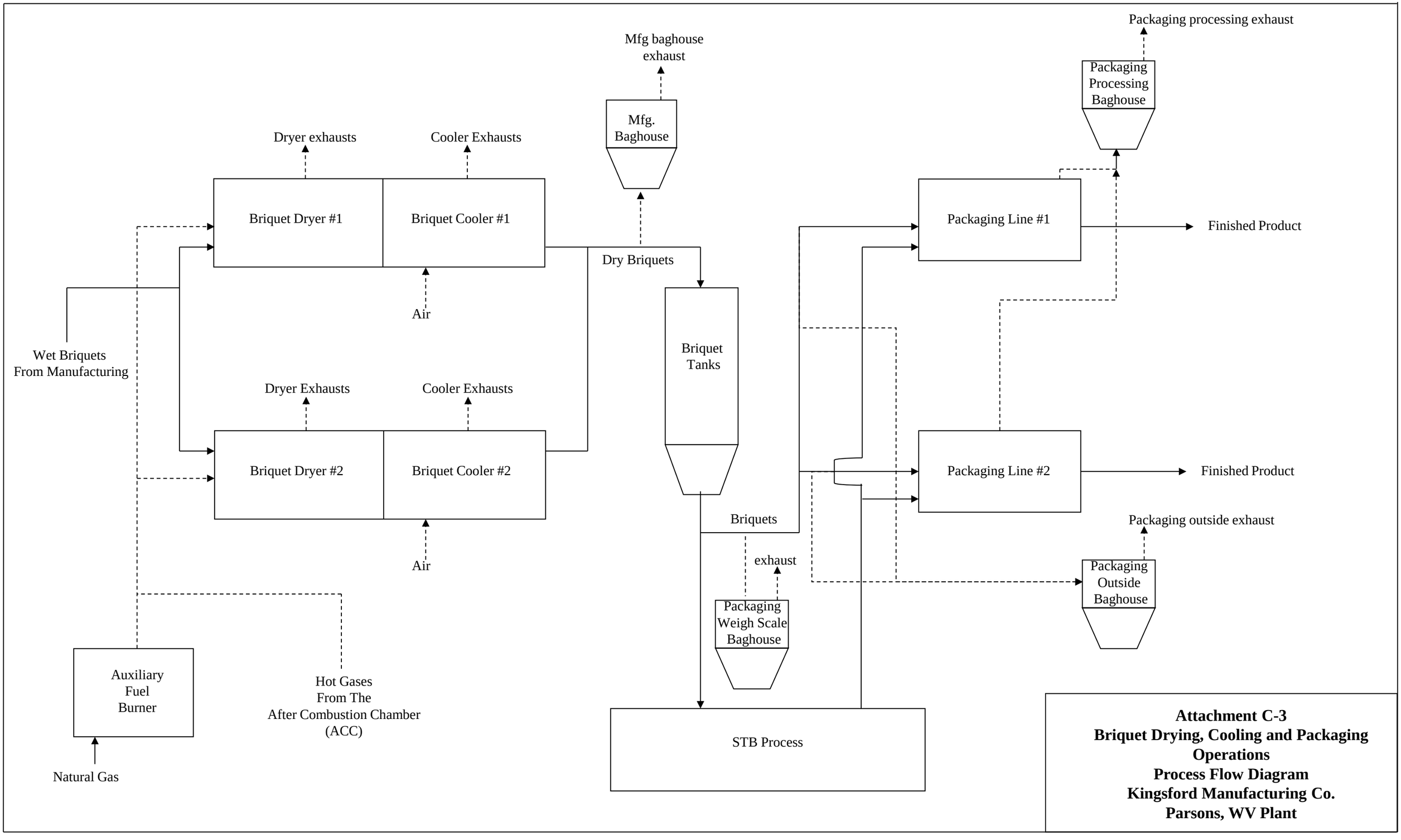
ATTACHMENT C
PROCESS FLOW DIAGRAM



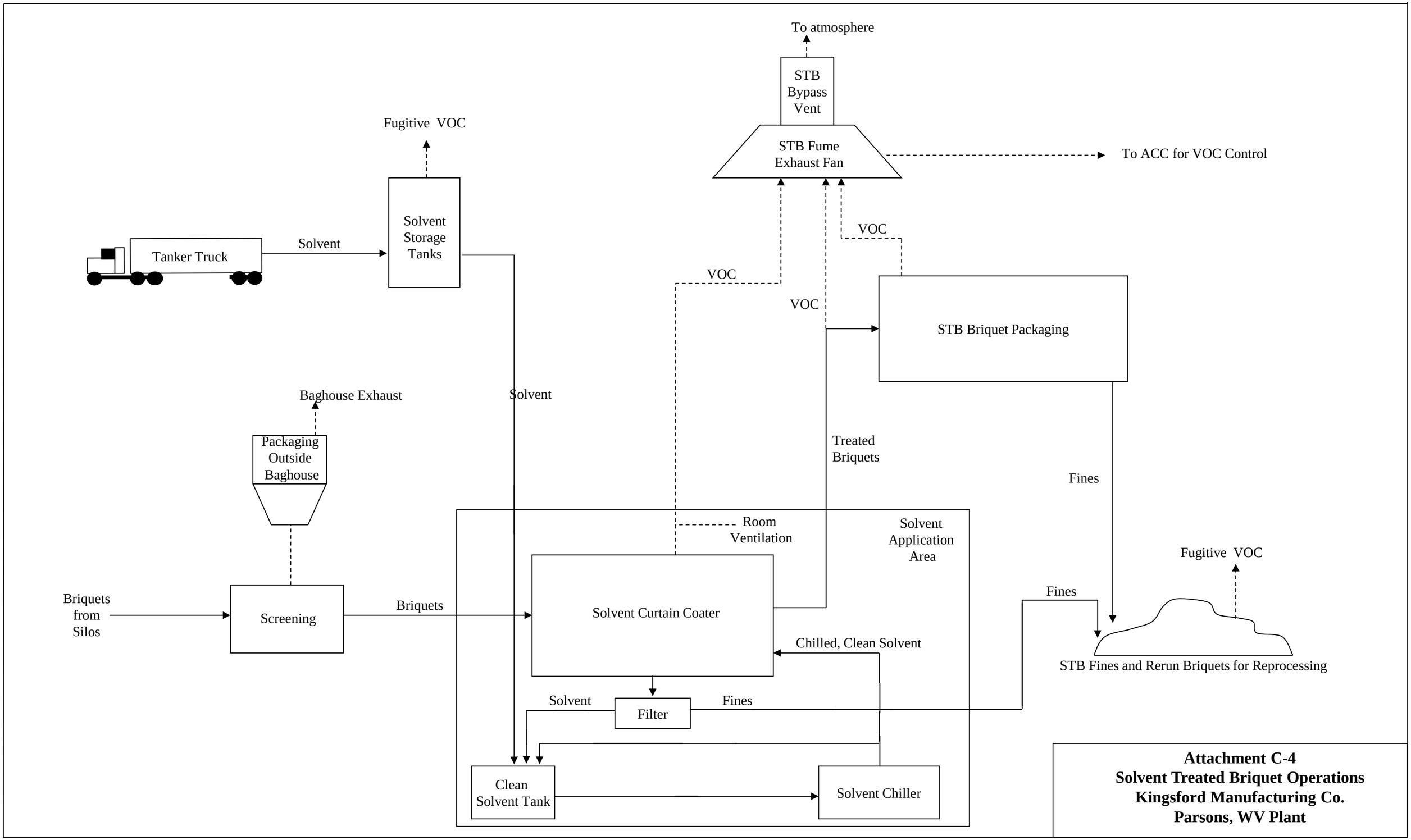
Attachment C-1
Char Manufacturing
Process Flow Diagram
Kingsford Manufacturing Co.
Parsons, WV Plant

Coal and Char Scrubber Exhaust
Scrubber
Enclosure
Beryl Char, Lime and
Coal Unloading
Mechanical
Transfer
(Bin vent exhausts)
Bin
Vent
Filter
Storage
Tanks
Parsons
Char
Sizing
Coal
Starch
Cooker
Starch
and Water,
Mixer
Lime
Muller exhaust
Mix Muller
Briquet Press
Briquets to Dryers
Bin vent exhaust
Bin
Vent
Filter
Storage
Tanks
Pneumatic
Transfer
Lime and Starch
Unloading
Boiler stack
Steam
Boiler
Natural gas
Waste Heat
From ACC
Fugitive Dust
Plant Roadways (Paved and unpaved)
(Bin vent exhausts)
Bin
Vent
Filter
Minors Tanks
(Nitrate,
Borax)
Mixer scrubber
exhaust
Mixer
Scrubber
Mixing
Exhaust Stack
Emergency
Generator
Electricity to
plant operations
Natural gas
from pipeline
Exhaust Stack
Diesel
Fire Pump
(FP-2)
Water to
Fire Fighting
Equip.
Diesel
550-Gallon
Diesel
Tank
Water from pond

Attachment C-2
Briquet Manufacturing and
Raw Materials Handling
Process Flow Diagram
Kingsford Manufacturing Co.
Parsons, WV Plant



Attachment C-3
Briquet Drying, Cooling and Packaging Operations
Process Flow Diagram
Kingsford Manufacturing Co.
Parsons, WV Plant



Attachment C-4
Solvent Treated Briquet Operations
Kingsford Manufacturing Co.
Parsons, WV Plant

ATTACHMENT D
TITLE V EQUIPMENT TABLE

ATTACHMENT D - Title V Equipment Table

(includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID[1]	Control Device[1]	Emission Unit ID[1]	Emission Unit Description	Design Capacity	Year Installed/ Modified
Wood and Char Piles					
S-09	None	E-01-01	Wood Pile Management	N/A	1972
S-09	None	E-01-02	Char Pile and Coal Pile Management	N/A	1958
Raw Material Handling					
S-09	Partial Enclosure (C-24)	E-02-01	Transfer Drag Pit to 48" Belt	209,000 TPY	2003
S-09	None	E-02-02	Primary Screening	209,000 TPY	2012
S-09	None	E-02-03	Secondary Screening	125,400 TPY	2016
S-09	Partial Enclosure (C-04)	E-02-04	600 Ft Belt to Dryer Feed Bin	209,000 TPY	1972
S-09	None	E-02-05	Wood with Metal Bypass Belt	418 TPY	1972
S-09	None	E-02-06	Wood Dryer Bin Bypass Screw	418 TPY	1972
S-09	None	E-02-07	Char Truck Transport	N/D	1972
S-34	Truck Dump Scrubber (C-34)	E-02-09	~~Beryl~~ Char and Coal Truck Dumping	111,600 TPY	1963
S-09	Partial Enclosure	E-02-0A	Bulk Coal Tank to Belt Transfer: coarse screener, screw conveyor & belt conveyor	80,000 TPY	1958
S-09	None	E-02-0B	Rerun Char Tank Bypass Screw	154 TPY	1983
S-09	Full Enclosure	E-02-0C	Char Hammer Mill	N/D	2003
S-09	Full Enclosure	E-02-0D	Secondary Wood Hammer Mill Primary Wood sizing Hammer mill	N/D	1988 2003
S-09	Partial Enclosure	E-02-0E	Bulk Lime Truck Unloading System	15,000 TPY	2015
Wood Drying and Charring System					
S-01-01	C-08	E-03-01	Wood Dryer and Outlet Box (Mfg: Louisville)	60 tph	2007
			Retort Furnace (Mfg: Skinner)	38.5 tph	1972

			Four (4) Dryer Cyclones C-05 Fisher-Klosterman XQ120-33	58,372 ACFM	2003
			Four (4) Furnace Cyclones C-06 Fisher-Klosterman XQ120-23	58,372 ACFM	1984
Briquet Dryers and Coolers					
S-01-03 S-01-04	None	E-03-02	Aeroglide Briquet Dryer #1 and a portion of ACC exhaust gases	77,000 TPY	1996
S-01N-05 S-01N-06	None	E-03-03N	Aeroglide Briquet Dryer #2 and a portion of ACC exhaust gases	77,000 TPY	2003
S-02-01 S-02-02 S-02-03	None	E-04-01	Briquet Cooler #1	77,000 TPY	1996
S-03N-01 S-03N-02 S-03N-03	None	E-04-02N	Briquet Cooler #2	77,000 TPY	2003
Solvent Treated Briquet Production					
19A (ACC stack S-01-01)	C-08, Solvent Chiller	E-05-01	Curtain Coater 323-06	700 gal	1982 / 1994
			Clean Solvent Feed Tank 341-12	800 gal	1982 / 1994
			Sump SMP-100	Unknown	1982 / 1994
			Product Out Feed Conveyor	Unknown	1982 / 1994
			Transfer Conveyor	Unknown	1982 / 1994
			Packaging Surge Bin	Unknown	1982 / 1994
			Screener PHS-100	Unknown	1982 / 1994
			Solvent Recovery Tank	1,300 gal	1982/2017
19B (ACC Bypass Stack S-04	Solvent Chiller		Curtain Coater 323-06	700 gal	1982 / 1994
			Clean Solvent Feed Tank 341-12	800gal	1982 / 1994
			Sump SMP-100	Unknown	1982 / 1994
			Product Out Feed Conveyor	Unknown	1982 / 1994
			Transfer Conveyor	Unknown	1982 / 1994
			Packaging Surge Bin	Unknown	1982 / 1994
			Screener PHS-100	Unknown	1982 / 1994
			Solvent Recovery Tank	1,300 gal	1982/2017
S-32	Conservation Vent		Solvent tank #1	15,000 gal	1982
			Solvent tank #2	15,000 gal	1982
			Solvent tank #3	10,000 gal	1982

			Solvent tank #4	10,000 gal	1982
			Solvent tank #5	10,000 gal	1982
	None		STB/solvent handling equipment	Unknown	1982 / 1994
	None		STB Briquet Fines	Unknown	1982 / 1994
Minor Ingredients Batching System/Dry Storage					
S-10	C-07	E-06-01	Coal Tank	250 ton	1982
S-10	C-07	E-06-02	Beryl Char Tanks	two @ 60 ton	1981
S-11	None	E-06-03	Rerun Char Tank	60 ton	1984
S-12	None	E-06-04	~~Yard~~ Char Tank	60 ton	1984
S-13	C-11	E-06-05	~~Retort~~ Parsons Char Tanks and Transfer	two @ 60 ton	1972
S-14	C-12	E-06-06	Bulk Lime Tank	125 ton	2001
S-15	C-13	E-06-07	Bulk Nitrate Tank (out of service)	34 ton	2001
S-16	C-14	E-06-08	Bulk Starch Tank	101 ton	1958
S-17	C-15	E-06-09	Lime Use Tank	6 ton	1958/2016
S-18*	C-16	E-06-0A	Wet Starch Use Tank	3 ton	1980
~~S-19~~	~~C-17~~	~~E-06-0B~~	~~Dry Starch Use Tank~~	~~3 ton~~	~~1958~~
S-20*	C-18	E-06-0C	Borax Use Tank	1 ton	1980
S-22	None	E-06-0E	Muller Vent	N/A	1976
S-23	C-21	E-06-0F	Minors Batch Mixing (starch, nitrate and borax mixing tanks)	Not determined	1994/ 2002
Natural Gas Burning					
S-07-01	None	E-07-01	ACC Burner #2 (Stack S-01-01) Mfg: North American (Model 4796-20)	50 MM BTU/hr	2003
	C-08		ACC Burner #1 (Stack S-01-01) Mfg: North American, (Model #4796-20)	43 MM BTU/hr	1988
	C-08		Furnace Burners (Stack S-01-01) Mfg: Eclipse	4 @ 2 MMBTU/hr	1972
	None		Waste Heat Boiler (Stack S-01-02) Mfg: North American, (Model #4121-7.0-B.13)	7.83 MM BTU/hr	1982

	None		Auxiliary Heat Burner Mfg. Eclipse V2 (Stacks S-01-03, S-01-04, S-01N-05, S-01N-06) - provides heat to the Briquet Dryers when the ACC is not operating	83 MM BTU/hr	2002
Briquet Handling					
S-06	C-01	E-08-01	Briquet Dryer discharge conveyors (Manufacturing & Briquet take-away)	154,000 TPY	1983/2003
S-07	C-02	E-08-02A	Briquet Packaging Lines - Weigh Scales	154,000 TPY	1991
S-07	C-02	E-08-02B	Briquet Packaging Lines - Bag filling operation	154,000 TPY	1991
S-08	C-03	E-08-03A	Finished Briquet Handling - Silo in-feed bucket elevator	154,000 TPY	1977
S-08	C-03	E-08-03B	Finished Briquet Handling - Silo in-feed conveyor	154,000 TPY	2003
S-08	C-03	E-08-03C	Finished Briquet Handling - Briquet Storage Silos	4 silos @ 60 tons each	1977
S-08	C-03	E-08-03D	Finished Briquet Handling - Line-A take-away conveyors	154,000 TPY	1991
S-08	C-03	E-08-03E	Finished Briquet Handling - Line-B take-away conveyors	154,000 TPY	1991
S-08	C-03	E-08-03F	Finished Briquet Handling - Line-A bucket elevator	154,000 TPY	1977
S-08	C-03	E-08-03G	Finished Briquet Handling Line-A transfer conveyors	154,000 TPY	1977
S-35	C-35	E-08-03H	Packaging Scale Bin In Feed	154,000 TPY	1977/2011
Plant Roads					
S-09	None	E-09-01	Paved Plant Roads	NA	Various
S-09	None	E-09-02	Unpaved Plant Roads	NA	1958
Liquid Storage					
S-25	C-25	E-0A-01	Unleaded Gasoline (emits 1.1 TPY VOC)	10,000 gal	1988
S-26	C-26	E-0A-02	Diesel Oil	10,000 gal	1988
S-27	C-27	E-0A-03	Kerosene	500 Gal	1988
S-28	C-29	E-0A-04	Oil 15/40	<55 gal	1988
S-29	C-30	E-0A-05	Oil 30	<55 gal	1988
S-10	C-31	E-0A-06	Transmission Fluid	<55 gal	1988
S-31	C-31	E-0A-07	Hydraulic Fluid	<55 gal	1988
S-32	C-32	E-0A-08	Used Oil	500 gal	1996
Emergency Equipment					
N/A	None	E-0B-01	Emergency Flood Pumps	4 @ 2500 gpm	1998
S-36	Catalyst	E-0B-02	Emergency Generator	228 bhp @ 1800rpm	2012

