



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

Submitted by:

Kingsford Manufacturing Company
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Prepared by:



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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), particulate matter less than 10 microns (PM₁₀) and nitrogen oxides (NO_x) exceed 100 tons per year (tpy). KMC submitted a Title V operating permit application in 1996. Revisions were submitted in June 2001 and KMC was issued a Title V permit in June 2003, operating permit #R30-09300004-2003 which expires on June 30, 2008. 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 2003 and addresses new regulatory requirements. The application also provides Compliance Assurance Monitoring (CAM) Plans for certain air pollution control devices at the Parsons facility to comply with the requirements of the federal CAM Rule at 40 CFR Part 64.

The major changes at the plant since 2003 include modifications to the plant's char retort furnace combustion air supply, char fines screw conveying system, and wood dryer rain shields (E-03 routine maintenance repair and replacement 2004), revision of the after combustion chamber (ACC) CO and VOC permit emission limits (E-03 Class II administrative update 2004/Title V minor modification 2005), replacement of the briquet presses (insignificant emissions 2005), and replacement of the wood dryer (E-03 routine maintenance repair and replacement 2007). As off-permit changes, KMC replaced components of the raw material handling system (E-02) including the wood transfer drag pit and 48" conveyor and has ducted the char and coal truck dumping exhausts to a new scrubber. KMC has also modified the minor ingredient batching system (E-06) including replacement of the mixer and various storage silos. Other minor plant changes include the removal of 2,000-gallon and 360-gallon kerosene storage tanks (E-0A-03, E-03-03A). Section 2 of this report provides a process description for the facility and summarizes facility changes that have occurred since 2003.

Section 3 of this report provides a facility-wide air emission inventory summarizing plant-wide emissions. Potential emissions of hazardous air pollutants (HAPs) are summarized to demonstrate that the KMC Parsons plant is a minor source of HAPs and therefore not subject to potentially applicable federal NESHAP standards for major HAP sources. Supporting emissions calculations are provided in Appendix C.

Section 4 summarizes applicable federal and state air quality requirements and requests an updated permit shield for potentially applicable requirements. Applicability of the federal CAM Rule is addressed and CAM Plans for affected air pollution control devices are provided in Appendix B. Several revisions to the current Title V permit conditions are requested and are discussed in Section 4.

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 2003.

Section 3 – Emission Inventory summarizes criteria air pollutant emissions estimates for the facility, provides background documentation for the current emission estimates, and provides HAP 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 – CAM Plans provides KMC’s proposed CAM Plans for affected sources and pollution control devices at the Parsons facility.

Appendix C – 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 a Title V permit in June 2003, #R30-09300004-2003 which expires on June 30, 2008. 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 MODIFICATIONS TO PLANT

2.2.1 Combustion Air Supply/Char Fines Screw/Wood Dryer Rain Shields

These projects included modifications to components of the existing charcoal retort furnace (E-03-01) combustion air supply system, modifications to the char fines screw conveying system, and the installation of rain shields on the wood dryer operations (E-03-01). Specifically, the projects included replacement of the retort combustion fan motor and installation of a new damper, modification of the char screw conveyor bearings to prolong bearing life, and installation of rain shields on the wood dryer to reduce thermal fluctuation caused by rain events. These projects consisted of routine maintenance, repair and replacement of existing components

at the Parsons facility which focus on improving product consistency and quality, as well as reducing operating costs. WVDEP was notified of the changes in 2004. The changes did not affect hourly or annual air emissions and do not require that the Title V operating permit be revised.

2.2.2 Briquet Dryer/ACC CO and VOC limits

KMC revised the relative VOC and carbon monoxide CO emission limits for the Briquet Dryers (E-03-02 and E-03-0N) and the ACC/Retort (E-03-01) stacks as a result of 2004 emissions testing. KMC addressed these changes in a 2004 Class II administrative update and 2005 Title V minor modification. The requested changes have already been incorporated into the existing Title V operating permit. Consequently, no further changes to the Title V operating permit are required.

2.2.3 Briquet Press Replacement

KMC replaced the two (2) existing charcoal briquet presses with new presses in 2005. The presses are not sources of air emissions and are not listed on the Parsons plant air permits. However, they do feed the briquet dryers (E-03-02, E-03-03N) and coolers (E-04-01, E-04-02N) which are permitted sources. KMC notified WVDEP of these changes in 2005 correspondence. The press replacement project did not result in any emissions increases from the dryers/coolers because KMC maintained the production and emissions caps for these sources that are currently listed in the permit. Consequently no changes to the Title V Operating permit are required.

2.2.4 Wood Dryer Replacement

KMC replaced the existing wood dryer (E-03-01) with a new dryer in 2007. KMC notified WVDEP of these changes in 2007 correspondence and demonstrated that the emissions increases on an actual-to-potential basis are below the PSD significance levels and that the project does not trigger Reg 14 review or the need for construction permitting. An updated source list and source information reflecting the replacement of wood dryer are provided in The WVDEP application forms (Appendix A, Attachment D).

2.2.5 Raw Material Handling Modifications

KMC modified the raw material handling system (E-02) in 2004. Specifically, KMC replaced the transfer drag pit and associated drag chain and 48" belt (E-02-01). KMC also installed new pickups for control of particulate matter on the char truck transport (E-02-07) and offsite char and coal truck dumping operations (E-02-09). The pickups are ducted to the new mixing wet scrubber (C-21) which was also replaced as part of the minors batching system/dry storage modifications (see below). An updated source list and source information reflecting these changes are provided in The WVDEP application forms (Appendix A, Attachment D).

2.2.6 Minor Ingredient Batching System/Dry Storage Modifications

KMC modified the minor ingredients batching system in 2004. Modifications included replacement of the lime use tank (E-06-09) and dry starch tank (E-06-0B), and removal of the sawdust silo (E-06-0G). The existing rerun char tank (E-06-03) and yard char tank (E-06-04) are no longer controlled by fabric filters, but instead vent directly to atmosphere. An updated source list and source information reflecting these changes are provided in The WVDEP application forms (Appendix A, Attachment D).

2.2.7 Miscellaneous Minor Changes

Other plant changes have been minor consisting of the removal of the 2,000-gallon and 360-gallon kerosene storage tanks (E-0A-03, E-03-03A). An updated source list and source information reflecting these changes are provided in The WVDEP application forms (Appendix A, Attachment D).

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 2003.

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 C. The table demonstrates that the facility is a major source of PM₁₀ and NO_x emissions because potential emission rates exceed 100 tpy based on allowable emission limits. Actual emissions, as submitted in the 2006 iSteps report, are also above the 100 tpy threshold for both of these pollutants.

3.2 MINOR SOURCE STATUS FOR HAP EMISSIONS

The Parsons facility is a minor source of hazardous air pollutants (HAPs). As part of annual Toxics Release Inventory (Form R) reporting, KMC estimates air emission rates for two HAPs: methanol and lead. Annual emissions of methanol are estimated to be less than 0.5 tpy based on estimates of methanol generation rates in the wood charring operation and estimates of methanol destruction efficiency in the ACC afterburner. KMC also estimates small quantities of lead emissions in the Form R reports based on EPA guidance that trace quantities of lead are present in wood. Lead emission rates are estimated to be less than 0.009 tpy total.

In addition, the KMC Parsons Title V permit limits VOC emissions from the charring/drying operations ACC stack to 6.65 tpy (Condition 5.1.1). The permit also limits emissions of methanol (a volatile HAP) to 3.7 tpy (Condition 5.1.1). The VOC limit will effectively limit emissions of volatile HAP compounds to less than 10 tpy.

Based on these considerations, it is KMC's assessment that the Parsons plant is a minor source of HAP emissions. The permit requirement to maintain a minimum ACC combustion chamber temperature of 1,600F (Condition 5.2.2) ensures that potential HAP emissions remain below the major source threshold of 10 tpy.

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

Source	Projected Annual Emissions (tons/yr)					
	NO _x	CO	VOC	SO ₂	PM	PM ₁₀
Wood & Char Piles (E-01)					15.00	7.05
Raw Material Handling (E-02)					0.71	0.34
Charring & Briquet Dryers (E-03)	237.50	13.31	6.65	64.60	175.78	129.07
Briquet Coolers (E-04)					38.50	19.25
Solvent Treated Briquet Production (E-05)			83.00			
Minor Ingredient Batching/Dry Storage (E-06)					3.33	3.33
Natural Gas Burning (E-07)	10.00	8.40	0.55	0.06	0.76	0.76
Briquet Handling (E-08)					26.28	26.28
Plant Roads (E-09)					11.77	5.76
Liquid Storage (E-10)			1.10			
Emergency Equipment (E-11)	0.05	0.02	0.01	0.01	0.01	0.01
Total	247.55	21.73	91.31	64.67	272.14	191.85

Source	Operating Schedule	Units	Maximum Annual Production	Maximum Hourly Production
	(hr/yr)		(dry ton/yr)	(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 treated 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:

- New Source Review (NSR) Regulations and Nonattainment Designation Status
- National Emissions Standards for Hazardous Air Pollutants (NESHAP)
- New Source Performance Standards (NSPS)
- Regional Haze Rule
- Title V and Compliance Assurance Monitoring (CAM) Requirements

4.1.1 New Source Review and Nonattainment Status

The KMC Parsons facility is located in Tucker County which is classified as attainment for all criteria pollutants. In April 2005, the U.S. EPA designated nonattainment areas for the new federal fine particulate (PM_{2.5}) ambient air quality standards. Tucker County was not designated nonattainment for PM_{2.5} nor was the county designated nonattainment for the new 8-hour ozone standard. As such, the Parsons facility should not be affected by WVDEP PM_{2.5} or ozone RACT standards that will be required for areas of the state that are designated nonattainment.

Because the KMC Parsons facility is classified as a major source and because the plant is located in an area designated as attainment for all criteria pollutants, plant modifications are potentially subject to the federal PSD construction permit provisions at 40 CFR 52.21. As detailed in Section 2 of this report, the Parsons plant has undergone several modifications since 2003 when Title V operating permit was issued. Each of the plant modifications since 2003 was determined to be a minor modification and did not trigger PSD review. Future plant modifications will be reviewed by KMC with regard to the revised federal PSD regulation and applicability provisions at 40 CFR 52.21 and at 45CSR14.

4.1.2 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.

Several NESHAP “MACT standards” have recently been proposed and promulgated which are potentially applicable to certain KMC charcoal plant source operations (e.g., boilers, process heaters, organic liquid storage). However, the KMC Parsons plant is a minor source of HAPs as shown in Section 3 and is therefore not subject to these standards. KMC requests that the WVDEP include a federally enforceable HAP emissions cap when the Title V permit is renewed. KMC requests a facility-wide emissions cap of 10 tons per year for any single HAP and 25 tons per year for any combination of HAPs.

4.1.3 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 be 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.

4.1.4 Regional Haze Rule

The federal Regional Haze Rule regulations (40 CFR 51.300 through 51.309) require affected sources to prepare Best Available Retrofit Technology (BART) assessments and to implement BART pollution controls to reduce visibility-impairing air emissions to protect federal Class I areas from adverse visibility impacts. BART-eligible sources are "grandfathered" sources in certain source categories that were constructed prior to 1977 and that have potential emissions in excess of 250 tpy for any single visibility-impairing pollutant (e.g., PM10, NOx, SO2).

The Parsons plant is a charcoal manufacturing plant with potential facility-wide emissions in excess of 250 tpy and the facility was constructed prior to 1977. However, the potentially

affected sources have gone through numerous permitted modifications since their initial pre-1977 installation. In addition, each of the potentially affected sources at the Parsons plant (e.g., E-03) is now subject to federally enforceable emissions limits that limit annual emissions of each pollutant to less than 250 tpy. Consequently, the Regional Haze Rule BART provisions are not applicable to the Parsons plant.

4.1.5 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 is June 2008 when the initial Title V permit is due for renewal. CAM Plans for affected sources at the Parsons plant are provided in Appendix B of this application.

The Parsons facility has several emissions units with potential pre-control emissions in excess of major source thresholds. The affected emission sources are:

Title V Source ID	Title V Emission Point ID	Source	Control Device	Pollutant
E-03-01	S-01-01	Wood dryer and outlet box and retort furnace	After combustion chamber (ACC) C-08	PM/PM ₁₀ /CO/VOC
E-05-01	S-01-01	Solvent treated briquet production	After combustion chamber (ACC) C-08	PM/PM ₁₀ /CO/VOC
E-08-01	S-06	Briquet dryer discharge conveyors	Fabric filter dust collector C-01	PM/PM ₁₀
E-08-02A E-08-02B	S-07	Briquet packaging lines	Fabric filter dust collector C-02	PM/PM ₁₀
E-08-03A E-08-03B E-08-03C E-08-03D E-08-03E E-08-03G	S-08	Finished briquet handling	Fabric filter dust collector C-03	PM/PM ₁₀

Consequently, CAM plans have been prepared for the above-listed source. Other sources employing air pollution control devices are not subject to CAM based on estimated pre-control emission rates and/or based on the CAM Rule definition of “control device”. A detailed CAM applicability analysis and description of the CAM plans may be found in Appendix B of this report.

To meet the CAM requirements, KMC is proposing parametric monitoring. Specifically, the ACC temperature will be monitored and the temperature will be maintained above 1,600°F. This will assure compliance with the VOC limits for the STB operation (E-05-01) and compliance with the PM, PM₁₀, CO, and VOC limits for the charring and drying operation (E-03-01). For the dust collectors (E-08-01, 02, 03), KMC proposes a fabric filter operations and preventative maintenance program. KMC will monitor the pressure differential across the filters on a weekly basis and will maintain the fabric filter pressure differentials within normal ranges.

4.2 NEW WEST VIRGINIA REGULATIONS

Recently promulgated WVDEP air quality regulations have been reviewed and have been determined to not apply to the KMC Parsons plant operations. In particular, the NO_x and SO₂ emissions limitations for electric generating units (45CSR39 and 45CSR41) are not applicable to the Parsons operations based on the facility source types and equipment capacities.

4.3 REQUESTED REVISIONS TO TITLE V PERMIT

KMC is requesting several minor revisions to the current Title V permit conditions. KMC believes that the revisions are minor and represent administrative changes to the permit conditions.

