



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
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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), PM₁₀, PM_{2.5}, and nitrogen oxides (NO_x) exceed 100 tons per year (tpy). KMC submitted an initial Title V operating permit application in 1996. Revisions were submitted in June 2001 and KMC was issued an initial Title V permit in June 2003. The Title V permit was subsequently renewed in December 2008 and the Parsons facility currently operates under Permit No. R30-09300004-2008 that expires on December 23, 2013. 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 2008 and addresses new regulatory requirements.

The changes to the facility include: (1) replacement of existing diesel fire pump with new 420-hp diesel fire pump in 2008 (General Permit G60-C012 and source FP-2 added to Title V permit in 1/25/10 permit action SM01); (2) installation of new fabric filter dust collector (C-35) in 2011 to control dust from existing briquet handling operations (Permit R13-1608F and source E-08-03H added to Title V permit in 10/1/12 permit action MM02); (3) replacement of primary/secondary wood screens (E-02-02 and E-02-03) and replacement of retort char transfer dust collector (C-11) in 2012 (Permit R13-1608G incorporated into Title V permit in 4/22/13 permit action MM03); and, (4) replacement of existing emergency generator with a new 228 bhp/177.5 kW natural-gas fired emergency generator in 2012 (General Permit G60-C012A and source E-0B-02 added to Title V permit in 4/22/13 permit action MM04). Section 2 of this report provides a process description for the facility and summarizes facility changes that have occurred since 2008.

The applicable federal regulations for stationary reciprocating internal combustion engines (RICE) have been incorporated into the Title V permit with permit actions SM01 and MM04 for the new diesel fire pump and the new natural gas emergency generator. These permit actions incorporated the applicable provisions of the RICE NESHAP (40 CFR 63 Subpart ZZZZ) and

the RICE NSPS (40 CFR 60 Subpart IIII for the fire pump engine and Subpart JJJJ for the emergency generator engine). KMC is also identifying the applicability of the gasoline distribution NESHAP (40 CFR 63 Subpart CCCCCC) to an existing 10,000-gallon gasoline storage tank (E-0A-01) at the Parsons facility which imposes work practice standards and monthly tracking of gasoline throughputs. Section 4 of this report addresses the applicability of new federal NESHAP and NSPS standards and provides a Compliance Assurance Monitoring (CAM) rule applicability evaluation to demonstrate that CAM is not applicable to the new dust collectors (C-11 and C-35). In addition, several revisions to the current Title V permit conditions are requested in Section 4.

Section 3 of this report provides a facility-wide air emission inventory summarizing plant-wide emissions. Potential emissions of greenhouse gases (GHGs) are provided to demonstrate that the Parsons facility is not classified as a major source of CO₂e emissions and is therefore not potentially subject to the Title V/PSD “Tailoring Rule”. Potential emissions of sulfur dioxide (SO₂) are shown to be less than 100 tpy to demonstrate that the Parsons facility is not a major SO₂ source with regard to the 2008 1-hour SO₂ NAAQS nonattainment designation process. Supporting emissions calculations are provided in Appendix B.

The WVDEP application forms are provided in Appendix A.

1.2 REPORT ORGANIZATION

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

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

Section 2 – Process Description describes current facility operations including changes to the plant that have occurred since 2008.

Section 3 – Emission Inventory summarizes criteria air pollutant potential emissions estimates for the facility, provides background documentation for the current emission estimates, and provides GHG and PM_{2.5} potential emissions estimates.

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

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

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

2. PROCESS DESCRIPTION

2.1 FACILITY OPERATIONS

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

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

The Parsons plant is classified as a major source of NO_x and PM emissions and therefore submitted a Title V application addressing all applicable state and federal air quality requirements in 1996. KMC was issued an initial Title V permit in June 2003, #R30-09300004-2003. The Title V permit was renewed in 2008 and the facility currently operates under Permit No. R30-09300004-2008 that expires on December 23, 2013. Several permit modifications have been made since 2008 and are summarized in the remainder of this section. The WVDEP application forms (Appendix A, Attachment D) list the plant emitting units that are defined in the current Title V permit. The table lists the emitting units, and their associated sources, control devices, and stacks.

2.2 MODIFICATIONS TO PLANT

2.2.1 Installation of Diesel Fire Pump in 2008

KMC replaced an existing diesel-fired fire water pump in 2008. A new 420-hp diesel fire pump was installed in 2008 and General Permit G60-C012 was issued for this source. Source FP-2 was added to the Title V permit as part of the “Emergency Equipment” source group in January

2010 (1/25/10 permit action SM01). The diesel fire pump is equipped with a 550-gallon diesel storage tank which is also listed as part of the Emergency Equipment in the Title V permit.

The diesel engine associated with the fire pump is a 2008 model year engine that meets the NSPS emissions standards for fire pump compression ignition engines at 40 CFR 60 Subpart IIII. The applicable Subpart IIII requirements have been incorporated into the Title V permit (section 11) by referencing the applicable sections of the Class II General Permit G60-C.

2.2.2 Installation of New Briquet Handling Baghouse in 2011

A new fabric filter dust collector (baghouse) was installed in 2011 to improve dust collection associated with the existing briquet handling operations identified as source group E-08 - Briquet Handling. Permit R13-1608F was issued for this baghouse and it was designated control device C-35 controlling source E-08-03H and incorporated into the Title V permit in 2012 (10/1/12 permit action MM02).

The baghouse controls dust associated with charcoal briquet conveying and transfer operations at the packaging in-feed conveyors. The baghouse was installed to address new OSHA combustible dust regulations related to industrial hygiene and safety and was not installed to comply with air quality regulations. The dust collector is a Wheelabrator Model 55 rated at a volumetric flowrate of 8,500 cfm. The baghouse operates at a relatively low pressure drop (0-2 inches) due to the low air/cloth ratio.

2.2.3 Replacement of Wood Screens and Retort Char Transfer Baghouse in 2012

The primary and secondary wood infeed sizing screens (E-02-02 and E-02-03) associated with source group E02 (Raw Material Handling) were replaced in 2012. The fabric filter dust collector baghouse (C-11) associated with the retort char pneumatic conveying system (E-06-05) that is part of source group E06 (Dry Storage) was also replaced in 2012. Permit R13-1608G was issued for these modifications and was incorporated into the Title V permit in 2013 (4/23/13 permit action MM03).

2.2.4 Installation of Natural Gas Emergency Generator in 2012

KMC replaced an existing emergency generator with a new natural-gas-fired emergency generator in 2012. The new 228-hp/177.5 kW natural gas-fired generator was installed in 2012 and General Permit G60-C012A was issued for this source. Source E-0B-02 was added to the Title V permit as part of the “Emergency Equipment” source group in April 2013 (4/22/13 permit action MM04).

The natural gas engine associated with the emergency generator is a 2012 model year engine that meets the NSPS emissions standards for emergency spark ignition engines at 40 CFR 60 Subpart JJJJ. The applicable Subpart JJJJ requirements have been incorporated into the Title V permit (section 11) by referencing the applicable sections of the Class II General Permit G60-C.

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. Note that several changes have been made to the liquid storage tanks at the facility.

3. EMISSION INVENTORY

3.1 FACILITY-WIDE EMISSIONS

Table 3-1 summarizes potential emission rates from the Parsons facility. Supporting emissions calculations are provided in Appendix B. The table demonstrates that the facility is a major source of PM, PM₁₀, PM_{2.5}, and NO_x emissions because potential emission rates exceed 100 tons per year (tpy) based on maximum rated capacities and permit throughput restrictions.

3.2 GREENHOUSE GAS EMISSIONS

Potential greenhouse gas (GHG) emissions from the KMC Parsons facility are shown in Table B-12 of the emission inventory. Potential GHG emissions were calculated for natural gas combustion as well as wood combusted in the charring process. Emission factors from 40 CFR Part 98 were used to calculate emissions of carbon dioxide (CO₂), and carbon dioxide equivalent (CO₂e) emissions of both methane (CH₄) and nitrous oxide (N₂O). Both biogenic and non biogenic emissions were calculated, although only non-biogenic emissions are currently regulated by the US EPA. Potential emissions of non-biogenic CO₂e are shown to be below the major source threshold of 100,000 tpy in the federal Tailoring Rule.

It is important to note that the potential GHG emissions were calculated using both the total heat input rating of both the natural gas fired burners (total heat input of 100 MMBtu/hr) in the ACC operating at maximum heat input at 8,760 hours per year, as well as the total wood combusted under the 209,000 tons dry wood throughput cap. In actual operation, such a scenario could not occur, as sufficient heat to the ACC is provided from wood charring off-gases during normal operations, and the ACC burners are typically only used for startup or for process upsets. GHG emissions from the wood drying and charring system have been calculated by assuming the difference between the dry wood feed rate and the char output rate represents the net quantity of “wood combusted”. Part 98 emission factors for wood combustion were applied to the net wood combusted quantity. CO₂ emissions from biomass combustion is currently classified as “biogenic” and is not subject to reporting under Part 98 or to permitting requirements under the federal PSD Tailoring Rule.

3.3 PM_{2.5} EMISSIONS ESTIMATES

KMC has also revised the Parsons facility emissions inventory to include the amount of particulate matter 2.5 microns or smaller (PM_{2.5}). PM_{2.5} emissions have been calculated using AP-42 particle size multipliers where appropriate (e.g., for fugitive dust sources). For emissions from the wood drying and charring operation, and for the briquet dryers and the briquet coolers, PM_{2.5} emissions have been estimated based on the results of stack testing conducted at similar KMC facilities. All of the PM emissions from fabric filter dust collector exhausts has been assumed to be in the form of PM_{2.5}.

KMC has revised the previous estimates of fugitive particulate emission from vehicle traffic on the roadways of the Parsons facility. Previous estimates of this fugitive road dust emissions used an older US EPA AP-42 methodology. KMC has revised these emissions estimates by applying the most recent AP-42 emissions factors in Section 13.2.1 (January 2011).

Potential emissions of PM_{2.5} total about 114 tpy based on the assumptions provided in the Appendix B emissions table. The Parsons facility is therefore classified as a major source of PM_{2.5} emissions on a potential to emit basis. Actual annual reported PM_{2.5} emissions have been below 100 tpy.

It should be noted that the emissions factors used to calculate potential emissions are conservatively based on historical “worst case” data for Kingsford operations at both the Parson’s plant at other similar facilities with common processes. The emission factors used by the Parson’s facility to report actual annual emissions to the WVDEP are generally based on the most recent compliance stack test results at the Parson’s facility, and some cases may be different from the emission factors used to calculate potential emissions.

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

Source	Potential Annual Emissions (tons/yr)										
	NO _x	CO	VOC	SO ₂	PM	PM ₁₀	PM _{2.5}	Methanol	Lead	Total HAPs	Non-Biogenic CO ₂ e
Wood & Char Piles (E-01)					15.00	7.05	1.05		5.25E-05	5.25E-05	
Raw Material Handling (E-02)					0.71	0.34	0.05		2.97E-06	2.97E-06	
Charring & Briquet Dryers (E-03)	237.50	13.31	6.65	64.60	175.78	129.07	66.97	3.70	1.36E-02	3.71E+00	5722.68
Briquet Coolers (E-04)					38.50	19.25	11.55		6.43E-04	6.43E-04	
Solvent Treated Briquet Production (E-05)			83.00								
Minor Ingredient Batching/Dry Storage (E-06)					3.71	3.71	3.71		1.92E-05	1.92E-05	
Natural Gas Burning (E-07)	10.00	8.40	0.55	0.06	0.76	0.76	0.76		5.00E-05	5.00E-05	51,247.11
Briquet Handling (E-08)					29.47	29.47	29.47		4.92E-04	4.92E-04	
Plant Roads (E-09)					3.12	0.62	0.15				
Liquid Storage (E-10)			1.10								
Emergency Equipment (E-11)	3.29	0.89	0.32	0.28	0.27	0.27	0.27			5.50E-03	
Total	250.79	22.60	91.62	64.94	267.32	190.54	113.99	3.70	1.48E-02	3.72	56,969.79

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

Potential to emit assumptions
Natural gas throughput - 200 MMcf/yr
Solvent 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)
- Federal Greenhouse Gas Reporting Requirements
- Title V and Compliance Assurance Monitoring (CAM) Requirements
- Regional Haze Rule and BART Applicability

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 February 2013, the U.S. EPA proposed nonattainment areas for the new 2010 1-hour sulfur dioxide (SO₂) national ambient air quality standard (NAAQS). Tucker County, WV was not proposed to be designated nonattainment for SO₂ nor has the county been designated nonattainment for any other NAAQS. As such, the Parsons facility should not be affected by WVDEP emissions regulatory programs required for areas of the state that are or are expected to be 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 2008 when Title V operating permit was issued. Each of the plant modifications since 2008 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.

The KMC Parsons plant is a minor source of HAP and is therefore not subject to any of the major source NESHAP “MACT” standards. However, there have been area source NESHAP regulations promulgated since 2008 that have the potential to apply to the KMC Parsons plant, including the Industrial, Commercial, and Institutional (ICI) Boiler NESHAP at 40 CFR 63 Subpart JJJJJJ, the Reciprocating Internal Combustion Engine (RICE) NESHAP at 40 CFR 63 Subpart ZZZZ and the Gasoline Distribution NESHAP (40 CFR 63 Subpart CCCCCC).

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

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

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

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

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

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

4.1.3 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.

As detailed in subsection 4.1.1, the RICE NSPS requirements at 40 CFR 60 Subpart IIII and JJJJ apply to the natural gas-fired emergency generator and to the diesel fire pump, respectively. These NSPS requirements have been incorporated into the Title V permit and are detailed in the Class II General Permit G-60C which is attached to the permit as Attachment 2.

4.1.4 Federal Tailoring Rule and Greenhouse Gas Reporting Rule

As demonstrated in Table 3-1, the KMC Parsons facility is not classified as a major source under the federal “PSD and Title V Tailoring Rule” because potential GHG emissions are below 100,000 tons/year for non-biogenic CO₂e emissions. Note that CO₂ emissions from biomass combustion are classified as “biogenic” and are not counted towards applicability of the Tailoring Rule under a 3-year EPA “deferral action” that became effective July 1, 2011.

In 2009, the EPA promulgated GHG reporting requirements under 40 CFR Part 98 requiring facilities to report GHG emissions if the facility emitted greater than 25,000 metric tons CO₂-e during the reporting year starting in calendar year 2010. As described in Section 3, the Parsons facility does have the potential to emit GHGs in exceedance of this reporting limit, but on an actual basis the facility is well below this level of emissions, and as such has not had to report GHG emissions under this requirement. KMC will continue to track GHG emissions and will report GHG emissions should the reporting threshold ever be exceeded. Note that biogenic CO₂ emissions are not counted towards Part 98 reporting applicability.

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 was June 2008 when the initial Title V permit was due for renewal. The KMC Parsons plant proposed CAM parametric monitoring requirements which have been incorporated into the current Title V permit for the After Combustion Chamber (C-08) that controls VOC and PM emissions from the rotary wood dryer and retort furnace (E-03-01) and the three (3) large fabric filter dust collectors (C-01, C-02, and C-03) that control PM emissions from the briquet handling operations (E-08).