S-33	None	FP-2	South ~~Pump~~ JX6h-UF30 Fire Pump	420 bhp/1760 rpm	2008
S-35	None	N/A	#2 Fuel Oil Storage Tank	550 gal.	2008
Control Devices					
S-01-01, 19A	--	Control Device	After Combustion Chamber C-08 95% destruction efficiency for VOC	370,000 ACFM	2003
19A, 19B	--	Control Device	Solvent chiller Mfg: Carrier, Model: 30RAN045J-601DT	Unknown	2002
S-06	--	Control Device	Fabric Filter Dust Collector (C-01) Mfg: Pneumafil, Model: 11.5-3168	15,000 CFM	1992
S-07	--	Control Device	Fabric Filter Dust Collector (C-02) Mfg: Standard Havens, Model: 24A/M1	30,000 CFM	1992
S-08	--	Control Device	Fabric Filter Dust Collector (C-03), Mfg: BHA / DCE Volkes	25,000 CFM	1995
S-10	--	Control Device	Fabric Filter Dust Collector (C-07) Mfg: Adaptive Engr., Model BVC-36	560 CFM	2003
S-13	--	Control Device	Fabric Filter Dust Collector (C-11) Mfg Mac Process, Inc., Model 72AVR32, Style III	1406 CFM	2012
S-14	--	Control Device	Fabric Filter Dust Collector (C-12) Mfg: Adaptive Engr., BVC-36X	560 CFM	2003
S-15	--	Control Device	Fabric Filter Dust Collector (C-13) Mfg: Adaptive Engr., BVC-36X	560 CFM	2001
S-16	--	Control Device	Fabric Filter Dust Collector (C-14) Mfg: Adaptive Engr., BVC-36X	560 CFM	2003
S-17	--	Control Device	Fabric Filter Dust Collector (C-15) Mfg: Adaptive Engr., FRC-9X27	600 CFM	2003/2016
S-18*	--	Control Device	Fabric Filter Dust Collector (C-16) Griffin, Model JV-54-4X	425 CFM	1993
~~S-19~~	~~--~~	~~Control Device~~	~~Fabric Filter Dust Collector (C-17), Mfg: Adaptive Engr., BVC-4~~	~~Unknown~~	~~2003~~
S-20*	--	Control Device	Fabric Filter Dust Collector (C-18) Griffin, Model JV-54-4X	Unknown	1993
S-23	--	Control Device	Wet Scrubber (C-21) Mikropul Type DS2-30	99.5% PM	1976
S-34	--	Control Device	Wet Scrubber (C-34) Mfg: MikroPul Mikrovane, Size 66, Type LN	15,000 CFM	2003
S-35	--	Control Device	Fabric Filter Dust Collector (C-35) Wheelabrator, Model 55	8,500 CFM	2011

[1]For 45CSR13 permitted sources, the numbering system used for the emission points, control devices, and emission units should be consistent with the numbering system used in the 45CSR13 permit. For grandfathered sources, the numbering system should be consistent with registrations or emissions inventory previously submitted to DAQ. For emission points, control devices, and emissions units which have not been previously labeled, use the following 45CSR13 numbering system: 1S, 2S, 3S,... or other appropriate description for emission units; 1C, 2C, 3C,... or other appropriate designation for control devices; 1E, 2E, 3E, ... or other appropriate designation for emission points.

ATTACHMENT E
EMISSION UNIT FORMS

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
001-01, 02	Wood Pile and Dry Wood Receipt E-01-01 Char and Coal Pile E-01-02	E-01-02 Char and Coal Shed

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Wood and dry sawdust is received via truck and unloaded onto the wood pile (E-01-01) where it is managed by use of a bulldozer. Wood is dumped directly onto the pile. Char and coal pile management (E-01-02)consists of management of the outside concrete pad and char shed by a front end loader, dumping of material by dump trucks and loaders, and movement by loader to silo hoppers.

Manufacturer:	**Model number:**	**Serial number:**
Not applicable	Not applicable	Not applicable

Construction date:	**Installation date:**	**Modification date(s):**
E-01-01 1972/1994 E-01-02 1958	E-01-01 1972/1994 E-01-02 1958	E-01-01 1972/1994 E-01-02 1958

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
E-01-01 Dry wood receipt – 120 tph

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
E-01-01 Dry wood receipt 120 tph	Not determined	8,760 hours per year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes X No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not applicable			

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

9.0 Wood, Char and Coal Piles, Raw Material Handling and Plant Roads Requirements

9.1. Limitations and Standards

9.1.1. The permittee shall inspect all fugitive dust control systems, specified in the Emission Units Table 1.0 for Emission Point S-09, weekly to ensure that they are operated and maintained in conformance with their designs.
[45CSR§30-5.1.c]

9.1.2. Good operating practices shall be implemented and when necessary dust suppressants shall be applied in relation to stockpiling and general material handling to prevent dust generation and atmospheric entrainment. **[45CSR§7-5.2]**

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2. Monitoring Requirements

9.2.1. Visible emissions monitoring as per Requirement 3.2.1. Weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for all emission points listed in Emission Units Table 1.0 under Wood, Char and Coal Piles, Raw Material Handling and Plant Roads (including visible fugitive dust emissions that leave the plant site boundaries). If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1, then for this emission point monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR13, R13-1608, 4.2.2 and 45CSR§30-5.1.c]

9.2.2. Each opacity evaluation observation per 45CSR§7A-2.1.a,b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater that the opacity limit for the emission unit, in which case the observation period shall be extended to a 60 minutes or until a violation of the emissions standard per 45CSR§7-3.2. has been documented (more than twenty (20) single opacity readings are in excess of 20% opacity, but less than 40% opacity, or any single reading is equal or in excess of 40% opacity); whichever is the shorter period. **[45CSR§30-5.1.c]**

9.3. Testing Requirements

9.3.1. N/A

9.4. Recordkeeping Requirements

9.4.1. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility (piles, transfer points, paved and unpaved roads). **[45CSR§30-5.1.c]**

9.4.2. The permittee shall maintain records of the results of weekly inspections of the systems to minimize fugitive emissions per Requirement 9.1.2. Records shall state the times the systems were inoperable, what corrective actions taken as a result of the weekly inspections and all scheduled and unscheduled maintenance procedures.
[45CSR§30-5.1.c]

9.4.3. Visible emission checks recordkeeping as per requirement 9.2.1.

9.5. Reporting Requirements

9.5.1. Opacity exceedance reporting as per requirement 3.5.8.a.1.

9.6. Compliance Plan

9.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
002-01 through 07, 09, 0A-0E	Raw Material Handling	E-02-02,03,05,06,07,0B None E-02-01,04,0A,0E Partial Enclosure E-02-09 Truck Dump Scrubber (C-34) E-02-0C,0D Full Enclosure

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Wood is transferred from the wood pile via a conveyor (E-02-01)to a series of screening and sizing operations(E-01-02 through E-02-06, E-02-0D). It is then conveyed to the wood dryer. Coal and char is received by truck and unloaded at a dumping station (E-02-09) that is controlled by the wet ~~mixing~~ scrubber (C-34). The material is sized in the char hammermill (E-02-0C) and then transferred to the char and coal silos by screw conveyors and bucket elevators (E-02-0A, 0B). Bulk lime trucks can be unloaded (E-02-0E) in the existing shed and then the lime is either transferred pneumatically to the lime silo or via front end loader/covered conveyor to the briquette mixing operations.

Manufacturer:	**Model number:**	**Serial number:**
Not applicable	Not applicable	Not applicable
Construction date:	**Installation date:**	**Modification date(s):**
See Attachment D	See Attachment D	See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Attachment D	See Attachment D	8,760 hours per year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes X No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

9.1. Limitations and Standards

9.1.1. The permittee shall inspect all fugitive dust control systems, specified in the Emission Units Table 1.0 for Emission Point S-09, weekly to ensure that they are operated and maintained in conformance with their designs.
[45CSR§30-5.1.c]

9.1.2. Good operating practices shall be implemented and when necessary dust suppressants shall be applied in relation to stockpiling and general material handling to prevent dust generation and atmospheric entrainment. **[45CSR§7-5.2]**

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

9.2. Monitoring Requirements

9.2.1. Visible emissions monitoring as per Requirement 3.2.1. Weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for all emission points listed in Emission Units Table 1.0 under Wood, Char and Coal Piles, Raw Material Handling and Plant Roads (including visible fugitive dust emissions that leave the plant site boundaries). If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1, then for this emission point monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR13, R13-1608, 4.2.2 and 45CSR§30-5.1.c]

9.2.2. Each opacity evaluation observation per 45CSR§7A-2.1.a,b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater that the opacity limit for the emission unit, in which case the observation period shall be extended to a 60 minutes or until a violation of the emissions standard per 45CSR§7-3.2. has been documented (more than twenty (20) single opacity readings are in excess of 20% opacity, but less than 40% opacity, or any single reading is equal or in excess of 40% opacity); whichever is the shorter period. **[45CSR§30-5.1.c]**

9.3. Testing Requirements

9.3.1. N/A

9.4. Recordkeeping Requirements

9.4.1. The permittee shall maintain records indicating the use of any dust suppressants or any

other suitable dust control measures applied at the facility (piles, transfer points, paved and unpaved roads). **[45CSR§30-5.1.c]**

9.4.2. The permittee shall maintain records of the results of weekly inspections of the systems to minimize fugitive emissions per Requirement 9.1.2. Records shall state the times the systems were inoperable, what corrective actions taken as a result of the weekly inspections and all scheduled and unscheduled maintenance procedures.
[45CSR§30-5.1.c]

9.4.3. Visible emission checks recordkeeping as per requirement 9.2.1.

9.5. Reporting Requirements

9.5.1. Opacity exceedance reporting as per requirement 3.5.8.a.1.

9.6. Compliance Plan

9.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
003-01	Wood Dryer and Outlet Box Retort Furnace Four (4) Dryer Cyclones Four Furnace Cyclones Retort Furnace	ACC (C-08)

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Sized wet wood is dried by the wood dryer with heat provided by the ACC. The dried wood is fed to the retort furnace where it is converted into char through pyrolysis in a starved air environment. Heat is provided to the dryer by the ACC(C-08) afterburner. The dryer exhaust passes through the dryer cyclones followed by the ACC (C-08). The retort exhaust passes through the furnace cyclones followed by the ACC. The cyclones are used for material recovery and dried wood and char particles collected by the cyclones are combined with char produced by the furnace.

Manufacturer:	**Model number:**	**Serial number:**
Dryer Louisville Retort Furnace: Skinner Dryer Cyclones: Fisher Klosterman Furnace Cyclones: Fisher Klosterman	Dryer Cyclones: XQ120-33 Furnace Cyclones: XQ120-23	Not applicable

Construction date:	**Installation date:**	**Modification date(s):**
Dryer:2007 Retort Furnace:1972 Dryer Cyclones:2003 Furnace Cyclones:1984	2007 1972 2003 1985	2007 1972 2003 1984

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
E-03-01 38.5 tph dry wood

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
E-03-01 38.5 tph dry wood	Not determined	8,760 hours per year

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X_Yes No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: See Source ID E-05 for details.	**Type and Btu/hr rating of burners:** See Source ID E-05 for details.

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
See Source ID E-05 for details.

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
See Source ID E-05 for details.			

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		

Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY

Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

4.0 Wood Drying and Charring Requirements

4.1. Limitations and Standards

4.1.1. The Wood Dryer/Retort Furnace system (E-03-01) processing rate shall not exceed 38.5 tons per hour of dry wood and 209,000 tons per year of dry wood.
[45CSR13, R13-1608, 4.1.2]

4.1.2. Emissions generated as a result of the operation of the Wood Dryer/Retort Furnace (E-03-01) shall be routed to and combusted by the After Combustion Chamber (ACC, control device C-08) prior to their release to the atmosphere.
[45CSR13, R13-1608, 4.1.5]

4.1.3. Emissions to the atmosphere from the Wood Dryer/Retort Furnace (E-03-01) vented through ACC stack
(Emission point S-01-01) shall be limited to the following when the Briquet Dryers are in operation:

Emission Point ID	Pollutant	Maximum Allowable Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
S-01-01	NO_x	74.4	201.88
	CO	5.9	1.0
	VOC	1.0	1.15
	SO_2	20.23	54.91
	PM	50.6	137.28
	PM_{10}	40.5	109.82
	Methanol	-	3.15

[45CSR13, R13-1608, **4.1.7 and 45CSR§7-4.1**]

Compliance with the hourly PM emission limits set forth in this Requirement will demonstrate compliance with 45CSR§7-4.1 maximum allowable PM emission rates.

4.1.4. The control devices in the Emission Units Table 1.0. for the Wood Dryer and Retort Furnace shall be maintained and operated as per requirement 3.1.21.
[45CSR§30-12.7]

4.1.5. The permittee shall inspect all control systems, specified in the Emission Units Table 1.0 for the Wood Dryer and Retort Furnace, weekly to ensure that they are operated and maintained in conformance with their designs.
[45CSR§30-5.1.c]

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

4.2. Monitoring Requirements

4.2.1. The permittee shall monitor temperature of the cyclones gas flow in order to assure compliance with the
Requirement 4.1.4.
[45CSR§30-5.1.c]

4.3. Testing Requirements

4.3.1. Testing per Section 3.3 Requirements.

4.4. Recordkeeping Requirements

4.4.1. Compliance with the hourly maximum processing rates listed in Requirement 4.1.1 shall be calculated on the basis of a rolling 30-day average expressed in tons per hour based on the hours of production for any specific
30-day period. Compliance with the yearly maximum processing rate in Requirement 4.1.1 shall be determined using rolling yearly totals. A rolling yearly total shall mean the sum of material processed, in tons, at the end of each month for that month and the previous 11 months.
[45CSR13, R13-1608,
4.1.4]

4.4.2. The following information shall be recorded and maintained in accordance with Condition 3.4.2 of this permit.:

a. amount of dry wood charged to the Wood Dryer/Retort Furnace (E-03-01) on a daily basis;
b. hours of operation for Wood Dryer and Retort Furnace on a daily basis;
c. hourly dry wood processing rate calculated as per Requirement
4.4.1. d. yearly dry wood processing rate calculated as per Requirement 4.4.1.

[45CSR13, R13-1608,
4.2.1]

4.4.3. The permittee shall maintain records of the results of weekly inspections of the control systems per requirement 4.1.5. Records shall state the times the systems were inoperable, what corrective actions taken as a result of the weekly inspections and all scheduled and unscheduled maintenance procedures. **[45CSR§30-5.1.c]**

4.5. Reporting Requirements

4.5.1. None.

4.6. Compliance Plan

4.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
E-03-02,03N E04-01, 02N	Briquet Dryers and Coolers	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
After being pressed, the wet "green" briquets are transferred via belt conveyors to one of two briquet dryers. The briquets are conveyed through the briquet dryers on a traveling grate through which hot ACC gases are passed to dry the briquets. The briquet coolers pass ambient air through the briquet beds in the cooling zones. The dry briquets are then conveyed to storage silos before packaging.

Manufacturer:	**Model number:**	**Serial number:**
See Attachment D	See Attachment D	Not applicable

Construction date:	**Installation date:**	**Modification date(s):**
See Attachment D	See Attachment D	See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Attachment D	154,000 tons briquets	8,760 hours/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes X No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Auxiliary heat provided by auxiliary heat burner (See E07)			

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

6.0 Briquet Dryers and Coolers Requirements

6.1. Limitations and Standards

6.1.1. The Briquet Dryer/Cooler system (E-03-02, E-03-03N, E-04-01, E-04-02N) processing rate shall not exceed 24 tons per hour of dry packaged briquets and 154,000 tons per year of dry packaged briquets (excluding weight of the solvent and packaging material).
[45CSR13, R13-1608, 4.1.3]

6.1.2. Total emissions to the atmosphere from the Briquet Dryers' (E-03-02 and E-03-03N) stacks (Emission points S-01-03, S-01-04, S-01N-05, S-01N-06) shall be limited to the following:

Emission Point ID	Pollutant	Maximum Allowable Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
S-01-03 S-01-04 S-01N-05 S-01N-06	NO_x	13.13	35.63
	CO	6.0	12.31
	VOC	1.65	5.5
	SO_2	3.57	9.69
	PM	12	38.5
	PM_{10}	6	19.25
	Methanol	-	0.55

[45CSR13, R13-1608, 4.1.8]

6.1.3. Total emissions to the atmosphere from the Briquet Coolers' (E-04-01 and E-04-02N) stacks (Emission points S-02-01, S-02-02, S-02-03, S-03N-01, S-03N-02, S-03N-03) shall be limited to the following:

Emission Point ID	Pollutant	Maximum Allowable Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
S-02-01 S-02-02 S-02-03 S-03N-01 S-03N-02 S-03N-03	PM	12	38.5
	PM_{10}	6	19.25

[45CSR13, R13-1608, 4.1.9]

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall

be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

6.2. Monitoring Requirements

6.2.1. Opacity monitoring per Requirement 3.2.1. Weekly Method 22 checks shall be conducted for a minimum of6 consecutive weeks for all the emission points listed in Emission Units Table 1.0 under Briquet Coolers and Dryers. If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1, then for this emission point monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c and 45CSR13, R13-1608, 4.2.2]

6.2.2. Each opacity evaluation observation per 45CSR§7A-2.1.a,b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater than the opacity limit for the emission unit, in which case the observation period shall be extended to a 60 minutes or until a violation of the emissions standard per 45CSR§7-3.2 has been documented (more than twenty (20) single opacity readings are in excess of 20% opacity, but less than 40% opacity, or any single reading is equal or in excess of 40% opacity); whichever is the shorter period.
[45CSR§30-5.1.c]

6.3. Testing Requirements

6.3.1. Testing per Section 3.3 Requirements.

6.4. Recordkeeping Requirements

6.4.1. Compliance with the hourly maximum processing rates listed in Requirement 6.1.1 shall be calculated on the basis of a rolling 30-day average expressed in tons per hour based on the hours of production for any specific 30-day period. Compliance with the yearly maximum processing rates in Requirement 6.1.1. shall be determined using rolling yearly totals. A rolling yearly total shall mean the sum of material processed, in tons, at the end of each month for that month and the previous 11 months.
[45CSR13, R13-1608, 4.1.4]

6.4.2. The following information shall be recorded and maintained in accordance with Condition 3.4.2 of this permit.

a. total weight of dry briquets produced by the facility on a daily basis (excluding weight of the solvent and packaging material);
b. hours of operation for Briquet Dryers and Briquet Coolers on a daily basis;
c. hourly dry packaged briquets processing rate calculated as per Requirement 6.4.1. d. yearly dry packaged briquets processing rate calculated as per Requirement 6.4.1.