The revisions to the current Title V permit conditions that are requested consist of the following:

- Add scrubber control device (C-21) to Section 1.0 Emission Units list as control device for E-02-09 “Beryl Char and Coal Truck Dumping”.
- Delete Iron Mountain Briquet Dryers (E-03-03 and E-03-04) and the Stand-Alone Briquet Cooler (E-04-02) from Section 1.0 Emission Units list because these sources have been removed from service.
- Remove fabric filter control devices (C-09 and C-10) for two char silos (E-06-03 and E-06-04) from Section 1.0 Emission Units list because these units have been removed from service.
- Add Regulations 45CSR39 and 45CSR41 to list of non-applicable air quality requirements in Condition 3.6.2 of the Permit Shield section of the Title V permit. The basis for non-applicability is that the Parsons plant has no affected sources.
- Delete Condition 8.1.3 requiring compliance with 40 CFR 60 Subpart Y for the coal tank because KMC has demonstrated compliance with Subpart Y by performing an initial performance test in January 2004.

KMC also requests that the WVDEP include a facility-wide emissions cap for HAP emissions from the Parsons plant to ensure the plant is classified as a minor HAP source. This request was made in subsection 4.1.2 above to ensure MACT standards for major HAP sources do not apply

to the Parsons plant. KMC formally requests that the WVDEP include a federally enforceable HAP emissions cap in the Title V permit when it is renewed. KMC requests that the WVDEP identify that the federal NESHAP standards at 40 CFR Part 63 are not applicable to the Parsons facility based on the inclusion of a HAP emissions cap and the plant's minor source status. This request is made pursuant to the Title V "permit shield" provisions of 45CSR30-5.6.

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.wvdep.org/daq

TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 numbered sections: 1. Name of Applicant, 2. Facility Name or Location, 3. DAQ Plant ID No., 4. Federal Employer ID No., 5. Permit Application Type, 6. Type of Business Entity, 7. Is the Applicant the..., 8. Number of onsite employees, 9. Governmental Code, 10. Business Confidentiality Claims.

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: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: The facility is located on Route 219, about 2 miles south of Parsons.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Maryland	
Is facility located within 100 km of a Class I Area ¹ ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the area(s). Dolly Sods Otter Creek	
If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input type="checkbox"/> No		
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: Lonnie Wolfe		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: lonnie.wolfe@clorox.com		
Environmental Contact: Scott Stephenson		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: scott.stephenson@clorox.com		
Application Preparer: Gavin L. Biebuyck		Title: Principal Consultant
Company: Liberty Environmental, Inc.		
Street or P.O. Box: 10 N. Fifth Street		
City: Reading	State: PA	Zip: 19601
Telephone Number: (610) 375-9301	Fax Number: (610) 375-9302	
E-mail address: gbiebuyck@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, sodium nitrate, 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.	
<input checked="" type="checkbox"/> SIP	<input type="checkbox"/> FIP
<input checked="" type="checkbox"/> Minor source NSR (45CSR13)	<input checked="" type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input checked="" type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> NO _x Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO _x Budget Trading Program EGUs (45CSR26)

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.	Per 45CSR§6-4.9. more stringent PM emission standard 45CSR§7-4.1. is used.
Opacity limits for an incinerator	45CSR§§6-4.3.and 4.4.	Per 45CSR§6-4.9. more stringent opacity standards 45CSR§§7-3.1. and 3.2. are used
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 Beryl 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.
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 Industrial-Commercial-Institutional Steam Generating Units	40CFR60 Subpart Dc	Waste heat boiler is not subject to NSPS Subpart Dc due to its rated heat input and installation date.

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.

Requirement	Regulatory Citation	Basis for Non-Applicability
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 45 CSR 17-6.1. if sources are subject to 45 CSR 7 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
Federal MACT standards	45CSR34, 40CFR63	No affected sources at Parsons facility

New Non-applicable Requirements		
Requirement	Regulatory Citation	Basis for Non-Applicability
Regional Haze/BART Regulations	40 CFR 51.300	No affected sources at Parsons facility
NOx Budget Trading Program	45CSR1	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
NOx Budget Trading Program for Electric Generating Units	45CSR26	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
Interstate PM/NOx/Ozone/SO2 Transport Rule	45CSR39,40,41	No affected sources at Parsons facility

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
Asbestos Demolition/Renovation	40CFR61
Risk Management Plan	40CFR68
Ozone Depleting Substances	40CFR82
Please refer to the current Title V operating permit (R30-09300004-2003) for additional detail	

New Facility-Wide Requirements	
Requirement	Regulatory Citation
NSPS for Coal Preparation Plants	40CFR60, Subpart Y
Compliance Assurance Monitoring	40CFR64

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
Compliance Assurance Monitoring	40CFR64	KMC is submitting a CAM plan as part of this permit renewal application

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

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

Permit Shield

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<input checked="" type="checkbox"/>	1. Air compressors and pneumatically operated equipment, including hand tools.
<input type="checkbox"/>	2. Air contaminant detectors or recorders, combustion controllers or shutoffs.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	4. Bathroom/toilet vent emissions.
<input checked="" type="checkbox"/>	5. Batteries and battery charging stations, except at battery manufacturing plants.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	7. Blacksmith forges.
<input type="checkbox"/>	8. Boiler water treatment operations, not including cooling towers.
<input checked="" type="checkbox"/>	9. Brazing, soldering or welding equipment used as an auxiliary to the principal equipment at the source.
<input type="checkbox"/>	10. CO ₂ lasers, used only on metals and other materials which do not emit HAP in the process.
<input checked="" type="checkbox"/>	11. Combustion emissions from propulsion of mobile sources, except for vessel emissions from Outer Continental Shelf sources.
<input checked="" type="checkbox"/>	12. Combustion units designed and used exclusively for comfort heating that use liquid petroleum gas or natural gas as fuel.
<input checked="" type="checkbox"/>	13. Comfort air conditioning or ventilation systems not used to remove air contaminants generated by or released from specific units of equipment.
<input type="checkbox"/>	14. Demineralized water tanks and demineralizer vents.
<input checked="" type="checkbox"/>	15. Drop hammers or hydraulic presses for forging or metalworking.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	17. Emergency (backup) electrical generators at residential locations.
<input type="checkbox"/>	18. Emergency road flares.
<input checked="" type="checkbox"/>	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:

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	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:
<input type="checkbox"/>	21. Environmental chambers not using hazardous air pollutant (HAP) gases.
<input checked="" type="checkbox"/>	22. Equipment on the premises of industrial and manufacturing operations used solely for the purpose of preparing food for human consumption.
<input type="checkbox"/>	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.
<input checked="" type="checkbox"/>	24. Equipment used for quality control/assurance or inspection purposes, including sampling equipment used to withdraw materials for analysis.
<input type="checkbox"/>	25. Equipment used for surface coating, painting, dipping or spray operations, except those that will emit VOC or HAP.
<input type="checkbox"/>	26. Fire suppression systems.
<input checked="" type="checkbox"/>	27. Firefighting equipment and the equipment used to train firefighters.
<input type="checkbox"/>	28. Flares used solely to indicate danger to the public.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	30. Hand-held applicator equipment for hot melt adhesives with no VOC in the adhesive formulation.
<input checked="" type="checkbox"/>	31. Hand-held equipment for buffing, polishing, cutting, drilling, sawing, grinding, turning or machining wood, metal or plastic.
<input type="checkbox"/>	32. Humidity chambers.
<input type="checkbox"/>	33. Hydraulic and hydrostatic testing equipment.
<input checked="" type="checkbox"/>	34. Indoor or outdoor kerosene heaters.
<input checked="" type="checkbox"/>	35. Internal combustion engines used for landscaping purposes.
<input type="checkbox"/>	36. Laser trimmers using dust collection to prevent fugitive emissions.
<input type="checkbox"/>	37. Laundry activities, except for dry-cleaning and steam boilers.
<input checked="" type="checkbox"/>	38. Natural gas pressure regulator vents, excluding venting at oil and gas production facilities.
<input type="checkbox"/>	39. Oxygen scavenging (de-aeration) of water.
<input type="checkbox"/>	40. Ozone generators.
<input checked="" type="checkbox"/>	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

24. Insignificant Activities (Check all that apply)	
	owners/operators must still get a permit if otherwise requested.)
<input type="checkbox"/>	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.
<input checked="" type="checkbox"/>	43. Process water filtration systems and demineralizers.
<input checked="" type="checkbox"/>	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.
<input checked="" type="checkbox"/>	45. Repairs or maintenance where no structural repairs are made and where no new air pollutant emitting facilities are installed or modified.
<input checked="" type="checkbox"/>	46. Routing calibration and maintenance of laboratory equipment or other analytical instruments.
<input type="checkbox"/>	47. Salt baths using nonvolatile salts that do not result in emissions of any regulated air pollutants. Shock chambers.
<input type="checkbox"/>	48. Shock chambers.
<input type="checkbox"/>	49. Solar simulators.
<input checked="" type="checkbox"/>	50. Space heaters operating by direct heat transfer.
<input type="checkbox"/>	51. Steam cleaning operations.
<input type="checkbox"/>	52. Steam leaks.
<input type="checkbox"/>	53. Steam sterilizers.
<input type="checkbox"/>	54. Steam vents and safety relief valves.
<input type="checkbox"/>	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.
<input checked="" type="checkbox"/>	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.
<input type="checkbox"/>	57. Such other sources or activities as the Director may determine.
<input checked="" type="checkbox"/>	58. Tobacco smoking rooms and areas.
<input checked="" type="checkbox"/>	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 .

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: Lonnie Wolfe	Title: Plant Manager
--------------------	----------------------

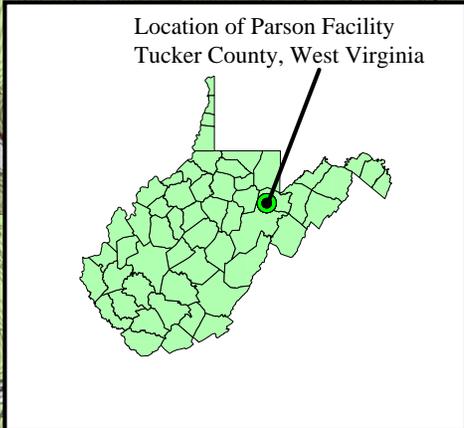
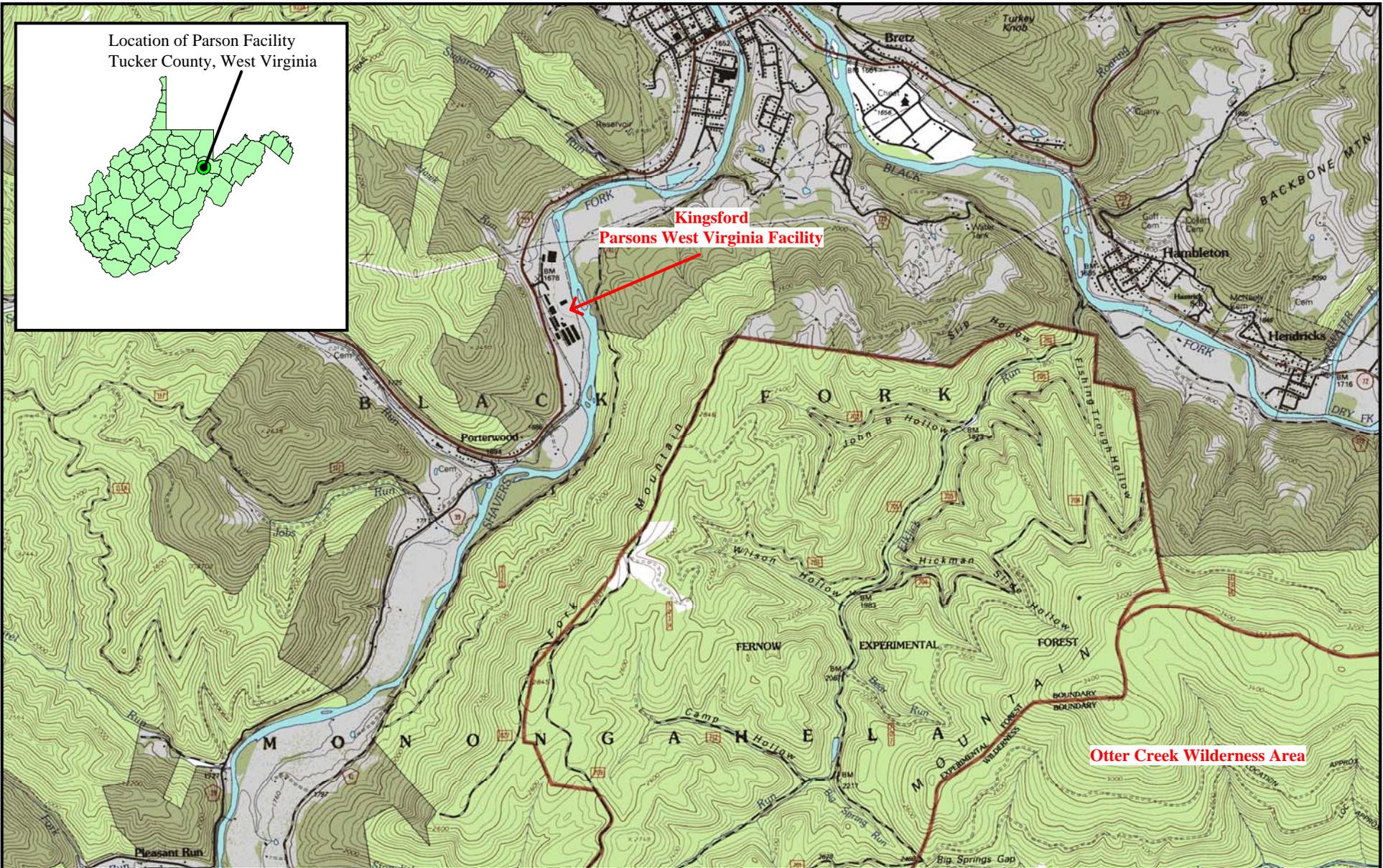
Responsible official's signature:

Signature: _____ Signature Date: _____
 (Must be signed and dated in blue ink)

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

<input checked="" type="checkbox"/>	ATTACHMENT A: Area Map
<input checked="" type="checkbox"/>	ATTACHMENT B: Plot Plan(s)
<input checked="" type="checkbox"/>	ATTACHMENT C: Process Flow Diagram(s)
<input checked="" type="checkbox"/>	ATTACHMENT D: Equipment Table
<input checked="" type="checkbox"/>	ATTACHMENT E: Emission Unit Form(s)
<input type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

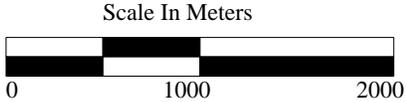
All of the required forms and additional information can be found and downloaded from, the DEP website at www.wvdep.org/daq, requested by phone (304) 926-0475, and/or obtained through the mail.