KMC is addressing the potential applicability of CAM to the two new fabric filter dust collectors (C-11 and C-35) that have been installed at the Parsons plant since the Title V permit was issued in 2008. As detailed below, CAM is not applicable to either of these dust collectors.

CAM applicability is assessed per 40 CFR 64.2 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 CAM Rule excludes devices that are primarily used for product recovery from the definition of “control device”. The retort char transfer dust collector (C-11) is a pneumatic transfer “receiver” that consists of an integrated mechanical cyclonic collector (“spin out chamber”) with filters. The receiver is used to transfer the pneumatically conveyed char material to storage silos and is integral to the retort transfer system. As such, the receiver is designed primarily to recover the char product and not to serve primarily as an air pollution control device. Consequently CAM is not applicable to the char receiver (C-11).

The packaging fabric filter dust collector (C-35) was installed by KMC to address OSHA combustible dust, safety, and industrial hygiene requirements. The dust collector was not installed to meet air pollution control requirements. Because the baghouse is not used to assure compliance with air pollution regulations, it is not subject to CAM requirements.

4.1.6 Regional Haze Rule and BART Applicability

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.

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

- Request that an alternative CAM monitoring requirement be identified in Condition 8.2.2 to allow daily visible emissions monitoring to be conducted at the baghouse exhausts for C-01, C-02 and C-03 in lieu of maintaining pressure drops within specified ranges. KMC has found fabric filter pressure differential readings to be a poor indicator of baghouse

performance (e.g., pressure drop can be very low with new bags and can be high with certain types of bags depending on frequency of bag cleaning) and requests the option to conduct visible emissions observations using EPA Method 22. If any visible emissions are observed using Method 22, KMC will conduct Method 9 observations within 48 hours following the Method 22 observation and any opacity in excess of 10% would be considered an “excursion”.

- Add federal ICI Boiler Area Source NESHAP (40 CFR 63 Subpart JJJJJ) to list of non-applicable air quality requirements in Condition 3.7.2 of the Permit Shield section of the Title V permit. The basis for non-applicability is that the Parsons plant has no affected sources. Specifically, the gas-fired waste heat boiler is not an affected source and the wood dryer, retort furnace and ACC are not classified as process heaters under the ICI Boiler NESHAP because they are not indirectly fired and combustion gases come into contact with process materials.
- Add NSPS Subparts CCCC and DDDD (Solid Waste Incinerator rules) to list of non-applicable air quality requirements in Condition 3.7.2 of the Permit Shield section of the Title V permit. The basis for non-applicability is because units burning only wood feedstock for the production of charcoal are defined as a “chemical recovery units” in the rule and not incinerators, waste-burning kilns, or small remote incinerators under subparts CCCC or DDDD.
- Add federal Regional Haze Rule and BART to list of non-applicable air quality requirements in Condition 3.7.2 of the Permit Shield section of the Title V permit. The basis for non-applicability is that the Parsons plant has no affected sources.

APPENDIX A
WVDEP APPLICATION FORMS



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

601 57th Street SE
Charleston, WV 25304
Phone: (304) 926-0475

www.dep.wv.gov/daq

INITIAL/RENEWAL TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

Form with 10 sections: 1. Name of Applicant (Kingsford Manufacturing Company), 2. Facility Name or Location (Parsons Plant), 3. DAQ Plant ID No. (093-00004), 4. Federal Employer ID No. (943240524), 5. Permit Application Type (Renewal), 6. Type of Business Entity (Corporation), 7. Is the Applicant the: (Both), 8. Number of onsite employees, 9. Governmental Code (Privately owned), 10. Business Confidentiality Claims (No).

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). MD	
Is facility located within 100 km of a Class I Area¹? <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 Area¹? <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: Carey Preston		Title: Plant Manager
Street or P.O. Box: P.O. Box 464		
City: Parsons	State: WV	Zip: 26287-
Telephone Number: (304) 478-2911	Fax Number: (304) 478-2129	
E-mail address: carey.preston@clorox.com		
Environmental Contact: 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: 50 North 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 checked="" 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"/> CAIR NO _x Annual Trading Program (45CSR39)	<input type="checkbox"/> CAIR NO _x Ozone Season Trading Program (45CSR40)
<input type="checkbox"/> CAIR SO ₂ Trading Program (45CSR41)	

19. Non Applicability Determinations

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

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

Permit Shield

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

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

Existing (in current permit shield) Non-applicable Requirements (Continued)		
Requirement	Regulatory Citation	Basis for Non-Applicability
Hazardous Air Pollutants Federal NESHAP standards	45 CSR 15 40 CFR 61	Parsons facility discharges less than 10 tpy of a single HAP and less than 25 tpy of aggregated HAPs, therefore it is not subject to these standards with the exception of the potential applicability of 40CFR61 Subpart M in the event the plant performs any demolition or renovation projects which could disturb asbestos containing materials.
Standards of Performance for Volatile Organic Liquid Storage Vessels for Which Construction, Reconstruction, or Modification commenced after July 23, 1984	40CFR60 Subpart Kb	Storage tanks are not subject to NSPS Subpart Kb due to size and construction date (see 40 CFR60 Subpart Kb Applicability Table in the Fact Sheet).
Fugitive emissions from material handling	45CSR17	Per 45CSR§7-6.1. if sources are subject to 45CSR7 they are exempt from the requirements of this Rule
NSR permitting for non-attainment areas	45CSR19	Parsons facility is not in affected areas
VOC emissions regulations	45CSR21	Parsons facility is not in affected areas
Emissions of toxic air pollutants	45CSR27	Parsons facility does not operate any "chemical processing units" and does not use listed chemicals
Federal Acid Rain provisions	45CSR33 Title IV of CAAA	No affected sources at Parsons facility
Emission Standards for Hot Mix Asphalt Plants	45CSR3	No affected sources at Parsons facility
Emission Standards for Municipal Solid Waste Landfills	45CSR23	No affected sources at Parsons facility
Emission Standards for Medical Waste Incinerators	45CSR24	No affected sources at Parsons facility
Emission Standards for Hazardous Waste Treatment, Storage or Disposal Facilities	45CSR25	No affected sources at Parsons facility
Transportation Plan Requirements	45CSR36	No affected sources at Parsons facility
Mercury Budget Trading Program	45CSR37	No affected sources at Parsons facility
CAIR NOx/SO2 Trading Program	45CSR39,40,41	No affected sources at Parsons facility
Regional Haze/BART Regulations	40CFR51.300	No affected sources at Parsons facility
New Non-applicable Requirements		
Requirement	Regulatory Citation	Basis for Non-Applicability
Federal Area Source NESHAP – ICI Boiler and Process Heaters MACT	40CFR63 – Subpart JJJJJ	No affected sources at Parsons facility
Solid Waste Incinerator Rules	40CFR60 - Subparts CCCC and DDDD	Units burning only wood feedstock for the production of charcoal are defined as a "chemical recovery units" in the rule and not incinerators, waste-burning kilns, or small remote incinerators under subparts CCCC or DDDD.
Risk Management Plan	40CFR68	The Parson's facility does not store any materials above the threshold levels triggering RMP requirements.

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
Ozone Depleting Substances	40CFR82
Compliance Assurance Monitoring	40CFR64
NSPS for Coal Preparation Plants	40CFR60, Subpart Y
Please refer to the current Title V operating permit (R30-09300004-2008) for additional detail	

Permit Shield

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

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

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

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

20. Facility-Wide Applicable Requirements (Continued) - Attach additional pages as necessary.

List all facility-wide applicable requirements. For each applicable requirement, include the rule citation and/or permit with the condition number.

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.)

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

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

21. Active Permits/Consent Orders

Permit or Consent Order Number	Date of Issuance MM/DD/YYYY	List any Permit Determinations that Affect the Permit (<i>if any</i>)
Title V Operating Permit No. R30-09300004-2008	12/23/2008	Not applicable
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22. Inactive Permits/Obsolete Permit Conditions

Permit Number	Date of Issuance	Permit Condition Number
Not applicable		
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Section 3: Facility-Wide Emissions

23. Facility-Wide Emissions Summary [Tons per Year] See Section 3 of Report	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	See Appendix B of attached report
Nitrogen Oxides (NO _x)	
Lead (Pb)	
Particulate Matter (PM _{2.5}) ¹	
Particulate Matter (PM ₁₀) ¹	
Total Particulate Matter (TSP)	
Sulfur Dioxide (SO ₂)	
Volatile Organic Compounds (VOC)	
Hazardous Air Pollutants ²	Potential Emissions
Lead	See Appendix B of attached report
Methanol	
Regulated Pollutants other than Criteria and HAP	Potential Emissions
¹ PM _{2.5} and PM ₁₀ are components of TSP. ² For HAPs that are also considered PM or VOCs, emissions should be included in both the HAPs section and the Criteria Pollutants section.	

Section 4: Insignificant Activities

24. Insignificant Activities (Check all that apply)	
<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 checked="" 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: E-0A-01 through E-0A-08 See Attachment B for emissions information.

24. Insignificant Activities (Check all that apply)	
<input type="checkbox"/>	<p>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.</p> <p>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:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>
<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: Carey Preston	Title: Plant Manager
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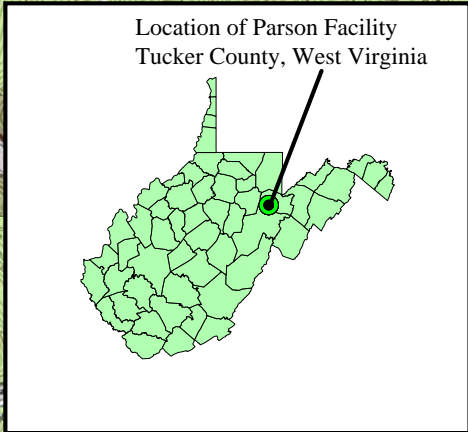
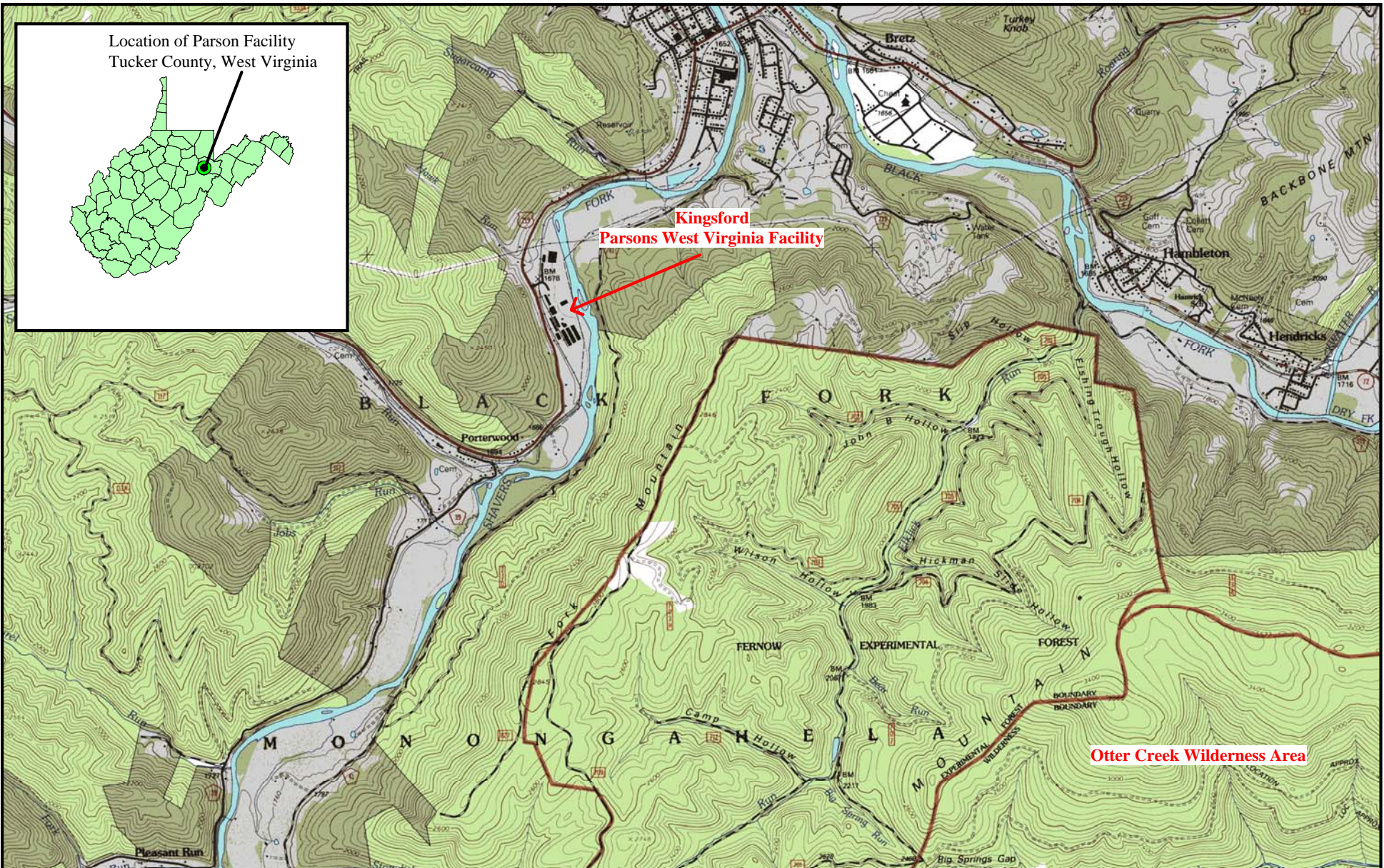
Responsible official's signature:

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 checked="" type="checkbox"/>	ATTACHMENT F: Schedule of Compliance Form(s)
<input checked="" type="checkbox"/>	ATTACHMENT G: Air Pollution Control Device Form(s)
<input type="checkbox"/>	ATTACHMENT H: Compliance Assurance Monitoring (CAM) Form(s)

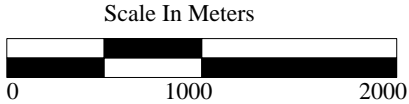
All of the required forms and additional information can be found and downloaded from, the DEP website at www.dep.wv.gov/dag, requested by phone (304) 926-0475, and/or obtained through the mail.