[45CSR13, R13-1608, 4.2.1]

6.4.3. Visible emission checks recordkeeping as per requirement 6.2.1.

6.5. Reporting Requirements

6.5.1. Opacity exceedance reporting as per requirement 3.5.8.a.1.

6.6. Compliance Plan

6.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
E-05-01 (19A, 19B, & S-32)	Solvent Treated Briquet Production See Attachment D	See Attachment D

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Solvent treated briquets (STB) are produced by applying solvent to dry briquets using a system consisting of solvent storage tanks, briquet handling equipment and a conveyorized curtain coater. Solvent evaporation is minimized through the use of a solvent chiller which maintains the solvent a cooled (less volatile) temperature. Solvent fumes from the operation are ducted to and controlled by the ACC (C-08) or are vented to atmosphere via the STB bypass vent.

Manufacturer:	**Model number:**	**Serial number:**
Not applicable	Not applicable	Not applicable

Construction date:	**Installation date:**	**Modification date(s):**
1982/1994	1982/1994	2017 (Solvent Recovery Tank)

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Attachment D	See Attachment D	8,760 hours/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes X No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

7.0 Solvent Treated Briquet Process Requirements

7.1. Limitations and Standards

7.1.1. Volatile organic compound (VOC) emissions from the following equipment or areas shall be contained, captured and vented to either the After Combustion Chamber (ACC), Emission Point 19A, or to the ACC Bypass Stack, Emission Point 19B.

323-06 Curtain Coater
341-12 Clean Solvent Feed Tank
SMP-100 Sump
PHS-100 Product Out Feed Conveyor, Transfer Conveyor, Packaging Surge Bin, Screener

[45CSR14, R14-0001, A.1]

7.1.2. VOC emissions from the ACC Bypass Stack (Emission Point 19B, Stack S-04) shall not exceed 36.6 lb/hr. VOC emissions from the ACC (Emission Point 19A, Stack S-01-01) shall not exceed 2.82 lb/hr above the baseline VOC emissions present prior to venting solvent treated briquet (STB) process VOC emissions to the ACC.
[45CSR14, R14-0001, A.2]

7.1.3. Total VOC emissions from all emission points or sources (including pumps, valves, flanges, etc.) associated with the STB production facility shall not exceed 83 TPY as determined by Requirement 7.4.1.

Summary Table of VOC emission limits for STB Process

Emission Description	Emission Point ID / Stack ID	Maximum Allowable VOC Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
STB Fume Exhaust	19A / S-01-01	2.82	83
	19B / S-04	36.6	
STB Briquet	S-32	-	
STB Fixed	S-32	-	

[45CSR14, R14-0001, A.3]

7.1.4. VOC emissions from the sources listed in Requirement 7.1.1 shall be vented to the ACC at all times the ACC is operating above 1400°F. The ACC stack temperature shall be monitored continuously and shall be equipped with an alarm that indicates when the ACC stack temperature drops below 1400°F. If the alarm is tripped, the VOC emissions shall be vented to the ACC Bypass Stack and production of STB shall be in accordance with the rate specified in Requirement 7.1.6.b.
[45CSR14, R14-0001, A.4]

7.1.5. The average solvent application temperature shall not exceed 50°F during any eight (8) hour shift in which solvent is being fed to the curtain coater. Solvent application temperature shall be monitored and recorded hourly during each shift. If the curtain coater is operated for less than eight (8) hours during the shift, only the actual hours of curtain coater operation shall be considered in determining the average temperature. **[45CSR14, R14-0001, A.5]**

7.1.6. STB production shall be limited to the following hourly rates:

a. 20 tons per hour when the VOC emissions from the sources listed in Requirement 7.1.1 are vented to the ACC;

b. 13 tons per hour when the VOC emissions from the sources listed in Requirement 7.1.1 are vented to the ACC Bypass Stack.

[45CSR14, R14-0001, A.6]

7.1.7. STB production shall not exceed 64,000 tons in any calendar year. Maximum allowable STB production will vary between 23,860 TPY and 64,000 TPY, depending on ACC availability, so the total VOC emissions from the STB process do not exceed the maximum rate specified in requirement 7.1.3.
[45CSR14, R14-0001, A.7]

7.1.8. The ACC shall provide a 95% destruction efficiency for the STB process emissions specified in Requirement 7.1.1.
[45CSR14, R14-0001, A.8]

7.1.9. All vent stacks shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures.
[45CSR§7-4.12 and 45CSR14, R14-0001, B.3]

7.1.10. The control devices in the Emission Units Table 1.0. for the STB process shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.
[45CSR§30-12.7]

7.1.11. The permittee shall inspect all control systems, specified in the Emission Units Table 1.0 for the STB process, weekly to ensure that they are operated and maintained in conformance with their designs.
[45CSR§30-5.1.c]

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

7.2. Monitoring Requirements

7.2.1. The ACC stack temperature monitoring per Requirement 7.1.4.

7.2.2. Solvent application temperature monitoring per Requirement 7.1.5.

7.2.3. Visible emissions monitoring shall be performed per Requirement 3.2.1. Quarterly Method 22 checks shall be conducted for all the emission points and units listed in Emission Units Table 1.0 under Solvent Treated Briquet Production (except ACC Stack S-01-01, see requirement 5.2.4). For ACC Bypass Stack (S-04) visible emission checks shall be performed during periods when this stack is in use. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1, then for this emission point monitoring shall revert to a weekly frequency requirement and begin the progressive monitoring cycle again as follows:

1. Weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for all the emission points and units listed in Emission Units Table 1.0 under Solvent Treated Briquet Production (except ACC Stack S-01-01, see requirement 5.2.4).

2. If in compliance, then monthly Method 22 checks shall be conducted for a minimum of 4 consecutive months.

3. If in compliance, then quarterly Method 22 checks shall be conducted.

A record of each visible emission check required above shall be maintained on site and shall be made available to the Director or his/her duly authorized representative upon request. Said records

shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c]

7.2.4. Each opacity evaluation observation per 45CSR§ 7A-2.1.a, b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater than the opacity limit for the emission unit, in which case the observationany one single reading is greater than the opacity limit for the emission unit, in which case the observation has been documented (more than twenty (20) single opacity readings are in excess of 20% opacity, butless than 40% opacity, or any single reading is equal or in excess of 40% opacity); whichever is the shorter period.
[45CSR§30-5.1.c]

7.2.5. Compliance with the hourly VOC emission limits in Section 7.1.2 will be demonstrated by demonstrating compliance with the requirements of Sections 7.1.5 and 7.1.6.
[45CSR§30-5.1.c]

7.2.6. The permittee shall conduct weekly inspections of the two (2) STB fume dampers in order to verify that they are being operated in accordance with permit condition 7.1.4. A record of each inspection required above shall be maintained on site for a period of at least 5 years and shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR§30-5.1.c]

7.2.7. The permittee shall maintain a flow sensing device in the STB fume ductwork between last flow control damper and the inlet to the ACC. This device shall indicate presence of flow on the control screen in the control room and shall alarm to notify operators when the flow to the ACC is not present in accordance with permit condition 7.1.4 (where the ACC is operating above 1400°F). In the event when the flow is not present corrective actions should be taken, and records should be created to document it. Such records shall be maintained on site for a period of at least 5 years and shall be made available to the Director or his/her duly authorized representative upon request.
[45CSR§30-5.1.c]

7.3. Testing Requirements

7.3.1. The permittee shall conduct stack testing on emission point 19A (ACC vent stack S-01-01). Such testing shall be conducted during briquet production both with and without venting of volatile organic compounds to the ACC from the curtain coater, clean solvent feed tank, sump, product out feed conveyor, transfer conveyor, packaging surge bin, and screener for the purpose of establishing baseline emission. Such test shall be conducted once per Permit term within one year of the Permit issuance or renewal. In lieu of this test the permittee may conduct ACC stack testing as per Requirement 3.3.3. If compliance with more stringent VOC emission limit in Requirement 4.1.3 is demonstrated, then compliance with VOC limit for emission point 19A in 7.1.3 will be demonstrated.

The permittee shall submit a test protocol to the West Virginia Office of Air Quality (DAQ) not less than thirty (30) days prior to testing and shall notify the DAQ in writing of the date and time of stack testing not less than fifteen (15) days prior to such testing. Test methods 1, 2, 3, 4, and 25 or 25A (refer to Appendix A of 40 CFR 60) shall be utilized. The Director may require an equivalent method or approve such equivalent method if proposed by the permittee.
[45CSR§30-5.1.c]

7.3.2. Results from testing per Requirement 7.3.1 shall be submitted to the Director within sixty (60) days from the date of completion of said testing. The test shall demonstrate that the tested units can operate at the maximum processing rate specified in Requirement 7.1.6 in compliance with the emissions limits set forth in Requirements 7.1.2 and 7.1.3.
[45CSR§30-5.1.c]

7.4. Recordkeeping Requirements

7.4.1. The permittee shall demonstrate compliance with the VOC emission limitation established under Requirement 7.1.3 by use of the VOC emission factors in accordance with Attachment 1 of Permit R14- 0001 (Attached to the Title V Permit). The DAQ Director shall not be precluded from requiring or using alternative compliance verification methods including the use of standard tank loss equations, fugitive emissions factors, stack test results, or other similar methods.
[45CSR14, R14-0001, B.1]

7.4.2. Records required under Requirements 7.1.5 and 7.1.6 shall be maintained on-site and be readily accessible to DAQ staff to demonstrate compliance with the conditions of this permit. Each record shall be certified by the plant manager to be true and accurate. The records shall be maintained for a minimum of five (5) years and be made available to the Director or his authorized representative upon request. **[45CSR14, R14-0001, B.5]**

7.4.3. STB production shall be monitored and recorded during each shift to provide the tons of STB produced and hours of operation when VOC emissions are vented to the ACC or to the ACC Bypass Stack. **[45CSR14, R14-0001, A.6]**

7.4.4. Compliance with the hourly maximum processing rates listed in Requirement 7.1.6. shall be calculated on the basis of a rolling 30-day average expressed in tons per hour based on the hours of operation as per Requirement 7.4.3 for any specific 30-day period. Compliance with the yearly maximum processing rate specified in Requirement 7.1.7 shall be determined using rolling yearly totals. A rolling yearly total shall mean the sum of material processed, in tons, at the end of each month for that month and the previous 11 months.
[45CSR§30-5.1.c]

7.4.5. Visible emission checks recordkeeping as per Requirement 7.2.3.

7.5. Reporting Requirements

7.5.1. The permittee shall submit a report to the DAQ following each calendar quarter providing the following information:

a. The results of the quarterly VOC emission factor calculations in accordance with Attachment 1;

b. A report of any exceedences of the solvent application operating temperature limit established in Requirement 7.1.5. The date, shift, and average temperature shall be reported for all eight (8) hour shifts during which an exceedence of the temperature limit occurred. If there were no exceedences of the operating temperature limit, the report shall so state and shall indicate that hourly temperatures were recorded for all operating periods during the quarter;

c. STB hourly production rates for both conditions when the emission sources specified in Requirement 7.1.1 were vented to the ACC and to the ACC Bypass Stack.

The report shall be submitted to the DAQ within thirty (30) days following the end of each calendar quarter.

[45CSR14, R14-0001, B.2]

7.5.2. Opacity exceedance reporting as per requirement 3.5.8.a.1.

7.6. Compliance Plan

7.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? ___Yes _X__No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
E-06-01 through 09 E06-0A, 0C, 0E 0F	Minors Ingredients Batching System/Dry Storage See Attachment D	05 through 09, 0A, 0C Fabric Filter Dust Collectors E-06-0E Vent E-06-0F Wet Scrubber

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The char and other raw materials are mixed with a starch binder to form charcoal briquets in the briquetting operations. These briquet manufacturing operations include minor ingredients storage, batching, starch cooking, raw material mixing, mulling, and briquet pressing operations. After being pressed, the wet "green" briquets are transferred via belt conveyors to one of two briquet dryers.

Manufacturer:	**Model number:**	**Serial number:**
Not applicable	Not applicable	Not applicable

Construction date:	**Installation date:**	**Modification date(s):**
See Attachment D	See Attachment D	See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Attachment D	See Attachment D	8,760 hours/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes X No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

8.0 Minors Ingredients Batching System/Dry Storage and Briquet Handling Requirements

8.1. Limitations and Standards

8.1.1. Emissions of particulate matter from the starch, nitrate and borax mixing tanks (Source ID E-06-0F) shall be vented to the 99.5% efficiency wet scrubber (C-21). Emissions from the scrubber shall not exceed 0.2 lb/hr of PM (Emission Point S-23).
[45CSR13, R13-1608, 4.1.10]

8.1.2. The control devices in the Emission Units Table 1.0. for the Minors Ingredients Batching System, Dry Storage and Briquet Handling shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.
[45CSR§30-5.1.c] *(Emission Points S-10, S-11, S-12, S-14, S-17, S-19)*

8.1.3. Emissions of particulate matter from the Briquet Handling Operations shall be limited to the following:

Emission Point ID	Description	Pollutant	Maximum Allowable Emissions (lbs/hr)
S-06	Briquet Dryer Discharge Conveyors	PM/ PM_{10}	30.4
S-07	Briquet Packaging Lines	PM/ PM_{10}	32.0
S-08	Finished Briquet Handling Lines	PM/ PM_{10}	32.0

[45CSR§7-4.1]

8.1.4. The briquet handling operations pertaining to the Packaging Scale Bin In -feed, which is identified as Emission Unit EU-08-03H, shall be limited to the following limitations:

a. Emissions of particulate matter and particulate matter less than 10 micros (PM_{10}) from Emission Point
S-35 shall not exceed 0.73 pounds per hour.

b. Visible emission from Emission Point S-35 shall not exceed 20% opacity.

c. There is no annual operational restriction or limitation for the Packing Scale Bin In -feed system.

Compliance with these streamlined visible emissions limit and the PM and PM_{10} limits will ensure compliance with 45CSR§§7-3.1 & 4.1.
[45CSR13, R13-1608, 4.1.13]

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

8.2. Monitoring Requirements

8.2.1. In order to demonstrate compliance with the emission limits specified in Requirement 8.1.1 the permittee shall daily monitor flow rate of the Wet Scrubber (C-21) when it is in operation and maintain it at or above 3 gpm during normal operations. An alarm, inspection, corrective actions (if necessary) and recordkeeping per Requirement 8.4.1 are triggered if flow rate drops below 3 gpm.
[45CSR§§30-5.1.c. and 12.7]

8.2.2. **CAM monitoring requirement**. The permittee shall maintain a pressure gauge on all Fabric Filter Dust Collector for pressure drop observations. The permittee shall maintain records of the maintenance performed on each fabric filter and pressure gauges. These records shall include all maintenance work performed on each fabric filter including the frequency of bag/filter change outs. Records shall state the date and time of each fabric filter inspection, the inspection results, and corrective action taken, if any. Records shall be maintained on site as per Requirement 3.4.2. The differential pressure drop across each of the three fabric filters compartments (C-01, C-02 and C-03, Emission Points S-06, S-07 and S-08,) shall be monitored at least once daily. Records shall be kept on site with entries based on indicator gauge readings. The indicator gauges, mounted on each Fabric Filter Dust Collector compartment, shall be examined to ensure they are functioning properly. Minimum acceptable accuracy of pressure gauges is $\pm$ 2% of the full range. Readings should be averaged on a daily basis. A daily average pressure drop outside of the following range is considered an excursion:

Emission Point ID	Description	Control Device ID	CAM pressure drop range
S-06	Briquet Dryer Discharge Conveyors	C-01	2-10.5
S-07	Briquet Packaging Lines	C-02	1-5.5
S-08	Finished Briquet Handling Lines	C-03	2-12

If an excursion occurs, corrective action, if necessary, shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and recordkeeping and reporting shall be initiated.
[45CSR§§30-5.1.c and 12.7, and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

8.2.3. Visible emissions monitoring for Dry Storage tanks or their control devices (if any) with exhaust stacks located outdoors (Emission Points S-10 through S17, S19) shall be performed per Requirement 3.2.1. Upon beginning of normal operations weekly Method 22 checks shall be conducted at the time of each tank loading/unloading operations for a minimum of 6 consecutive weeks for all the emission points listed above. If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.7, then corrective actions shall be taken immediately, and monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR13, R13-1608, 4.2.2 and 45CSR§30-5.1.c]

8.2.4. Visible emissions monitoring for Minors Ingredients Batching System and Briquet Handling emission points or their control devices (if any) with exhaust stacks located outdoors (Emission Points S-06, S-07, S-08, S-22 and S-23) shall be performed per Requirement 3.2.1. Upon beginning of normal operations weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks

for all the emission points listed above. If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1, then monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR13, R13-1608, 4.2.2 and 45CSR§30-5.1.c]

8.2.5. Each opacity evaluation observation per 45CSR§7A-2.1.a,b (as per Requirement 3.2.1) for Emission Pointslisted in Requirement 8.2.4. shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater than the opacity limit for the emission unit, in which case the observation period shall be extended to a 60 minutes or until a violation of the emissions standard per 45CSR§7-3.2 has been documented. (more than twenty (20) single opacity readings are in excess of 20% opacity, but less than 40% opacity, or any single reading is equal or in excess of 40% opacity); whichever is the shorter period.
[45CSR§30-5.1.c]

8.2.6. Compliance with the particulate matter and visible emission requirements as set forth in condition 8.1.4, (*Emission Unit EU-08-03H*) shall be determined by conducting daily Method 22-like visible emission checks. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

The visible emission check shall be performed during periods of facility operation at least once per day during daylight hours and appropriate weather conditions for a sufficient time interval to determine if any visible emissions are present.