**Kingsford
Parsons West Virginia Facility**

Otter Creek Wilderness Area

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





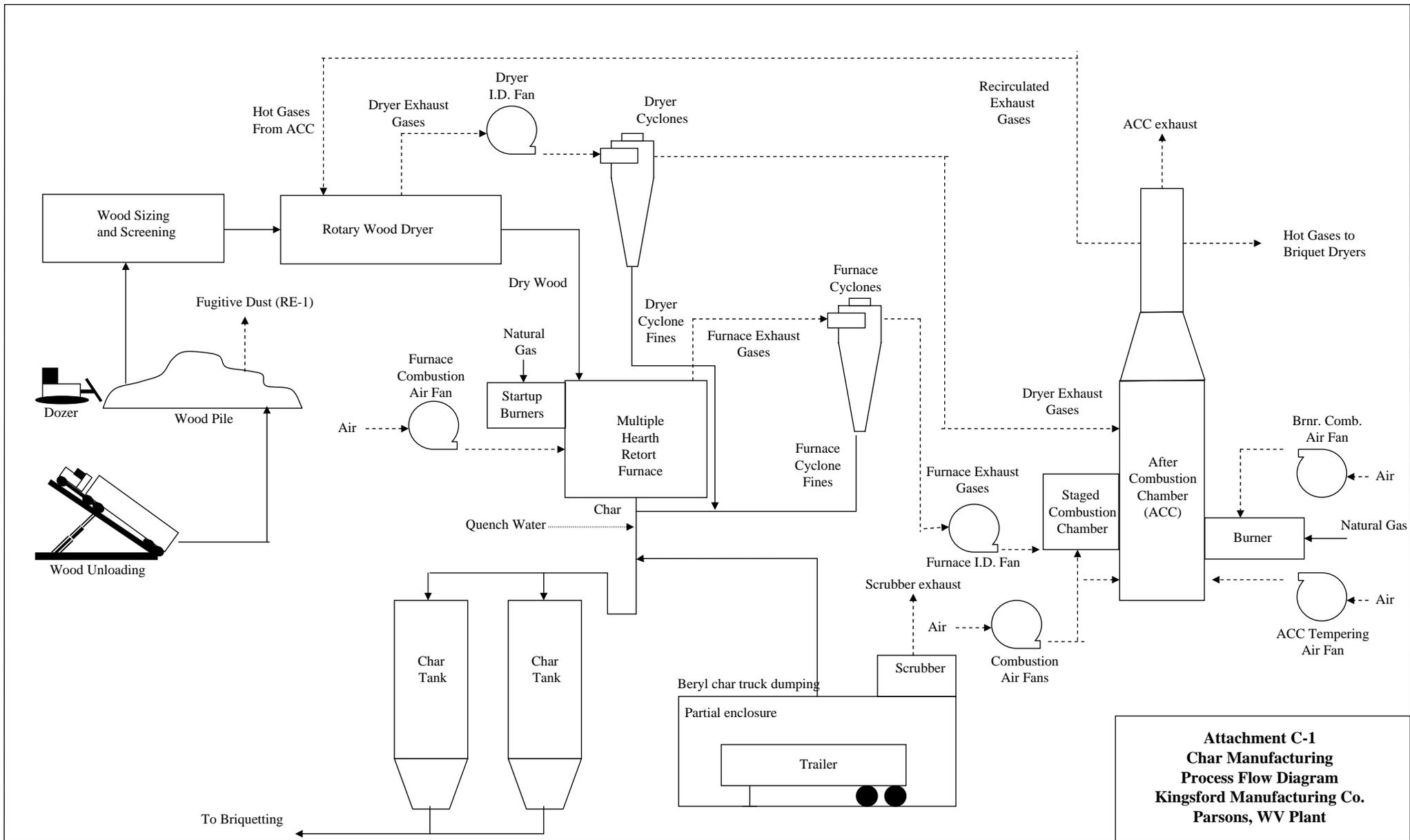
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SCALE:	DATE: 12-18-07
REV #: X	PROJECT #:
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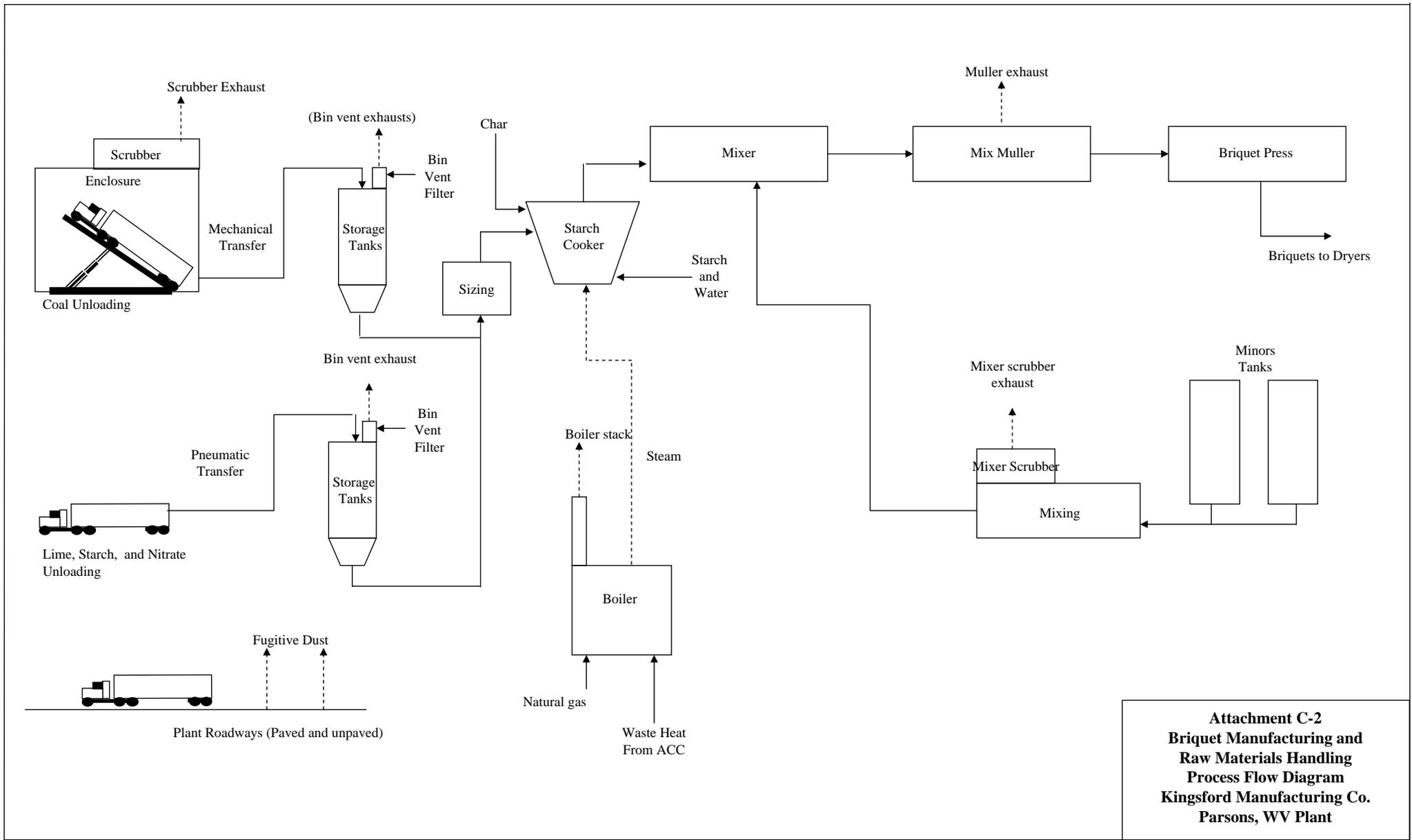
ATTACHMENT B: PLOT PLAN

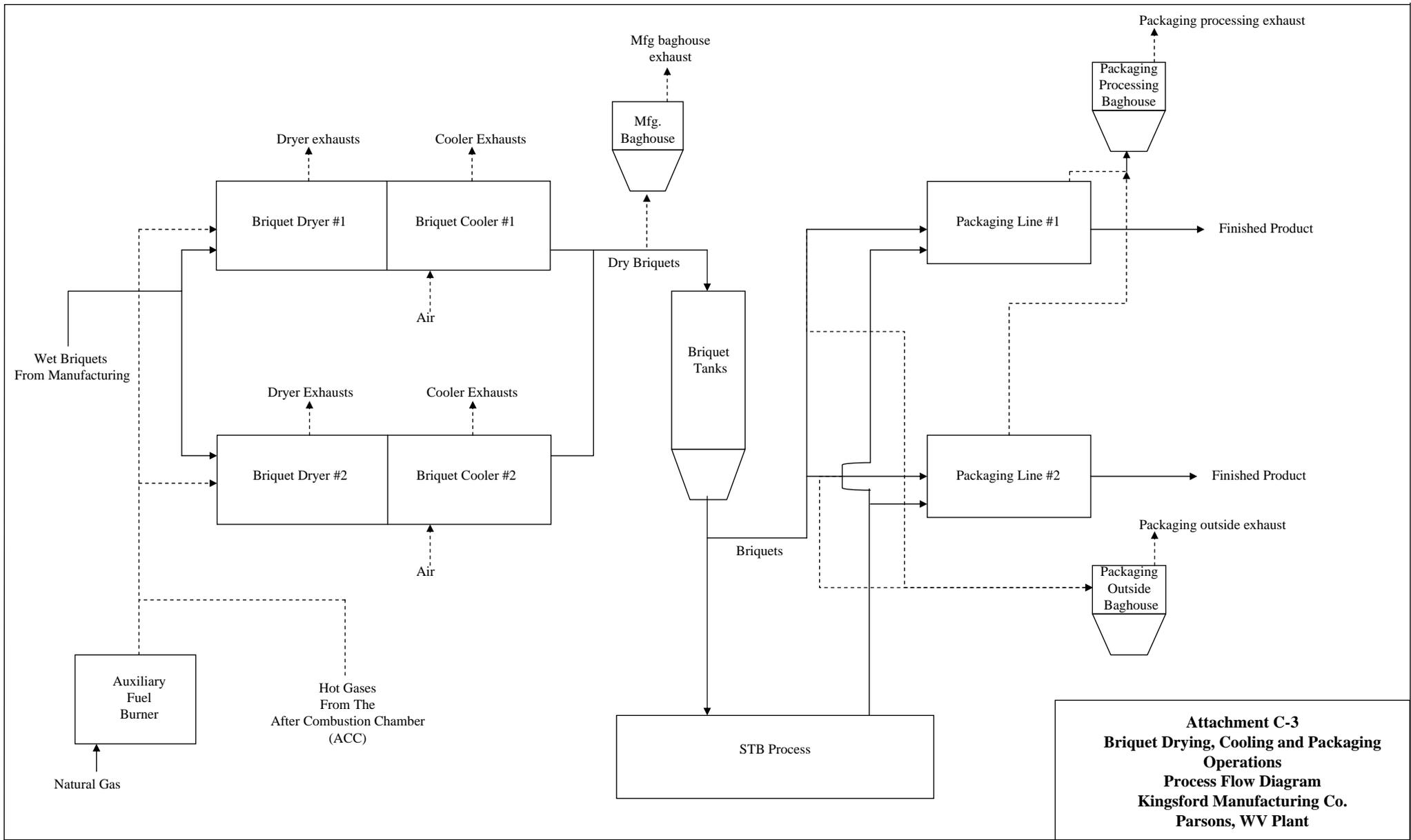
KINGSFORD MANUFACTURING COMPANY
PARSONS, WEST VIRGINIA FACILITY

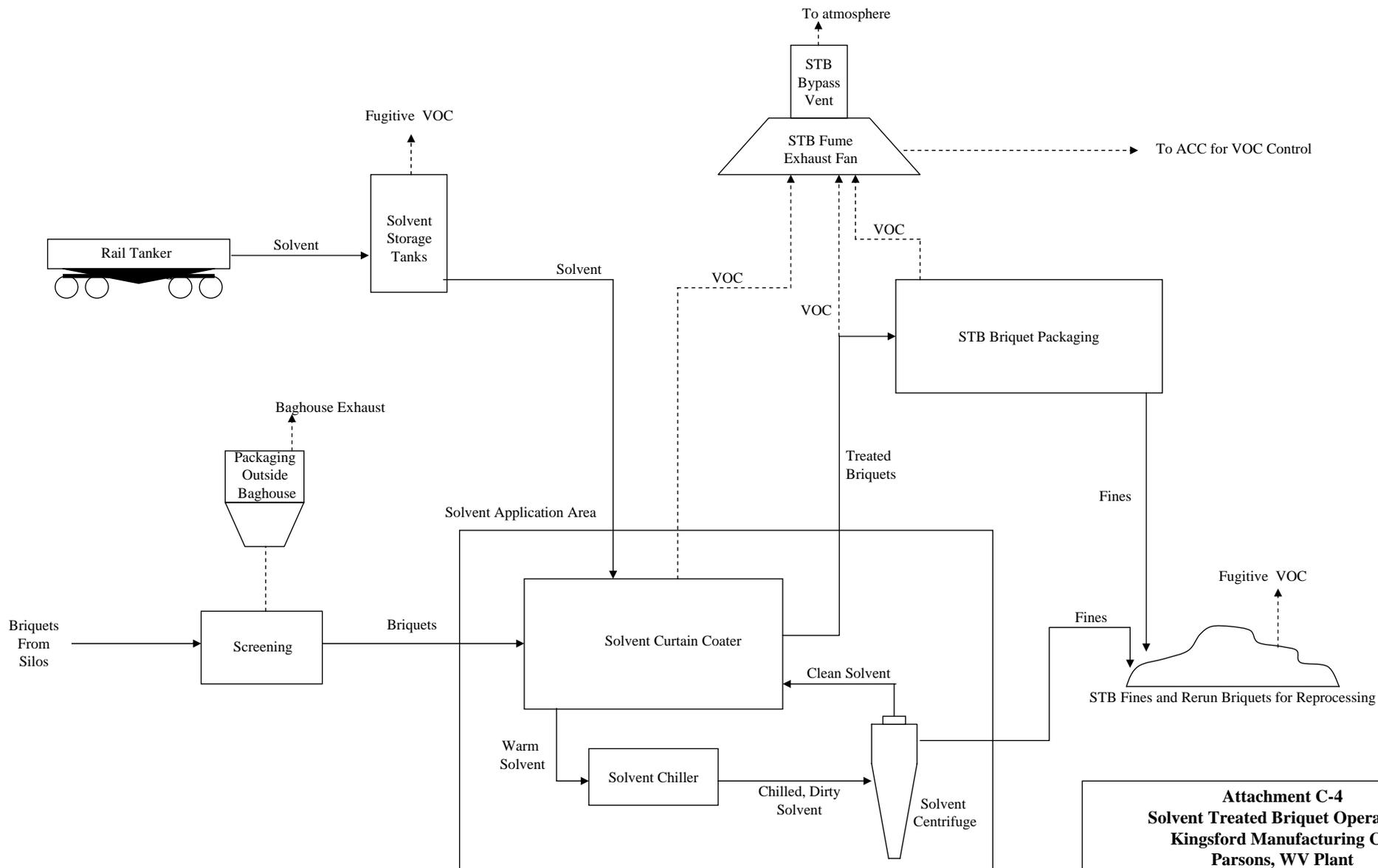
Liberty Environmental, Inc.
10 North Fifth Street, Suite 800
Reading, Pennsylvania
Phone: 610-375-9301
Fax: 610-375-9302
www.libertyenviro.com