**Kingsford
Parsons West Virginia Facility**

Otter Creek Wilderness Area

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



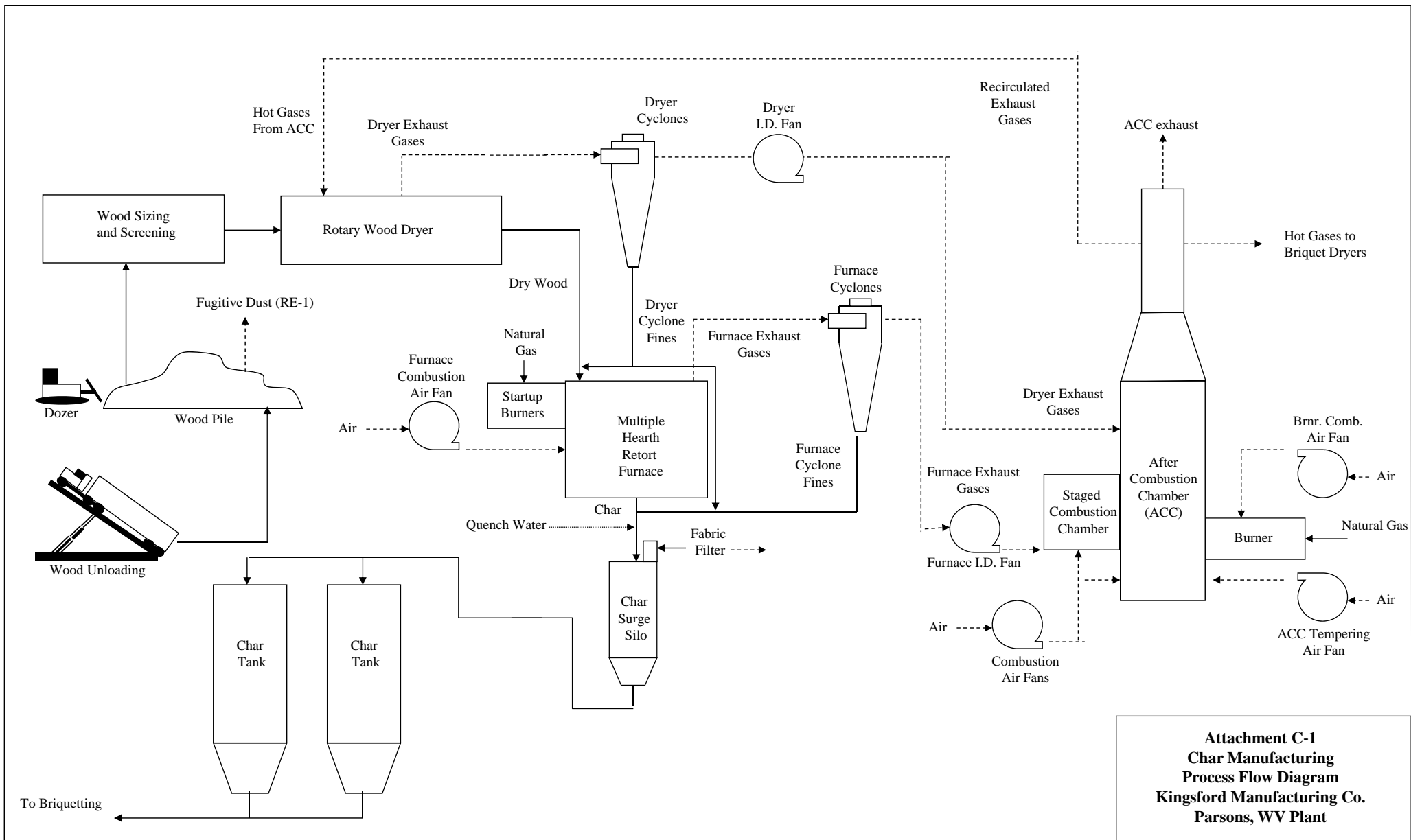
REF	EMISSION POINT ID	CONTROL DEVICE	EMISSION UNIT ID	EMISSION UNIT DESCRIPTION
CONTROL DEVICES				
A	S-01-01 (19A)	---	---	CONTROL DEVICE AFTER COMB. CHAMBER C-08
B	19A, 19B	---	---	CONTROL DEVICE SOLVENT CHILLER
C	S-06	---	---	CONTROL DEVICE FABRIC FILTER DUST COLLECTOR (C-01)
D	S-07	---	---	CONTROL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



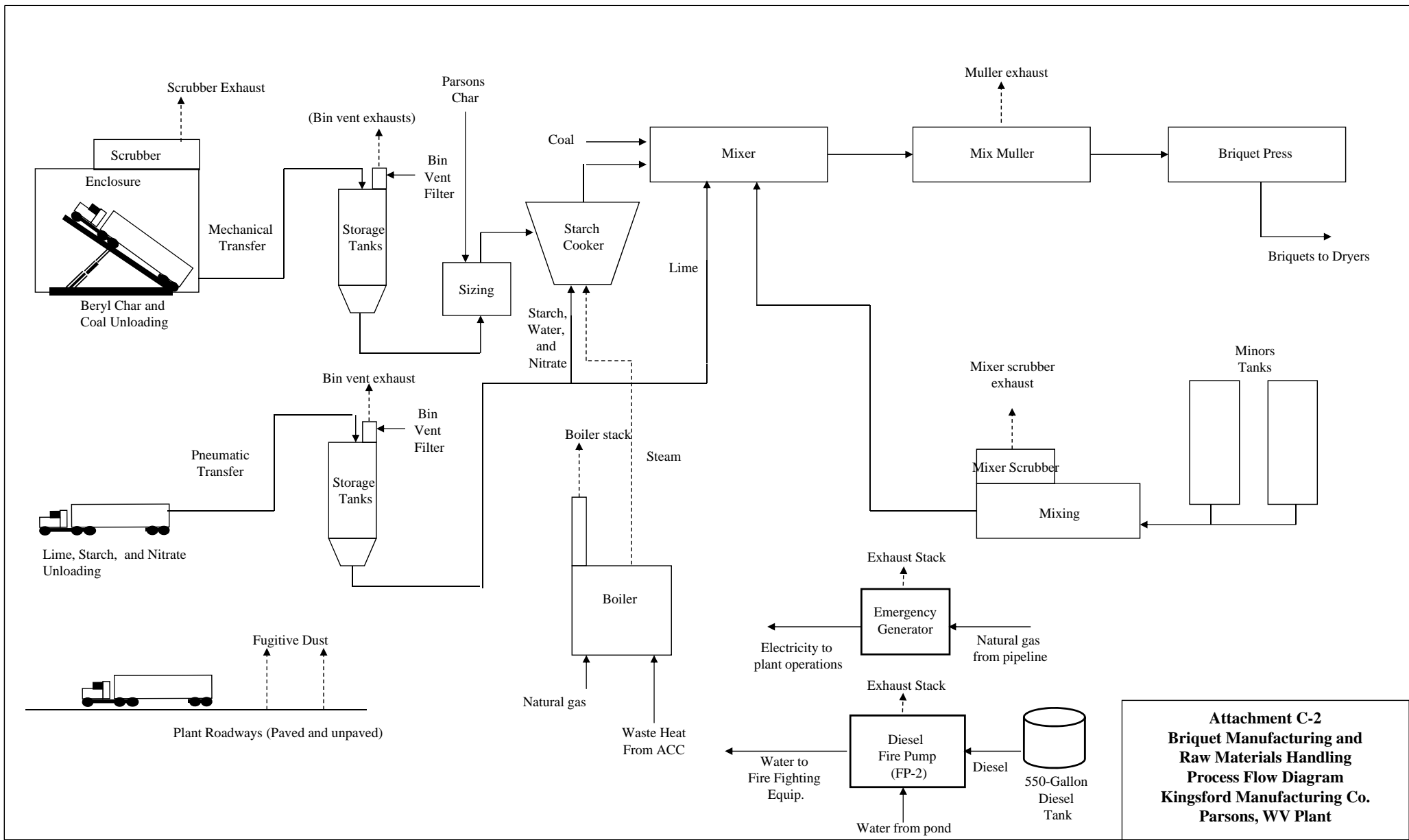
REF	EMISSION POINT ID	CONTROL DEVICE	EMISSION UNIT ID	EMISSION UNIT DESCRIPTION
WOOD AND CHAR PILES				
1	S-09	NONE	E-01-01	WOOD PILE MANAGEMENT
2	S-09	NONE	E-01-02	CHAR PILE & COAL PILE MANAGEMENT
RAW MATERIAL HANDLING				
3	S-09	NONE	E-02-01	TRANSFER TO DRAG PIT TO 48" BELT
4	S-09	NONE	E-02-02	PRIMARY SCREENING
5	S-09	NONE	E-02-03	SECONDARY SCREENING
6	S-09	NONE	E-02-04	600FT BELT TO DRYER FEED BIN
7	S-09	NONE	E-02-05	WOOD WITH METAL BYPASS BELT
8	S-09	NONE	E-02-06	WOOD DRYER BIN BYPASS SCREW
9	S-09	NONE	E-02-07	CHAR TRUCK TRANSPORT
10	S-34	C-34	E-02-09	BERYL CHAR & COAL TRUCK DUMPING
11	S-09	NONE	E-02-0A	BULK COAL TANK TO BELT TRANSFER: COARSE SCREENER, SCREW, & BELT
12	S-09	NONE	E-02-0B	RERUN CHAR TANK BYPASS SCREW
13	S-09	NONE	E-02-0C	CHAR HAMMER MILL
14	S-09	NONE	E-02-0D	EXISTING WOOD SIZING HAMMER MILL
WOOD DRYING AND CHARRING SYSTEM				
15	S-01-01	C-08	E-03-01	WOOD DRYER & OUTLET BOX
				RETORT FURNACE
				FOUR DRYER CYCLONES (C-05)
				FOUR FURNACE CYCLONES (C-06)
BRIQUET DRYERS AND COOLERS				
16	S-01-03	NONE	E-03-02	AEROCYLIDE BRIQUET DRYER AND A PORTION OF ACC EXHAUST GASES
17	S-01-04	NONE	E-03-03	NEW AEROCYLIDE BRIQUET DRYER AND A PORTION OF ACC EXHAUST GASES
18	S-02-01	NONE	E-04-01	BRIQUET COOLER
19	S-02-02	NONE	E-04-02	BRIQUET COOLER
19	S-02-03	NONE	E-04-02N	NEW BRIQUET COOLER
SOLVENT TREATED BRIQUET PRODUCTION				
20	19A (ACC STACK S-01-01)	C-08 SOLVENT CHILLER	E-05-01	CURTAIN COATER, CLEAN SOLVENT TANK, SUMP PUMP, PRODUCT OUTFEED CONVEYOR, TRANSFER CONVEYOR, PKG SURGE BIN, SCREENER,
21	19B (BYPASS STACK S-04)	SOLVENT CHILLER	E-05-01	CURTAIN COATER, CLEAN SOLVENT TANK, SUMP PUMP, PRODUCT OUTFEED CONVEYOR, TRANSFER CONVEYOR, PKG SURGE BIN, SCREENER,
22	S-32	CONSERVATION VENT	NONE	SOLVENT TANK #1, #2, #3, #4, & #5
		NONE	NONE	STB/SOLVENT HANDLING EQUIPMENT
		NONE	NONE	STB BRIQUET FINES
MINOR INGREDIENTS BATCHING SYSTEM/DRY STORAGE				
23	S-10	C-07	E-06-01	COAL TANK
24	S-10	C-07	E-06-02	BERYL CHAR TANK
25	S-11	NONE	E-06-03	RERUN CHAR TANK
26	S-12	NONE	E-06-04	YARD CHAR TANK
27	S-13	C-11	E-06-05	RETORT CHAR TANKS AND TRANSFER
28	S-14	C-12	E-06-06	BULK LIME TANK
29	S-15	C-13	E-06-07	BULK NITRATE TANK
30	S-16	C-14	E-06-08	BULK STARCH TANK
31	S-17	C-15	E-06-09	LIME USE TANK
32	S-18	C-16	E-06-0A	WET STARCH USE TANK
33	S-19	C-17	E-06-0B	DRY STARCH USE TANK
34	S-20	C-18	E-06-0C	BORAX USE TANK
35	S-22	C-20	E-06-0E	MULLER VENT
36	S-23	C-21	E-06-0F	MINORS BATCH MIXING
37	S-24	C-33	E-06-0G	RETORT CHAR SURGE BIN
NATURAL GAS BURNING				
38	S-07-01	NONE	E-07-01	NEW ACC BURNER #2
		C-08	E-07-01	ACC BURNER #1
		C-08	E-07-01	FURNACE BURNERS
		NONE	E-07-01	WASTE HEAT BOILER
		NONE	E-07-01	AUXILIARY HEAT BURNER
BRIQUET HANDLING				
39	S-06	C-01	E-08-01	BRIQUET DRYER DISCHARGE CONVEYORS
40	S-07	C-02	E-08-02A	BRIQUET PKG LINE - WEIGH SCALES
41	S-07	C-02	E-08-02B	BRIQUET PKG LINE - BAG FILLING
42	S-08	C-03	E-08-03A	FINISHED BRIQUET HANDLING - SILO INFEEED BUCKET ELEVATOR
43	S-08	C-03	E-08-03B	FINISHED BRIQUET HANDLING - SILO INFEEED CONVEYOR
44	S-08	C-03	E-08-03C	FINISHED BRIQUET HANDLING - BRIQUET STORAGE SILOS
45	S-08	C-03	E-08-03D	FINISHED BRIQUET HANDLING - LINE A TAKE AWAY CONVEYORS
46	S-08	C-03	E-08-03E	FINISHED BRIQUET HANDLING - LINE B TAKE AWAY CONVEYORS
47	S-08	C-03	E-08-03F	FINISHED BRIQUET HANDLING - LINE A BUCKET ELEVATOR
48	S-08	C-03	E-08-03G	FINISHED BRIQUET HANDLING - LINE A TRANSFER CONVEYORS
49	S-35	C-35	E-08-03H	PACKAGING SCALE BIN INFEEED
PLANT ROADS				
50	S-09	NONE	E-09-01	PAVED PLANT ROADS
51	S-09	NONE	E-09-02	UNPAVED PLANT ROADS
LIQUID STORAGE				
52	S-25	C-25	E-0A-01	UNLEADED GASOLINE
53	S-26	C-26	E-0A-02	DIESEL OIL
54	S-27	C-27	E-0A-03	KEROSENE
55	S-31	C-31	E-0A-07	HYDRAULIC FLUID
56	S-32	C-32	E-0A-08	USED OIL
EMERGENCY EQUIPMENT				
57	N/A	NONE	E-0B-01	EMERGENCY FLOOD PUMPS
58	S-36	CATALYST	E-0B-02	EMERGENCY GENERATOR
59	S-33	NONE	FP-2	SOUTH FIRE PUMP
60	S-35	NONE	N/A	#2 FUEL OIL STORAGE TANK