If visible emissions are present during these checks or at any other time, visible emissions evaluations in accordance with 45CSR§§7A-2.1.a and 2.1.b shall be conducted immediately. Such evaluations shall not be required if the visible emissions condition is corrected as expeditiously as possible and the cause and corrective measures taken are recorded. The 45CSR7A evaluations shall be conducted during periods of facility operation.

[45CSR§30-5.1.c, 45CSR§7A-2.1]

8.3. Testing Requirements

8.3.1. N/A

8.4. Recordkeeping Requirements

8.4.1. Keep records of the scrubber C-21 flow rate on daily basis when the scrubber is in operation, and also of date and time when flow rate drops below 3 gpm during normal operations, and of the inspection and corrective actions taken (if any) as per Requirement 8.2.1.
[45CSR§30-5.1.c]

8.4.2. Visible emission checks recordkeeping as per Requirements 8.2.3 and 8.2.4.

8.4.3. General Recordkeeping Requirements for 40 C.F.R. Part 64 (CAM)

(1) The differential pressure per Requirement 8.2.2 shall be recorded daily.

(2) The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other

supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(3) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm,computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[45CSR§30-5.1.c and 40 C.F.R. §64.9(b)]

8.5. Reporting Requirements

8.5.1. Opacity exceedance reporting as per Requirement 3.5.8.a.1.

8.5.2. General Reporting Requirements for 40 C.F.R. Part 64 (CAM)

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring thatmeets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the Director in accordance with permit condition 3.5.6.

(2) A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under permit condition 3.5.8 and the following information, as applicable:

(iv) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(v) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(vi) A description of the actions taken to implement a QIP (if required by 3.2.6) during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a) and 45CSR§30-5.1.c]

8.6. Compliance Plan

8.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit.**
007-01	Natural Gas Burners	ACC

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
The ACC is equipped with a 50 MMBtu burner to temperatures in the afterburner of at least 1600°~~o~~F. Heat for the wood and briquet dryers and a waste heat boiler is usually provided by the ACC. However, the wood dryer is equipped with a 43 MMBtu burner, the briquet dryers are equipped with an 83 MMBtu/hr burner, and the waste heat boiler is equipped with a 7.83 MMBtu boiler in the event that the ACC is not in operation. The retort is equipped with four (4) 2.0 MMBtu burners to provide heat during startup.

Manufacturer:	**Model number:**	**Serial number:**
See Attachment D	See Attachment D	Not determined

Construction date:	**Installation date:**	**Modification date(s):**
See Attachment D	See Attachment D	See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
See Attachment D	See Attachment D	8,760 hours/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes No	**If yes, is it** ___ Indirect Fired ___Direct Fired Boiler –indirect ACC/Wood dryer/retort/briquet dryers - direct
Maximum design heat input and/or maximum horsepower rating: See Attachment D	**Type and Btu/hr rating of burners:** See Attachment D

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural gas

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural gas	Not applicable	Not applicable	1,020 Btu/scf

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

10.0 Waste Heat Boiler Requirements

10.1. Limitations and Standards

10.1.1. No person shall cause, suffer, allow or permit emission of smoke and/or particulate matter into the open air from any fuel burning unit which is greater than ten (10) percent opacity based on a six minute block average.
[45CSR§2-3.1]

10.1.2. The visible emission standards set forth in section 3 of 45CSR2 shall apply at all times except in periods of start-ups, shutdowns and malfunctions. Where the Director believes that start-ups and shutdowns are excessive in duration and/or frequency, the Director may require an owner or operator to provide a written report demonstrating that such frequent start-ups and shutdowns are necessary.
[45CSR§2-9.1]

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

10.2. Monitoring Requirements

10.2.1. Weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for the Waste Heat Boiler. If in compliance, then monthly Method 22 checks shall be conducted for a minimum of 4 consecutive months. If in compliance, then quarterly Method 22 checks shall be conducted. These checks shall be conducted by personnel trained in the practices and limitations of 40 C.F.R. 60, Appendix A, Method 9 or Method 22, during periods of operation of emission sources that vent from the referenced emission point for a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) to determine if there is a visible emission. If visible emissions are identified during the visible emission check, or at any other time regardless of operations, the permittee shall conduct an opacity reading using the procedures and requirements of 40 C.F.R. 60, Appendix A, Method 9 within seventy-two (72) hours of the first signs of visible emissions. A 40 C.F.R. 60, Appendix A, Method 9 evaluation shall not be required if the visible emission condition is corrected within seventy-two (72) hours after the visible emission and the sources are operating at normal conditions. Anytime when not in compliance with the opacity limit per 45CSR§2-3.1, then for this emission point monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again.

A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years and shall be made available to the Director or his/her duly authorized representative upon request. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR§30-5.1.c]

10.3. Testing Requirements

10.3.1. N/A

10.4. Recordkeeping Requirements

10.4.1. Visible emission checks recordkeeping as per requirement 10.2.1.

10.5. Reporting Requirements

10.5.1. Opacity exceedance reporting as per requirement 3.5.8.a.1.

10.6. Compliance Plan

10.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit.**
008-01, 02A, 02B, 03A through 03H	Briquet Handling	Fabric Filter Dust Collectors (C-01 through C-03, C-35)

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Four dust collectors (C-01, 02, 03 and C-35) provide control of particulate matter emissions associated with briquet handling and packaging from the outlet of the briquet coolers through the packaging of briquets into bags for shipment.

Manufacturer:	**Model number:**	**Serial number:**
See Attachment D	See Attachment D	Not determined

Construction date:	**Installation date:**	**Modification date(s):**
See Attachment D	See Attachment D	See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
154,000 tons briquets/yr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Not determined	154,000 tons briquets/yr	8,760 hr/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2008)

See 006-01 through 09 and 006-0A through 0F requirements

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See 006-01 through 09 and 006-0A through 0F requirements

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit.**
009-01, 02	E-09-01 Paved Plant Roads E-09-02 Unpaved Plant Roads	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Raw and finished materials are transported into, out of, and through the plant via plant roads. The majority of the roads are paved, however some areas (e.g. trailer parking lots) remain unpaved.

Manufacturer:	**Model number:**	**Serial number:**
Not applicable	Not applicable	Not applicable

Construction date:	**Installation date:**	**Modification date(s):**
E-09-01 Various E-09-02 1958	E-09-01 Various E-09-02 1958	Various

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
Not applicable

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
Not applicable	Not applicable	8,760 hours/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not applicable			

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

See E-01-01,02 requirements

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See E-01-01,02 requirements

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 00A-01, 02, 03, 08	**Emission unit name:** Liquid Storage	**List any control devices associated with this emission unit.** E-0A-01, 02 Conservation Vent E-0A-03, 08 Vent

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
KMC stores liquid materials such as fuel and lubricants in bulk storage tanks throughout the facility.

Manufacturer: Not determine	**Model number:** Not determined	**Serial number:** Not determined
Construction date: See Attachment D	**Installation date:** See Attachment D	**Modification date(s):** See Attachment D

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: Not applicable	**Maximum Hourly Throughput:** Not applicable	**Maximum Hourly Throughput:** Not applicable

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? ___Yes _X__ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: Not applicable	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Not applicable

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Not applicable			

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

For 10,000 gallon Gasoline Storage Tank (E-0A-01):

40 CFR 63 Subpart CCCCCC - Gasoline Distribution NESHAP

Gasoline throughput limited to less than 10,000 gallons per month. (40 CFR 63.111111)

Maintain the source in accordance with good operating practices. (40 CFR 63.11116)

(a) You must not allow gasoline to be handled in a manner that would result in vapor releases to the atmosphere for extended periods of time. Measures to be taken include, but are not limited to, the following:

(1) Minimize gasoline spills;

(2) Clean up spills as expeditiously as practicable;

(3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;

(4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

…..

(c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11113.

(d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating

compliance. If there is not already a required method in place, then a method must be proposed.)

For 10,000 gallon Gasoline Storage Tank (E-0A-01):

40 CFR 63 Subpart CCCCCC - Gasoline Distribution NESHAP

(40 CFR 63.111111)

(e) An affected source shall, upon request by the Administrator, demonstrate that their monthly throughput is less than the 10,000-gallon or the 100,000-gallon threshold level, as applicable. For new or reconstructed affected sources, as specified in § 63.11112(b) and (c), recordkeeping to document monthly throughput must begin upon startup of the affected source. For existing sources, as specified in § 63.11112(d), recordkeeping to document monthly throughput must begin on January 10, 2008. For existing sources that are subject to this subpart only because they load gasoline into fuel tanks other than those in motor vehicles, as defined in § 63.11132, recordkeeping to document monthly throughput must begin on January 24, 2011. Records required under this paragraph shall be kept for a period of 5 years.

(40 CFR 63.11116)

(b) You are not required to submit notifications or reports as specified in § 63.11125, § 63.11126, or subpart A of this part, but you must have records available within 24 hours of a request by the Administrator to document your gasoline throughput.

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: E-0B-01	**Emission unit name:** Emergency Equipment	**List any control devices associated with this emission unit.**

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
KMC maintains four (4) 2500 gpm emergency flood pumps to dewater the area inside the plant levees in the event of flooding. The pumps are diesel-fired.

Manufacturer: Not determined	**Model number:** Not determined	**Serial number:** Not determined
Construction date: 1998	**Installation date:** 1998	**Modification date(s):** Not Applicable

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2500 gpm

Maximum Hourly Throughput: Not determined	**Maximum Annual Throughput:** Not determined	**Maximum Operating Schedule:** 500 hr/yr/pump

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? _X__Yes ___ No	**If yes, is it?** ___ Indirect Fired ___Direct Fired
Maximum design heat input and/or maximum horsepower rating: 115 hp/pump	**Type and Btu/hr rating of burners:** Not applicable

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Diesel fuel

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Diesel fuel	500 ppm	Not determined	~140,000 btu/gal

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.
(Per Title V Operation Permit No. R30-09300004-2014)

11.0 Diesel Fire Pump and Emergency Generator Requirements

11.1. Limitations and Standards

11.1.1. The permittee is authorized to operate the Diesel Fire Pump FP-2 (Emission Point S-33) and the Emergency Generator E-0B-02 (Emission Point S-36) with following emission limits in accordance with all terms and conditions of the 45CSR13 G60-C Class II General Permit (Attachment 2):

Source ID#	Nitrogen Oxides		Carbon Monoxide		Volatile Organic Compounds	
	lb/hr	ton/yr	lb/hr	ton/yr	lb/hr	ton/yr
FP-2	6.15	1.54	0.45	0.11	0.09	0.02
E-0B-02	0.06	0.01	0.16	0.01	0.06	0.01

[45CSR13, G60-C012 General Permit Registration, Emission Limitations]

11.1.2. This facility registered under Class II General Permit G60-C (Attachment 2) is subject to Sections 1.0, 2.0, 3.0, and 4.0. of the General Permit.

The following sections of Class II General Permit G60-C (Attachment 2) apply to the registrant:

Section 5 Reciprocating Internal Combustion Engines (R.I.C.E.)

Section 6 Tanks

Section 7 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII)

Section 8 Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR 60 Subpart JJJJ)

[45CSR13, G60-C012 General Permit Registration]

11.1.3. The internal combustion engines powering the emergency generator (E-0B-02) must meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart JJJJ for spark ignition engines. No further requirements apply for such engines under 40 C.F.R. 63 Subpart ZZZZ.
[45CSR34, 40 CFR §63.6590(c)(1)]

11.1.4. The Diesel Fire Pump (FP-2) must meet the requirements of 40 C.F.R. 63 Subpart ZZZZ by meeting the requirements of 40 C.F.R. 60 Subpart IIII for compression ignition engines. No further requirements apply for such engines under 40 C.F.R. 63 Subpart ZZZZ.
[45CSR34, 40 CFR §63.6590(c)(1)]

11.1.5. Pursuant to 40 C.F.R. 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, Emergency Flood Pumps (E-0B-01) are subject tothe following limitations and standards given below:

§ 63.6595 When do I have to comply with this subpart?

(a) *Affected sources.* (1) If you have an existing stationary CI RICE located at an area source

of HAP emissions, you must comply with the applicable emission limitations and operating limitations no later than May 3, 2013.
[45CSR34, 40 CFR §63.6595(a)(1)]

§ 63.6603 What emission limitations and operating limitations must I meet if I own or operate an existing stationary RICE located at an area source of HAP emissions?

(a) If you own or operate an existing stationary RICE located at an area source of HAP emissions, you must comply with the requirements in Table 2d to this subpart.
[45CSR34, 40CFR§63.6603(a)]

Table 2d to Subpart ZZZZ of Part 63— Requirements for Existing Stationary RICE Located at Area Sources of HAP Emissions

For each . . .	You must meet the following requirement, except during periods of startup . . .
4. Emergency stationary CI RICE[2]	a. Change oil and filter every 500 hours of operation or annually, whichever comes first;[1]
	b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first; and
	c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

[1]Sources have the option to utilize an oil analysis program as described in §63.6625(i) in order to extend the specified oil change requirement in Table 2d of this subpart.

[2]If an emergency engine is operating during an emergency and it is not possible to shut down the engine in order to perform the management practice requirements on the schedule required in Table 2d of this subpart, or if performing the management practice on the required schedule would otherwise pose an unacceptable risk under Federal, State, or local law, the management practice can be delayed until the emergency is over or the unacceptable risk under Federal, State, or local law has abated. The management practice should be performed as soon as practicable after the emergency has ended or the unacceptable risk under Federal, State, or local law has abated. Sources must report any failure to perform the management practice on the schedule required and the Federal, State or local law under which the risk was deemed unacceptable.

§ 63.6605 What are my general requirements for complying with this subpart?

(a) You must be in compliance with the emission limitations and operating limitations in this subpart that apply to you at all times.

(b) At all times you must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions. The general duty to minimize emissions does not require you to make any further efforts to reduce emissions if levels required by this standard have been achieved. Determination of whether such operation and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, review of operation and maintenance procedures, review of operation and maintenance records, and inspection of the source.
[45CSR34, 40 CFR §63.6605]

§ 63.6625 What are my monitoring, installation, collection, operation, and maintenance requirements?

(e) If you own or operate any of the following stationary RICE, you must operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission- related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions:

(3) An existing emergency or black start stationary RICE located at an area source of HAP emissions;

(f) If you own or operate an existing emergency stationary RICE located at an area source of HAP emissions, you must install a non-resettable hour meter if one is not already installed.

(h) If you operate …existing stationary engine, you must minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the emission standards applicable to all times other than startup in Table…2d to this subpart apply.

(i) If you own or operate a stationary CI engine that is subject to the work, operation or management practices in… item… 4 of Table 2d to this subpart, you have the option of utilizing an oil analysis program in order to extend the specified oil change requirement in Table … 2d to this subpart. The oil analysis must be performed at the same frequency specified for changing the oil in Table … 2d to this subpart. The analysis program must at a minimum analyze the following three parameters: Total Base Number, viscosity, and percent water content. The condemning limits for these parameters are as follows: Total Base Number is less than 30 percent of the Total Base Number of the oil when new; viscosity of the oil has changed by more than 20 percent from the viscosity of the oil when new; or percent water content (by volume) is greater than 0.5. If all of these condemning limits are not exceeded, the engine owner or operator is not required to change the oil. If any of the limits are exceeded, the engine owner or operator must change the oil within 2 business days of receiving the results of the analysis; if the engine is not in operation when the results of the analysis are received, the engine owner or operator must change the oil within 2 business days or before commencing operation, whichever is later. The owner or operator must keep records of the parameters that are analyzed as part of the program, the results of the analysis, and the oil changes for the engine. The analysis program must be part of the maintenance plan for the engine. **[45CSR34, 40CFR§63.6625]**

§ 63.6640 How do I demonstrate continuous compliance with the emission limitations and operating limitations?

(a) You must demonstrate continuous compliance with each emission limitation and operating limitation in Table 2d to this subpart that apply to you according to methods specified in Table 6 to this subpart.

Table 6 to Subpart ZZZZ of Part 63—Continuous Compliance With Emission Limitations, Operating Limitations, Work Practices, and Management Practices

For each . . .	Complying with the requirement to . . .	You must demonstrate continuous compliance by …
9.Existing emergency stationary RICE located at an area source of HAP	a. Work or Management practices	i. Operating and maintaining the stationary RICE according to the manufacturer's emission-related operation and maintenance instructions; or ii. Develop and follow your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practice for minimizing emissions

(b) You must report each instance in which you did not meet each emission limitation or operating limitation in Table 2d to this subpart that apply to you. These instances are deviations from the emission and operating limitations in this subpart. These deviations must be reported according to the requirements in §63.6650.

(e) You must also report each instance in which you did not meet the requirements in Table 8 to this subpart (except §§63.7(b) and (c), §§63.8(e), (f)(4) and (f)(6), and §§63.9(b)-(e), (g) and (h)).

(f) If you own or operate an emergency stationary RICE, you must operate the emergency stationary RICE according to the requirements in paragraphs (f)(1) through (4) of this section. In order for the

engine to be considered an emergency stationary RICE under this subpart, any operation other than emergency operation, maintenance and testing, emergency demand response, and operation in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (4) of this section, is prohibited. If you do not operate the engine according to the requirements in paragraphs (f)(1) through (4) of this section, the engine will not be considered an emergency engine under this subpart and must meet all requirements for non-emergency engines. (i) There is no time limit on the use of emergency stationary RICE in emergency situations.