**Attachment C-1
Char Manufacturing
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 SOURCE DATA AND POTENTIAL ANNUAL EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV

Source ID	Emission Point ID	Equipment Description and ID	Year Installed	Design Capacity	Control Device	Potential Annual Emissions (tons/yr)						
						NOx	CO	VOC	SO2	PM	PM10	Methanol
Minor Ingredients Batching System and Dry Storage												
E-06-01	S-10	Coal Tank	1982	250 ton	Fabric Filter Dust Collector (C-07)	N/A	N/A	N/A	N/A	0.04	0.04	N/A
E-06-02	S-10	Beryl Char Tanks	1981	two @ 60 ton	Fabric Filter Dust Collector (C-07) Replaced 20	N/A	N/A	N/A	N/A	0.20	0.20	N/A
E-06-03	S-11	Rerun Char Tank	1984	60 ton	Fabric Filter Dust Collector (C-09)	N/A	N/A	N/A	N/A	0.02	0.02	N/A
E-06-04	S-12	Yard Char Tank	1984	60 ton	Fabric Filter Dust Collector (C-10)	N/A	N/A	N/A	N/A	0.34	0.34	N/A
E-06-05	S-13	Retort Char Tanks and Transfer	1972	two @ 60 ton	Fabric Filter Dust Collector (C-11)	N/A	N/A	N/A	N/A	0.47	0.47	N/A
E-06-06	S-14	Bulk Lime Tank	2001	125 ton	Fabric Filter Dust Collector (C-12) Replaced 20	N/A	N/A	N/A	N/A	0.20	0.20	N/A
E-06-07	S-15	Bulk Nitrate Tank	2001	34 ton	Fabric Filter Dust Collector (C-13)	N/A	N/A	N/A	N/A	0.21	0.21	N/A
E-06-08	S-16	Bulk Starch Tank	1958	101 ton	Fabric Filter Dust Collector (C-14) Replaced 20	N/A	N/A	N/A	N/A	0.21	0.21	N/A
E-06-09	S-17	Lime Use Tank	1958	6 ton	Fabric Filter Dust Collector (C-15) Replaced 20	N/A	N/A	N/A	N/A	0.08	0.08	N/A
E-06-0A	S-18	Wet Starch Use Tank	1980	3 ton	Fabric Filter Dust Collector (C-16)	N/A	N/A	N/A	N/A	0.16	0.16	N/A
E-06-0B	S-19	Dry Starch Use Tank	1958	3 ton	Fabric Filter Dust Collector (C-17) Replaced 20	N/A	N/A	N/A	N/A	0.16	0.16	N/A
E-06-0C	S-20	Borax Use Tank	1980	1 ton	Fabric Filter Dust Collector (C-18)	N/A	N/A	N/A	N/A	0.09	0.09	N/A
E-06-0E	S-22	Muller Vent	1976	NA	Vent (C-20), wet material (90% control)	N/A	N/A	N/A	N/A	0.02	0.02	N/A
E-06-0F	S-23	Minors Batch Mixing	1990 / Mod. 2002	2.7 tpb	Wet Scrubber (C-21), 99.5% PM efficiency	N/A	N/A	N/A	N/A	0.94	0.94	N/A
E-06-0G	S-24	Sawdust Silo Retort Char Surge Bin (Relocated 2003)	2003	60 ton	Fabric Filter Dust Collector (C-33)	N/A	N/A	N/A	N/A	0.21	0.21	N/A
Natural Gas Burning												
E-07-01	S-07-01	Existing ACC Burner (Stack S-01-01) Mfg: North American Model #4796-18	1972	43 MM BTU	None	10.00	8.40	0.55	0.06	0.76	0.76	N/A
		New ACC Burners (Stack S-01-01) Mfg: North American	2003	Two (2) @ 50 MM BTU each	None							
		Wood Dyer Burner (Stack S-01-01) Mfg: North American Model #4795-13	1988	13.4 MMBTU	ACC							
		Furnace Burners (Stack S-01-01) Mfg: Eclipse	1972	4 @ 2 MMBTU	ACC							
		Waste Heat Boiler (Stack S-01-02) Mfg: North American Model #4121-7-0-B13	1982	7.83 MM BTU	None							
		Auxiliary Heat Burner (Stacks S-01-03, S-01-04, S-01N-05, S-01N-06) Mfg: Eclipse #	1982/2002	83 MM BTU	None							
Briquet Handling												
E-08-01	S-06	Manufacturing & Briquette take-away	1983	15,000 ACFM	Fabric Filter Dust Collector (C-01)	N/A	N/A	N/A	N/A	5.63	5.63	N/A
E-08-02	S-07	Briquet Packaging Process	1991	30,000 ACFM	Fabric Filter Dust Collector (C-02)	N/A	N/A	N/A	N/A	11.26	11.26	N/A
E-08-03	S-08	Packaging/Outside Handling (Bulk Storage)	1977	25,000 ACFM	Fabric Filter Dust Collector (C-03)	N/A	N/A	N/A	N/A	9.39	9.39	N/A
Plant Roads												
E-09-01	S-09	Paved Plant Roads	Various	NA	Street Sweeper	N/A	N/A	N/A	N/A	11.77	5.76	N/A
E-09-02	S-09	Unpaved Plant Roads	1958	NA	None							
Liquid Storage												
E-0A-01	S-24	Unleaded Gasoline (emits 1.1 TYP VOC)	1988	10,000 gal	Conservation Vent (C-25)	N/A	N/A	1.1	N/A	N/A	N/A	N/A
E-0A-02	S-25	Diesel Oil	1988	10,000 gal	Conservation Vent (C-26)							
E-0A-03	S-26	Kerosene	1988	500 gal	Vent (C-27)							
E-0A-04	S-26A	Kerosene	1987	2,000 gal	Vent (C-27A)							
E-0A-04	S-27	Oil 15/40	1988	500 gal	Vent (C-28)							
E-0A-05	S-28	Oil 30	1988	500 gal	Vent (C-29)							
E-0A-06	S-29	Transmission Fluid	1988	500 gal	Vent (C-30)							
E-0A-07	S-30	Hydraulic Fluid	1988	500 gal	Vent (C-31)							
E-0A-08	S-31	Used Oil	1996	500 gal	Vent (C-32)							
Emergency equipment												
E-0B-01		Emergency Flood Pumps	1998	4 @ 2500 gpm	None	4.55E-02	2.00E-02	7.52E-03	6.13E-03	6.58E-03	6.58E-03	N/A
Control Devices												
Control Device	S-01-04	Existing Four (4) Dryer Cyclones C-05	1981, Mod. 1988	45,000 ACFM	After Combustion Chamber (C-08)							
Control Device	S-01-01	New Four (4) Dryer Cyclones C-05 Fisher-Klosterman XQ120-33	2003	58,372 ACFM	After Combustion Chamber (C-08)							
Control Device	S-01-01	Four (4) Furnace Cyclones C-06 Fisher-Klosterman XQ120-23	1984	39,000 ACFM	After Combustion Chamber (C-08)							
Control Device	S-01-01, 19A	New After Combustion Chamber C-08	2003	370,000 ACFM	None							
Control Device	S-01-01, 19A	95% destruction efficiency for VOC (replacement for existing ACC C-08)	1972	Unknown	None							
Control Device	19A, 19B	Solvent chiller Mfg: Carrier Model 30RAN045J-601DT	2002	Unknown	None							
Control Device	S-06	Fabric Filter Dust Collector (C-01) Mfg: Pneumafil 11.5-3168	1992	15,000 CFM	None							
Control Device	S-07	Fabric Filter Dust Collector (C-02) Mfg: Standard Havens Model 24A/M1	1992	30,000 CFM	None							
Control Device	S-08	Fabric Filter Dust Collector (C-03) Mfg: BHA/DCE Volkes	1995	25,000 CFM	None							
Control Device	S-10	Fabric Filter Dust Collector (C-07) Mfg: Adaptive Engineering & Fabrication BVC-36	Replaced 2003	560 CFM	None							
Control Device	S-13	Fabric Filter Dust Collector (C-11) Mfg: Mikro-Pul 42-8-220	1985	1,250 CFM	None							
Control Device	S-14	Fabric Filter Dust Collector (C-12) Mfg: Adaptive Engineering & Fabrication BVC-36	Replaced 2003	560 CFM	None							
Control Device	S-15	Fabric Filter Dust Collector (C-13) Mfg: Adaptive Engr. BVS-36X	2001	560 CFM	None							
Control Device	S-16	Fabric Filter Dust Collector (C-14) Mfg: Adaptive Engineering & Fabrication BVC-36	Replaced 2003	560 CFM	None							
Control Device	S-17	Fabric Filter Dust Collector (C-15) Mfg: Adaptive Engineering & Fabrication BVC-4	Replaced 2003	425 CFM	None							
Control Device	S-18	Fabric Filter Dust Collector (C-16) Mfg: Griffin JV-54-4X	1993	425 CFM	None							
Control Device	S-19	Fabric Filter Dust Collector (C-17) Mfg: Adaptive Engineering & Fabrication BVC-4	Replaced 2003	425 CFM	None							
Control Device	S-20	Fabric Filter Dust Collector (C-18) Mfg: Griffin JV-54-4X	1993	250 CFM	None							
Control Device	S-23	Wet Scrubber (C-21)	1976	99.5% PM	None							
Control Device	S-24	Mikropul Type DS2-30	2003	Unknown	None							
Control Device	S-34	Fabric Filter Dust Collector (C-33) Mfg: Adaptive Engr. BVS-4X	2003	15,000 CFM	None							
Control Device	S-34	Wet Scrubber (C-34) MikroPul Mikrovane, Size 66, Type LP	2003	15,000 CFM	None							
Total						247.55	21.73	91.31	64.67	272.14	191.85	3.70

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 001-01, 02	Emission unit name: Wood Pile and Dry Wood Receipt E-01-01 Char and Coal Pile E-01-02	List any control devices associated with this emission unit. E-01-01 Pug mill and truck seals (C-22), water added E-01-02 Char and Coal Shed
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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: Not applicable	Model number: Not applicable	Serial number: Not applicable
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Construction date: E-01-01 1972/1994 E-01-02 1958	Installation date: E-01-01 1972/1994 E-01-02 1958	Modification date(s): 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: E-01-01 Dry wood receipt 120 tph	Maximum Annual Throughput: Not determined	Maximum Operating Schedule: 8,760 hours per year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? ___ Indirect Fired ___ Direct Fired
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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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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. R30-09300004-2003)

9.1. Limitations and Standards

- 9.1.1. The permitted dry wood waste receiving system (Source ID E-01-01) shall not exceed its sawdust processing capacity of 120 tons per hour.
[45CSR13, R13-1695, A.1.]
- 9.1.2. Fugitive emission control measures shall be installed and maintained in such a manner as to minimize generation and atmospheric entrainment of fugitive emissions. Such measures shall include:
 - a. Pavement of all haulroads to the dry wood waste receiving system and unloading areas associated with the receiving system.
 - b. Full enclosures for the truck dumper, receiving hopper, screw conveyor, and paddle mixer.
 - c. Padded dock seal for the truck to dumper connection to insure fugitive sawdust emissions are minimized during unloading. This seal must be inspected daily to insure the connection prevents excessive emissions. A certified record of the inspection with a description of the seal condition shall be maintained on site for a period of three (3) years and made available to the Director or his duly authorized representative.
[45CSR13, R13-1695, A.2.]
- 9.1.3. The control devices and procedures, specified in the Emission Units Table 1.0. for Emission Point S-09, shall be maintained and operated to control and minimize any fugitive escape of pollutants
[45CSR§30-5.1.c. and 45CSR§7-5.2.]
- 9.1.4. 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.]
- 9.1.5. 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. and 45CSR13, R13-1695, B.1.e]
- 9.1.6. The permittee shall remove old Char Hammer mill upon installation of the New Char Hammer mill (Source ID E-02-0C).
[45CSR13, R13-1608C, C.3.]
- 9.1.7. The permittee shall comply with all applicable requirements of 40 C.F.R. 60 Subpart Y as per Section 3.1.17. for the following coal preparation operations and equipment (upon completion of the facility reconstruction per Permit R13-1608C): Coal pile with shed (Source ID E-01-02), Coal Track Dumping (Source ID E-02-09), Bulk Coal Tank to Belt Transfer (Source ID E-02-0A).
[45CSR§30-5.1.c.]

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.)