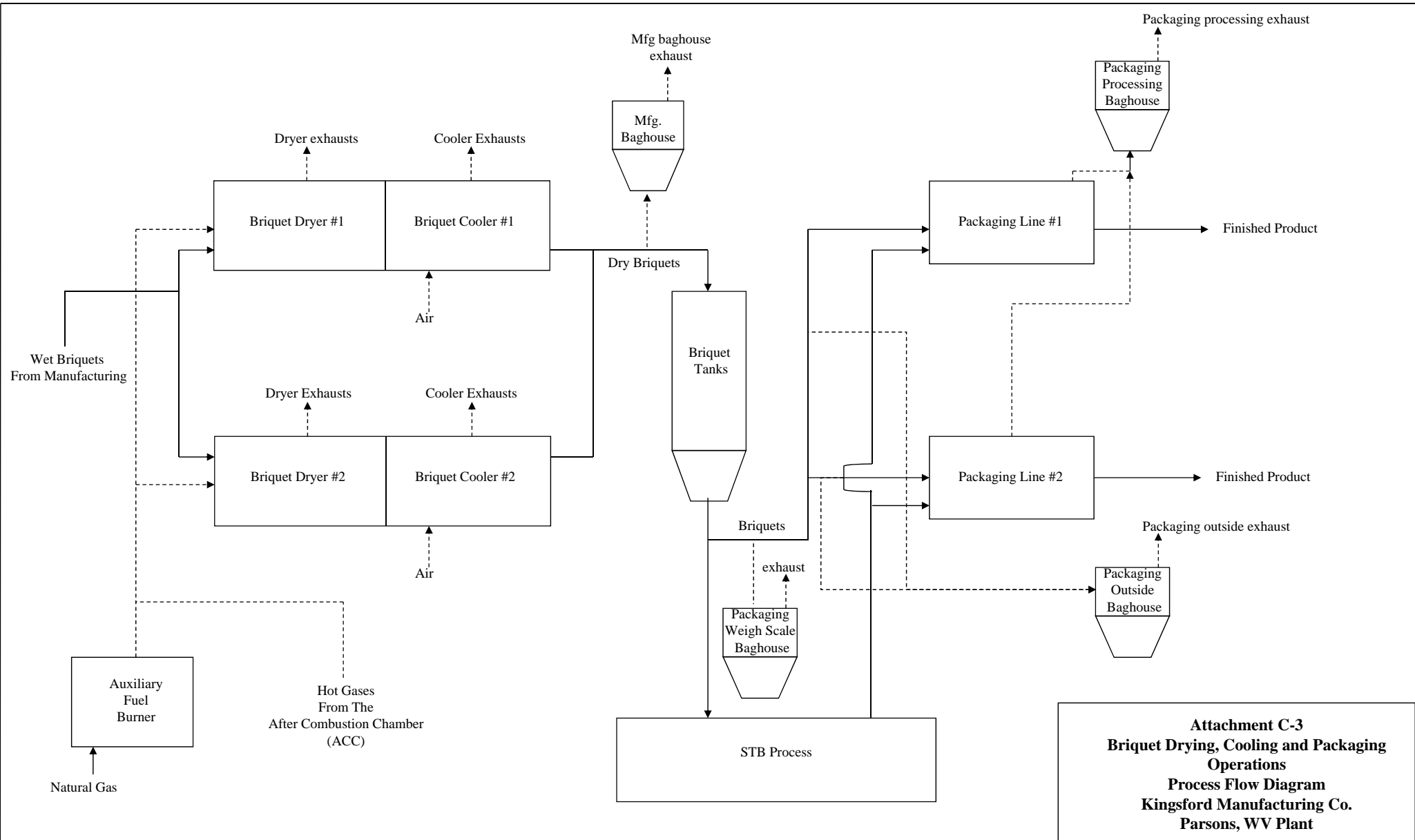
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TOLERANCES (EXCEPT AS NOTED)	DRAWN BY WAH	The Kingsford Products Company
DECIMAL	DATE 8/4/95	
FRACTIONAL	CK BY	TITLE
ANGULAR	DATE	STACK & FUGITIVE SOURCE LOCATIONS
	APPROVED BY	DIVISION OR SUBSIDIARY
	DATE	LOCATION PARSONS PLANT
		SCALE: 1"=100'
		DRAWING NUMBER 0020 -D- 0176

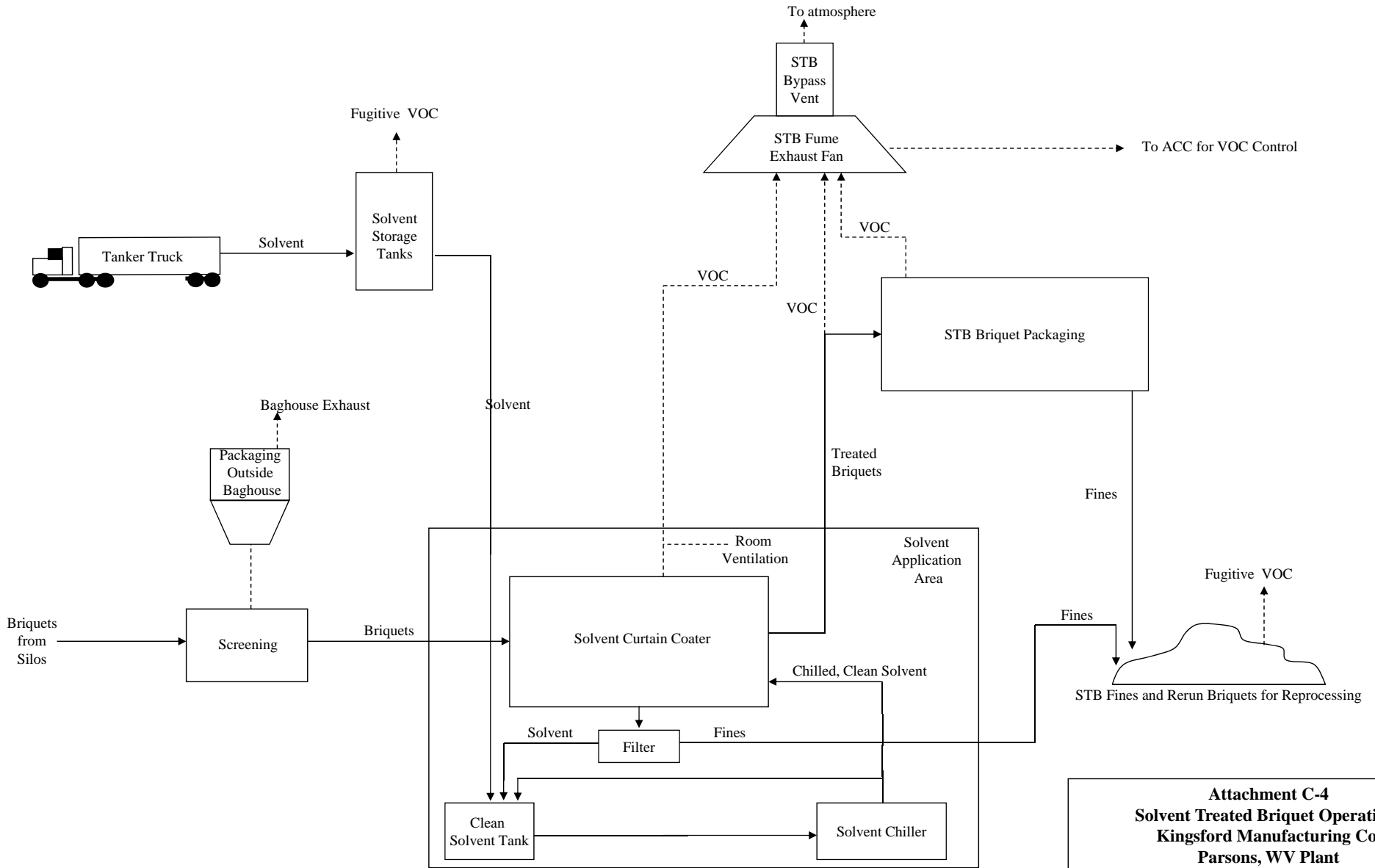


**Attachment C-1
Char Manufacturing
Process Flow Diagram
Kingsford Manufacturing Co.
Parsons, WV Plant**





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



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

ATTACHMENT D - Title V Equipment Table
(includes all emission units at the facility except those designated as
insignificant activities in Section 4, Item 24 of the General Forms)

Emission Point ID ¹	Control Device ¹	Emission Unit ID ¹	Emission Unit Description	Design Capacity	Year Installed/Modified
Wood and Char Piles					
S-09	None	E-01-01	Wood Pile Management	N/A	1972
S-09	None	E-01-02	Char Pile and Coal Pile Management	N/A	1958
Raw Material Handling					
S-09	None	E-02-01	Transfer Drag Pit to 48" Belt	209,000 TPY	2003
S-09	None	E-02-02	Primary Screening	209,000 TPY	2012
S-09	None	E-02-03	Secondary Screening	125,400 TPY	2012
S-09	None	E-02-04	600 Ft Belt to Dryer Feed Bin	209,000 TPY	1972
S-09	None	E-02-05	Wood with Metal Bypass Belt	418 TPY	1972
S-09	None	E-02-06	Wood Dryer Bin Bypass Screw	418 TPY	1972
S-09	None	E-02-07	Char Truck Transport	?	1972
S-34	C-34	E-02-09	Beryl Char and Coal Truck Dumping	111,600 TPY	1963
S-09	None	E-02-0A	Bulk Coal Tank to Belt Transfer: coarse screener, screw conveyor & belt conveyor	80,000 TPY	1958
S-09	None	E-02-0B	Rerun Char Tank Bypass Screw	154 TPY	1983
S-09	None	E-02-0C	Char Hammer mill	?	2003
S-09	None	E-02-0D	Existing Wood sizing Hammer mill New Wood sizing Hammer mill	?	1988 2003
Wood Drying and Charring System					
S-01-01	C-08	E-03-01	Wood Dryer and Outlet Box (Mfg: Louisville)	60 TPY	2007
			Retort Furnace (Mfg: Skinner)	38.5 tph	1972
			Four (4) Dryer Cyclones C-05 Fisher-Klosterman XQ120-33	58,372 ACFM	2003
			Four (4) Furnace Cyclones C-06 Fisher-Klosterman XQ120-23	58,372 ACFM	1984
Briquet Dryers and Coolers					
S-01-03 S-01-04	None	E-03-02	Aeroglide Briquet Dryer and a portion of ACC exhaust gases	77,000 TPY	1996
S-01N-05 S-01N-06	None	E-03-03N	New Aeroglide Briquet Dryer and a portion of ACC exhaust gases	77,000 TPY	2003

S-02-01 S-02-02 S-02-03	None	E-04-01	Briquet Cooler	77,000 TPY	1996
S-03N-01 S-03N-02 S-03N-03	None	E-04-02N	New Briquet Cooler	77,000 TPY	2003
Solvent Treated Briquet Production					
19A (ACC stack S-01-01)	C-08, Solvent Chiller	E-05-01	Curtain Coater 323-06	700 gal	1982 / 1994
			Clean Solvent Feed Tank 341-12	800 gal	1982 / 1994
			Sump SMP-100	Unknown	1982 / 1994
			Product Out Feed Conveyor	Unknown	1982 / 1994
			Transfer Conveyor	Unknown	1982 / 1994
			Packaging Surge Bin	Unknown	1982 / 1994
			Screener PHS-100	Unknown	1982 / 1994
19B (ACC Bypass Stack S-04)	Solvent Chiller	E-05-01	Curtain Coater 323-06	700 gal	1982 / 1994
			Clean Solvent Feed Tank 341-12	800gal	1982 / 1994
			Sump SMP-100	Unknown	1982 / 1994
			Product Out Feed Conveyor	Unknown	1982 / 1994
			Transfer Conveyor	Unknown	1982 / 1994
			Packaging Surge Bin	Unknown	1982 / 1994
			Screener PHS-100	Unknown	1982 / 1994
S-32	Conservation Vent	E-05-01	Solvent tank #1	15,000 gal	1982
			Solvent tank #2	15,000 gal	1982
			Solvent tank #3	10,000 gal	1982
			Solvent tank #4	10,000 gal	1982
			Solvent tank #5	10,000 gal	1982
	None		STB/solvent handling equipment	Unknown	1982 / 1994
	None		STB Briquet Fines	Unknown	1982 / 1994
Minor Ingredients Batching System/Dry Storage					
S-10	C-07	E-06-01	Coal Tank	250 ton	1982
S-10	C-07	E-06-02	Beryl Char Tanks	two @ 60 ton	1981
S-11	None	E-06-03	Rerun Char Tank	60 ton	1984
S-12	None	E-06-04	Yard Char Tank	60 ton	1984

S-13	C-11	E-06-05	Retort Char Tanks and Transfer	two @ 60 ton	1972
S-14	C-12	E-06-06	Bulk Lime Tank	125 ton	2001
S-15	C-13	E-06-07	Bulk Nitrate Tank	34 ton	2001
S-16	C-14	E-06-08	Bulk Starch Tank	101 ton	1958
S-17	C-15	E-06-09	Lime Use Tank	6 ton	1958
S-18*	C-16	E-06-0A	Wet Starch Use Tank	3 ton	1980
S-19	C-17	E-06-0B	Dry Starch Use Tank	3 ton	1958
S-20*	C-18	E-06-0C	Borax Use Tank	1 ton	1980
S-22	C-20	E-06-0E	Muller Vent	N/A	1976
S-23	C-21	E-06-0F	Minors Batch Mixing (starch, nitrate and borax mixing tanks)	confidential	1994/ 2002
S-24	C-33	E-06-0G	Retort Char Surge Bin	60 ton	2003
Natural Gas Burning					
S-07-01	None	E-07-01	ACC Burner #2 (Stack S-01-01) Mfg: North American	50 MM BTU/hr	2003
	C-08		ACC Burner #1 (Stack S-01-01) Mfg: North American, (Model #4795-10)	13.4 MM BTU/hr	1988
	C-08		Furnace Burners (Stack S-01-01) Mfg: Eclipse	4 @ 2 MMBTU/hr	1972
	None		Waste Heat Boiler (Stack S-01-02) Mfg: North American, (Model #4121-7.0-B.13)	7.83 MM BTU/hr	1982
	None		Auxiliary Heat Burner Mfg. Eclipse V2 (Stacks S-01-03, S-01-04, S-01N-05, S-01N-06) - provides heat to the Briquet Dryers when the ACC is not operating	83 MM BTU/hr	2002
Briquet Handling					
S-06	C-01	E-08-01	Briquet Dryer discharge conveyors (Manufacturing & Briquet take-away)	154,000 TPY	1983/2003
S-07	C-02	E-08-02A	Briquet Packaging Lines - Weigh Scales	154,000 TPY	1991
S-07	C-02	E-08-02B	Briquet Packaging Lines - Bag filling operation	154,000 TPY	1991
S-08	C-03	E-08-03A	Finished Briquet Handling - Silo in-feed bucket elevator	154,000 TPY	1977
S-08	C-03	E-08-03B	Finished Briquet Handling - Silo in-feed conveyor	154,000 TPY	2003
S-08	C-03	E-08-03C	Finished Briquet Handling - Briquet Storage Silos	4 silos @ 60 tons each	1977
S-08	C-03	E-08-03D	Finished Briquet Handling - Line-A take-away conveyors	154,000 TPY	1991