(1) There is no time limit on the use of emergency stationary RICE in emergency situations.

(2) You may operate your emergency stationary RICE for any combination of the purposes specified in paragraphs (f)(2)(i) through (iii) of this section for a maximum of 100 hours per calendar year. Any operation for non-emergency situations as allowed by paragraphs (f)(3) and (4) of this section counts as part of the 100 hours per calendar year allowed by this paragraph (f)(2).

(i) Emergency stationary RICE may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. The owner or operator may petition the Administrator for approval of additional hours to be used for maintenance checks and readiness testing, but a petition is not required if the owner or operator maintains records indicating that federal, state, or local standards require maintenance and testing of emergency RICE beyond 100 hours per calendar year.

(ii) Emergency stationary RICE may be operated for emergency demand response for periods in which the Reliability Coordinator under the North American Electric Reliability Corporation (NERC) Reliability Standard EOP-002-3, Capacity and Energy Emergencies (incorporated by reference, see §63.14), or other authorized entity as determined by the Reliability Coordinator, has declared an Energy Emergency Alert Level 2 as defined in theNERC Reliability Standard EOP-002-3.

(iii) Emergency stationary RICE may be operated for periods where there is a deviation of voltage or frequency of 5 percent or greater below standard voltage or frequency.

(4) Emergency stationary RICE located at area sources of HAP may be operated for up to 50 hours per calendar year in non-emergency situations. The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in paragraph (f)(2) of this section. Except as provided in paragraphs (f)(4)(i) and (ii) of this section, the 50 hours per year for non-emergency situations cannot be used for peak shaving or non-emergency demand response, or to generate income for a facility to an electric grid or otherwise supply power as part of a financial arrangement with another entity.

(i) Prior to May 3, 2014, the 50 hours per year for non-emergency situations can be used for peak shaving or non-emergency demand response to generate income for a facility, or to otherwise supply power as part of a financial arrangement with another entity if the engine is operated as part of a peak shaving (load management program) with the local distribution system operator and the power is provided only to the facility itself or to support the local distribution system.

(ii) The 50 hours per year for non-emergency situations can be used to supply power as part of a financial arrangement with another entity if all of the following conditions are met:

(A) The engine is dispatched by the local balancing authority or local transmission and distribution system operator.

(B) The dispatch is intended to mitigate local transmission and/or distribution limitations so as to avert potential voltage collapse or line overloads that could lead to the interruption of power supply in a local area or region.

(C) The dispatch follows reliability, emergency operation or similar protocols that follow specific NERC, regional, state, public utility commission or local standards or guidelines.

(D) The power is provided only to the facility itself or to support the local transmission and distribution system.

(E) The owner or operator identifies and records the entity that dispatches the engine and the specific NERC, regional, state, public utility commission or local standards or guidelines that are being followed for dispatching the engine. The local balancing authority or local transmission and distribution system operator may keep these records on behalf of the engine owner or operator.

[45CSR34, 40 CFR §63.6640]

11.2. Monitoring Requirements

11.2.1. N/A

11.3. Testing

11.3.1. N/A

11.4. Recordkeeping Requirements

11.4.1. Maintain records of FP-2 engine operation monthly to demonstrate that 12-month total operating hours do not exceed 500 hours as per Requirements 5.4.1. and 7.3.1.a of the 45CSR13 G60-C Class II General Permit (Attachment 2).

[45CSR13, G60-C, 5.4.1. and 7.3.1.a]

11.4.2. Maintain records of diesel fuel supplier sulfur content certifications as per Requirements 5.4.1. and 7.3.1.b of the 45CSR13 G60-C Class II General Permit (Attachment 2).

[45CSR13, G60-C, 5.4.1. and 7.3.1.b]

11.4.3. Maintain records of maintenance and repairs performed on FP-2 engine as per Requirement 7.3.3. of the 45CSR13 G60-C Class II General Permit (Attachment 2).

[45CSR13, G60-C, 7.3.3]

11.4.4. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, Emergency Flood Pumps (E-0B-01) are subject to the following recordkeeping requirements given below:

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance

with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance witheach emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(2) An existing stationary emergency RICE**.**

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraph (f)(2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or § in §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[45CSR34, 40 CFR §63.6655]

11.5. Reporting Requirements

11.5.1. See footnote (2) of the Table 2d (Requirement 11.1.5) **[E-0B-01]**

11.6. Compliance Plan

11.6.1. N/A

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

11.2. Monitoring Requirements

11.2.1. N/A

11.3. Testing

11.3.1. N/A

11.4. Recordkeeping Requirements

11.4.1. Maintain records of FP-2 engine operation monthly to demonstrate that 12-month total operating hours do not exceed 500 hours as per Requirements 5.4.1. and 7.3.1.a of the 45CSR13 G60-C Class II General Permit

(Attachment 2).
[45CSR13, G60-C, 5.4.1. and 7.3.1.a]

11.4.2. Maintain records of diesel fuel supplier sulfur content certifications as per Requirements 5.4.1. and 7.3.1.b of the 45CSR13 G60-C Class II General Permit (Attachment 2).
[45CSR13, G60-C, 5.4.1. and 7.3.1.b]

11.4.3. Maintain records of maintenance and repairs performed on FP-2 engine as per Requirement 7.3.3. of the
45CSR13 G60-C Class II General Permit (Attachment 2).
[45CSR13, G60-C, 7.3.3]

11.4.4. Pursuant to 40 CFR 63 Subpart ZZZZ *National Emission Standards for Hazardous Air Pollutants For Stationary Reciprocating Internal Combustion Engines*, Emergency Flood Pumps (E-0B-01) are subject to the following recordkeeping requirements given below:

§ 63.6655 What records must I keep?

(a) If you must comply with the emission and operating limitations, you must keep the records described in paragraphs (a)(1) through (a)(5), (b)(1) through (b)(3) and (c) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status that you submitted, according to the requirement in §63.10(b)(2)(xiv).

(2) Records of the occurrence and duration of each malfunction of operation (*i.e.*, process equipment) or the air pollution control and monitoring equipment.

(3) Records of performance tests and performance evaluations as required in §63.10(b)(2)(viii).

(4) Records of all required maintenance performed on the air pollution control and monitoring equipment.

(5) Records of actions taken during periods of malfunction to minimize emissions in accordance with §63.6605(b), including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation.

(d) You must keep the records required in Table 6 of this subpart to show continuous compliance witheach emission or operating limitation that applies to you.

(e) You must keep records of the maintenance conducted on the stationary RICE in order to demonstrate that you operated and maintained the stationary RICE and after-treatment control device (if any) according to your own maintenance plan if you own or operate any of the following stationary RICE;

(2) An existing stationary emergency RICE**.**

(3) An existing stationary RICE located at an area source of HAP emissions subject to management practices as shown in Table 2d to this subpart.

(f) If you own or operate any of the stationary RICE in paragraph (f)(2) of this section, you must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The owner or operator must document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. If the engine is used for the purposes specified in §63.6640(f)(2)(ii) or (iii) or § in §63.6640(f)(4)(ii), the owner or operator must keep records of the notification of the emergency situation, and the date, start time, and end time of engine operation for these purposes.

(2) An existing emergency stationary RICE located at an area source of HAP emissions that does not meet the standards applicable to non-emergency engines.

[45CSR34, 40 CFR §63.6655]

11.5. Reporting Requirements

11.5.1. See footnote (2) of the Table 2d (Requirement 11.1.5) **[E-0B-01]**

11.6. Compliance Plan

11.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? _X__Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number:	**Emission unit name:**	**List any control devices associated with this emission unit:**
FP-2	South Fire Pump	None

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
#2 Fuel Oil Fired Fire Pump

Manufacturer:	**Model number:**	**Serial number:**
Clarke Fire Protection Products	JXGH-UF30	RG6125A016204

Construction date:	**Installation date:**	**Modification date(s):**
07/01/2008	09/01/2008	NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
22 gallons fuel/hr

Maximum Hourly Throughput:	**Maximum Annual Throughput:**	**Maximum Operating Schedule:**
22 gal fuel/hr	11,000 gal/yr	<500 hrs/yr

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X_Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_Direct Fired
Maximum design heat input and/or maximum horsepower rating: 420 bhp @ 1760 rpm	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

#2 Fuel Oil, 22 gal/hr, 11,000 gal/yr

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
#2 Fuel Oil	500 ppm		143,000 btu/gal

Emissions Data		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or <u>construction permit</u> with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See E-0B-01

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See E-0B-01

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 0B-02	**Emission unit name:** Emergency Generator (E-0B-02)	**List any control devices associated with this emission unit.** Catalyst integral to exhaust

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
150kW Natural Gas Fired Emergency Generator

Manufacturer: Kohler Power Systems	**Model number:** 150REZGB	**Serial number:** TBD
Construction date: 09/04/2012	**Installation date:** 09/21/2012	**Modification date(s):** NA

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
1930 ft3/hr Natural Gas Consumption

Maximum Hourly Throughput: 1930 ft3/hr Natural Gas Consumption	**Maximum Annual Throughput:** 0.193 $MMft^3$/yr Natural Gas Consumption for non-emergency use (assumes 100 hrs/yr operation)	**Maximum Operating Schedule:** <100 hrs/yr non-emergency use

Fuel Usage Data **(fill out all applicable fields)**

Does this emission unit combust fuel? __X_ Yes ___ No	**If yes, is it?** ___ Indirect Fired _X_ Direct Fired
Maximum design heat input and/or maximum horsepower rating: 228 bhp @ 1800 rpm	**Type and Btu/hr rating of burners:**

List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.

Natural Gas, 1930 ft3/hr, 0.193 $MMft^3$/yr during non-emergency use

Describe each fuel expected to be used during the term of the permit.

Fuel Type	Max. Sulfur Content	Max. Ash Content	BTU Value
Natural Gas	1.45 gr/100 scf		1,020 btu/scf

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO_X)		
Lead (Pb)		
Particulate Matter ($PM_{2.5}$)		
Particulate Matter (PM_{10})		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO_2)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

List the method(s) used to calculate the potential emissions (include dates of any stack tests conducted, versions of software used, source and dates of emission factors, etc.).

See Appendix B

Applicable Requirements

List all applicable requirements for this emission unit. For each applicable requirement, include the underlying rule/regulation citation and/or construction permit with the condition number. (*Note: Title V permit condition numbers alone are not the underlying applicable requirements*). If an emission limit is calculated based on the type of source and design capacity or if a standard is based on a design parameter, this information should also be included.

See E-0B-01

__X__ Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

See E-0B-01

Are you in compliance with all applicable requirements for this emission unit? _X_ Yes ___ No

If no, complete the **Schedule of Compliance Form** as **ATTACHMENT F**.

ATTACHMENT F
SCHEDULE OF COMPLIANCE FORM (NOT APPLICABLE)

ATTACHMENT G
AIR POLLUTION CONTROL DEVICE FORM

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-01 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-08-01 Briquet Dryer Discharge Conveyors	
Manufacturer: Pneumafil	**Model number:** 11.5-3168	**Installation date:** 1992

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
The briquet handling and packaging system is controlled by four (4) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm, C-03 @ 25,000 cfm and C-35 @ 8,500 cfm).

Is this device subject to the CAM requirements of 40 C.F.R. 64? _X__ Yes ___ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.
See attached sheets

ATTACHMENT G - Air Pollution Control Device Form

Describe the parameters monitored and/or methods used to indicate performance of this control device. (Per Title V Operating Permit No. R30-0930004-2014)

8.0 Minors Ingredients Batching System/Dry Storage and Briquet Handling Requirements

8.1. Limitations and Standards

8.1.1. Emissions of particulate matter from the starch, nitrate and borax mixing tanks (Source ID E-06-0F) shall be vented to the 99.5% efficiency wet scrubber (C-21). Emissions from the scrubber shall not exceed 0.2 lb/hr of PM (Emission Point S-23).
[45CSR13, R13-1608, 4.1.10]

8.1.2. The control devices in the Emission Units Table 1.0. for the Minors Ingredients Batching System, Dry Storage and Briquet Handling shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.
[45CSR§30-5.1.c] *(Emission Points S-10, S-11, S-12, S-14, S-17, ~~S-19~~)*

8.1.3. Emissions of particulate matter from the Briquet Handling Operations shall be limited to the following:

Emission Point ID	Description	Pollutant	Maximum Allowable Emissions (lbs/hr)
S-06	Briquet Dryer Discharge Conveyor	PM/ PM_{10}	30.4
S-07	Briquet Packaging Lines	PM/ PM_{10}	32.0

[45CSR§7-4.1]

8.1.4. The briquet handling operations pertaining to the Packaging Scale Bin In -feed, which is identified as Emission Unit EU-08-03H, shall be limited to the following limitations:

a. Emissions of particulate matter and particulate matter less than 10 micros (PM_{10}) from Emission Point
S-35 shall not exceed 0.73 pounds per hour.

b. Visible emission from Emission Point S-35 shall not exceed 20% opacity.

c. There is no annual operational restriction or limitation for the Packing Scale Bin In -feed system.

Compliance with these streamlined visible emissions limit and the PM and PM_{10} limits will ensure compliance with 45CSR§§7-3.1 & 4.1.
[45CSR13, R13-1608, 4.1.13]

ATTACHMENT G - Air Pollution Control Device Form

Describe the parameters monitored and/or methods used to indicate performance of this control device. (Per Title V Operating Permit No. R30-0930004-2008)

8.2. Monitoring Requirements

8.2.1. In order to demonstrate compliance with the emission limits specified in Requirement 8.1.1 the permittee shall daily monitor flow rate of the Wet Scrubber (C-21) when it is in operation and maintain it at or above 3 gpm during normal operations. An alarm, inspection, corrective actions (if necessary) and recordkeeping per Requirement 8.4.1 are triggered if flow rate drops below 3 gpm. **[45CSR§§30-5.1.c. and 12.7]**

8.2.2. **CAM monitoring requirement**. The permittee shall maintain a pressure gauge on all Fabric Filter Dust Collector for pressure drop observations. The permittee shall maintain records of the maintenance performed on each fabric filter and pressure gauges. These records shall include all maintenance work performed on each fabric filter including the frequency of bag/filter change outs. Records shall state the date and time of each fabric filter inspection, the inspection results, and corrective action taken, if any. Records shall be maintained on site as per Requirement 3.4.2. The differential pressure drop across each of the three fabric filters compartments (C-01, C-02 and C-03, Emission Points S-06, S-07 and S-08,) shall be monitored at least once daily. Records shall be kept on site with entries based on indicator gauge readings. The indicator gauges, mounted on each Fabric Filter Dust Collector compartment, shall be examined to ensure they are functioning properly. Minimum acceptable accuracy of pressure gauges is $\pm$ 2% of the full range. Readings should be averaged on a daily basis. A daily average pressure drop outside of the following range is considered an excursion:

Emission Point ID	Description	Control Device ID	CAM pressure drop range (in of H_2O)
S-06	Briquet Dryer Discharge Conveyors	C-01	2-10.5
S-07	Briquet Packaging Lines	C-02	1-5.5
S-08	Finished Briquet Handling Lines	C-03	2-12

If an excursion occurs, corrective action, if necessary, shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and recordkeeping and reporting shall be initiated.
[45CSR§§30-5.1.c and 12.7, and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

8.2.3. Visible emissions monitoring for Dry Storage tanks or their control devices (if any) with exhaust stacks located outdoors (Emission Points S-10 through S17, S19) shall be performed per Requirement 3.2.1. Upon beginning of normal operations weekly Method 22 checks shall be conducted at the time of each tank loading/unloading operations for a minimum of 6 consecutive weeks for all the emission points listed above. If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.7, then corrective actions shall be taken immediately, and monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR13, R13-1608, 4.2.2 and 45CSR§30-5.1.c]

8.2.4. Visible emissions monitoring for Minors Ingredients Batching System and Briquet Handling emission points or their control devices (if any) with exhaust stacks located outdoors (Emission Points S

Describe the parameters monitored and/or methods used to indicate performance of this control device. (Per Title V Operating Permit No. R30-0930004-2014)

-06, S-07, S-08, S-22 and S-23) shall be performed per Requirement 3.2.1. Upon beginning of normal operations weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for all the emission points listed above. If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1, then monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR13, R13-1608, 4.2.2 and 45CSR§30-5.1.c]

8.2.5. Each opacity evaluation observation per 45CSR§7A-2.1.a,b (as per Requirement 3.2.1) for Emission Pointslisted in Requirement 8.2.4. shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater than the opacity limit for the emission unit, in which case the observation period shall be extended to a 60 minutes or until a violation of the emissions standard per 45CSR§7-3.2 has been documented. (more than twenty (20) single opacity readings are in excess of 20% opacity, but less than 40% opacity, or any single reading is equal or in excess of 40% opacity); whichever is the shorter period.
[45CSR§30-5.1.c]

8.2.6. Compliance with the particulate matter and visible emission requirements as set forth in condition 8.1.4, (*Emission Unit EU-08-03H*) shall be determined by conducting daily Method 22-like visible emission checks. At a minimum, the observer must be trained and knowledgeable regarding the effects of background contrast, ambient lighting, observer position relative to lighting, wind, and the presence of uncombined water (condensing water vapor) on the visibility of emissions. This training may be obtained from written materials found in the References 1 and 2 from 40 C.F.R. Part 60, Appendix A, Method 22 or from the lecture portion of the 40 C.F.R. Part 60, Appendix A, Method 9 certification course.

The visible emission check shall be performed during periods of facility operation at least once per day during daylight hours and appropriate weather conditions for a sufficient time interval to determine if any visible emissions are present.