(Per Title V Operating Permit No. R30-09300004-2003)

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 for a minimum of 4 consecutive months. 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 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.
[45CSR13, R13-1608C, B.5. 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 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.]
- 9.2.3. Compliance with the Requirements 3.2.1., 9.2.1. and 9.2.2. for the sources listed in Section 9.1.7. of this Permit will assure compliance with the applicable requirements of the 40 CFR 60 Subpart Y as per Section 3.1.17.
[45CSR§30-5.1.c.]

9.3. Recordkeeping Requirements

- 9.3.1. 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.]
- 9.3.2. The permittee shall maintain records of the results of weekly inspections of the systems to minimize fugitive emissions per Requirement 9.1.4. 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.]
- 9.3.3. The permittee shall maintain records of the amount of sawdust processed on a daily basis in order to demonstrate compliance with hourly sawdust processing rate limit per Requirement 9.1.1.
[45CSR§30-5.1.c.]
- 9.3.4. Visible emission checks recordkeeping as per requirement 9.2.1.

9.4. Reporting Requirements

- 9.4.1. Opacity exceedance reporting as per requirement 3.5.8.-1.

Are you in compliance with all applicable requirements for this emission unit? 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: 002-01 through 07, 09, 0A-0D	Emission unit name: See Attachment D	List any control devices associated with this emission unit. E-02-02,03,05,06,07,0B None E-02-01,04,0A,0D Partial Enclosure E-02-07, 09 Truck Dump Scrubber (C-34) E-02-0C,0D Full Enclosure
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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-02-07, 09) that is controlled by the 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)

Manufacturer: Not applicable	Model number: Not applicable	Serial number: Not applicable
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: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: 8,760 hours/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u> X </u> 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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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. R30-09300004-2003)

See E-01-01,02 requirements

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.*)

(Per Title V Operation Permit No. R30-09300004-2003)

See E-01-01,02 requirements

Are you in compliance with all applicable requirements for this emission unit? 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: 003-01	Emission unit name: Wood Dryer and Outlet Box E-03-01 (a) Retort Furnace E-03-01 (b)	List any control devices associated with this emission unit. E-03-01 (a) Dryer Cyclones (C-05) & ACC (C-08) E-03-01 (b) Furnace Cyclones (C-06) & ACC (C-08)
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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 (C-05) followed by the ACC (C-08). The retort exhaust passes through the furnace cyclones (C-06) 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: E-03-01 (a) Louisville E-03-01 (b) Skinner	Model number:	Serial number:
Construction date: 1972	Installation date: 1972	Modification date(s): Not applicable

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

Maximum Hourly Throughput: E-03-01 (b) 38.5 tph dry wood	Maximum Annual Throughput: Not determined	Maximum Operating Schedule: 8,760 hours/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No See Source ID E-05 for details.	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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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
Not applicable			

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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 Operating Permit No. R30-09300004-2003)

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, R13-1608C, A.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, R13-1608C, A.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)
	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, R13-1608C, A.7.]

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 in a manner consistent with good air pollution control practice for minimizing emissions. [45CSR§30-5.1.c.]

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.]

4.1.6. The permittee shall remove Existing Four (4) Dryer Cyclones upon installation of the New Four (4) Dryer Cyclones (Control Device C-05). [45CSR13, R13-1608ED, C.3.]

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.)

(Per Title V Operating Permit No. R30-09300004-2003)

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, R13-1608C, A.4.]

- 4.4.2. The following information shall be recorded:

- 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, R13-1608C, B.6.]

- 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.]

Are you in compliance with all applicable requirements for this emission unit? 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: 003-02,03N 004-01, 02N	Emission unit name: Briquet Dryers and Coolers	List any control devices associated with this emission unit. None
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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: See Attachment D	Model number: See Attachment D	Serial number: Not applicable
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: 154,000 tons briquets	Maximum Operating Schedule: 8,760 hours/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating: Not applicable	Type and Btu/hr rating of burners: Not applicable
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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 E-07)			

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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 Operating Permit No. R30-09300004-2003)

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, R13-1608C, A.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	Maximum
S-01-03	NO _x	13.13	35.63
	CO	4.2	2
S-01-04	VOC	0.55	1
S-01N-05	SO ₂	3.57	9.69
	PM	12	38.5
S-01N-06	PM ₁₀	6	19.25
	Methanol	-	0.55

[45CSR13, R13-1608C, A.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	PM	12	38.5
S-03N-01 S-03N-02 S-03N-03			

[45CSR13, R13-1608C, A.10.]

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.)

(Per Title V Operating Permit No. R30-09300004-2003)

6.2. Monitoring Requirements

6.2.1. Opacity monitoring per Requirement 3.2.1. Weekly_Method 22 checks shall be conducted for a minimum of 6 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 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. and 45CSR13, R13-1608C, B.5.]

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

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

[45CSR13, R13-1608C, B.6.]

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.-1.

Are you in compliance with all applicable requirements for this emission unit? 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: 005-01 (19A, 19B, & S-32)	Emission unit name: Solvent Treated Briquet Production See Attachment D	List any control devices associated with this emission unit. See Attachment D
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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 at a cooled (less volatile) temperature. Solvent fumes from the operation are ducted to and controlled by the ACC (C-08)

Manufacturer: Not applicable	Model number: Not applicable	Serial number: Not applicable
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Construction date: 1982/1994	Installation date: 1982/1994	Modification date(s): 1994
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: 8,760 hours/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating: Not applicable	Type and Btu/hr rating of burners: Not applicable
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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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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 Operating Permit No. R30-09300004-2003)

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
[45CSR13, R14-0001B, 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.
[45CSR13, R14-0001B, 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 Fines	S-32	-	
STB Fixed Emissions	S-32	-	

[45CSR13, R14-0001B, 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.
[45CSR13, R14-0001B, 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.
[45CSR13, R14-0001B, 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.
[45CSR13, R14-0001B, 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.
[45CSR13, R14-0001B, A.7.]
- 7.1.8. The ACC shall provide a 95% destruction efficiency for the STB process emissions specified in Requirement 7.1.1.
[45CSR13, R14-0001B, 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 45CSR13, R14-0001B, B.4.c.]
- 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§30-5.1.c.]
- 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.]

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.)

(Per Title V Operating Permit No. R30-09300004-2003)

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. 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.). For ACC Bypass Stack (S-04) visible emission checks shall be performed during periods when this stack is in use. 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. 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 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.]

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 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.]

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.]

7.3. 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 emissions. To demonstrate compliance with the Requirement 7.1.8., US EPA Method 18 shall be used to detect VOC emission rate before entering ACC and at the ACC outlet, and then ACC Destruction Removal Efficiency shall be calculated based on the test results. Such tests shall be conducted once per Permit term within one year of the Permit issuance or renewal. 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.

[45CSR13, R14-0001B, B.1. and 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 R14-0001B (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.
[45CSR13, R14-0001B, B.2.]

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 two (2) years and be made available to the Director or his authorized representative upon request.
[45CSR13, R14-0001B, B.6.]

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.
[45CSR13, R14-0001B, 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.

[45CSR13, R14-0001B, B.3.]

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

Are you in compliance with all applicable requirements for this emission unit? 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: 006-01 through 09 006-0A through 0G	Emission unit name: Minors Ingredients Batching System/Dry Storage See Attachment D	List any control devices associated with this emission unit. E-06-01, 04 through E-06-0C & E-06-0G Fabric Filter Dust Collectors E-06-0E Vent E-06-0F Wet Scrubber
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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: Not applicable	Model number: Not applicable	Serial number: Not applicable
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Construction date: See Attachment D	Installation date: See Attachment D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
 See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: 8,760 hours/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired
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Maximum design heat input and/or maximum horsepower rating: Not applicable	Type and Btu/hr rating of burners: Not applicable
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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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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 Operating Permit No. R30-09300004-2003)

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, R13-1608C, A.11.]

Emission Point ID / Stack ID	Maximum Allowable PM Emissions (lbs/hr)
S-23	0.2

- 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.]

- 8.1.3. The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart Y as per Section 3.1.17. for the Coal Tank (Source ID E-06-01, Emission Point S-10) upon completion of the facility reconstruction per Permit R13-1608C. (Completed January 2004)

[45CSR§30-5.1.c.]

____ 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.)

(Per Title V Operating Permit No. R30-09300004-2003)

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 monitor flow rate of the Wet Scrubber (C-21) and maintain it at or above 3 gpm during normal operations.

[45CSR§30-5.1.c.]

- 8.2.2. The permittee shall maintain a pressure gauge on all dust collectors for pressure drop observations. The permittee shall maintain records of the maintenance performed on each dust collector. These records shall include all maintenance work performed on each dust collector including the frequency of bag/filter change outs. Records shall state the date and time of each dust collector inspection, the inspection results, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date.

[45CSR§30-5.1.c.]

- 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, S-24) 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 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.

[45CSR13, R13-1608C, B.5. 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 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.

[45CSR13, R13-1608C, B.5. 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 Points listed 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 Requirements 3.2.1. and 8.2.3. for the sources listed in Section 8.1.3. of this Permit will assure compliance with the applicable requirements of the 40 CFR 60 Subpart Y as per Section 3.1.17.

[45CSR§30-5.1.c.]

8.3. Recordkeeping Requirements

- 8.3.1. Keep records of the scrubber C-21 flow rate as per Requirement 8.2.1.

[45CSR§30-5.1.c.]

- 8.3.2. Visible emission checks recordkeeping as per Requirement 8.2.2 and 8.2.3.

8.4. Reporting Requirements

- 8.4.1. Opacity exceedance reporting as per Requirement 3.5.8.-1.

Are you in compliance with all applicable requirements for this emission unit? 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: 007-01	Emission unit name: Natural Gas Burners	List any control devices associated with this emission unit. ACC
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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 1600oF. 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 13.4 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: North American	Model number: See Attachment D	Serial number: Not determined
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Construction date: See Appendix D	Installation date: See Appendix D	Modification date(s): See Attachment D
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
See Attachment D

Maximum Hourly Throughput: See Attachment D	Maximum Annual Throughput: See Attachment D	Maximum Operating Schedule: 8,760 hours/yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> Direct Fired Boiler –indirect ACC/Wood dryer/retort/briquet dryers - direct
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Maximum design heat input and/or maximum horsepower rating: See Attachment D	Type and Btu/hr rating of burners: See Attachment D
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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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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 Operating Permit No. R30-09300004-2003)

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.]

____ 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.)

(Per Title V Operating Permit No. R30-09300004-2003)

10.2. Monitoring Requirements

10.2.1. Visible emissions monitoring shall be performed per Requirement 3.2.1. 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. 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.]

10.2.2. 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 10% opacity); whichever is the shorter period.

[45CSR§30-5.1.c.]

10.3. Recordkeeping Requirements

10.3.1. Visible emission checks recordkeeping as per requirement 10.2.1.

10.4. Reporting Requirements

10.4.1. Opacity exceedance reporting as per requirement 3.5.8.-1.

Are you in compliance with all applicable requirements for this emission unit? 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: 008-01, 02A, 02B, 03A through 03G	Emission unit name: Briquet Handling	List any control devices associated with this emission unit. Fabric Filter Dust Collectors (C-01 through C-03)
--	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
 Three dust collectors (C-01,02,03) 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: See Attachment D	Model number: See Attachment D	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):
 154,000 tons briquets/yr

Maximum Hourly Throughput: Not determined	Maximum Annual Throughput: 154,00 tons briquets/yr	Maximum Operating Schedule: 8,760 hr/yr
---	--	---

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> 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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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 Operating Permit No. R30-09300004-2003)

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

____ 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.*)

(Per Title V Operating Permit No. R30-09300004-2003)

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

Are you in compliance with all applicable requirements for this emission unit? 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: 009-01, 02	Emission unit name: E-09-01 Paved Plant Roads E-09-02 Unpaved Plant Roads	List any control devices associated with this emission unit. 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: Not applicable	Model number: Not applicable	Serial number: Not applicable
--	--	---

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

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

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

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> 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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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. R30-09300004-2003)

See E-01-01,02 requirements

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.*)

(Per Title V Operation Permit No. R30-09300004-2003)

See E-01-01,02 requirements

Are you in compliance with all applicable requirements for this emission unit? 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 through 08	Emission unit name: Liquid Storage	List any control devices associated with this emission unit. E-0A-01, 02 Conservation Vent E-0A-03 through 08 Vent
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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 Annual Throughput: Not applicable	Maximum Operating Schedule: 8,760 hours/year
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___Yes <input checked="" type="checkbox"/> 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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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.

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.*)

Are you in compliance with all applicable requirements for this emission unit? 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: 00B-01	Emission unit name: Emergency Flood Pumps	List any control devices associated with this emission unit. None
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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
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Construction date: 1998	Installation date: 1998	Modification date(s): Not Applicable
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
2500 gpm

Maximum Hourly Throughput: Not determined	Maximum Annual Throughput: Not determined	Maximum Operating Schedule: 13 hr/yr/pump
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, is it? <input type="checkbox"/> Indirect Fired <input type="checkbox"/> 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	Not determined	Not determined	Not determined

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
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 C

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.

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.*)

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

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

ATTACHMENT F - Schedule of Compliance Form NOT APPLICABLE

Complete this section if you indicated noncompliance with any of the applicable requirements identified in the permit application. For each emission unit which is not in compliance, identify the applicable requirement, the reason(s) for noncompliance, a description of how the source will achieve compliance, and a detailed schedule of compliance. If there is a consent order that applies to this requirement, attach a copy to this form.

1. Applicable Requirement

Unit(s):

Applicable Requirement:

2. Reason for Noncompliance:

3. How will Compliance be Achieved?

4. Consent Order Number (if applicable):

5. Schedule of Compliance. Provide a schedule of remedial measures, including an enforceable sequence of actions with milestones, leading to compliance, including a date for final compliance.