S-08	C-03	E-08-03E	Finished Briquet Handling - Line-B take-away conveyors	154,000 TPY	1991
S-08	C-03	E-08-03F	Finished Briquet Handling - Line-A bucket elevator	154,000 TPY	1977
S-08	C-03	E-08-03G	Finished Briquet Handling Line-A transfer conveyors	154,000 TPY	1977
S-35	C-35	E-08-03H	Packaging Scale Bin In Feed	154,000 TPY	1977
Plant Roads					
S-09	None	E-09-01	Paved Plant Roads	NA	Various
S-09	None	E-09-02	Unpaved Plant Roads	NA	1958
Liquid Storage					
S-25	C-25	E-0A-01	Unleaded Gasoline (emits 1.1 TPY VOC)	10,000 gal	1988
S-26	C-26	E-0A-02	Diesel Oil	10,000 gal	1988
S-27	C-27	E-0A-03	Kerosene	500 gal	1988
S-31	C-31	E-0A-07	Hydraulic Fluid	500 gal	1988
S-32	C-32	E-0A-08	Used Oil	500 gal	1996
Emergency Equipment					
N/A	None	E-0B-01	Emergency Flood Pumps	4 @ 2500 gpm	1998
S-36	Catalyst	E-0B-02	Emergency Generator	228 bhp @ 1800rpm	2012
S-33	None	FP-2	South Pump JX6h-UF30 Fire Pump	420 bhp/1760 rpm	2008
S-35	None	N/A	#2 Fuel Oil Storage Tank	550 gal.	2008
Control Devices					
S-01-01, 19A	--	Control Device	After Combustion Chamber C-08 95% destruction efficiency for VOC	370,000 ACFM	2003
19A, 19B	--	Control Device	Solvent chiller Mfg: Carrier, Model: 30RAN045J-601DT	Unknown	2002
S-06	--	Control Device	Fabric Filter Dust Collector (C-01) Mfg: Pneumafil, Model: 11.5-3168	15,000 CFM	1992
S-07	--	Control Device	Fabric Filter Dust Collector (C-02) Mfg: Standard Havens, Model: 24A/M1	30,000 CFM	1992
S-08	--	Control Device	Fabric Filter Dust Collector (C-03), Mfg: BHA / DCE Volkes	25,000 CFM	1995

S-10	--	Control Device	Fabric Filter Dust Collector (C-07) Mfg: Adaptive Engr., Model BVC-36	560 CFM	2003
S-13	--	Control Device	Fabric Filter Dust Collector (C-11) Mfg Mac Process, Inc., Model 72AVR32, Style III	1406 CFM	2012
S-14	--	Control Device	Fabric Filter Dust Collector (C-12) Mfg: Adaptive Engr., BVC-36X	560 CFM	2003
S-15	--	Control Device	Fabric Filter Dust Collector (C-13) Mfg: Adaptive Engr., BVC-36X	560 CFM	2001
S-16	--	Control Device	Fabric Filter Dust Collector (C-14) Mfg: Adaptive Engr., BVC-36X	560 CFM	2003
S-17	--	Control Device	Fabric Filter Dust Collector (C-15) Mfg: Adaptive Engr., BVC-4	425 CFM	2003
S-18*	--	Control Device	Fabric Filter Dust Collector (C-16) Griffin, Model JV-54-4X	425 CFM	1993
S-19	--	Control Device	Fabric Filter Dust Collector (C-17), Mfg: Adaptive Engr., BVC-4	Unknown	2003
S-20*	--	Control Device	Fabric Filter Dust Collector (C-18) Griffin, Model JV-54-4X	Unknown	1993
S-23	--	Control Device	Wet Scrubber (C-21) Mikropul Type DS2-30	99.5% PM	1976
S-24	--	Control Device	Fabric Filter Dust Collector (C-33) Mfg: Adaptive Engr., BVS-4X	Unknown	2003
S-34	--	Control Device	Wet Scrubber (C-34) Mfg: MikroPul Mikrovane, Size 66, Type LN	15,000 CFM	2003
S-35	--	Control Device	Fabric Filter Dust Collector (C-35) Wheelabrator, Model 55	8,500 CFM	2011

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

ATTACHMENT E - Emission Unit 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-01-02 Char and Coal Shed
---	---	---

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

Manufacturer: Not applicable	Model number: Not applicable	Serial number: Not applicable
--	--	---

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
---	---	--

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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

9.1. Limitations and Standards

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

[45CSR§30-5.1.c.]

9.1.2. Good operating practices shall be implemented and when necessary dust suppressants shall be applied in relation to stockpiling and general material handling to prevent dust generation and atmospheric entrainment.

[45CSR§7-5.2. and 45CSR13, R13-1695, B.1.e]

Permit Shield

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

9.2. Monitoring Requirements

9.2.1. Visible emissions monitoring as per Requirement 3.2.1. Weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for all emission points listed in Emission Units Table 1.0 under Wood, Char and Coal Piles, Raw Material Handling and Plant Roads (including visible fugitive dust emissions that leave the plant site boundaries). If in compliance, then monthly Method 22 checks shall be conducted 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 in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR13, R13-1608, 4.2.2. and 45CSR§30-5.1.c.]

9.2.2. Each opacity evaluation observation per 45CSR§7A-2.1.a,b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater 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.]

9.3. Testing

9.3.1. N/A

9.4. Recordkeeping Requirements

- 9.4.1. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility (piles, transfer points, paved and unpaved roads). [45CSR§30-5.1.c.]
- 9.4.2. The permittee shall maintain records of the results of weekly inspections of the systems to minimize fugitive emissions per Requirement 9.1.4. 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.]
- 9.4.3. Visible emission checks recordkeeping as per requirement 9.2.1.

9.5. Reporting Requirements

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

9.6. Compliance Plan

- 9.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? 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 wet 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
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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 per year
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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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Appendix B

Applicable Requirements

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

(Per Title V Operation Permit No. R30-09300004-2008)

9.7. Limitations and Standards

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

[45CSR§30-5.1.c.]

9.1.2. Good operating practices shall be implemented and when necessary dust suppressants shall be applied in relation to stockpiling and general material handling to prevent dust generation and atmospheric entrainment.

[45CSR§7-5.2. and 45CSR13, R13-1695, B.1.e]

Permit Shield

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

9.8. 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 in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR13, R13-1608, 4.2.2. and 45CSR§30-5.1.c.]

9.2.2. Each opacity evaluation observation per 45CSR§7A-2.1.a,b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater 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.]

9.9. Testing

9.3.1. N/A

9.10. Recordkeeping Requirements

- 9.4.1. The permittee shall maintain records indicating the use of any dust suppressants or any other suitable dust control measures applied at the facility (piles, transfer points, paved and unpaved roads). [45CSR§30-5.1.c.]
- 9.4.2. The permittee shall maintain records of the results of weekly inspections of the systems to minimize fugitive emissions per Requirement 9.1.4. 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.]
- 9.4.3. Visible emission checks recordkeeping as per requirement 9.2.1.

9.11. Reporting Requirements

- 9.5.2. Opacity exceedance reporting as per requirement 3.5.8.a.1.

9.12. Compliance Plan

- 9.6.2. N/A

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: Not applicable	Serial number: Not applicable
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Construction date: 1972	Installation date: 1972	Modification date(s): Not applicable
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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 per year
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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
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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.
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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.
 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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

4.1. Limitations and Standards

- 4.1.1. The Wood Dryer/Retort Furnace system (E-03-01) processing rate shall not exceed 38.5 tons per hour of dry wood and 209,000 tons per year of dry wood.
[45CSR13, R13-1608, 4.1.2.]
- 4.1.2. Emissions generated as a result of the operation of the Wood Dryer/Retort Furnace (E-03-01) shall be routed to and combusted by the After Combustion Chamber (ACC, control device C-08) prior to their release to the atmosphere.
[45CSR13, R13-1608, 4.1.5]
- 4.1.3. Emissions to the atmosphere the Wood Dryer/Retort Furnace (E-03-01) vented through ACC stack (Emission point S-01-01) shall be limited to the following when the Briquet Dryers are in operation:

Emission Point ID	Pollutant	Maximum Allowable Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
S-01-01	NO _x	74.4	201.88
	CO	5.9	1.0
	VOC	1.0	1.15
	SO ₂	20.23	54.91
	PM	50.6	137.28
	PM ₁₀	40.5	109.82
	Methanol	-	3.15

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

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

- 4.1.4. The control devices in the Emission Units Table 1.0. for the Wood Dryer and Retort Furnace shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.
[45CSR§30-12.7.]
- 4.1.5. The permittee shall inspect all control systems, specified in the Emission Units Table 1.0 for the Wood Dryer and Retort Furnace, weekly to ensure that they are operated and maintained in conformance with their designs.
[45CSR§30-5.1.c.]

Permit Shield

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

Page _____ of _____

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

4.2. Monitoring Requirements

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

4.3. Testing Requirements

- 4.3.1. Testing per Section 3.3. Requirements.

4.4. Recordkeeping Requirements

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

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

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

[45CSR13, R13-1608, 4.2.1.]

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

4.5. Reporting Requirements

4.6. Compliance Plan

- 4.6.1. N/A

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
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Auxiliary heat provided by auxiliary heat burner (See E07)

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

6.1. Limitations and Standards

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

[45CSR13, R13-1608, 4.1.3.]

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

Emission Point ID	Pollutant	Maximum Allowable Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
S-01-03 S-01-04 S-01N-05 S-01N-06	NO _x	13.13	35.63
	CO	6.0	12.31
	VOC	1.65	5.5
	SO ₂	3.57	9.69
	PM	12	38.5
	PM ₁₀	6	19.25
	Methanol	-	0.55

[45CSR13, R13-1608, 4.1.8.]

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

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

[45CSR13, R13-1608, 4.1.9.]

Permit Shield

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

6.2 Monitoring Requirements

6.2.1. Opacity monitoring per Requirement 3.2.1. Weekly Method 22 checks shall be conducted for a minimum 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 in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR§30-5.1.c. and 45CSR13, R13-1608, 4.2.2.]

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

[45CSR§30-5.1.c.]

6.3 Testing Requirements

6.3.1. Testing per Section 3.3. Requirements.

6.4 Recordkeeping Requirements

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

[45CSR13, R13-1608, 4.1.4.]

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

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

[45CSR13, R13-1608, 4.2.1.]

6.4.3. Visible emission checks recordkeeping as per requirement 6.2.1.

6.5 Reporting Requirements

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

6.6 Compliance Plan

6.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? 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 conveyerized curtain coater. Solvent evaporation is minimized through the use of a solvent chiller which maintains the solvent a cooled (less volatile) temperature. Solvent fumes from the operation are ducted to and controlled by the ACC (C-08) or are vented to atmosphere via the STB bypass vent.

Manufacturer: 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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

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, R14-0001, A.1.]

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

[45CSR13, R14-0001, A.2.]

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

Summary Table of VOC emission limits for STB Process

Emission Description	Emission Point ID / Stack ID	Maximum Allowable VOC Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
STB Fume Exhaust	19A / S-01-01	2.82	83
	19B / S-04	36.6	
STB Briquet 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, R14-0001, A.4.]

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

[45CSR13, R14-0001, A.5.]

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

- a. 20 tons per hour when the VOC emissions from the sources listed in Requirement 7.1.1. are vented to the ACC;
- b. 13 tons per hour when the VOC emissions from the sources listed in Requirement 7.1.1. are vented to the ACC Bypass Stack.

[45CSR13, R14-0001, A.6.]

- 7.1.7. STB production shall not exceed 64,000 tons in any calendar year. Maximum allowable STB production will vary between 23,860 TPY and 64,000 TPY, depending on ACC availability, so the total VOC emissions from the STB process do not exceed the maximum rate specified in requirement 7.1.3. **[45CSR13, R14-0001, A.7.]**
- 7.1.8. The ACC shall provide a 95% destruction efficiency for the STB process emissions specified in Requirement 7.1.1. **[45CSR13, R14-0001, A.8.]**
- 7.1.9. All vent stacks shall contain flow straightening devices or a vertical run of sufficient length to establish flow patterns consistent with acceptable stack sampling procedures. **[45CSR§7-4.12 and 45CSR13, R14-0001, B.3.]**
- 7.1.10. The control devices in the Emission Units Table 1.0. for the STB process shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. **[45CSR§30-12.7.]**
- 7.1.11. The permittee shall inspect all control systems, specified in the Emission Units Table 1.0 for the STB process, weekly to ensure that they are operated and maintained in conformance with their designs. **[45CSR§30-5.1.c.]**

Permit Shield

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

7.2 Monitoring Requirements

- 7.2.1. The ACC stack temperature monitoring per Requirement 7.1.4.
- 7.2.2. Solvent application temperature monitoring per Requirement 7.1.5.
- 7.2.3. Visible emissions monitoring shall be performed per Requirement 3.2.1. Quarterly Method 22 checks shall be conducted for all the emission points and units listed in Emission Units Table 1.0 under Solvent Treated Briquet Production (except ACC Stack S-01-01, see requirement 5.2.5.). For ACC Bypass Stack (S-04) visible emission checks shall be performed during periods when this stack is in use. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1., then for this emission point monitoring shall revert to a weekly frequency requirement and begin the progressive monitoring cycle again as follows:
 - 1) Weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for all the emission points and units listed in Emission Units Table 1.0 under Solvent Treated Briquet Production (except ACC Stack S-01-01, see requirement 5.2.5.).
 - 2) If in compliance, then monthly Method 22 checks shall be conducted for a minimum of 4 consecutive months.

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

A record of each visible emission check required above shall be maintained on site and shall be made available to the Director or his/her duly authorized representative upon request. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR§30-5.1.c.]

7.2.4. Each opacity evaluation observation per 45CSR§ 7A-2.1.a,b. as per Requirement 3.2.1. shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater than the opacity limit for the emission unit, in which case the 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 emission. Such test shall be conducted once per Permit term within one year of the Permit issuance or renewal. In lieu of this test the permittee may conduct ACC stack testing as per Requirement 3.3.3. with the exception that STB operations shall be vented through ACC. If compliance with more stringent VOC emission limit in Requirement 4.1.3. is demonstrated, then compliance with VOC limit for emission point 19A in 7.1.3. will be demonstrated.

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

[45CSR§30-5.1.c.]

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

[45CSR§30-5.1.c.]

7.4. Recordkeeping Requirements

7.4.1. The permittee shall demonstrate compliance with the VOC emission limitation established under Requirement 7.1.3. by use of the VOC emission factors in accordance with Attachment 1 of Permit R14-0001B (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, R14-0001, B.1.]

7.4.2. Records required under Requirements 7.1.5. and 7.1.6. shall be maintained on-site and be readily

accessible to DAQ staff to demonstrate compliance with the conditions of this permit. Each record shall be certified by the plant manager to be true and accurate. The records shall be maintained for a minimum of two (2) years and be made available to the Director or his authorized representative upon request.
[45CSR13, R14-0001, B.5.]

7.4.3. STB production shall be monitored and recorded during each shift to provide the tons of STB produced and hours of operation when VOC emissions are vented to the ACC or to the ACC Bypass Stack.
[45CSR13, R14-0001, A.6.]

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

7.4.5. Visible emission checks recordkeeping as per Requirement 7.2.3.

7.5. Reporting Requirements

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

- a. The results of the quarterly VOC emission factor calculations in accordance with Attachment 1;
- b. A report of any exceedences of the solvent application operating temperature limit established in Requirement 7.1.5. The date, shift, and average temperature shall be reported for all eight (8) hour shifts during which an exceedence of the temperature limit occurred. If there were no exceedences of the operating temperature limit, the report shall so state and shall indicate that hourly temperatures were recorded for all operating periods during the quarter;
- c. STB hourly production rates for both conditions when the emission sources specified in Requirement 7.1.1. were vented to the ACC and to the ACC Bypass Stack.

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

[45CSR13, R14-0001, B.2.]

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

7.6. Compliance Plan

7.6.1. N/A

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 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
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? <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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

8.1. Limitations and Standards

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

[45CSR13, R13-1608, 4.1.10.]

8.1.2. The control devices in the Emission Units Table 1.0. for the Minors Ingredients Batching System, Dry Storage and Briquet Handling shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.

[45CSR§30-5.1.c.]

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

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

[45CSR§7-4.1.]