If visible emissions are present during these checks or at any other time, visible emissions evaluations in accordance with 45CSR§§7A-2.1.a and 2.1.b shall be conducted immediately. Such evaluations shall not be required if the visible emissions condition is corrected as expeditiously as possible and the cause and corrective measures taken are recorded. The 45CSR7A evaluations shall be conducted during periods of facility operation.
[45CSR§30-5.1.c, 45CSR§7A-2.1]

8.3. Testing Requirements

8.3.1. N/A

8.4. Recordkeeping Requirements

8.4.1. Keep records of the scrubber C-21 flow rate on daily basis when the scrubber is in operation, and also of date and time when flow rate drops below 3 gpm during normal operations, and of the inspection and corrective actions taken (if any) as per Requirement 8.2.1.
[45CSR§30-5.1.c]

ATTACHMENT G – Air Pollution Control Device Form

Describe the parameters monitored and/or methods used to indicate performance of this control device. (Per Title V Operating Permit No. R30-0930004-2008)

8.4.2. Visible emission checks recordkeeping as per Requirements 8.2.3 and 8.2.4.

8.4.3. General Recordkeeping Requirements for 40 C.F.R. Part 64 (CAM)

(2) The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(3) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm,computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[45CSR§30-5.1.c and 40 C.F.R. §64.9(b)]

8.5. Reporting Requirements

8.5.1. Opacity exceedance reporting as per Requirement 3.5.8.a.1.

8.5.2. General Reporting Requirements for 40 C.F.R. Part 64 (CAM)

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring thatmeets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the Director in accordance with permit condition 3.5.6.

(2) A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under permit condition 3.5.8 and the following information, as applicable:

(iv) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(v) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(vi) A description of the actions taken to implement a QIP (if required by 3.2.6) during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a) and 45CSR§30-5.1.c]

8.6. Compliance Plan

8.6.1. N/A

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-02 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-08-02A Briquet Packaging Lines – Weigh Scales E-08-02B Briquet Packaging Lines - Bag Filling Operation	
Manufacturer: Standard Havens	**Model number:** 24A/M1	**Installation date:** 1992

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
The briquet handling and packaging system is controlled by four (4) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm, C-03 @ 25,000 cfm and C-35 @ 8,500 cfm).

Is this device subject to the CAM requirements of 40 C.F.R. 64? _X_ Yes ___ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See the requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-03 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-08-03A through G Finished Briquet Handling Line	
Manufacturer: BHA/DCE Vokes	**Model number:** Not determined	**Installation date:** 1995

Type of Air Pollution Control Device:

_X__ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
The briquet handling and packaging system is controlled by four (4) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm, C-03 @ 25,000 cfm and C-35 @ 8,500 cfm).

Is this device subject to the CAM requirements of 40 C.F.R. 64? _X_ Yes ___ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-07 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-01 Coal Tank E-06-02 Beryl Char Tanks	
Manufacturer: Adaptive Engineering & Fabrication	**Model number:** BVC-36	**Installation date:** 1986, replaced 2003

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Char and coal is transferred to the char and coal silos via bucket elevators. Particulate matter emissions from the silos are controlled by a fabric filter dust collector (C-07).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-08 Thermal After-Combustion Chamber (ACC)	**List all emission units associated with this control device.** E-03-01 Rotary Wood Dryer and Retort Furnace E-05-01 Solvent Treated Briquette Production E-07-01 Wood Dryer Burner and Furnace Burner	
Manufacturer: Kingsford Mfg. Co.	**Model number:** None	**Installation date:** 2003

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	_X_ Other (describe) Direct thermal oxidizer
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
CO	100%	99%
VOC	100%	99%
PM/PM10/PM2.5	100%	95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
The purpose of the ACC is waste heat energy recovery and control of particulates, CO and VOC. Volatile gases from the retort furnace are ducted by the furnace cyclones (C-06) to the ACC where they are combusted. Some of the resulting combustion gases are routed to the wood dryer as a heat source with the remainder of the ACC exhaust gases venting through the ACC stack. A natural gas burner (50 MMBtu) is used during startups, short duration maintanence shutdowns, and periodically during operation to maintain ACC temperatures above 1,600°F.

Is this device subject to the CAM requirements of 40 C.F.R. 64? _X_ Yes ___ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**

Describe the parameters monitored and/or methods used to indicate performance of this control device.
See attached sheets.

Describe the parameters monitored and/or methods used to indicate performance of this control device. (Per Title V Operating Permit No. R30-09300004-2014)

5.1. Limitations and Standards

5.1.1. Summary of emissions to the atmosphere from ACC stack (Emission point S-01-01) and Briquet Dryers' stack (Emission points S-01-03, S-01-04, S-01N-05, S-01N-06) shall not exceed the following:

Emission Point ID	Pollutant	Hourly Emissions (lbs/hr)	Annual Emission (TPY)
S-01-01 S-01-03 S-01-04 S-01N-05 S-01N-06	NO_x	87.5	237.51
	CO	11.9	13.31
	VOC	2.65	6.65
	SO_2	23.8	64.6
	PM	62.6	175.78
	PM_{10}	46.5	129.07
	Methanol	-	3.7

[45CSR13, R13-1608, 4.1.6.]

5.1.2. No person shall cause, or allow the emission of particles of unburned or partially burned refuse or ash from any incinerator which are large enough to be individually distinguished in the open air.
[45CSR§6-4.5.]

5.1.3. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.
[45CSR§6-4.6.]

5.1.4. No person shall cause, suffer, allow or permit the emission into the open air from any source operation an in-stack sulfur dioxide concentration exceeding 2,000 parts per million by volume from existing source operations.
[45CSR§10-4.1.]

5.1.5. The ACC shall be operated such that the average combustion chamber temperature does not drop more than 50ºF below temperature specified in Condition 5.2.2. for periods of time which do not exceed three (3) hours during normal operations (not including periods of system startup, shutdown or maintenance).
[45CSR13, R13 1608, 4.1.12.]

5.2. Monitoring Requirements

5.2.1. **CAM monitoring requirement**. The permittee shall install, calibrate, maintain, and continuously operate a monitoring device with recorder for the measurement of the ACC combustion chamber temperature (E-03-01). The monitoring device is to be certified by the manufacturer to be accurate within + one (1) percent in degrees Fahrenheit. Accuracy of each thermocouple will be verified by a second thermocouple in the ACC stack. The validation check shall be conducted monthly. The acceptance criterion is +/- 50 ^{o}F.
[45CSR13, R13-1608, 4.2.3., 45CSR§30-5.1.c. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

5.2.2. Compliance with the hourly emission limits set forth in Requirement 4.1.3. and 6.1.2. will be demonstrated if the ACC average combustion chamber temperature is maintained at or above a minimum of 1,600°F on a rolling 3-hour average during normal operations (not including periods of system startup, shutdown or maintenance). The permittee may establish a lower ACC combustion chamber temperature by conducting a performance test at the lower temperature while demonstrating compliance with the emission limitations of paragraphs 4.1.3. and 6.1.2.
[45CSR13, R13-1608, 4.1.11., 45CSR§30-12.7. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

5.2.3. **CAM monitoring requirement**. An excursion shall be defined as: if during normal operation, the 1-hour average ACC temperature drops below 1,600ºF . Excursions trigger an on-screen alarm, an inspection and evaluation, corrective action, recordkeeping and reporting requirements. The monitoring system shall continually sense the indicator, poll the indicator at least once per minute, compute 1-hour averages, and record 1-hour averages.
[45CSR§30-12.7. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

5.2.4. Visible emissions monitoring per Requirement 3.2.1. Daily Method 22 checks shall be conducted for a minimum of 4 consecutive weeks for the ACC stack outlet (Emission Point S-01-01). If in compliance, then weekly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1, then for this emission point monitoring shall revert back to the daily frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.
[45CSR13, R13-1608, 4.2.2.]

5.2.5. Each opacity evaluation observation per 45CSR§7A-2.1.a,b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater that the opacity limit for the emission unit, in which case the observation period shall be extended to a 60 minutes or until a violation of the emissions standard per 45CSR§7-3.2. has been documented (more than twenty (20) single opacity readings are in excess of 20% opacity, but less than 40% opacity, or any single reading is equal or in excess of 40% opacity); whichever is the shorter period.
[45CSR§30-5.1.c.]

5.3. Testing Requirements

5.3.1. Testing per Section 3.3. Requirements.

Recordkeeping Req

5.4.1. Records of the combustion chamber temperature shall be maintained in accordance with Condition 3.4.2
[45CSR13, R13-1608, 4.2.3.]

5.4.2. To demonstrate compliance with Requirement 5.1.3. the permittee shall maintain a record of all odor complaints received. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions taken.
[45CSR§30-5.1.c.]

5.4.3. Visible emission checks recordkeeping as per requirement 5.2.4.

5.4.4. General Recordkeeping Requirements for 40 C.F.R. Part 64 (CAM)

(1) The combustion chamber temperature per Requirement 5.2.2 shall be recorded hourly.

(a) The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).

(b) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

[45CSR§30-5.1.c. and 40 C.F.R. §64.9(b)]

5.4. Reporting Requirements

5.5.1. Opacity exceedance reporting as per requirement 3.5.8.a.1.

5.5.2. General Reporting Requirements for 40 C.F.R. Part 64 (CAM)

(1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the Director in accordance with permit condition 3.5.6.

(2) A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:

(i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;

(ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and

(iii) A description of the actions taken to implement a QIP (if required by 3.2.6.) during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. **[40 C.F.R. §64.9(a)]**

5.6 Compliance Plan

5.6.1. N/A

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-11 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-05 Retort Char Tanks and Transfer	
Manufacturer: Mac Process, Inc.	**Model number:** 72AVR32, Style III	**Installation date:** 2012

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Char is transferred pneumatically from the retort furnace to the retort char tanks. Control of particulate matter is provided by this fabric filter (C-11).

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-12 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-06 Bulk Lime Tank	
Manufacturer: Adaptive Engineering & Fabrication	**Model number:** BVC-36	**Installation date:** 2001

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Lime is pneumatically transferred to the bulk lime tank. This fabric filter (C-12) controls particulate matter emission from this operation.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X__ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-13 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-07 Bulk Nitrate Tank	
Manufacturer: Adaptive Engineering	**Model number:** BVS-36X	**Installation date:** 2001

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
Nitrate is pneumatically conveyed to the bulk nitrate tank (currently out of service). This fabric filter (C-13) controls particulate matter emissions from this operation.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-14 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-08 Bulk Starch Tank	
Manufacturer: Adaptive Engineering & Fabrication	**Model number:** BVC-36	**Installation date:** 2002

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

Starch is pneumatically conveyed to the bulk starch tank. This fabric filter (C-14) provides control of particulate matter for this operation.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-15 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-09 Lime Use Tank	
Manufacturer: Adaptive Engineering & Fabrication	**Model number:** FRC-9X27	**Installation date:** 2016

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

This control device (C-15) controls particulate matter emissions from the lime use tank.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-16 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-0A Wet Starch Use Tank	
Manufacturer: Griffin	**Model number:** JV-54-4X	**Installation date:** 1993

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter ___ Venturi Scrubber ___ Multiclone

___ Carbon Bed Adsorber ___ Packed Tower Scrubber ___ Single Cyclone

___ Carbon Drum(s) ___ Other Wet Scrubber ___ Cyclone Bank

___ Catalytic Incinerator ___ Condenser ___ Settling Chamber

___ Thermal Incinerator ___ Flare ___ Other (describe) _____

___ Wet Plate Electrostatic Precipitator ___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

This control device (C-16) controls particulate matter emissions from the wet starch use tank.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-18 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-06-0C Borax Use Tank	
Manufacturer: Griffin	**Model number:** JV-54-4X	**Installation date:** 1993

Type of Air Pollution Control Device:

_X_ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

This fabric filter (C-18) provides control of particulate matter for the Borax use tank.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** N/A. Inherent process equipment used to collect and transfer raw materials.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-21 Wet Scrubber	**List all emission units associated with this control device.** E-06-0F Minor Batch Mixing (starch, nitrate, and borax mixing tanks)	
Manufacturer: Mikro-Pul	**Model number:** Type DS2-30	**Installation date:** 1976

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	_X_ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	90+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

This scrubber (C-21)provides control of particulate matter for the minors mixer and the starch, nitrate and borax mixing tanks.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Pre-control emissions from this unit are less than major source thresholds.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-34 Wet Scrubber	**List all emission units associated with this control device.** E-02-09 Beryl Char and Truck Dumping	
Manufacturer: MikroPul Mikrovane Scrubber	**Model number:** Size 66, Type LP	**Installation date:** 2003

Type of Air Pollution Control Device:

___ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	_X_ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	90+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).

This scrubber (C-21) provides control of particulate matter for the Beryl Char and Truck Dump (E-02-09). The scrubber has an inlet gas volume of 15,000 cfm, a pressure drop of 5" W.G> and a water flow rate of 45 gpm @ 25 psi.

Is this device subject to the CAM requirements of 40 C.F.R. 64? ___ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.** Pre-control emissions from this unit are less than major source thresholds.

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-35 Fabric Filter Dust Collector	**List all emission units associated with this control device.** E-08-03H Packaging Scale Bin In Feed	
Manufacturer: Wheelabrator	**Model number:** Model 55	**Installation date:** 2011

Type of Air Pollution Control Device:

_X__ Baghouse/Fabric Filter	___ Venturi Scrubber	___ Multiclone
___ Carbon Bed Adsorber	___ Packed Tower Scrubber	___ Single Cyclone
___ Carbon Drum(s)	___ Other Wet Scrubber	___ Cyclone Bank
___ Catalytic Incinerator	___ Condenser	___ Settling Chamber
___ Thermal Incinerator	___ Flare	___ Other (describe) _____
___ Wet Plate Electrostatic Precipitator		___ Dry Plate Electrostatic Precipitator

List the pollutants for which this device is intended to control and the capture and control efficiencies.

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
The briquet handling and packaging system is controlled by four (4) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm, C-03 @ 25,000 cfm and C-35 @ 8,500 cfm).

Is this device subject to the CAM requirements of 40 C.F.R. 64? __ Yes _X_ No

If Yes, **Complete ATTACHMENT H**

If No**, Provide justification.**
Pre-control emissions from this unit are less than major source thresholds..

Describe the parameters monitored and/or methods used to indicate performance of this control device.

See requirements for C-01

ATTACHMENT H
COMPLIANCE ASSURANCE MONITORING (CAM) FORM

TABLE H-1
CAM APPLICABILITY
KINGSFORD MANUFACTURING COMPANY - PARSONS, WEST VIRGINIA

Emission Point ID	Equipment Descriptions	Emission Point ID	Equipment Description and ID	Year Installed/ Modified	Design Capacity or Allowable Limit	Pollutant Controlled	Pre-Control Emissions	CAM Applicability
E-03-01 E-05-01	Wood Drying and Charring System Solvent Treated Briquet Operation	S-01-01, 19A	After Combustion Chamber C-08 95% destruction efficiency for VOC	2003	370,000	VOC, CO, PM/PM10/PM2.5	> 100 tpy	Applicable. Addressed in prior Title V applications
E-03-01	Wood Drying and Charring System	S-01-01	Four (4) Dryer Cyclones C-05 Fisher Klosterman XQ120-33	2003	58,372 ACFM	PM/PM10/PM2.5	N/A	N/A. Inherent process equipment used to collect dry wood.
E-03-01	Wood Drying and Charring System	S-01-01	Four (4) Furnace Cyclones C-06 Fisher Klosterman XQ120-23	1984	58,372 ACFM	PM/PM10/PM2.5	N/A	N/A. Inherent process equipment used to collect char.
E-05-01	Solvent Treated Briquet Operation	19A, 19B	Solvent chiller Mfg: Carrier, Model: 30RAN045J-601DT	2002	Unknown	VOC	N/A	N/A. The solvent chiller is not a control device as it does not "destroy or remove" pollutants.
E-08-01	Briquet Handling	S-06	Fabric Filter Dust Collector (C-01) Mfg: Pneumafil, Model: 11.5-3168	1992	15,000 CFM	PM/PM10/PM2.5	> 100 tpy	Applicable. Addressed in prior Title V applications
E-08-02A, B	Briquet Handling	S-07	Fabric Filter Dust Collector (C-02) Mfg: Standard Havens, Model: 24A/M1	1992	30,000 CFM	PM/PM10/PM2.5	> 100 tpy	Applicable. Addressed in prior Title V applications
E-08-02 C,D,E,F,G	Briquet Handling	S-08	Fabric Filter Dust Collector (C-03), Mfg: BHA / DCE Volkes	1995	25,000 CFM	PM/PM10/PM2.5	> 100 tpy	Applicable. Addressed in prior Title V applications
E-06-01 E-06-02	Coal Tank Beryl Char Tank	S-10	Fabric Filter Dust Collector (C-07) Mfg: Adaptive Engr., Model BVC-36	2003	560 CFM	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-05	Retort Char Tanks and Transfer	S-13	Fabric Filter Dust Collector (C-11) Mfg Mac Process, Inc., Model 72AVR32, Style III	2012	1406 CFM	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-06	Bulk Lime Tank	S-14	Fabric Filter Dust Collector (C-12) Mfg: Adaptive Engr., BVC-36X	2003	560 CFM	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-07	Bulk Nitrate Tank	S-15	Fabric Filter Dust Collector (C-13) Mfg: Adaptive Engr., BVC-36X	2001	560 CFM	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-08	Bulk Starch Tank	S-16	Fabric Filter Dust Collector (C-14) Mfg: Adaptive Engr., BVC-36X	2003	560 CFM	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-09	Lime Use Tank	S-17	Fabric Filter Dust Collector (C-15) Mfg: Adaptive Engr., FRC-9X27	2003 / 2016	425 CFM	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-0A	Wet Starch Use Tank	S-18*	Fabric Filter Dust Collector (C-16) Griffin, Model JV-54-4X	1993	425 CFM	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-0C	Borax Use Tank	S-20*	Fabric Filter Dust Collector (C-18) Griffin, Model JV-54-4X	1993	Unknown	PM/PM10/PM2.5	Unknown	N/A. Inherent process equipment used to collect and transfer raw materials.
E-06-0F	Minors Batch Mixing	S-23	Wet Scrubber (C-21) Mikropul Type DS2-30	1976	99.5% PM	PM/PM10/PM2.5	< 100 tpy	Not applicable
E-07-01	ACC and Furnace Burners	S-07-01	Furnace and ACC Burners	Various		VOC, CO, PM/PM10/PM2.5	Included with E-03-01	Applicable. Addressed in prior Title V applications as part of E-03-01
E-0A-01	Unleaded Gasoline (emits 1.1 TPY VOC)	S-25	Conservation vent (C-25)	1988	10,000 gal	VOC	N/A	N/A. The vents are not control devices as they do not "destroy or remove" pollutants.
E-0A-02	Diesel Oil	S-26	Conservation vent (C-26)	1988	10,000 gal	VOC	N/A	
E-0A-03	Kerosene	S-27	Conservation vent (C-27)	1988	500 Gal	VOC	N/A	
E-0A-04	Oil 15/40	S-28	Conservation vent (C-28)	1988	<55 gal	VOC	N/A	
E-0A-05	Oil 30	S-29	Conservation vent (C-29)	1988	<55 gal	VOC	N/A	
E-0A-06	Transmission Fluid	S-10	Conservation vent (C-30)	1988	<55 gal	VOC	N/A	
E-0A-07	Hydraulic Fluid	S-31	Conservation vent (C-31)	1988	<55 gal	VOC	N/A	
E-0A-08	Used Oil	S-32	Conservation vent (C-32)	1996	500 gal	VOC	N/A	
E-0B-02	Emergency Generator	S-36	Catalyst	2012	228 BHP	CO	<100 tpy	Not applicable
E-02-09	Beryl Char and Coal Truck Dumping	S-34	Wet Scrubber (C-34) Mfg: MikroPul Mikrovane, Size 66, Type LN	2003	15,000 CFM	PM/PM10/PM2.5	< 100 tpy	Not applicable
E-08-03H	Briquet Handling	S-35	Fabric Filter Dust Collector (C-35) Wheelabrator, Model 55	2011	8,500 CFM	PM/PM10/PM2.5	<100 tpy	Not applicable