Remedial Measure or Action	Date to be Achieved

6. Submittal of Progress Reports.

Content of Progress Report:

Report starting date: MM/DD/YYYY

Submittal frequency:

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: <input checked="" type="checkbox"/> 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	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 three (3) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm & C-03 @ 25,000 cfm).		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input checked="" type="checkbox"/> 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. R30-0930004-2003)**

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, R13-1608ED, A.11.]**

Emission Point ID / Stack ID	Maximum Allowable PM Emissions (lbs/hr)
S-23	0.2

- 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.]**
- 8.1.3. The permittee shall comply with all applicable requirements of 40 CFR 60 Subpart Y as per Section 3.1.17. for the Coal Tank (Source ID E-06-01, Emission Point S-10) upon completion of the facility reconstruction per Permit R13-1608ED. **[45CSR§30-5.1.c.]**

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 monitor flow rate of the Wet Scrubber (C-21) and maintain it at or above 3 gpm during normal operations. **[45CSR§30-5.1.c.]**
- 8.2.2. The permittee shall maintain a pressure gauge on all dust collectors for pressure drop observations. The permittee shall maintain records of the maintenance performed on each dust collector. These records shall include all maintenance work performed on each dust collector including the frequency of bag/filter change outs. Records shall state the date and time of each dust collector inspection, the inspection results, and corrective action taken, if any. Records shall be maintained on site for five (5) years from the record creation date. **[45CSR§30-5.1.c.]**
- 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, S-24) 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 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. **[45CSR13, R13-1608ED, B.5. 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 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. **[45CSR13, R13-1608ED, B.5. and 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. R30-0930004-2003)**

8.2.5. Each opacity evaluation observation per 45CSR§7A-2.1.a,b (as per Requirement 3.2.1) for Emission Points listed 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 Requirements 3.2.1. and 8.2.3. for the sources listed in Section 8.1.3. of this Permit will assure compliance with the applicable requirements of the 40 CFR 60 Subpart Y as per Section 3.1.17. [45CSR§30-5.1.c.]

8.3. Recordkeeping Requirements

8.3.1. Keep records of the scrubber C-21 flow rate as per Requirement 8.2.1. [45CSR§30-5.1.c.]

8.3.2. Visible emission checks recordkeeping as per Requirement 8.2.2 and 8.2.3.

8.4. Reporting Requirements

8.4.1. Opacity exceedance reporting as per Requirement 3.5.8.-1.

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
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Manufacturer: Standard Havens	Model number: 24A/M1	Installation date: 1992
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Type of Air Pollution Control Device:

<input checked="" type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> 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	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 three (3) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm & C-03 @ 25,000 cfm).

Is this device subject to the CAM requirements of 40 C.F.R. 64? 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
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Manufacturer: BHA/DCE Vokes	Model number: Not determined	Installation date: 1995
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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
 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	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 three (3) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm & C-03 @ 25,000 cfm).

Is this device subject to the CAM requirements of 40 C.F.R. 64? 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-05 Primary Dryer Cyclones

List all emission units associated with this control device.
E-03-01 Rotary Wood Dryer

Manufacturer:
Fisher-Klosterman

Model number:
XQ120-33

Installation date:
2003

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input checked="" type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	100%	90+%

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

The wood dryer exhaust is passed through these cyclones for the primary purpose of material recovery. The recovered material is sent to the retort and the exhaust gas goes on to the ACC (C-08).

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

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** The cyclone is used to recover the dry wood from the rotary wood dryer, it is not primarily a pollution control device.

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

See attached sheets and the requirements for the ACC (C-08).

**Describe the parameters monitored and/or methods used to indicate performance of this control device.
(Per Title V Operating Permit No. R30-09300003-2003)**

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, R13-1608ED, A.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, R13-1608ED, A.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	NOx	74.4	201.88
	CO	5.9	1.0
	VOC	1.0	1.15
	SO2	20.23	54.91
	PM	50.6	137.28
	PM10	40.5	109.82
	Methanol	-	3.15

[45CSR13, R13-1608ED, A.7.]

- 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 in a manner consistent with good air pollution control practice for minimizing emissions. **[45CSR§30-5.1.c.]**
- 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.]**
- 4.1.6. The permittee shall remove Existing Four (4) Dryer Cyclones upon installation of the New Four (4) Dryer Cyclones (Control Device - 05) .**[45CSR13, R13-1608ED, C.3.]**

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, R13-1608ED, A.4.]**
- 4.4.2. The following information shall be recorded:
 - 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, R13-1608ED, B.6.]

- 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.]**

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
C-06 Four (4) Furnace Cyclones

List all emission units associated with this control device.
E-03-01 Retort Furnace

Manufacturer:
Fisher-Klosterman

Model number:
XQ120-23

Installation date:
1984

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input checked="" type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	100%	90+%

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

The retort exhaust is passed through four (4) cyclones (C-06) for the purpose of material recovery. The recovered material is mixed with retort char. The cyclone exhaust is sent to the ACC (C-08).

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

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** The cyclones are primarily used for product recovery rather than for air pollution control.

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

See the requirements for the ACC (C-08) and dryer cyclones (C-05).

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:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre-control emissions from this unit do not exceed 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-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:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input checked="" type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> 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	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 maintenance 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? 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. R30-09300003-2003)

5.1. Limitations and Standards

5.1.1. Summary of emissions to the atmosphere from New ACC stack (Emission point S-01-01) and Briquet Dryes' 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	Annual
S-01-01	NO _x	87.5	237.51
	CO	11.9	13.31
S-01-03	VOC	2.65	6.65
	SO ₂	23.8	64.6
S-01-04	PM	62.6	175.78
	PM ₁₀	46.5	129.07
S-01N-05	Methanol	-	3.7

[45CSR13, R13-1608C, A.6.]

5.1.2. No person shall cause, suffer, allow or permit 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. The permittee shall remove Old After Combustion Chamber upon installation of the New After Combustion Chamber (Control Device C-08).

[45CSR13, R13-1608C, C.3.]

5.1.5. 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. and 45CSR13, R13-1608C, B.2.]

5.2. Monitoring Requirements

5.2. 1. The permittee shall install, calibrate, maintain, and continuously operate a monitoring device with recorder for the measurement of the New ACC combustion chamber temperature (E-03-01). The monitoring device is to be certified by the manufacturer to be accurate within \pm one (1) percent in degrees Fahrenheit.

[45CSR13, R13-1608C, A.12.]

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 New ACC average combustion chamber temperature is maintained at or above a minimum of 1,600°F (before the performance test per Requirement 3.3.3. is completed) or the average temperature established during the most recent performance test showing compliance with Specific Requirements 4.1.3. and 6.1.2. both on a 3-hour average during normal operations (not including periods of system startup, shutdown or maintenance).

[45CSR13, R13-1608C, A.13.]

5.2.3. The New ACC shall be operated such that the average combustion chamber temperature does not drop more than 50°F below temperature specified in the Requirement 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, R13-1608C, A.14.]

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 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.

[45CSR13, R13-1608C, B.5.]

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 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.]

5.3. Testing Requirements

5.3.1. Testing per Section 3.3. Requirements.

5.3.2. If the results of the initial performance tests per Requirement 3.3.3. for the ACC stack (Emission Point S-01-01) or the Briquet Dryers' stacks (Emission Points S-01-03, S-01-04, S-01N-05, S-01N-06) demonstrate that actual emissions are greater than those listed in Requirements 4.1.3. or 6.1.2., but their total emission rate remains in compliance with Requirement 5.1.1., then the effective emission limits in Requirements 4.1.3. and 6.1.2. shall be revised pursuant to 45CSR13 based on the performance test data.

[45CSR13, R13-1608C, A.9.]

5.4. Recordkeeping Requirements

5.4.1. The combustion chamber temperature records shall be maintained on site for a period of at least five years and be made available to the Director or his/her duly authorized representative upon request. **[45CSR13, R13-1608C, A.12.]**

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.

5.5. Reporting Requirements

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

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:
Mikro-Pul

Model number:
42-8-220

Installation date:
1985

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre-control emissions from this unit do not exceed 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-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:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre control emissions from this operation do not exceed 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-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:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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. 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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre-control emissions from this operation 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-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:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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 (-014) provides control of particulate matter for this operation.

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

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre-control emissions from this operation do not exceed 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-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:
BVC-4

Installation date:
2003

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre-control emissions from this source are less than the 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-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:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre-control emissions from this source do not exceed 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-17 Fabric Filter Dust Collector

List all emission units associated with this control device.
E-06-0B Dry Starch Use Tank

Manufacturer:
Adaptive Engineering & Fabrication

Model number:
BVC-4

Installation date:
1987, replaced 2003

Type of Air Pollution Control Device:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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-17) provides control of particulate matter emissions from the dry starch use tank.

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

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre-control emissions from this source do not exceed 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-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:

- | | | |
|---|--|---|
| <input checked="" type="checkbox"/> Baghouse/Fabric Filter | <input type="checkbox"/> Venturi Scrubber | <input type="checkbox"/> Multiclone |
| <input type="checkbox"/> Carbon Bed Adsorber | <input type="checkbox"/> Packed Tower Scrubber | <input type="checkbox"/> Single Cyclone |
| <input type="checkbox"/> Carbon Drum(s) | <input type="checkbox"/> Other Wet Scrubber | <input type="checkbox"/> Cyclone Bank |
| <input type="checkbox"/> Catalytic Incinerator | <input type="checkbox"/> Condenser | <input type="checkbox"/> Settling Chamber |
| <input type="checkbox"/> Thermal Incinerator | <input type="checkbox"/> Flare | <input type="checkbox"/> Other (describe) _____ |
| <input type="checkbox"/> Wet Plate Electrostatic Precipitator | | <input type="checkbox"/> 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	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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** Pre control emissions from this source do not exceed 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-21 Wet Scrubber	List all emission units associated with this control device. E-06-0F Minor Batch Mixing (starch, nitrate, and borax mixing tanks)
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Manufacturer: Mikro-Pul	Model number: Type DS2-30	Installation date: 1976
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Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input checked="" type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator		<input type="checkbox"/> 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	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 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
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Manufacturer: MikroPul Mikrovane Scrubber	Model number: Size 66, Type LP	Installation date: 2003
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Type of Air Pollution Control Device:

<input type="checkbox"/> Baghouse/Fabric Filter	<input type="checkbox"/> Venturi Scrubber	<input type="checkbox"/> Multiclone
<input type="checkbox"/> Carbon Bed Adsorber	<input type="checkbox"/> Packed Tower Scrubber	<input type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input checked="" type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> 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	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 No

If Yes, **Complete ATTACHMENT H**

If No, **Provide justification.** This scrubber is not used to meet any emissions limit and was installed voluntarily. The scrubber is therefore exempt from the CAM requirements.

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) Plan Form

For definitions and information about the CAM rule, please refer to 40 CFR Part 64. Additional information (including guidance documents) may also be found at <http://www.epa.gov/ttn/emc/cam.html>

CAM APPLICABILITY DETERMINATION

1) Does the facility have a PSEU (Pollutant-Specific Emissions Unit considered separately with respect to **EACH** regulated air pollutant) that is subject to CAM (40 CFR Part 64), which must be addressed in this CAM plan submittal? To determine applicability, a PSEU must meet **all** of the following criteria (*If No, then the remainder of this form need not be completed*):

YES NO

- a. The PSEU is located at a major source that is required to obtain a Title V permit;
- b. The PSEU is subject to an emission limitation or standard for the applicable regulated air pollutant that is **NOT** exempt;

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

- NSPS (40 CFR Part 60) or NESHAP (40 CFR Parts 61 and 63) proposed after 11/15/1990.
 - Stratospheric Ozone Protection Requirements.
 - Acid Rain Program Requirements.
 - Emission Limitations or Standards for which a WVDEP Division of Air Quality Title V permit specifies a continuous compliance determination method, as defined in 40 CFR §64.1.
 - An emission cap that meets the requirements specified in 40 CFR §70.4(b)(12).
- c. The PSEU uses an add-on control device (as defined in 40 CFR §64.1) to achieve compliance with an emission limitation or standard;
 - d. The PSEU has potential pre-control device emissions of the applicable regulated air pollutant that are equal to or greater than the Title V Major Source Threshold Levels; AND
 - e. The PSEU is **NOT** an exempt backup utility power emissions unit that is municipally-owned.

BASIS OF CAM SUBMITTAL

2) Mark the appropriate box below as to why this CAM plan is being submitted as part of an application for a Title V permit:

RENEWAL APPLICATION. **ALL** PSEUs for which a CAM plan has **NOT** yet been approved need to be addressed in this CAM plan submittal.

INITIAL APPLICATION (submitted after 4/20/98). **ONLY** large PSEUs (i. e., PSEUs with potential post-control device emissions of an applicable regulated air pollutant that are equal to or greater than Major Source Threshold Levels) need to be addressed in this CAM plan submittal.

SIGNIFICANT MODIFICATION TO LARGE PSEUs. **ONLY** large PSEUs being modified after 4/20/98 need to be addressed in this cam plan submittal. For large PSEUs with an approved CAM plan, **Only** address the appropriate monitoring requirements affected by the significant modification.

3) ^a BACKGROUND DATA AND INFORMATION

Complete the following table for **all** PSEUs that need to be addressed in this CAM plan submittal. This section is to be used to provide background data and information for each PSEU In order to supplement the submittal requirements specified in 40 CFR §64.4. If additional space is needed, attach and label accordingly.

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
E- 03-01	Rotary Wood Dryer/Retort Furnace	CO	ACC (C-08)	Title V permit condition 5.1.1: 11.9 lb/hr	ACC operating temperature must be continuously monitored and maintained above 1,600F
		VOC	ACC (C-08)	Title V permit condition 5.1.1: 2.65 lb/hr	ACC operating temperature must be continuously monitored and maintained above 1,600F
		PM/PM10	ACC (C-08)	Title V permit condition 6.1.1: 62.6/46.5 lb/hr	ACC operating temperature must be continuously monitored and maintained above 1,600F
E-05-01	Solvent Treated Briquet Operation	VOC	ACC (C-08)	Title V permit condition 7.1.1: 2.82 lb/hr	ACC operating temperature must be continuously monitored and maintained above 1,600F
E-08-01 E-08-02 E-08-03	Briquet Dryer Discharge Conveyors Briquet Packaging Lines Briquet Handling Lines	PM/PM10	Fabric Filter Dust Collectors (C-01, C-02, C-03)	45 CSR 7-4 – process weight requirements	Weekly monitoring of fabric filter pressure drop and retention of maintenance records.
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

^a If a control device is common to more than one PSEU, one monitoring plan may be submitted for the control device with the affected PSEUs identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a). If a single PSEU is controlled by more than one control device similar in design and operation, one monitoring plan for the applicable control devices may be submitted with the applicable control devices identified and any conditions that must be maintained or monitored in accordance with 40 CFR §64.3(a).