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

- a. Emissions of particulate matter and particulate matter less than 10 micros (PM₁₀) from Emission Point S-35 shall not exceed 0.73 pounds per hour.
- b. Visible emission from Emission Point S-35 shall not exceed 20% opacity.
- c. There is no annual operational restriction or limitation for the Packing Scale Bin In -feed system.

Compliance with these streamlined visible emissions limit and the PM and PM₁₀ limits will ensure compliance with 45CSR§§7-3.1. & 4.1.

[45CSR13, R13-1608, 4.1.13.]

Permit Shield

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

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

8.2. Monitoring Requirements

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

[45CSR§§30-5.1.c. and 12.7.]

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

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

If an excursion occurs, corrective action, if necessary, shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and recordkeeping and reporting shall be initiated.

[45CSR§§30-5.1.c. and 12.7., and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

8.2.3. Visible emissions monitoring for Dry Storage tanks or their control devices (if any) with exhaust stacks located outdoors (Emission Points S-10 through S17, S19, 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 in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR13, R13-1608, 4.2.2. and 45CSR§30-5.1.c.]

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

8.2.5. Each opacity evaluation observation per 45CSR§7A-2.1.a,b (as per Requirement 3.2.1) for Emission 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. **CAM - related data collection and CAM implementation schedule.** The permittee shall perform data collection for Fabric Filters (C-01, C-02 and C-03) to establish the fabric filters pressure drop range that will demonstrate compliance with PM emission limits in Requirement 8.1.3. The CAM related data collection and CAM plan implementation shall be conducted according with the following schedule:

- 1) The permittee shall collect data on fabric filters pressure drop in conjunction with Method 22 opacity checks at least once daily for 120 days from the issuance of this Permit.
- 2) The results (established pressure drop range) shall be submitted to the Director within 15 days after completion of data collection.
- 3) Within 180 days of issuance of this Permit, the permittee shall start monitoring under the CAM plan as per Requirement 8.2.2.

[45CSR§§30-5.1.c. and 12.7., and 40 C.F.R. §§64.4(e), 64.6(b), 64.6(d), and 64.7(a)]

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

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

If visible emissions are present during these checks or at any other time, visible emissions evaluations in accordance with 45CSR§§7A-2.1.a. and 2.1.b. shall be conducted immediately. Such evaluations shall not be required if the visible emissions condition is

corrected as expeditiously as possible and the cause and corrective measures taken are recorded. The 45CSR7A evaluations shall be conducted during periods of facility operation.

[45CSR§30-5.1.c., 45CSR§7A-2.1]

8.3. Testing Requirements

8.3.1. N/A

8.4. Recordkeeping Requirements

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

[45CSR§30-5.1.c.]

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

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

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

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

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

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

8.5. Reporting Requirements

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

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

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

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

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

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

and span or other daily calibration checks, if applicable); and

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

[40 C.F.R. §64.9(a)]

8.6. Compliance Plan

8.6.1. N/A

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 1600°F. Heat for the wood and briquet dryers and a waste heat boiler is usually provided by the ACC. However, the wood dryer is equipped with a 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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

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.)

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. Testing

- 10.3.1. N/A

10.4. Recordkeeping Requirements

10.4.1. Visible emission checks recordkeeping as per requirement 10.2.1.

10.5. Reporting Requirements

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

10.6. Compliance Plan

10.6.1. N/A

Are you in compliance with all applicable requirements for this emission unit? 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 form 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: 154,000 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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

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.)

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? ___Yes ___X___ No	If yes, is it? ___ Indirect Fired ___Direct Fired
--	---

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

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

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

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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. R30-09300004-2008)

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.)

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 Hourly Throughput: Not applicable	Maximum Hourly Throughput: Not applicable
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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
--	---

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			

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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.

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

40 CFR 63 Subpart CCCCCC - Gasoline Distribution NESHAP

Gasoline throughput limited to less than 10,000 gallons per month. (40 CFR 63.11111)

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

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

- (1) Minimize gasoline spills;
- (2) Clean up spills as expeditiously as practicable;
- (3) Cover all open gasoline containers and all gasoline storage tank fill-pipes with a gasketed seal when not in use;
- (4) Minimize gasoline sent to open waste collection systems that collect and transport gasoline to reclamation and recycling devices, such as oil/water separators.

.....

- (c) You must comply with the requirements of this subpart by the applicable dates specified in § 63.11113.
- (d) Portable gasoline containers that meet the requirements of 40 CFR part 59, subpart F, are considered acceptable for compliance with paragraph (a)(3) of this section.

Permit Shield

For all applicable requirements listed above, provide monitoring/testing/recordkeeping/reporting which shall be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number

or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

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

40 CFR 63 Subpart CCCCCC - Gasoline Distribution NESHAP

(40 CFR 63.111111)

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

(40 CFR 63.11116)

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

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

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: 500 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
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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.
Diesel fuel

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

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Appendix B

Applicable Requirements

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

(Per Title V Operation Permit No. R30-09300004-2008)

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: FP-2	Emission unit name: South Fire Pump	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.):
#2 Fuel Oil Fired Fire Pump

Manufacturer: Clarke Fire Protection Products	Model number: JXGH-UF30	Serial number: RG6125A016204
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Construction date: 07/01/2008	Installation date: 09/01/2008	Modification date(s): NA
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Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
22 gallons fuel/hr

Maximum Hourly Throughput: 22 gal fuel/hr	Maximum Annual Throughput: 11,000 gal/yr	Maximum Operating Schedule: <500 hrs/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 checked="" type="checkbox"/> Direct Fired
--	---

Maximum design heat input and/or maximum horsepower rating: 420 bhp @ 1760 rpm	Type and Btu/hr rating of burners:
--	---

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

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

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

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<p>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.).</p> <p>See Appendix B</p>		

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.

11.1 Limitations and Standards

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

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

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

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

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

- Section 5 Reciprocating Internal Combustion Engines (R.I.C.E.)
- Section 6 Tanks
- Section 7 Standards of Performance for Stationary Compression Ignition Internal Combustion Engines (40CFR60 Subpart IIII)
- Section 8 Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ)

[45CSR13, G60-C012 General Permit Registration]

11.1.3. The internal combustion engines powering the emergency generator (E-0B-02) must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ.

[45CSR34, 40 CFR §63.6590(c)(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.)

11.2 Monitoring Requirements

11.2.1 N/A

11.3 Testing

11.3.1. N/A

11.4 Recordkeeping Requirements

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

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

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

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

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

[45CSR13, G60-C, 7.3.3]

11.5 Reporting Requirements

11.5.1. N/A

11.6 Compliance Plan

11.6.1. N/A

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: 0B-02	Emission unit name: Emergency Generator (E-0B-02)	List any control devices associated with this emission unit. Catalyst integral to exhaust
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Provide a description of the emission unit (type, method of operation, design parameters, etc.):
150kW Natural Gas Fired Emergency Generator

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

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

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

Fuel Usage Data (fill out all applicable fields)

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

Maximum design heat input and/or maximum horsepower rating: 228 bhp @ 1800 rpm	Type and Btu/hr rating of burners:
--	---

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

Natural Gas, 1930 ft³/hr, 0.193 MMft³/yr during non-emergency use

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

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

<i>Emissions Data</i>		
Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix B	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM _{2.5})		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

See Appendix B

Applicable Requirements

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

11.7 Limitations and Standards

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

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

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

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

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

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

Section 6 Tanks

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

Section 8 Standards of Performance for Stationary Spark Ignition Internal Combustion Engines (40CFR60 Subpart JJJJ)

[45CSR13, G60-C012 General Permit Registration]

11.1.6. The internal combustion engines powering the emergency generator (E-0B-02) must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR part 60 Subpart JJJJ, for spark ignition engines. No further requirements apply for such engines under 40 CFR 63 Subpart ZZZZ.

[45CSR34, 40 CFR §63.6590(c)(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.)

11.8 Monitoring Requirements

11.8.1 N/A

11.9 Testing

11.3.2. N/A

11.10 Recordkeeping Requirements

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

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

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

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

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

[45CSR13, G60-C, 7.3.3]

11.11 Reporting Requirements

11.5.2. N/A

11.12 Compliance Plan

11.6.1. N/A

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

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):

Solvent Treated Briquet Production (E-05-01)

Applicable Requirement:

Conditions 7.1.1, 7.1.3, and 7.1.4

2. Reason for Noncompliance:

VOC emissions from the STB solvent application Fume Exhaust bypassed the ACC control device due to an electronic signal control programming issue causing the bypass damper to remain open.

3. How will Compliance be Achieved?

Compliance was achieved by 2/15/13 by correcting the programming and control issue.

4. Consent Order Number (if applicable):

The control device bypass and excess VOC emissions issues were disclosed to WV DEP in a letter dated 2/27/13. A Consent Order has not yet been issued .

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
PLC programming correction.	Achieved 2/15/13

6. Submittal of Progress Reports.

Not applicable unless specified in a Consent Order

Content of Progress Report:

Not applicable

Report starting date: Not applicable

Submittal frequency: Not applicable

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/PM2.5	100	99+%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). The briquet handling and packaging system is controlled by four (4) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm, C-03 @ 25,000 cfm and C-35 @ 8,500 cfm).		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <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. R30-0930004-2008)**

8.1. Limitations and Standards

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

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

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

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

[45CSR§7-4.1.]

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

- a. Emissions of particulate matter and particulate matter less than 10 micros (PM₁₀) from Emission Point S-35 shall not exceed 0.73 pounds per hour.
- b. Visible emission from Emission Point S-35 shall not exceed 20% opacity.
- c. There is no annual operational restriction or limitation for the Packing Scale Bin In -feed system.

Compliance with these streamlined visible emissions limit and the PM and PM₁₀ limits will ensure compliance with 45CSR§§7-3.1. & 4.1.

[45CSR13, R13-1608, 4.1.13.]

ATTACHMENT G - Air Pollution Control Device Form

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

8.2 Monitoring Requirements

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

[45CSR§§30-5.1.c. and 12.7.]

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

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

If an excursion occurs, corrective action, if necessary, shall be taken as expeditiously as practicable in accordance with good air pollution control practices for minimizing emissions, and recordkeeping and reporting shall be initiated.

[45CSR§§30-5.1.c. and 12.7., and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

8.2.3. Visible emissions monitoring for Dry Storage tanks or their control devices (if any) with exhaust stacks located outdoors (Emission Points S-10 through S17, S19, 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 in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR13, R13-1608, 4.2.2. and 45CSR§30-5.1.c.]

ATTACHMENT G - Air Pollution Control Device Form

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

8.2.4. Visible emissions monitoring for Minors Ingredients Batching System and Briquet Handling emission points or their control devices (if any) with exhaust stacks located outdoors (Emission Points S-06, S-07, S-08, S-22 and S-23) shall be performed per Requirement 3.2.1. Upon beginning of normal operations weekly Method 22 checks shall be conducted for a minimum of 6 consecutive weeks for all the emission points listed above. If in compliance, then monthly Method 22 checks shall be conducted. Anytime when not in compliance with the opacity limit per 45CSR§7-3.1., then monitoring shall revert back to the weekly frequency requirement and begin the progressive monitoring cycle again. A record of each visible emission check required above shall be maintained in accordance with Condition 3.4.2. Said records shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emission requirement, the results of the check, what action(s), if any, was/were taken, and the name of the observer.

[45CSR13, R13-1608, 4.2.2. and 45CSR§30-5.1.c.]

8.2.5. Each opacity evaluation observation per 45CSR§7A-2.1.a,b (as per Requirement 3.2.1) for Emission 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. **CAM - related data collection and CAM implementation schedule.** The permittee shall perform data collection for Fabric Filters (C-01, C-02 and C-03) to establish the fabric filters pressure drop range that will demonstrate compliance with PM emission limits in Requirement 8.1.3. The CAM related data collection and CAM plan implementation shall be conducted according with the following schedule:

- 1) The permittee shall collect data on fabric filters pressure drop in conjunction with Method 22 opacity checks at least once daily for 120 days from the issuance of this Permit.
- 2) The results (established pressure drop range) shall be submitted to the Director within 15 days after completion of data collection.
- 3) Within 180 days of issuance of this Permit, the permittee shall start monitoring under the CAM plan as per Requirement 8.2.2.

[45CSR§§30-5.1.c. and 12.7., and 40 C.F.R. §§64.4(e), 64.6(b), 64.6(d), and 64.7(a)]

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

ATTACHMENT G - Air Pollution Control Device Form

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

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

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

[45CSR§30-5.1.c., 45CSR§7A-2.1]

8.3 Testing Requirements

8.3.1. N/A

8.4 Recordkeeping Requirements

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

[45CSR§30-5.1.c.]

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

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

8.5 The differential pressure per Requirement 8.2.2. shall be recorded daily.

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

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

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

ATTACHMENT G - Air Pollution Control Device Form

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

8.5 Reporting Requirements

- 8.5.1. Opacity exceedance reporting as per Requirement 3.5.8.a.1.
- 8.5.2. General Reporting Requirements for 40 C.F.R. Part 64 (CAM)
 - (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the Director in accordance with permit condition 3.5.6.
 - (2) A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:
 - (i) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (ii) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - (iii) A description of the actions taken to implement a QIP (if required by 3.2.6.) during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring.

[40 C.F.R. §64.9(a)]

8.6 Compliance Plan

- 8.6.1. N/A

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-02 Fabric Filter Dust Collector	List all emission units associated with this control device. E-08-02A Briquet Packaging Lines – Weigh Scales E-08-02B Briquet Packaging Lines - Bag Filling Operation	
Manufacturer: Standard Havens	Model number: 24A/M1	Installation date: 1992
Type of Air Pollution Control Device: <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/PM2.5	100%	99+%
Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.). The briquet handling and packaging system is controlled by four (4) fabric filters (C-01 @ 15,000 cfm, C-02 @ 30,000 cfm, C-03 @ 25,000 cfm and C-35 @ 8,500 cfm).		
Is this device subject to the CAM requirements of 40 C.F.R. 64? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If Yes, Complete ATTACHMENT H If No, Provide justification.		
Describe the parameters monitored and/or methods used to indicate performance of this control device. See the requirements for C-01		

ATTACHMENT G - Air Pollution Control Device Form

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

Type of Air Pollution Control Device:

<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/PM2.5	100%	99+%

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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/PM2.5	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. R30-09300004-2008)

4.1. Limitations and Standards

- 4.1.1. The Wood Dryer/Retort Furnace system (E-03-01) processing rate shall not exceed 38.5 tons per hour of dry wood and 209,000 tons per year of dry wood.
[45CSR13, R13-1608, 4.1.2.]
- 4.1.2. Emissions generated as a result of the operation of the Wood Dryer/Retort Furnace (E-03-01) shall be routed to and combusted by the After Combustion Chamber (ACC, control device C-08) prior to their release to the atmosphere.
[45CSR13, R13-1608, 4.1.5]
- 4.1.3. Emissions to the atmosphere the Wood Dryer/Retort Furnace (E-03-01) vented through ACC stack (Emission point S-01-01) shall be limited to the following when the Briquet Dryers are in operation:

Emission Point ID	Pollutant	Maximum Allowable Emissions (lbs/hr)	Maximum Allowable Emissions (TPY)
S-01-01	NO _x	74.4	201.88
	CO	5.9	1.0
	VOC	1.0	1.15
	SO ₂	20.23	54.91
	PM	50.6	137.28
	PM ₁₀	40.5	109.82
	Methanol	-	3.15

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

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

- 4.1.4. The control devices in the Emission Units Table 1.0. for the Wood Dryer and Retort Furnace shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions.
[45CSR§30-12.7.]
- 4.1.5. The permittee shall inspect all control systems, specified in the Emission Units Table 1.0 for the Wood Dryer and Retort Furnace, weekly to ensure that they are operated and maintained in conformance with their designs.
[45CSR§30-5.1.c.]