APPENDIX B
FACILITY EMISSIONS

TABLE B-1
POTENTIAL FACILITY EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Source	Potential Annual Emissions (tons/yr)										
	NO_x	CO	VOC	SO_2	PM	PM_{10}	$PM_{2.5}$	Methanol	Lead	Total HAPs	Non-Biogenic CO_2e
Wood & Char Piles (E-01)					15.00	7.05	1.05		5.25E-05	5.25E-05	
Raw Material Handling (E-02)					0.71	0.34	0.05		2.97E-06	2.97E-06	
Charring & Briquet Dryers (E-03)	237.50	13.31	6.65	64.60	175.78	129.07	66.97	3.70	1.36E-02	3.71E+00	5722.68
Briquet Coolers (E-04)					38.50	19.25	11.55		6.43E-04	6.43E-04	
Solvent Treated Briquet Production (E-05)			83.00								
Minor Ingredient Batching/Dry Storage (E-06)					2.94	2.94	2.94		9.73E-06	9.73E-06	
Natural Gas Burning (E-07)	10.00	8.40	0.55	0.06	0.76	0.76	0.76		5.00E-05	5.00E-05	51,247.11
Briquet Handling (E-08)					29.47	29.47	29.47		4.92E-04	4.92E-04	
Plant Roads (E-09)					5.81	1.16	0.29				
Liquid Storage (E-10)			1.10								
Emergency Equipment (E-11)	3.29	0.89	0.32	0.28	0.27	0.27	0.27			5.50E-03	
Total	**250.79**	**22.60**	**91.62**	**64.94**	**269.23**	**190.31**	**113.35**	**3.70**	**1.48E-02**	**3.72**	**56,969.79**

Source	Operating Schedule (hr/yr)	Units	Maximum Annual Production (dry ton/yr)	Maximum Hourly Production (dry ton/hr)
ACC	8,760	Wood (dry)	209,000	38.5
		Wood (wet)	418,000	
Briquet Dryers	8,760	Dry Briquets	154,000	24

Potential to emit assumptions
Natural gas throughput - 200 MMcf/yr
Solvent treaded briquet (STB) production - 20 tph, 64,000 tpy
Baghouses - outlet grain loading 0.01 gr/scf, 8.760 hours/yr
Wood pile throughput - 500,000 tpy

TABLE B-2
WOOD AND CHAR PILE EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Emissions Unit Number	Emissions Point Number	Name of Emissions Unit	Annual Throughput[a]	PM Emissions Factor[b]	Control Factor	Hourly PM Emissions Rate	Hourly PM_{10} Emissions Rate	Hourly $PM_{2.5}$ Emissions Rate	Annual PM Emissions Rate	Annual PM_{10} Emissions Rate	Annual PM2.5 Emissions Rate
			(Dry Tons)	(lb/Dry Ton)		(lbs)	(lbs)	(lbs)	(Tons)	(Tons)	(Tons)
01	01	Wood Pile	250,000	0.1		2.85	1.34	0.20	12.50	5.88	0.88
	02	Char and coal Pile	50,000	0.1		0.57	0.27	0.04	2.50	1.18	0.18
TOTALS						3.42	1.61	0.24	15.00	7.05	1.05

[a] Emission factor based on conservative adjustment of AP-42 factors. PM10 and PM2.5 fractions were calculated pursuant to AP-42 Section 13.2.4. See Table C-3 for details.

TABLE B-3
MATERIAL HANDLING EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Emissions Unit Number	Emissions Point Number	Name of Emissions Unit	Annual TPY (Wet Tons)	PM Emissions Factor[a] (lb/Wet Ton)	PM_{10} Emissions Factor (lb/Wet Ton)	$PM_{2.5}$ Emissions Factor (lb/Wet Ton)	Control Factor	Hourly PM Emissions Rate (lbs)	Hourly PM_{10} Emissions Rate (lbs)	Hourly PM_{10} Emissions Rate (lbs)	Annual PM Emissions Rate (Tons)	Annual PM_{10} Emissions Rate (Tons)	Annual $PM_{2.5}$ Emissions Rate (Tons)
02	01	Transfer Drag Pit to 48" Belt	418,000	9.19E-04	4.35E-04	6.59E-05	0	0.043873909	0.020751173	0.00314232	0.192	0.091	0.014
02	02	Primary Screening	418,000	9.19E-04	4.35E-04	6.59E-05	0	0.043873909	0.020751173	0.00314232	0.192	0.091	0.014
02	03	Secondary Screening	125,400	9.19E-04	4.35E-04	6.59E-05	0	0.013162173	0.006225352	0.000942696	0.058	0.027	0.004
02	04	600 Ft Belt to Dryer Feed Bin	418,000	9.19E-04	4.35E-04	6.59E-05	0	0.043873909	0.020751173	0.00314232	0.192	0.091	0.014
02	05	Wood with Metal Bypass Belt	418	9.19E-04	4.35E-04	6.59E-05	0	4.38739E-05	2.07512E-05	3.14232E-06	1.92E-04	9.09E-05	1.38E-05
02	06	Wood Dryer Bin Bypass Screw	418	9.19E-04	4.35E-04	6.59E-05	0	4.38739E-05	2.07512E-05	3.14232E-06	1.92E-04	9.09E-05	1.38E-05
02	07	Char Truck Transport	0	9.19E-04	4.35E-04	6.59E-05	0	0	0	0	0.000	0.000	0.000
02	09	Beryl Char and Coal Truck Dumping	111,600	9.19E-04	4.35E-04	6.59E-05	0	0.011713704	0.005540265	0.000838954	5.13E-02	2.43E-02	3.67E-03
02	0A	Bulk Coal Tank to Belt Transfer	61,600	9.19E-04	4.35E-04	6.59E-05	0	0.006465629	0.003058068	0.000463079	2.83E-02	1.34E-02	2.03E-03
02	0B	Rerun Char Tank Bypass Screw	154	9.19E-04	4.35E-04	6.59E-05	0	1.61641E-05	7.64517E-06	1.1577E-06	7.08E-05	3.35E-05	5.07E-06
02	0C	Material Handling, Char Hammer mill		0	0	0	0	0	0	0	0.00	0.00	0.00
02	0D	Existing Wood Sizing Hammermill New Wood Sizing Hammermill		0	0	0	0	0	0	0	0.00	0.00	0.00
02	0E	Limestone Handling	15,000	2.E-02	1.E-02	2.E-03	0	0.042460029	0.020082446	0.003041056	0.19	0.09	0.01
TOTALS								0.16	0.08	0.01	0.71	0.34	0.05

[a]For wood coal and char, PM and PM_{10} emission factors estimated per AP-42, Section 13.2.4
Emissions Factor = Particle Size Multiplier x 0.0032 x (Wind Speed/5)$^{1.3}$ / (Moisture Content/2)$^{1.4}$
per AP-42, Section 13.2.4.
Particle size multiplier = 0.74 for PM_{30}, 0.35 for PM_{10}.
Wind speed = 6.2 mph
Moisture content conservatively assumed to be similar to coal (4.8%)

For bulk limestone unloading (e-02-0E), emissions were estimated from US EPA AP-42 Chapter 13.2.4 "Aggregate Handling and Storage Piles" (11/06) using the equation E=k*0.0032*[(U/5)1.3/(M/2)1.4] where E is the emission factor in lb/ton, k is the particle size multiplier, U is the mean wind speed in mph, and M is the material moisture content in %. Wind speed used in the calculations is 6.2mph (average annual wind speed for Parson, WV), and Moisture content used was 1% (lower range of moisture content of delivered limestone per supplier).Particle size multipliers are 0.74 for PM, 0.35 for PM10, and 0.053 for PM2.5. Thre e drop points were estimated.

TABLE B-4
CHARRING/ACC AND BRIQUET DRYER EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Emissions Unit Number	Emissions Point Number	Pollutant	Maximum Annual Char Production (tons/yr)	Emission Factor[a] (lb/ton char)	Maximum Annual Wood Throughput (tons/yr)	Emission Factor[a] (lb/ton dry wood)	ACC Stack Emission Rate[b] (ton/yr)	Stack Emission Rate[c] (ton/yr)	Total Emission Rate (ton/yr)
03	01/02/03N	NO_x	38,000	12.5	209,000	2.27	201.88	35.63	237.50
		CO	38,000	N/D	209,000	N/D	1.00	12.31	13.31
		VOC	38,000	N/D	209,000	N/D	1.15	5.50	6.65
		SO_2	38,000	3.4	209,000	0.62	54.91	9.69	64.60
		PM	38,000	7.23	209,000	1.31	137.28	38.50	175.78
		PM_{10}	38,000	5.78	209,000	1.05	109.82	19.25	129.07
		$PM_{2.5}$	38,000	2.51	209,000	0.46	47.72	15.40	63.12
		Methanol	38,000	N/D	209,000	N/D	0.64	3.06	3.70

[a] Emission factors for wood dryer/retort furnace/ACC system based upon data from similar Kingsford operations, increased for statistical confidence. The ACC PM_{10} fraction is estimated to be 80% of PM, again based on similar Kingsford operations.
[b] Stack emission rates for gaseous pollutants are split 85% to the ACC and 15% to the briquet dryers based on the 15% flow going to the briquet dryers. ACC stack emission factors & rates for TSP and PM_{10} do not account for the 15% exhausted to the briquet dryers since these emissions are accounted for in the dryer TSP/PM_{10} calculations.
[c] Briquet dryer PM emissions come from Table C-5.
[d]Methanol emissions using U.S. EPA AP-42 Section 10.7 (September 1995) ratio of methanol to VOC emission factors times estimated VOC emissions from ACC and briquet dryers:
AP-42 Ratio of Methanol to VOC = [(150 lb methanol/ton) / (270 lb VOC/ton)] = 0.556 methanol/VOC

TABLE B-5
BRIQUET DRYER/COOLER EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Emissions Unit Number	Emissions Point Number	Source	Maximum Annual Production	PM Emission Factor[a]	PM Emission Rate	PM_{10} Emission Factor[a]	PM_{10} Emission Rate	$PM_{2.5}$ Emission Factor[a]	$PM_{2.5}$ Emission Rate
			(tons/yr)	(lb/ton briquets)	(ton/yr)	(lb/ton briquets)	(ton/yr)	(lb/ton briquets)	(ton/yr)
03	02/03N	Briquet Dryers	154,000	0.5	38.50	0.25	19.25	0.2	15.40
04	01/02N	Briquet Coolers	154,000	0.5	38.50	0.25	19.25	0.15	11.55

[a] PM emission factors based upon emissions data from similar Kingsford operations, increased for statistical confidence. PM10 fraction is assumed to be 50% of PM also based upon similar Kingsford operations., and PM2.5 factors based on emissions measured at aimilar Kingsford operations.

TABLE B-6
SOLVENT TREATED BRIQUET PRODUCTION EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Emissions Unit Number	Emissions Point Number	Pollutant	Maximum Annual STB Production (tons/yr)	Total Emission Rate[a] (ton/yr)
05	01	VOC	64,000	83.00

[a] Emissions unchanged from current operating permit.
Hourly VOC Emissions
Scenario A - 2.82 lbs/hr @ 20 tph STB - ACC operating
Scenario B - 36.6 lbs/hr @ 13 tph STB - ACC down

TABLE B-7
MINOR INGREDIENT BATCHING/DRY STORAGE EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Emissions Unit Number	Emissions Point Number	Name of Emissions Unit	Annual TPY/Normal CFM	PM Emission Factor[a] (lb/Wet Ton) (Gr/CF)	PM_{10} Emission Factor (lb/Wet Ton) (Gr/CF)	$PM_{2.5}$ Emission Factor (lb/Wet Ton) (Gr/CF)	Control Factor	Hourly PM Emission Rate (lbs)	Hourly PM_{10} Emission Rate (lbs)	Hourly $PM_{2.5}$ Emission Rate (lbs)	Annual PM Emission Rate (TONS)	Annual PM_{10} Emission Rate (TONS)	Annual $PM_{2.5}$ Emission Rate (TONS)
06	01	COAL TANK		1.00E-02	1.00E-02	1.00E-02	0.00%	0.00	0.00	0.00	0.000	0.000	0.000
	02	BERYL CHAR TANKS		1.00E-02	1.00E-02	1.00E-02	0.00%	0.00	0.00	0.00	0.000	0.000	0.000
	03	RERUN CHAR TANK	5	1.00E-01	1.00E-01	1.00E-01	0.00%	0.00	0.00	0.00	0.019	0.019	0.019
	04	YARD CHAR TANK	90	1.00E-01	1.00E-01	1.00E-01	0.00%	0.08	0.08	0.08	0.338	0.338	0.338
	05	RETORT CHAR TANKS & TRANSFER	1,406	1.00E-02	1.00E-02	1.00E-02	0.00%	0.12	0.12	0.12	0.528	0.528	0.528
	06	BULK LIME TANK	525	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.197	0.197	0.197
	07	BULK NITRATE TANK	560	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.210	0.210	0.210
	08	BULK STARCH TANK	560	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.210	0.210	0.210
	09	LIME USE TANK	600	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.225	0.225	0.225
	0A	WET STARCH USE TANK	425	1.00E-02	1.00E-02	1.00E-02	0.00%	0.04	0.04	0.04	0.160	0.160	0.160
	0B	DRY STARCH USE TANK (REMOVED)		1.00E-02	1.00E-02	1.00E-02	0.00%	0.00	0.00	0.00	0.000	0.000	0.000
	0C	BORAX USE TANK	250	1.00E-02	1.00E-02	1.00E-02	0.00%	0.02	0.02	0.02	0.094	0.094	0.094
	0D	NITRATE USE TANK	0	1.00E-02	1.00E-02	1.00E-02	0.00%	0.00	0.00	0.00	0.000	0.000	0.000
	0E	MULLER VENT	50	1.00E-01	1.00E-01	1.00E-01	90.00%	0.00	0.00	0.00	0.019	0.019	0.019
	0F	MINORS BATCH MIXING	2500	1.00E-02	1.00E-02	1.00E-02	0.00%	0.21	0.21	0.21	0.939	0.939	0.939
TOTALS								0.67	0.67	0.67	2.94	2.94	2.94

[a]PM and PM_{10} emission factors based on Kingsford operating experience for similar sources.

TABLE B-8
NATURAL GAS COMBUSTION EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Emissions Unit Number	Emissions Point Number	Pollutant	Maximum Annual Natural Gas Throughput[a] (10^6 ft^3/yr)	Emission Factors[b] (lb/10^6 ft^3)	Annual Hours of Operation[c] (hours/yr)	Emission Rate[d] (lb/hr)	Emission Rate[d] (ton/yr)
07	01	NOx	200	100	8,760	2.28	10.00
		CO	200	84.0	8,760	1.92	8.40
		VOC	200	5.5	8,760	0.13	0.55
		SO_2	200	0.6	8,760	0.01	0.06
		$PM/PM_{10}/PM_{2.5}$	200	7.6	8,760	0.17	0.76
		Lead	200	0.0005	8,760	0.00001	0.00005

[a] Based on approximately 6 times the actual annual usage of ~30 MMCF/yr.
[a]Emission factors based upon EPA AP-42 emission factors for natural gas-fired boilers (Section 1.4, 7/98). All PM assumed to be less than 1.0 micrometer.

TABLE B-9
BRIQUET HANDLING DUST COLLECTOR EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Emissions Unit Number	Emissions Point Number	Source	Pollutant	Flowrate (dscfm)	Exit Grain Loading[a] (gr/dscf)	Hours of Operation[b] (hr/yr)	Emission Rate (lb/hr)	(ton/yr)
08	01	Manufacturing	$PM/PM_{10}/PM_{2.5}$	15,000	0.01	8,760	1.29	5.63
	02	Packaging Process Equipment	$PM/PM_{10}/PM_{2.5}$	30,000	0.01	8,760	2.57	11.26
	03	Packaging Outside Handling	$PM/PM_{10}/PM_{2.5}$	25,000	0.01	8,760	2.14	9.39
	35	Packaging Weigh Scales	$PM/PM_{10}/PM_{2.5}$	8,500	0.01	8,760	0.73	3.19
						Total	6.73	29.47

[a]Typical baghouse exit grain loading. All PM is assumed to be PM2.5
[b]Hours of operation assumed similar to briquet dryer operating schedule.