^b Indicate the emission limitation or standard for any applicable requirement that constitutes an emission limitation, emission standard, or standard of performance (as defined in 40 CFR §64.1).

^c Indicate the monitoring requirements for the PSEU that are required by an applicable regulation or permit condition.

CAM MONITORING APPROACH CRITERIA

Complete this section for **EACH** PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for **EACH** indicator selected for **EACH** PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: E-03-01, E-05-01	4b) Pollutant: PM/PM10, CO, VOC	4c) ^a Indicator No. 1: ACC combustion temperature	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		Thermocouple and datalogger used to continuously monitor ACC combustion temperature.	
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		ACC combustion temperatures above 1,600F (3-hour average) indicate adequate combustion efficiency for oxidation of CO, VOC and carbonaceous PM pollutants.	
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Thermocouple is located in a representative location in the ACC combustion chamber.	
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		N/A – Existing temperature monitoring system.	
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		Monthly thermocouple accuracy checks will be conducted. A second thermocouple will be placed in the ACC combustion chamber and acceptance criterion will be that the two thermocouples are +/- 100F.	
^d Provide the <u>MONITORING FREQUENCY</u> :		Temperatures are measured every second and averages will be calculated every 15 seconds and datalogged.	
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Temperature data will be electronically datalogged.	
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		Temperatures will be averaged for each one-hour period. One-hour temperature averages will be compared with an “excursion level” of 1,650F. Rolling three-hour temperature averages will be computed and compared with the exceedance level of 1,600F.	

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

- ^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.
- ^d Emission units with post-control PTE \geq 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:
E-03-01, E-05-01

6b) Regulated Air Pollutant:
PM/PM10, CO, VOC

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

The ACC is a thermal oxidizer used to oxidize CO, VOC, and carbonaceous particulate pollutants generated by the rotary wood dryer (E-03-01) and the retort furnace (E-03-01). Combustion temperatures are maintained above 1,600F by the combustible furnace off-gases and by the supplemental heat provided by the ACC natural gas-fired burner. Maintaining combustion temperatures above 1,600F, coupled with the gas mixing and residence times inherent in the design of the ACC, will ensure adequate destruction efficiency of VOC, CO, and PM pollutants.

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

The existing Title V permit for the Parsons plant requires that the ACC temperature be maintained above 1,600F. This temperature limit was established by KMC through an engineering assessment as part of the minor NSR permit application for the installation of the ACC in 2003. The ACC is designed to achieve good mixing of the dryer and furnace exhaust gases and to achieve a residence time in excess of 1.0 second. The combustion of the ACC design and a minimum combustion temperature of 1,600F is adequate to achieve VOC and CO destruction efficiencies in excess of 99% and to meet the PM/PM10 emission limits specified in the Parson Title V permit.

CAM MONITORING APPROACH CRITERIA

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide monitoring data and information for EACH indicator selected for EACH PSEU in order to meet the monitoring design criteria specified in 40 CFR §64.3 and §64.4. If more than two indicators are being selected for a PSEU or if additional space is needed, attach and label accordingly with the appropriate PSEU designation, pollutant, and indicator numbers.

4a) PSEU Designation: E-08-01 E-08-02A through B E-08-03A through G	4b) Pollutant: PM/PM10	4c) ^a Indicator No. 1: Baghouse daily pressure differential	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		Weekly monitoring of fabric filter pressure drop	
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		2.0-8.0 in. W.G.	
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		The pressure drop across the fabric filter will be measured with a magnahelic gauge, or equivalent.	
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		Not applicable – existing monitoring equipment.	
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		Not applicable	
^d Provide the <u>MONITORING FREQUENCY</u> :		Weekly	
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Weekly observation of gauge by plant personnel	
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		Weekly	

^a Describe all indicators to be monitored which satisfies 40 CFR §64.3(a). Indicators of emission control performance for the control device and associated capture system may include measured or predicted emissions (including visible emissions or opacity), process and control device operating parameters that affect control device (and capture system) efficiency or emission rates, or recorded findings of inspection and maintenance activities.

^b Indicator Ranges may be based on a single maximum or minimum value or at multiple levels that are relevant to distinctly different operating conditions, expressed as a function of process variables, expressed as maintaining the applicable indicator in a particular operational status or designated condition, or established as interdependent between more than one indicator. For CEMS, COMS, or PEMS, include the most recent certification test for the monitor.

^c The verification for operational status should include procedures for installation, calibration, and operation of the monitoring equipment, conducted in accordance with the manufacturer's recommendations, necessary to confirm the monitoring equipment is operational prior to the commencement of the required monitoring.

^d Emission units with post-control PTE ≥ 100 percent of the amount classifying the source as a major source (i.e., Large PSEU) must collect four or more values per hour to be averaged. A reduced data collection frequency may be approved in limited circumstances. Other emission units must collect data at least once per 24 hour period.

RATIONALE AND JUSTIFICATION

Complete this section for EACH PSEU that needs to be addressed in this CAM plan submittal. This section may be copied as needed for each PSEU. This section is to be used to provide rationale and justification for the selection of EACH indicator and monitoring approach and EACH indicator range in order to meet the submittal requirements specified in 40 CFR §64.4.

6a) PSEU Designation:

E-08-01

E-08-02A through B

E-08-03A through G

6b) Regulated Air Pollutant:

PM/PM10

7) **INDICATORS AND THE MONITORING APPROACH:** Provide the rationale and justification for the selection of the indicators and the monitoring approach used to measure the indicators. Also provide any data supporting the rationale and justification. Explain the reasons for any differences between the verification of operational status or the quality assurance and control practices proposed, and the manufacturer's recommendations. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

The large fabric filter dust collectors control PM emissions from briquette dryer discharges, finished briquet handling and briquet packaging operations. KMC will operate these fabric filter collectors in accordance with good air pollution control operating and maintenance practices. To ensure the fabric filters are operated properly, KMC proposes weekly monitoring of the pressure differential across the filters and maintaining the pressure differential between 2.0 and 8.0 inches of water column. If the pressure differential is outside this range, KMC will investigate the cause and document corrective actions taken to return the units to this normal operating range. KMC will maintain records of the filter pressure differential readings and of maintenance performed on the fabric filter collectors.

8) **INDICATOR RANGES:** Provide the rationale and justification for the selection of the indicator ranges. The rationale and justification shall indicate how EACH indicator range was selected by either a COMPLIANCE OR PERFORMANCE TEST, a TEST PLAN AND SCHEDULE, or by ENGINEERING ASSESSMENTS. Depending on which method is being used for each indicator range, include the specific information required below for that specific indicator range. (If additional space is needed, attach and label accordingly with the appropriate PSEU designation and pollutant):

- COMPLIANCE OR PERFORMANCE TEST (Indicator ranges determined from control device operating parameter data obtained during a compliance or performance test conducted under regulatory specified conditions or under conditions representative of maximum potential emissions under anticipated operating conditions. Such data may be supplemented by engineering assessments and manufacturer's recommendations). The rationale and justification shall INCLUDE a summary of the compliance or performance test results that were used to determine the indicator range, and documentation indicating that no changes have taken place that could result in a significant change in the control system performance or the selected indicator ranges since the compliance or performance test was conducted.
- TEST PLAN AND SCHEDULE (Indicator ranges will be determined from a proposed implementation plan and schedule for installing, testing, and performing any other appropriate activities prior to use of the monitoring). The rationale and justification shall INCLUDE the proposed implementation plan and schedule that will provide for use of the monitoring as expeditiously as practicable after approval of this CAM plan, except that in no case shall the schedule for completing installation and beginning operation of the monitoring exceed 180 days after approval.
- ENGINEERING ASSESSMENTS (Indicator Ranges or the procedures for establishing indicator ranges are determined from engineering assessments and other data, such as manufacturers' design criteria and historical monitoring data, because factors specific to the type of monitoring, control device, or PSEU make compliance or performance testing unnecessary). The rationale and justification shall INCLUDE documentation demonstrating that compliance testing is not required to establish the indicator range.

RATIONALE AND JUSTIFICATION:

Based on stack testing of similar fabric filters and operating experience, KMC believes that maintaining the pressure drop range of 2.0-8.0 in. W.G. across the fabric filters will ensure compliance with the applicable emissions requirements.

**APPENDIX B
CAM PLANS**

APPENDIX B - CAM PLANS

The federal compliance assurance monitoring (CAM) rule is promulgated as 40 CFR Part 64. The CAM Rule requires compliance monitoring for large sources at Title V facilities. The CAM monitoring requirements apply to certain large emissions sources employing air pollution control devices. Applicability is assessed on a pollutant-by-pollutant basis and is addressed for the Parsons plant sources in subsection B.1 below.

The deadline for submission of the CAM Plans is set forth in 40 CFR 64.5. For Title V facilities that submitted Title V applications prior to April 20, 1998, the CAM Plans are required when the application for renewal of the initial Title V permit is submitted. Accordingly, KMC is submitting a CAM Plan for several sources at the Parsons plant as part of this application.

B.1 CAM APPLICABILITY

The applicability requirements of the CAM rule (40 CFR 64.2) requires Title V sources subject to emission limitations to propose compliance monitoring methods for emitting units employing control devices if potential emissions prior to control exceed major source thresholds. CAM applicability is assessed on a pollutant-by-pollutant basis based on the following three criteria: (1) emissions of the pollutant under consideration are limited by a federally enforceable emission limit; (2) a “control device” is utilized to assure compliance with this limit; and, (3) pre-control emission rates exceed the Title V major source threshold (typically 100 tpy for criteria pollutants).

The Parsons facility has several emissions units with potential pre-control emissions in excess of major source thresholds. The affected emission sources are:

Title V Source ID	Title V Emission Point ID	Source	Control Device	Pollutant
E-03-01	S-01-01	Wood dryer and outlet box Retort furnace	After combustion chamber (ACC) C-08	PM/PM ₁₀ /CO/VOC
E-05-01	S-01-01	Solvent treated briquet production	After combustion	PM/PM ₁₀ /CO/VOC

			chamber (ACC) C-08	
E-08-01	S-06	Briquet dryer discharge conveyors	Fabric filter dust collector C-01	PM/PM ₁₀
E-08-02A E-08-02B	S-07	Briquet packaging lines	Fabric filter dust collector C-02	PM/PM ₁₀
E-08-03A E-08-03B E-08-03C E-08-03D E-08-03E E-08-03G	S-08	Finished briquet handling	Fabric filter dust collector C-03	PM/PM ₁₀

The CAM Rule excludes devices that are primarily used for product recovery from the definition of “control device”. The cyclone collectors (C-05 & C-06) serving the rotary wood dryer and the multi-hearth furnace (E-03-01) are designed to recover product and are therefore not considered control devices in the CAM Rule. Consequently, KMC will not be proposing CAM for the cyclones. The storage silo fabric filter collectors are designed as part of the silos (E-06) and are used to separate product during pneumatic loading and material handling. As such, these filters are not considered control devices in the CAM Rule. The solvent refrigeration system is used to minimize solvent vapors from the solvent treated briquet operations (E-05-01) that is reused in the process and is therefore not a control device.

KMC has evaluated applicability of CAM to the remaining dust collectors and scrubbers based on pre-control emission rates of PM. KMC has conducted inlet PM testing at three fabric filter dust collectors at another KMC plant and has demonstrated that the typical pre-control PM emission rate for the large material handling dust collectors (C-01, 02, 03) exceed 100 tpy. KMC has calculated a pre-control emission rate of less than 100 tpy PM for each of the wet scrubbers. This rate was calculated based on the controlled PM emission rate and an assumed PM removal efficiency of 90%. Due to the fact that the pre-control emission rate does not exceed the 100 tpy threshold, KMC will not be addressing CAM for the scrubbers.

KMC is addressing CAM requirements for the ACC thermal oxidizer serving both the drying and charring operation (E-03-01) and the solvent treated briquet operation (E-05-01). The ACC

is a control device for the pollutants PM, CO, and VOC. Pre-control emission rates for these pollutants are believed to exceed 100 tpy for each pollutant. CAM is not triggered for SO₂ and NO_x since the ACC does not control these pollutants.

KMC is also addressing CAM requirements for the large dust collectors (C-01, 02, 03). CAM is addressed for control of PM emissions.

B.2 CAM PLAN FOR E-03-01 DRYING/CHARRING SYSTEM ACC OXIDIZER

The PM/PM₁₀ emissions control system for the wood dryer and the furnace consists of banks of high-efficiency cyclones and the after combustion chamber (ACC) thermal oxidizer system. The rotary wood dryer and the multi-hearth retort charcoal furnace are each controlled by high-efficiency cyclone mechanical collectors. These collectors serve primarily as product recovery systems. The cyclone exhausts are combined and then introduced into the ACC. The ACC serves as the principal exhaust point for the system.

Although oxidizers are not typically considered to be PM control devices, the ACC is designed to achieve very high destruction efficiency for fine combustible wood particulate matter. The ACC is designed to achieve very high residence times (in excess of 1 second), turbulent mixing, and high temperatures (in excess of 1,600°F) to ensure that the combustible fraction of the fine wood particles from the cyclone exhausts are fully combusted. KMC estimates that the combustible fraction of the wood fines is approximately 95% and that the inorganic ash fraction is approximately 5%. This demonstrates that the ACC is capable of destroying up to approximately 95% of the PM/PM₁₀ emissions exhausted from the cyclones. As such, the ACC is considered by KMC the primary PM/PM₁₀ emissions control device for the charring and drying operations (E-03-01). The CAM Plan therefore addresses ACC parametric monitoring to ensure high PM/PM₁₀ emissions destruction in the ACC.

The ACC also serves as an oxidizer for carbon monoxide (CO) and volatile organic compound (VOC) emissions. CO and VOC emissions from the ACC exhaust (post control) are permitted at less than 100 tpy. Pre-control emissions of each of these pollutants are conservatively assumed by KMC to exceed 100 tpy each. As such, the CAM Plan also addresses ACC control of CO and VOC emissions. Based on the residence time and good mixing present in the ACC, KMC

believes that maintaining a minimum ACC operating temperature should ensure compliance with the VOC and CO emissions limits.

KMC proposes that maintaining a minimum ACC operating temperature will ensure optimal PM/PM₁₀, CO, and VOC emissions destruction efficiency in the ACC. KMC considers the minimum value for this parameter specified in the Parsons Title V permit to be adequate to demonstrate continuous compliance with the PM/PM₁₀, CO, and VOC emissions limitations.