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.

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

(Per Title V Operating Permit No. R30-09300004-2008)

4.4. Recordkeeping Requirements

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

[45CSR13, R13-1608, 4.1.4.]

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

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

[45CSR13, R13-1608, 4.2.1.]

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

4.5. Reporting Requirements

4.6. Compliance Plan

4.6.1. N/A

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
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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 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/PM2.5	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/PM2.5	100%	99+%

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

Char and coal is transferred to the char and coal silos via bucket elevators. Particulate matter emissions from the silos are controlled by a fabric filter dust collector (C-07).

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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
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Manufacturer: Kingsford Mfg. Co.	Model number: None	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 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/PM2.5	100%	95%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 The purpose of the ACC is waste heat energy recovery and control of particulates, CO and VOC. Volatile gases from the retort furnace are ducted by the furnace cyclones (C-06) to the ACC where they are combusted. Some of the resulting combustion gases are routed to the wood dryer as a heat source with the remainder of the ACC exhaust gases venting through the ACC stack. A natural gas burner (50 MMBtu) is used during startups, short duration 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. R30-09300004-2008)

5.1. Limitations and Standards

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

Emission Point ID	Pollutant	Hourly Emissions (lbs/hr)	Annual Emission (TPY)
S-01-01	NO _x	87.5	237.51
	CO	11.9	13.31
S-01-03	VOC	2.65	6.65
S-01-04	SO ₂	23.8	64.6
S-01N-05	PM	62.6	175.78
S-01N-06	PM ₁₀	46.5	129.07
	Methanol	-	3.7

[45CSR13, R13-1608, 4.1.6.]

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

[45CSR§6-4.5.]

5.1.3. Incinerators, including all associated equipment and grounds, shall be designed, operated and maintained so as to prevent the emission of objectionable odors.

[45CSR§6-4.6.]

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

[45CSR§10-4.1.]

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

[45CSR13, R13 1608, 4.1.12.]

5.2. Monitoring Requirements

5.2.1. **CAM monitoring requirement.** The permittee shall install, calibrate, maintain, and continuously operate a monitoring device with recorder for the measurement of the ACC combustion chamber temperature (E-03-01). The monitoring device is to be certified by the manufacturer to be accurate within + one (1) percent in degrees Fahrenheit. Accuracy of each thermocouple will be verified by a second thermocouple in the ACC stack. The validation check shall be conducted monthly. The acceptance criterion is +/- 50°F.

[45CSR13, R13-1608, 4.2.3., 45CSR§30-5.1.c. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

5.2.2. Compliance with the hourly emission limits set forth in Requirement 4.1.3. and 6.1.2. will be demonstrated if the ACC average combustion chamber temperature is maintained at or above a minimum of 1,600°F on a rolling 3-hour average during normal operations (not including periods of system startup, shutdown or maintenance). The permittee may establish a lower ACC combustion chamber temperature by conducting a performance test at the lower temperature while demonstrating compliance with the emission limitations of paragraphs 4.1.3. and 6.1.2.

[45CSR13, R13-1608, 4.1.11., 45CSR§30-12.7. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

5.2.3. **CAM monitoring requirement.** An excursion shall be defined as: if during normal operation, the 1-hour average ACC temperature drops below 1,600°F . Excursions trigger an on-screen alarm, an inspection and evaluation, corrective action, recordkeeping and reporting requirements. The monitoring system shall continually sense the indicator, poll the indicator at least once per minute, compute 1-hour averages, and record 1-hour averages.

[45CSR§30-12.7. and 40C.F.R. §§64.3(a), 64.3(b) and 64.6(c)(2)]

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

[45CSR13, R13-1608, 4.2.2.]

5.2.5. Each opacity evaluation observation per 45CSR§7A-2.1.a,b as per Requirement 3.2.1 shall be a minimum of six (6) minutes (24 single readings, one each fifteen (15) seconds) without averaging of results, unless any one single reading is greater 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.

Recordkeeping Req

5.4.1. Records of the combustion chamber temperature shall be maintained in accordance with Condition 3.

[45CSR13, R13-1608, 4.2.3.]

5.4.2. To demonstrate compliance with Requirement 5.1.3. the permittee shall maintain a record of all odor complaints received. Such record shall contain an assessment of the validity of the complaints as well as any corrective actions taken.

[45CSR§30-5.1.c.]

5.4.3. Visible emission checks recordkeeping as per requirement 5.2.4.

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

- (1) The combustion chamber temperature per Requirement 5.2.2 shall be recorded hourly.
- (2) The permittee shall maintain records of monitoring data, monitor performance data, corrective actions taken, any written quality improvement plan required pursuant to 40 C.F.R. §64.8 and any activities undertaken to implement a quality improvement plan, and other supporting information required to be maintained under 40 C.F.R. Part 64 (such as data used to document the adequacy of monitoring, or records of monitoring maintenance or corrective actions).
- (3) Instead of paper records, the permittee may maintain records on alternative media, such as microfilm, computer files, magnetic tape disks, or microfiche, provided that the use of such alternative media allows for expeditious inspection and review, and does not conflict with other applicable recordkeeping requirements.

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

5.4. Reporting Requirements

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

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

- (1) On and after the date specified in 40 C.F.R. §64.7(a) by which the permittee must use monitoring that meets the requirements of 40 C.F.R. Part 64, the permittee shall submit monitoring reports to the Director in accordance with permit condition 3.5.6.
- (2) A report for monitoring under 40 C.F.R. Part 64 shall include, at a minimum, the information required under permit condition 3.5.8. and the following information, as applicable:
 - (iv) Summary information on the number, duration and cause (including unknown cause, if applicable) of excursions or exceedances, as applicable, and the corrective actions taken;
 - (v) Summary information on the number, duration and cause (including unknown cause, if applicable) for monitor downtime incidents (other than downtime associated with zero and span or other daily calibration checks, if applicable); and
 - (iii) A description of the actions taken to implement a QIP (if required by 3.2.6.) during the reporting period as specified in 40 C.F.R. §64.8. Upon completion of a QIP, the permittee shall include in the next summary report documentation that the implementation of the plan has been completed and reduced the likelihood of similar levels of excursions or exceedances occurring. [40 C.F.R. §64.9(a)]

5.5. Compliance Plan

5.6.1. N/A

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-11 Fabric Filter Dust Collector	List all emission units associated with this control device. E-06-05 Retort Char Tanks and Transfer
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Manufacturer: Mac Process, Inc.	Model number: 72AVR32, Style III	Installation date: 2012
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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/PM2.5	100%	99+%

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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
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Manufacturer: Adaptive Engineering & Fabrication	Model number: BVC-36	Installation date: 2001
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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/PM2.5	100%	99+%

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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
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Manufacturer: Adaptive Engineering	Model number: BVS-36X	Installation date: 2001
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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/PM2.5	100%	99+%

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 Nitrate is pneumatically conveyed to the bulk nitrate tank. 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
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Manufacturer: Adaptive Engineering & Fabrication	Model number: BVC-36	Installation date: 2002
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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/PM2.5	100	99+%

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

Starch is pneumatically conveyed to the bulk starch tank. This fabric filter (-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
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Manufacturer: Adaptive Engineering & Fabrication	Model number: BVC-4	Installation date: 2003
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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/PM2.5	100%	99+%

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

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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
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Manufacturer: Griffin	Model number: JV-54-4X	Installation date: 1993
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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/PM2.5	100%	99+%

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

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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
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Manufacturer: Adaptive Engineering & Fabrication	Model number: BVC-4	Installation date: 1987, replaced 2003
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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/PM2.5	100%	99+%

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

This fabric filter (C-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
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Manufacturer: Griffin	Model number: JV-54-4X	Installation date: 1993
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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/PM2.5	100%	99+%

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

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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/PM2.5	100%	90+%

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

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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/PM2.5	100%	90+%

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

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes 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 G - Air Pollution Control Device Form

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

Type of Air Pollution Control Device:

<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/PM2.5	100%	99+%

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

Is this device subject to the CAM requirements of 40 C.F.R. 64? Yes No
 If Yes, **Complete ATTACHMENT H**
 If No, **Provide justification.**
 See Section 4.1.5 of the application text.

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

See requirements for C-01

**APPENDIX B
FACILITY EMISSIONS**

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

Source	Potential Annual Emissions (tons/yr)										
	NO _x	CO	VOC	SO ₂	PM	PM ₁₀	PM _{2.5}	Methanol	Lead	Total HAPs	Non-Biogenic CO ₂ e
Wood & Char Piles (E-01)					15.00	7.05	1.05		5.25E-05	5.25E-05	
Raw Material Handling (E-02)					0.71	0.34	0.05		2.97E-06	2.97E-06	
Charring & Briquet Dryers (E-03)	237.50	13.31	6.65	64.60	175.78	129.07	66.97	3.70	1.36E-02	3.71E+00	5722.68
Briquet Coolers (E-04)					38.50	19.25	11.55		6.43E-04	6.43E-04	
Solvent Treated Briquet Production (E-05)			83.00								
Minor Ingredient Batching/Dry Storage (E-06)					3.71	3.71	3.71		1.92E-05	1.92E-05	
Natural Gas Burning (E-07)	10.00	8.40	0.55	0.06	0.76	0.76	0.76		5.00E-05	5.00E-05	51,247.11
Briquet Handling (E-08)					29.47	29.47	29.47		4.92E-04	4.92E-04	
Plant Roads (E-09)					3.12	0.62	0.15				
Liquid Storage (E-10)			1.10								
Emergency Equipment (E-11)	3.29	0.89	0.32	0.28	0.27	0.27	0.27			5.50E-03	
Total	250.79	22.60	91.62	64.94	267.32	190.54	113.99	3.70	1.48E-02	3.72	56,969.79

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

Potential to emit assumptions
 Natural gas throughput - 200 MMcf/yr
 Solvent 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 Throughput^a (Dry Tons)	PM Emissions Factor^b (lb/Dry Ton)	Control Factor	Hourly PM Emissions Rate (lbs)	Hourly PM₁₀ Emissions Rate (lbs)	Hourly PM_{2.5} Emissions Rate (lbs)	Annual PM Emissions Rate (Tons)	Annual PM₁₀ Emissions Rate (Tons)	Annual PM_{2.5} Emissions Rate (Tons)
01	01	Wood Pile	250,000	0.1		2.85	1.34	0.20	12.50	5.88	0.88
	02	Char and coal Pile	50,000	0.1		0.57	0.27	0.04	2.50	1.18	0.18
TOTALS						3.42	1.61	0.24	15.00	7.05	1.05

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

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

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

^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 PM₁₀, 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 Char Production (tons/yr)	Emission Factor ^a (lb/ton char)	Maximum Annual Wood Throughput (tons/yr)	Emission Factor ^a (lb/ton dry wood)	ACC Stack Emission Rate ^b (ton/yr)	Stack Emission Rate ^c (ton/yr)	Total Emission Rate (ton/yr)
03	01/02/03N	NO _x	38,000	12.5	209,000	2.27	201.88	35.63	237.50
		CO	38,000	N/D	209,000	N/D	1.00	12.31	13.31
		VOC	38,000	N/D	209,000	N/D	1.15	5.50	6.65
		SO ₂	38,000	3.4	209,000	0.62	54.91	9.69	64.60
		PM	38,000	7.23	209,000	1.31	137.28	38.50	175.78
		PM ₁₀	38,000	5.78	209,000	1.05	109.82	19.25	129.07
		PM _{2.5}	38,000	2.51	209,000	0.46	47.72	15.40	63.12
		Methanol	38,000	N/D	209,000	N/D	0.64	3.06	3.70

^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:

AP-42 Ratio of Methanol to VOC = [(150 lb methanol/ton) / (270 lb VOC/ton)] = 0.556 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	PM _{2.5} Emission Factor ^a	PM _{2.5} Emission Rate
			(tons/yr)	(lb/ton briquets)	(ton/yr)	(lb/ton briquets)	(ton/yr)	(lb/ton briquets)	(ton/yr)
03	02/03N	Briquet Dryers	154,000	0.5	38.50	0.25	19.25	0.2	15.40
04	01/02N	Briquet Coolers	154,000	0.5	38.50	0.25	19.25	0.15	11.55

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

TABLE 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 Factor* (lb/Wet Ton) (Gr/CF)	PM ₁₀ Emission Factor (lb/Wet Ton) (Gr/CF)	PM _{2.5} Emission Factor (lb/Wet Ton) (Gr/CF)	Control Factor	Hourly PM Emission Rate (lbs)	Hourly PM ₁₀ Emission Rate (lbs)	Hourly PM _{2.5} Emission Rate (lbs)	Annual PM Emission Rate (TONS)	Annual PM ₁₀ Emission Rate (TONS)	Annual PM _{2.5} Emission Rate (TONS)
06	01	COAL TANK	100	1.00E-02	1.00E-02	1.00E-02	0.00%	0.01	0.01	0.01	0.038	0.038	0.038
	02	BERYL CHAR TANKS	525	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.197	0.197	0.197
	03	RERUN CHAR TANK	5	1.00E-01	1.00E-01	1.00E-01	0.00%	0.00	0.00	0.00	0.019	0.019	0.019
	04	YARD CHAR TANK	90	1.00E-01	1.00E-01	1.00E-01	0.00%	0.08	0.08	0.08	0.338	0.338	0.338
	05	RETORT CHAR TANKS & TRANSFER	1,406	1.00E-02	1.00E-02	1.00E-02	0.00%	0.12	0.12	0.12	0.528	0.528	0.528
	06	BULK LIME TANK	525	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.197	0.197	0.197
	07	BULK NITRATE TANK	560	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.210	0.210	0.210
	08	BULK STARCH TANK	560	1.00E-02	1.00E-02	1.00E-02	0.00%	0.05	0.05	0.05	0.210	0.210	0.210
	09	LIME USE TANK	200	1.00E-02	1.00E-02	1.00E-02	0.00%	0.02	0.02	0.02	0.075	0.075	0.075
	0A	WET STARCH USE TANK	425	1.00E-02	1.00E-02	1.00E-02	0.00%	0.04	0.04	0.04	0.160	0.160	0.160
	0B	DRY STARCH USE TANK	425	1.00E-02	1.00E-02	1.00E-02	0.00%	0.04	0.04	0.04	0.160	0.160	0.160
	0C	BORAX USE TANK	250	1.00E-02	1.00E-02	1.00E-02	0.00%	0.02	0.02	0.02	0.094	0.094	0.094
	0D	NITRATE USE TANK	0	1.00E-02	1.00E-02	1.00E-02	0.00%	0.00	0.00	0.00	0.000	0.000	0.000
	0E	MULLER VENT	50	1.00E-01	1.00E-01	1.00E-01	90.00%	0.00	0.00	0.00	0.019	0.019	0.019
	0F	MINORS BATCH MIXING	2500	1.00E-02	1.00E-02	1.00E-02	0.00%	0.21	0.21	0.21	0.939	0.939	0.939
	0G	RETORT CHAR SURGE SILO	1406	1.00E-02	1.00E-02	1.00E-02	0.00%	0.12	0.12	0.12	0.528	0.528	0.528
TOTALS								0.85	0.85	0.85	3.71	3.71	3.71

*PM 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	NOx	200	100	8,760	2.28	10.00
		CO	200	84.0	8,760	1.92	8.40
		VOC	200	5.5	8,760	0.13	0.55
		SO ₂	200	0.6	8,760	0.01	0.06
		PM/PM ₁₀ /PM _{2.5}	200	7.6	8,760	0.17	0.76
		Lead	200	0.0005	8,760	0.00001	0.00005

^aBased on approximately 6 times the actual annual usage of ~30 MMCF/yr.