TABLE B-10
PLANT ROAD POTENTIAL EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Emissions Unit Number	Emissions Point Number	Path	Throughput (tons)	Truck Payload (tons)	Round Trips (#)	Road Segments Used	Round Trip Distance (miles)	Annual VMT (miles)	Annual Operating Schedule (hours/yr)	Pollutant	Emission Factor (lbs/VMT)[a]	Emission Rate (lb/hr)	Emission Rate (tons/yr)
09	01	Hogfuel Delivery[b]	500,000 tons hogfuel	20	25,000	A	0.228	5,700	8,760	PM	0.664	0.432	1.892
									8,760	PM10	0.133	0.086	0.378
									8,760	PM2.5	0.033	0.021	0.093
		Coal Delivery[c]	12,160 tons coal	23	529	A,B,F	0.532	281	8,760	PM	0.664	0.021	0.093
									8,760	PM10	0.133	0.004	0.019
									8,760	PM2.5	0.033	0.001	0.005
		Lime Delivery[d]	1,900 tons lime	23	83	A,B,C,D,E	1.100	91	8,760	PM	0.664	0.007	0.030
									8,760	PM10	0.133	0.001	0.006
									8,760	PM2.5	0.033	0.000	0.001
		Starch Delivery[e]	3,230 tons starch	23	140	A,B,C,D,E	1.100	154	8,760	PM	0.664	0.012	0.051
									8,760	PM10	0.133	0.002	0.010
									8,760	PM2.5	0.033	0.001	0.003
		Nitrate Delivery[f]	190 tons nitrate	23	8	A,B,C,D,E	1.100	9	8,760	PM	0.664	0.001	0.003
									8,760	PM10	0.133	0.000	0.001
									8,760	PM2.5	0.033	0.000	0.000
		Borax Delivery[g]	95 tons borax	21.5	4	A,B,C,D,E	1.100	5	8,760	PM	0.664	0.000	0.002
									8,760	PM10	0.133	0.000	0.000
									8,760	PM2.5	0.033	0.000	0.000
		Beryl Char Delivery[h]	28,000 tons char	15	1,867	A,B,C,F	0.684	1,277	8,760	PM	0.664	0.097	0.424
									8,760	PM10	0.133	0.019	0.085
									8,760	PM2.5	0.033	0.005	0.021
		Solvent Delivery[i]	7,642 tons solvent	22	347	A,B,C,D,E	1.100	382	8,760	PM	0.664	0.029	0.127
									8,760	PM10	0.133	0.006	0.025
									8,760	PM2.5	0.033	0.001	0.006
		Bag Delivery[j]	27,720,000 bags	107,712 Bags/Truck	257	A,B,C,D,E	1.100	283	8,760	PM	0.664	0.021	0.094
									8,760	PM10	0.133	0.004	0.019
									8,760	PM2.5	0.033	0.001	0.005
		Pallet Wrap Delivery[k]	206,360 lbs. wrap	44,000 lbs/Truck	5	A,B,C,D,E	1.100	5	8,760	PM	0.664	0.000	0.002
									8,760	PM10	0.133	0.000	0.000
									8,760	PM2.5	0.033	0.000	0.000
		Shrink Film Delivery[l]	1,155,000 lbs. film	44,000 lbs/Truck	26	A,B,C,D,E	1.100	29	8,760	PM	0.664	0.002	0.010
									8,760	PM10	0.133	0.000	0.002
									8,760	PM2.5	0.033	0.000	0.000
		Pallet Delivery[m]	308,000 pallets	540 Pallets/Truck	570	A,B	0.418	238	8,760	PM	0.664	0.018	0.079
									8,760	PM10	0.133	0.004	0.016
									8,760	PM2.5	0.033	0.001	0.004
		Pallet Cap Delivery[n]	18 Trucks/Year	N/A	18	A,B,C,D,E	1.100	20	8,760	PM	0.664	0.002	0.007
									8,760	PM10	0.133	0.000	0.001
									8,760	PM2.5	0.033	0.000	0.000
		Pallet Liner Delivery[n]	12 Trucks/Year	N/A	12	A,B,C,D,E	1.100	13	8,760	PM	0.664	0.001	0.004
									8,760	PM10	0.133	0.000	0.001
									8,760	PM2.5	0.033	0.000	0.000
		Misc. Delivery[n]	2 Trucks/Year	N/A	2	A,B,C,D,E	1.100	2	8,760	PM	0.664	0.000	0.001
									8,760	PM10	0.133	0.000	0.000
									8,760	PM2.5	0.033	0.000	0.000
		Outbound Traffic	154,000 tons product	22	7,000	80% A,B,C,D 20% A,G	0.684 1.442	5,849	8,760	PM	0.664	0.443	1.941
									8,760	PM10	0.133	0.089	0.388
									8,760	PM2.5	0.033	0.022	0.095
		Routine Traffic	12 Miles/Day			A,B,C,D,E,F,G	0.721	3157.98	8,760	PM	0.664	0.239	1.048
									8,760	PM10	0.133	0.048	0.210
									8,760	PM2.5	0.033	0.012	0.051
		Retort Char Surge Traffic	12 Trucks/Year	15 tons	12	A,B,C,D,E	0.189	2	8,760	PM	0.664	0.00017	0.00075
									8,760	PM10	0.133	0.00003	0.00015
									8,760	PM2.5	0.033	0.00001	0.00004
		Total								PM		1.326	5.808
										PM10		0.265	1.162
										PM2.5		0.065	0.285

Road Segment	Length (Miles)
A	0.114
B	0.095
C	0.076
D	0.057
E	0.208
F	0.057
G	0.114

[a] Emission factor calculated according to AP-42 Chapter 13.2.1 (1/11), Paved Roads using the equation lb/VMT = $k(sL)^{0.91}$ x $(W)^{1.02}$]where k = particle size multiplier, sL = road surface silt loading in g/m2, and W = average vehicle weight in tons,.
For the Parsons Plant, the following data was used:
sL = 2 g/m2, based on worst case silt loading result of road dust sampling conducted a the KMC Parsons plant.
W = 30 tons (average tractor-trailer weight)
k = 0.011 for PM, 0.0022 for PM_{10}, and 0.00054 for $PM_{2.5}$
[b] Based on maximum dry tons hogfuel and assuming 50% moisture
[c] Maximum coal deliveries bassed on 32% of total maximum briquet production of 154,000 tons/yr.
[d] Maximum limedeliveries bassed on 5% of total maximum briquet production of 154,000 tons/yr.
[e] Maximum starch deliveries bassed on 8.5% of total maximum briquet production of 154,000 tons/yr.
[f] Maximum nitrate deliveries bassed on 0.5% of total maximum briquet production of 154,000 tons/yr.
[g] Maximum borax deliveries bassed on 0.25% of total maximum briquet production of 154,000 tons/yr.
[h] Maximum allowable char proction of KMC Beryl plant.
[i] Maximum solvent deliveries bassed on 11.94% of total maximum STB production of 64,000 tons/yr.
[j] Maximum potential bag deliveries based on 180 11.1 # bags per ton of maximum briquet production rate of 154,000 tons.
[k] Maximum potential wrap deliveries based on 2 pallets per ton of maximum briquet production rate of 154,000 tons and 0.67 lbs. wrap per pallet.
[l] Maximum potential film deliveries based on 30 bales per ton of maximum briquet production rate of 154,000 tons and 0.25 lbs. film per bale.
[m] 2 pallets per ton of maximum briquet production rate of 154,000 tons.
[n] Based on past actual deliveries scaled to maximum potential production rate.

TABLE B-11
DIESEL WATER PUMP EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Lake Pumps

Rated Capacity (hp)	Number of Sources	Annual Operating Schedule for Each Pump (hr/yr)	Pollutant	Emission Factor[a] (lbs/hp-hr)	Each Pump		All Pumps	
					Hourly Emissions (lbs/hr)	Annual Emissions (tons/yr)	Hourly Emissions (lbs/hr)	Annual Emissions (tons/yr)
115	4	500	PM	2.20E-03	0.25	6.33E-02	1.01	2.53E-01
115	4	500	SO2	2.05E-03	0.24	5.89E-02	0.94	2.36E-01
115	4	500	NOx	1.52E-02	1.75	4.37E-01	7.00	1.75E+00
115	4	500	CO	6.68E-03	0.77	1.92E-01	3.07	7.68E-01
115	4	500	VOC	2.51E-03	0.29	7.23E-02	1.16	2.89E-01

[a]Operating schedule for each pump based upon 0.5 hour of operation per month.
[b]All emission factors for uncontrolled diesel industrial engines. NOx per EPA 1997 standards for non-road combustion ignition engines. All others per EPA AP-42 (EPA AP-42, Section 3.3).

Fire Pump

Rated Capacity (hp)	Annual Operating Schedule (hr/yr)	Pollutant	Emissions Factors[a] (lb/MMBtu)	(g/hp-hr)	(lbs/hp-hr)	Emissions (lbs/hr)	(tons/yr)
420	500	NOx	N/D	6.640	0.0146	6.15	1.54
420	500	CO	N/D	0.490	0.0011	0.45	0.11
420	500	VOC	N/D	0.100	0.0002	0.09	0.02
420	500	$TPM/PM_{10}/PM_{2.5}$[b]	N/D	0.060	0.0001	0.06	0.01
420	500	SO_2	N/D	N/D	4.05E-04	0.17	0.04
HAPS							
420	500	Benzene	2.85E-04	N/D	2.00E-06	8.38E-04	2.09E-04
420	500	1,3-Butadiene	3.91E-05	N/D	2.74E-07	1.15E-04	2.87E-05
420	500	Toluene	4.09E-04	N/D	2.86E-06	1.20E-03	3.01E-04
420	500	Xylenes	2.85E-04	N/D	2.00E-06	8.38E-04	2.09E-04
420	500	Acetaldehyde	7.67E-04	N/D	5.37E-06	2.25E-03	5.64E-04
420	500	Acrolein	9.25E-05	N/D	6.48E-07	2.72E-04	6.80E-05
420	500	Napthalene	8.48E-05	N/D	5.94E-07	2.49E-04	6.23E-05
420	500	Formaldehyde	1.18E-03	N/D	8.26E-06	3.47E-03	8.67E-04
Total HAPS						9.24E-03	2.31E-03

[a]NOx, CO, VOC and PM emissions factors per engine manufacturer (Seee attached data sheet). All others per EPA AP-42 (EPA AP-42, Section 3.3, 3.4) assuming a BSFC of 7,000 Btu/hp-hr and a sulfur content of 500 ppm (0.05%).
[b]assumes all particulate matter is less than 1 µm as per EPA AP-42 Section 3.3 Table 3.3-1.

Emissions Using Manufacturer Supplied Emission Factors

Rated Capacity (kW/hr)	Rated Capacity (bhp-hr)	Annual Operating Schedule (hr/yr)	Pollutant	Emissions Factors (g/kW-hr)[a]	(g/bhp-hr)	NSPS Emission Standards[b] (g/hp-hr)	Emissions (lbs/hr)	(tons/yr)
177.50	238	100	NO_x	0.166	0.124	2.0	0.06	0.0032
177.50	238	100	VOC	0.166	0.124	1.0	0.06	0.0032
177.50	238	100	CO	0.417	0.311	4.0	0.16	0.0082

Emissions Using AP-42 Emission Factors

Rated Capacity (MMBtu/hr)	Annual Operating Schedule (hr/yr)	Pollutant	Emissions Factors (lbs/MMBtu)	Emissions (lbs/hr)	(tons/yr)
1.969	100	$TPM/PM_{10}/PM_{2.5}$[e]	0.0194	0.0382	0.0019
1.969	100	SO_2	5.88E-04	1.16E-03	5.79E-05
HAPs					
1.969	100	1,1,2,2- Tetrachloroethane	2.53E-05	4.98E-05	2.49E-06
1.969	100	1,1,2-Trichloroethane	1.53E-05	3.01E-05	1.51E-06
1.969	100	1.3-Butadiene	6.63E-04	1.31E-03	6.53E-05
1.969	100	1,3-Dichloropropene	1.27E-05	2.50E-05	1.25E-06
1.969	100	Acetaldehyde	2.79E-03	5.49E-03	2.75E-04
1.969	100	Acrolein	2.63E-03	5.18E-03	2.59E-04
1.969	100	Benzene	1.58E-03	3.11E-03	1.56E-04
1.969	100	Carbon Tetrachloride	1.77E-05	3.48E-05	1.74E-06
1.969	100	Chlorobenzene	1.29E-05	2.54E-05	1.27E-06
1.969	100	Chloroform	1.37E-05	2.70E-05	1.35E-06
1.969	100	Ethylbenzene	2.48E-05	4.88E-05	2.44E-06
1.969	100	Ethylene Dibromide	2.13E-05	4.19E-05	2.10E-06
1.969	100	Formaldehyde	2.05E-02	4.04E-02	2.02E-03
1.969	100	Methanol	3.06E-03	6.02E-03	3.01E-04
1.969	100	Methylene Chloride	4.12E-05	8.11E-05	4.06E-06
1.969	100	Napthalene	9.71E-05	1.91E-04	9.56E-06
1.969	100	PAHs	1.41E-04	2.78E-04	1.39E-05
1.969	100	Styrene	1.19E-05	2.34E-05	1.17E-06
1.969	100	Toluene	5.58E-04	1.10E-03	5.49E-05
1.969	100	Vinyl Chloride	7.18E-06	1.41E-05	7.07E-07
1.969	100	Xylene	1.95E-04	3.84E-04	1.92E-05
Total HAPs				**6.38E-02**	**3.19E-03**

[a] Manufacturer combined emission factor for combined THC + NO_x of 0.166 g/kW-hr used individually for both NO_x and VOC to demonstrate compliance with owner-operator emission standards in 40 CFR 60 Subpart JJJJ Table 1.
[b] From 40 CFR Subpart JJJJ Table 1, Emergency Engines greater than 130 hp.
[c] Based on maximum fuel consumption of 1930 c.f. an hour at 100% load.
[d]Emission factors from U.S, EPA AP-42 Chapter 3.2, (07/2000) Natural Gas-fired Rich-Burn 4-stroke Reciprocating Engines.
[e]Assumes all particulate matter is less than 1 µm as per EPA AP-42 Section 3.2 Table 3.2-3(07/2000).

TABLE B-12
FACILITY LEAD EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Emissions Unit Number	Emission Unit	Emissions Point Number	Emission Point	Material Processed	Maximum Hourly PM Emissions (lb/hr)	Maximum Annual PM Emissions (tons/yr)	Emission Factor[a] (lb Pb/ton PM)	Pb Emission Rate (lb/hr)	Pb Emission Rate (ton/yr)
01	Wood & Char Piles	01	Wood Pile	Wood	2.85	12.50	4.0E-03	5.71E-06	2.50E-05
		02	Char and Coal Pile	Char	0.57	2.50	2.2E-02	6.28E-06	2.75E-05
02	Raw Material Handling	01-06	Wood Handling Operations	Wood	0.14	0.63	4.0E-03	2.90E-07	1.27E-06
		07,09,0B	Char Handling Operations	Char	0.01	0.05	2.2E-02	1.29E-07	5.65E-07
		0A	Coal Handling Operations	Coal	0.01	0.03	8.00E-02	2.59E-07	1.13E-06
03	Charring and Briquet Dryers	01	ACC/Retort	Wood	N/A	175.78	1.5E-01	N/A	1.29E-02
		02,03	Briquet Dryers	Briquets	N/A	38.50	3.34E-02	N/A	6.43E-04
04	Briquet Coolers	01/02	Briquet Coolers	Briquets	N/A	38.50	3.34E-02	N/A	6.43E-04
06	Minor Ingredient Batching	01	Coal Tank	Coal	0.00	0.00	8.00E-02	0.00E+00	0.00E+00
		02-05,0G	Char Tanks	Char	0.20	0.88	2.2E-02	2.22E-06	9.73E-06
07	Natural Gas Use	01	Natural Gas Use	Natural Gas	See Table C-8 "Natural Gas Combustion"			1.14E-05	5.00E-05
08	Briquet Handling	01-03/35	Briquet Handling	Briquets	6.73	29.47	3.34E-02	1.12E-04	4.92E-04

[a]Emission factors based on following material lead content assumptions:
Wood - 2 ppm, dry wood per University of Missouri study
Char - based on worst-case char yield assumption of 5.5 (2ppm * 5.5 = 11 ppm = 2.2E-2 lb/ton)
Char ash content assumed to be 15%, ACC PM = 2.2E-02/0.15 = 0.147 lb/hr
Coal based on 40 ppm lead content
Briquets = 16.7 ppm based on char and coal in formulation of product.

TABLE B-13
GREENHOUSE GAS EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Natural Gas Combustion Emissions

Gas Use			GHG Emissions			
Max Gas Usage[a] (mmBTU/hr)	Max Hours of Operation	Maximum Gas combusted (mmBTU)	GHG Gas	Part 98 Emission Factor (kg/mmBTU)	CO_2e Emissions (Metric Tons)	CO_2e Emissions (Short Tons)
100	8,760	876,000.00	CO_2	53.02	46,445.52	51,196.90
			CH_4[b]	0.001	18.40	20.28
			N_2O[c]	0.0001	27.16	29.93

Wood Combustion Emissions

Wood Combustion					GHG Emissions			
Dry Wood Processed (Short Tons)	Char Produced (Short Tons)	Wood Combusted (Dry Wood Processed minus Char Produced, Short Tons)	Heat Value (mmBTU/Short Ton)	mmBTU combusted	GHG Gas	Part 98 Emission Factor (kg/mmBTU)	CO_2e Emissions (Metric Tons)	CO_2e Emissions (Short Tons)
209,000.0	38,000.0	171,000.0	15.38	2,629,980.00	CO_2 (Biogenic)	93.8	246,692.12	271,928.73
					CH_4[b]	0.032	1,767.35	1,948.15
					N_2O[c]	0.0042	3,424.23	3,774.53

[a] Based on the the total of the two (2) 50 mmBTU rated capacity of ACC burners.

[b] CH_4 emissions multiplied by a Global Warming Potential of 21 to correct to CO_2e.

[c] N_2O emissions multiplied by a Global Warming Potential of 310 to correct to CO_2e.