In summary, KMC proposes the following ACC parametric monitoring as CAM to ensure compliance with the PM/PM₁₀ emissions limit for the wood dryer and furnace system:

1) ACC Temperature Monitoring

- Exceedance if ACC temperature drops below 1,600°F (3-hour average) during normal operation (not including startups/shutdowns/malfunctions/maintenance)
- Excursion if ACC temperature drops below 1,650°F (1-hour average) during normal operations, triggering need for corrective actions

Details regarding the proposed ACC temperature monitoring including thermocouple type and location, calibration, and datalogging are provided in Table B-1.

B.2 CAM PLAN FOR 05-01 STB OPERATIONS

The solvent treated briquet (STB) operations apply solvent to charcoal briquets. Evaporative VOC losses from the STB operations are exhausted to the ACC afterburner for VOC control. Because the pre-control VOC emission rate from the STB operation exceeds 100 tpy, the ACC control device is subject to CAM for control of VOC emissions from this process. As detailed in the previous subsection, maintaining a minimum ACC temperature of 1,600F will ensure compliance with VOC emissions limits from the ACC. KMC proposes that the ACC be maintained at a minimum temperature of 1,600°F (3-hour average) to ensure compliance with the STB VOC emission limit. Details regarding the ACC temperature monitoring including thermocouple type and location, calibration, and datalogging are provided in Table B-1.

B.2 CAM PLAN FOR (C-01, 02,03) FABRIC FILTERS

The large fabric filter dust collectors control PM emissions from briquette dryer discharges, finished briquet handling and briquet packaging operations. KMC will operate these fabric filter collectors in accordance with good air pollution control operating and maintenance practices. To ensure the fabric filters are operated properly, KMC proposes weekly monitoring of the pressure differential across the filters and maintaining the pressure differential between 2.0 and 8.0 inches of water column. If the pressure differential is outside this range, KMC will investigate the cause and document corrective actions taken to return the units to this normal operating range. KMC will maintain records of the filter pressure differential readings and of maintenance performed on the fabric filter collectors.

Table B-1

ACC Combustion Temperature

Parametric Monitoring and Monitoring Performance Criteria

Measured Parameter	ACC combustion temperature measured with a Type K thermocouple.
Rationale for Measured Parameter	A minimum combustion temperature in the ACC is required to maintain adequate destruction efficiencies of organic material that could otherwise condense in the atmosphere as fine particulate.
Parameter Ranges and Set Points	The ACC combustion temperature is controlled by operators based on wood feed rates, moisture content of the wood, and other process variables. Due to equipment design limitations, the combustion temperature is typically kept below 2,200 F with tempering air. The ACC temperature will be maintained above 1,600 F based on a rolling three-hour average. An exceedance will be defined as a 3-hour rolling average temperature <1,600 F.
Alarms	An on-screen alarm will energize if the ACC temperature during normal operations is less than 1,650 F (1-hour average).
Data Representativeness	The ACC thermocouple is located in a representative location in the ACC stack.
QA/QC Practices and Criteria	Accuracy of each thermocouple will be verified by a second thermocouple in the ACC stack. The validation check will be conducted monthly. The acceptance criterion is +/- 100 F.
Monitoring Frequency	Temperatures are measured every second and displayed on one of the control room computer screens.
Data Collection Procedure	Average ACC combustion temperatures will be recorded every hour.
Averaging	Averages will be calculated using real data collected every 15 seconds.
Data Retention	The data will be retained for a minimum of 5 years.

**APPENDIX C
FACILITY EMISSIONS**

**TABLE C-1
PROJECTED FACILITY EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WV**

Source	Projected Annual Emissions (tons/yr)					
	NO _x	CO	VOC	SO ₂	PM	PM ₁₀
Wood & Char Piles (E-01)					15.00	7.05
Raw Material Handling (E-02)					0.71	0.34
Charring & Briquet Dryers (E-03)	237.50	13.31	6.65	64.60	175.78	129.07
Briquet Coolers (E-04)					38.50	19.25
Solvent Treated Briquet Production (E-05)			83.00			
Minor Ingredient Batching/Dry Storage (E-06)					3.33	3.33
Natural Gas Burning (E-07)	10.00	8.40	0.55	0.06	0.76	0.76
Briquet Handling (E-08)					26.28	26.28
Plant Roads (E-09)					11.77	5.76
Liquid Storage (E-10)			1.10			
Emergency Equipment (E-11)	0.05	0.02	0.01	0.01	0.01	0.01
Total	247.55	21.73	91.31	64.67	272.14	191.85

Source	Operating Schedule	Units	Maximum Annual Production	Maximum Hourly Production
	(hr/yr)		(dry ton/yr)	(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 treated 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 C-2
WOOD AND CHAR PILE EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

EMISSIONS UNIT NUMBER	EMISSIONS POINT NUMBER	NAME OF EMISSIONS UNIT	ANNUAL THROUGHPU T ^a	EMISSION FACTOR ^b	CONTROL FACTOR	HOURLY PM EMISS. RATE	HOURLY PM ₁₀ EMISS. RATE	ANNUAL PM EMISS. RATE	ANNUAL PM ₁₀ EMISS. RATE
			(DRY TONS)	(LB/DRY TON)		(LBS)	(LBS)	(TONS)	(TONS)
01	01	WOOD PILE	250,000	0.1		2.85	1.34	12.50	5.88
	02	CHAR AND COAL PILE MANAGEMEN	50,000	0.1		0.57	0.27	2.50	1.18
TOTALS						3.42	1.61	15.00	7.05

^aDry wood throughput assumed 5.5:1 ratio of dry wood to char.

^bPM emission factor = 0.1 lbs TSP/ton dry wood

PM10 is 47% of TSP.

**TABLE C-3
MATERIAL HANDLING 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	PM ₁₀ EMISSION FACTOR	CONTROL FACTOR	HOURLY PM EMISS. RATE	HOURLY PM ₁₀ EMISS. RATE	ANNUAL PM EMISS. RATE	ANNUAL PM ₁₀ EMISS. RATE
			(WET TONS)	(LB/WET TON) (GR/CF)	(LB/WET TON) (GR/CF)		(LBS)	(LBS)	(TONS)	(TONS)
02	01	Transfer Drag Pit to 48" Belt	418,000	9.19E-04	4.35E-04	0	0.043873909	0.020751173	0.192	0.091
02	02	Primary Screening	418,000	9.19E-04	4.35E-04	0	0.043873909	0.020751173	0.192	0.091
02	03	Secondary Screening	125,400	9.19E-04	4.35E-04	0	0.013162173	0.006225352	0.058	0.027
02	04	600 Ft Belt to Dryer Feed Bin	418,000	9.19E-04	4.35E-04	0	0.043873909	0.020751173	0.192	0.091
02	05	Wood with Metal Bypass Belt	418	9.19E-04	4.35E-04	0	4.38739E-05	2.07512E-05	0.000	9.09E-05
02	06	Wood Dryer Bin Bypass Screw	418	9.19E-04	4.35E-04	0	4.38739E-05	2.07512E-05	0.000	0.000
02	07	Char Truck Transport	0	9.19E-04	4.35E-04	0	0	0	0.000	0.000
02	09	Beryl Char and Coal Truck Dumping	111,600	9.19E-04	4.35E-04	0	0.011713704	0.005540265	5.13E-02	2.43E-02
02	0A	Bulk Coal Tank to Belt Transfer	61,600	9.19E-04	4.35E-04	0	0.006465629	0.003058068	2.83E-02	1.34E-02
02	0B	Rerun Char Tank Bypass Screw	154	9.19E-04	4.35E-04	0	1.61641E-05	7.64517E-06	7.08E-05	3.35E-05
02	0C	Material Handling, Char Hammer mill Existing Wood Sizing Hammermill		0	0	0	0	0	0.00	0.00
02	0D	New Wood Sizing Hammermill		0	0	0	0	0	0.00	0.00
TOTALS							0.16	0.08	0.71	0.34

^aPM and PM₁₀ 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 PM₃₀, 0.35 for PM₁₀.

Wind speed = 6.2 mph

Moisture content conservatively assumed to be similar to coal (4.8%)

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

Emissions Unit Number	Emissions Point Number	Pollutant	Maximum Annual Wood Throughput (tons/yr)	Emission Factor ^a (lb/ton char)	ACC Stack Emission Rate ^b (ton/yr)	Briquet Dryer Stack Emission Rate ^c (ton/yr)	Total Emission Rate (ton/yr)
03	01/02/03N	NO _x	209,000	2.27	201.88	35.63	237.50
		CO	209,000	N/D	1.00	12.31	13.31
		VOC	209,000	N/D	1.15	5.50	6.65
		SO ₂	209,000	0.62	54.91	9.69	64.60
		PM	209,000	1.31	137.28	38.50	175.78
		PM ₁₀	209,000	1.05	109.82	19.25	129.07
		Methanol	209,000	N/D	0.64	3.06	3.70

^aEmission factors for wood dryer/retort furnace/ACC system based upon data from similar Kingsford operations, increased for statistical confidence. The ACC PM₁₀ fraction is estimated to be 80% of PM, again based on similar Kingsford operations.

^bStack 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 PM₁₀ do not account for the 15% exhausted to the briquet dryers since these emissions are accounted for in the dryer TSP/PM₁₀ calculations.

^cBriquet dryer PM emissions come from Table C-5.

^dMethanol 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:

$$\text{AP-42 Ratio of Methanol to VOC} = [(150 \text{ lb methanol/ton}) / (270 \text{ lb VOC/ton})] = 0.556 \text{ methanol/VOC}$$

**TABLE C-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
			(tons/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
04	01/02N	Briquet Coolers	154,000	0.5	38.50	0.25	19.25

^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.

TABLE C-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 C-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	PM ₁₀ EMISSION	CONTROL FACTOR	HOURLY PM EMISS. RATE	HOURLY	ANNUAL PM	ANNUAL PM ₁₀
				FACTOR ^a	FACTOR			PM ₁₀		
				(LB/WET TON) (GR/CF)	(LB/WET TON) (GR/CF)		(LBS)	(LBS)	(TONS)	(TONS)
06	01	COAL TANK	100	1.00E-02	1.00E-02	0.00%	0.01	0.01	0.038	0.038
	02	BERYL CHAR TANKS	525	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.197	0.197
	03	RERUN CHAR TANK	5	1.00E-01	1.00E-01	0.00%	0.00	0.00	0.019	0.019
	04	YARD CHAR TANK	90	1.00E-01	1.00E-01	0.00%	0.08	0.08	0.338	0.338
	05	RETORT CHAR TANKS & TRANSFER	1,250	1.00E-02	1.00E-02	0.00%	0.11	0.11	0.469	0.469
	06	BULK LIME TANK	525	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.197	0.197
	07	BULK NITRATE TANK	560	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.210	0.210
	08	BULK STARCH TANK	560	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.210	0.210
	09	LIME USE TANK	200	1.00E-02	1.00E-02	0.00%	0.02	0.02	0.075	0.075
	0A	WET STARCH USE TANK	425	1.00E-02	1.00E-02	0.00%	0.04	0.04	0.160	0.160
	0B	DRY STARCH USE TANK	425	1.00E-02	1.00E-02	0.00%	0.04	0.04	0.160	0.160
	0C	BORAX USE TANK	250	1.00E-02	1.00E-02	0.00%	0.02	0.02	0.094	0.094
	0D	NITRATE USE TANK	0	1.00E-02	1.00E-02	0.00%	0.00	0.00	0.000	0.000
	0E	MULLER VENT	50	1.00E-01	1.00E-01	90.00%	0.00	0.00	0.019	0.019
0F	MINORS BATCH MIXING	2500	1.00E-02	1.00E-02	0.00%	0.21	0.21	0.939	0.939	
0G	RETORT CHAR SURGE SILO	560	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.210	0.210	
TOTALS							0.76	0.76	3.33	3.33

^aPM and PM₁₀ emission factors based on Kingsford operating experience for similar sources.

TABLE C-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)	(ton/yr)
07	01	NO _x	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	200	7.6	8,760	0.17	0.76

^aEmission factors based upon EPA AP-42 emission factors for natural gas-fired boilers (Section 1.5, 7/98).

TABLE C-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	15,000	0.01	8,760	1.29	5.63
	02	Packaging Process Equipment	PM/PM ₁₀	30,000	0.01	8,760	2.57	11.26
	03	Packaging Outside Handling	PM/PM ₁₀	25,000	0.01	8,760	2.14	9.39
Total							6.00	26.28

^aTypical baghouse exit grain loading. All PM is assumed to be PM10.

^bHours of operation assumed similar to briquet dryer operating schedule.

TABLE C-10
PROJECTED FUTURE ROAD DUST EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA

Road Segment	Road Surface	Vehicle Miles Traveled (VMT) on Road Segment per Year	Emission Factor		Emissions	
			PM	PM10	PM	PM10
			(lb/VMT)	(lb/VMT)	(ton/yr)	(ton/yr)
A	Paved	14427	0.88	0.43	6.35	3.10
B	Paved	6351	0.92	0.45	2.92	1.43
C	Paved	3010	0.69	0.34	1.04	0.51
D	Paved	1354	0.69	0.34	0.47	0.23
E	Paved	1043	0.36	0.18	0.19	0.09
F	Paved	1440	0.68	0.33	0.49	0.24
G	Paved	1209	0.53	0.26	0.32	0.16
Total Tons per Year					11.77	5.76

^aPotential emissions based on road emission factors from the 2006 iSteps report and double the actual 2006 mileage travelled on each

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

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	13	PM	2.20E-03	0.25	1.64E-03	1.01	6.58E-03
115	4	13	SO ₂	2.05E-03	0.24	1.53E-03	0.94	6.13E-03
115	4	13	NO _x	1.52E-02	1.75	1.14E-02	7.00	4.55E-02
115	4	13	CO	6.68E-03	0.77	4.99E-03	3.07	2.00E-02
115	4	13	VOC	2.51E-03	0.29	1.88E-03	1.16	7.52E-03

^aOperating schedule for each pump based upon 0.5 hour of operation per month.

^bAll emission factors for uncontrolled diesel industrial engines. NO_x per EPA 1997 standards for non-road combustion engines. All others per EPA AP-42 (EPA AP-42, Section 3.3).