^aEmission factors based upon EPA AP-42 emission factors for natural gas-fired boilers (Section 1.4, 7/98). All PM assumed to be less than 1.0 micrometer.

**TABLE 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 /PM _{2.5}	15,000	0.01	8,760	1.29	5.63
	02	Packaging Process Equipment	PM/PM ₁₀ /PM _{2.5}	30,000	0.01	8,760	2.57	11.26
	03	Packaging Outside Handling	PM/PM ₁₀ /PM _{2.5}	25,000	0.01	8,760	2.14	9.39
	35	Packaging Weigh Scales	PM/PM ₁₀ /PM _{2.5}	8,500	0.01	8,760	0.73	3.19
Total							6.73	29.47

^aTypical baghouse exit grain loading. All PM is assumed to be PM_{2.5}

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

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

Emissions Unit Number	Emissions Point Number	Path	Throughput (tons)	Truck Payload (tons)	Round Trips (#)	Road Segments Used	Round Trip Distance (miles)	Annual VMT (miles)	Annual Operating Schedule (hours/yr)	Pollutant	Emission Factor (lbs/VMT) ^a	Emission Rate (lb/hr)	Emission Rate (tons/yr)
09	01	Hogfuel Delivery ^b	500,000 tons hogfuel	20	25,000	A	0.228	5,700	8,760	PM	0.664	0.432	1.892
										PM10	0.133	0.086	0.378
										PM2.5	0.033	0.021	0.093
		Coal Delivery ^c	12,160 tons coal	23	529	A,B,F	0.532	281	8,760	PM	0.664	0.021	0.093
										PM10	0.133	0.004	0.019
										PM2.5	0.033	0.001	0.005
		Lime Delivery ^d	1,900 tons lime	23	83	A,B,C,D,E	1.100	91	8,760	PM	0.664	0.007	0.030
										PM10	0.133	0.001	0.006
										PM2.5	0.033	0.000	0.001
		Starch Delivery ^e	3,230 tons starch	23	140	A,B,C,D,E	1.100	154	8,760	PM	0.664	0.012	0.051
										PM10	0.133	0.002	0.010
										PM2.5	0.033	0.001	0.003
		Nitrate Delivery ^f	190 tons nitrate	23	8	A,B,C,D,E	1.100	9	8,760	PM	0.664	0.001	0.003
										PM10	0.133	0.000	0.001
										PM2.5	0.033	0.000	0.000
		Borax Delivery ^g	95 tons borax	21.5	4	A,B,C,D,E	1.100	5	8,760	PM	0.664	0.000	0.002
										PM10	0.133	0.000	0.000
										PM2.5	0.033	0.000	0.000
		Beryl Char Delivery ^h	28,000 tons char	15	1,867	A,B,C,F	0.684	1,277	8,760	PM	0.664	0.097	0.424
										PM10	0.133	0.019	0.085
										PM2.5	0.033	0.005	0.021
		Solvent Delivery ⁱ	7,642 tons solvent	22	347	A,B,C,D,E	1.100	382	8,760	PM	0.664	0.029	0.127
										PM10	0.133	0.006	0.025
										PM2.5	0.033	0.001	0.006
		Bag Delivery ^j	27,720,000 bags	107,712 Bags/Truck	257	A,B,C,D,E	1.100	283	8,760	PM	0.664	0.021	0.094
										PM10	0.133	0.004	0.019
										PM2.5	0.033	0.001	0.005
		Pallet Wrap Delivery ^k	206,360 lbs. wrap	44,000 lbs/Truck	5	A,B,C,D,E	1.100	5	8,760	PM	0.664	0.000	0.002
										PM10	0.133	0.000	0.000
										PM2.5	0.033	0.000	0.000
		Shrink Film Delivery ^l	1,155,000 lbs. film	44,000 lbs/Truck	26	A,B,C,D,E	1.100	29	8,760	PM	0.664	0.002	0.010
										PM10	0.133	0.000	0.002
										PM2.5	0.033	0.000	0.000
		Pallet Delivery ^m	308,000 pallets	540 Pallets/Truck	570	A,B	0.418	238	8,760	PM	0.664	0.018	0.079
										PM10	0.133	0.004	0.016
										PM2.5	0.033	0.001	0.004
		Pallet Cap Delivery ⁿ	18 Trucks/Year	N/A	18	A,B,C,D,E	1.100	20	8,760	PM	0.664	0.002	0.007
										PM10	0.133	0.000	0.001
										PM2.5	0.033	0.000	0.000
		Pallet Liner Delivery ^o	12 Trucks/Year	N/A	12	A,B,C,D,E	1.100	13	8,760	PM	0.664	0.001	0.004
										PM10	0.133	0.000	0.001
										PM2.5	0.033	0.000	0.000
Misc. Delivery ^p	2 Trucks/Year	N/A	2	A,B,C,D,E	1.100	2	8,760	PM	0.664	0.000	0.001		
								PM10	0.133	0.000	0.000		
								PM2.5	0.033	0.000	0.000		
Outbound Traffic	154,000 tons product	22	7,000	80% A,B,C,D 20% A,G	0.684 1.442	5,849	8,760	PM	0.664	0.443	1.941		
								PM10	0.133	0.089	0.388		
								PM2.5	0.033	0.022	0.095		
Routine Traffic	12 Miles/Day			A,B,C,D,E,F,G	0.721	3157.98	8,760	PM	0.664	0.239	1.048		
								PM10	0.133	0.048	0.210		
								PM2.5	0.033	0.012	0.051		
Total											PM	0.712	3.117
											PM10	0.142	0.623
											PM2.5	0.035	0.153

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

^a Emission factor calculated according to AP-42 Chapter 13.2.1 (1/11), Paved Roads using the equation $lb/VMT = k(sL)^{0.91} \times (W)^{-0.07}$ where k = particle size multiplier, sL = road surface silt loading in g/m², and W = average vehicle weight in tons. For the Parsons Plant, the following data was used:

$sL = 2$ g/m², based on worst case silt loading result of road dust sampling conducted at the KMC Parsons plant.

$W = 30$ tons (average tractor-trailer weight)

$k = 0.011$ for PM, 0.0022 for PM₁₀, and 0.00054 for PM_{2.5}

^b Based on maximum dry tons hogfuel and assuming 50% moisture

^c Maximum coal deliveries based on 32% of total maximum briquet production of 154,000 tons/yr.

^d Maximum limedeliveries based on 5% of total maximum briquet production of 154,000 tons/yr.

^e Maximum starch deliveries based on 8.5% of total maximum briquet production of 154,000 tons/yr.

^f Maximum nitrate deliveries based on 0.5% of total maximum briquet production of 154,000 tons/yr.

^g Maximum borax deliveries based on 0.25% of total maximum briquet production of 154,000 tons/yr.

^h Maximum allowable char prortion of KMC Beryl plant.

ⁱ Maximum solvent deliveries based on 11.94% of total maximum STB production of 64,000 tons/yr.

^j Maximum potential bag deliveries based on 180 11.1 # bags per ton of maximum briquet production rate of 154,000 tons.

^k Maximum potential wrap deliveries based on 2 pallets per ton of maximum briquet production rate of 154,000 tons and 0.67 lbs. wrap per pallet.

^l Maximum potential film deliveries based on 30 hules per ton of maximum briquet production rate of 154,000 tons and 0.25 lbs. film per bale.

^m 2 pallets per ton of maximum briquet production rate of 154,000 tons.

ⁿ Based on past actual deliveries scaled to maximum potential production rate.

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

Lake Pumps

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

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

Fire Pump

Rated Capacity (hp)	Annual Operating Schedule (hr/yr)	Pollutant	Emissions Factors ^a			Emissions	
			(lb/MMBtu)	(g/hp-hr)	(lbs/hp-hr)	(lbs/hr)	(tons/yr)
420	500	NOx	N/D	6.640	0.0146	6.15	1.54
420	500	CO	N/D	0.490	0.0011	0.45	0.11
420	500	VOC	N/D	0.100	0.0002	0.09	0.02
420	500	TPM/PM ₁₀ /PM _{2.5} ^b	N/D	0.060	0.0001	0.06	0.01
420	500	SO ₂	N/D	N/D	4.05E-04	0.17	0.04
HAPS							
420	500	Benzene	2.85E-04	N/D	2.00E-06	8.38E-04	2.09E-04
420	500	1,3-Butadiene	3.91E-05	N/D	2.74E-07	1.15E-04	2.87E-05
420	500	Toluene	4.09E-04	N/D	2.86E-06	1.20E-03	3.01E-04
420	500	Xylenes	2.85E-04	N/D	2.00E-06	8.38E-04	2.09E-04
420	500	Acetaldehyde	7.67E-04	N/D	5.37E-06	2.25E-03	5.64E-04
420	500	Acrolein	9.25E-05	N/D	6.48E-07	2.72E-04	6.80E-05
420	500	Naphthalene	8.48E-05	N/D	5.94E-07	2.49E-04	6.23E-05
420	500	Formaldehyde	1.18E-03	N/D	8.26E-06	3.47E-03	8.67E-04
Total HAPS						9.24E-03	2.31E-03

^aNOx, CO, VOC and PM emissions factors per engine manufacturer (See attached data sheet). All others per EPA AP-42 (EPA AP-42, Section 3.3, 3.4) assuming a BSFC of 7,000 Btu/hp-hr and a sulfur content of 500 ppm (0.05%).
^bAssumes all particulate matter is less than 1 µm as per EPA AP-42 Section 3.3 Table 3.3-1.

Emissions Using Manufacturer Supplied Emission Factors

Rated Capacity (kW/hr)	Rated Capacity (bhp-hr)	Annual Operating Schedule (hr/yr)	Pollutant	Emissions Factors		NSPS Emission Standards ^b (g/hp-hr)	Emissions	
				(g/kW-hr) ^a	(g/bhp-hr)		(lbs/hr)	(tons/yr)
177.50	238	100	NO _x	0.166	0.124	2.0	0.06	0.0032
177.50	238	100	VOC	0.166	0.124	1.0	0.06	0.0032
177.50	238	100	CO	0.417	0.311	4.0	0.16	0.0082

Emissions Using AP-42 Emission Factors

Rated Capacity (MMBtu/hr)	Annual Operating Schedule (hr/yr)	Pollutant	Emissions	
			(lbs/MMBtu)	(tons/yr)
1.969	100	TPM/PM ₁₀ /PM _{2.5} ^c	0.0194	0.0019
1.969	100	SO ₂	5.88E-04	5.79E-05
HAPS				
1.969	100	1,1,2,2- Tetrachloroethane	2.53E-05	2.49E-06
1.969	100	1,1,2-Trichloroethane	1.53E-05	1.51E-06
1.969	100	1,3-Butadiene	6.63E-04	6.53E-05
1.969	100	1,3-Dichloropropene	1.27E-05	1.25E-06
1.969	100	Acetaldehyde	2.79E-03	2.75E-04
1.969	100	Acrolein	2.63E-03	2.59E-04
1.969	100	Benzene	1.58E-03	1.56E-04
1.969	100	Carbon Tetrachloride	1.77E-05	1.74E-06
1.969	100	Chlorobenzene	1.29E-05	1.27E-06
1.969	100	Chloroform	1.37E-05	1.35E-06
1.969	100	Ethylbenzene	2.48E-05	2.44E-06
1.969	100	Ethylene Dibromide	2.13E-05	2.10E-06
1.969	100	Formaldehyde	2.05E-02	2.02E-03
1.969	100	Methanol	3.06E-03	3.01E-04
1.969	100	Methylene Chloride	4.12E-05	4.06E-06
1.969	100	Naphthalene	9.71E-05	9.56E-06
1.969	100	PAHs	1.41E-04	1.39E-05
1.969	100	Styrene	1.19E-05	1.17E-06
1.969	100	Toluene	5.58E-04	5.49E-05
1.969	100	Vinyl Chloride	7.18E-06	7.07E-07
1.969	100	Xylene	1.95E-04	1.92E-05
Total HAPS			6.38E-02	3.19E-03

^aManufacturer combined emission factor for combined THC + NO_x of 0.166 g/kW-hr used individually for both NO_x and VOC to demonstrate compliance with owner-operator emission standards in 40 CFR 60 Subpart JJJJ Table 1.
^bFrom 40 CFR Subpart JJJJ Table 1, Emergency Engines greater than 130 hp.
^cBased on maximum fuel consumption of 1930 c.f. an hour at 100% load.
^dEmission factors from U.S. EPA AP-42 Chapter 3.2, (07/2000) Natural Gas-fired Rich-Burn 4-stroke Reciprocating Engines.
^eAssumes all particulate matter is less than 1 µm as per EPA AP-42 Section 3.2 Table 3.2-3(07/2000).

**TABLE C-12
GREENHOUSE GAS EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA**

Natural Gas Combustion Emissions

Gas Use			GHG Emissions			
Max Gas Usage ^a (mmBTU/hr)	Max Hours of Operation	Maximum Gas combusted (mmBTU)	GHG Gas	Part 98 Emission Factor (kg/mmBTU)	CO ₂ e Emissions (Metric Tons)	CO ₂ e Emissions (Short Tons)
			CH ₄ ^b	0.001	18.40	20.28
			N ₂ O ^c	0.0001	27.16	29.93

Wood Combustion Emissions

Wood Combustion					GHG Emissions			
Dry Wood Processed (Short Tons)	Char Produced (Short Tons)	Wood Combusted (Dry Wood Processed minus Char Produced, Short Tons)	Heat Value (mmBTU/Short Ton)	mmBTU combusted	GHG Gas	Part 98 Emission Factor (kg/mmBTU)	CO ₂ e Emissions (Metric Tons)	CO ₂ e Emissions (Short Tons)
209,000.0	38,000.0	171,000.0	15.38	2,629,980.00	CO ₂ (Biogenic)	93.8	246,692.12	271,928.73
					CH ₄ ^b	0.032	1,767.35	1,948.15
					N ₂ O ^c	0.0042	3,424.23	3,774.53

^a Based on the the total of the two (2) 50 mmBTU rated capacity of ACC burners.

^b CH₄ emissions multiplied by a Global Warming Potential of 21 to correct to CO₂e.

^c N₂O emissions multiplied by a Global Warming Potential of 310 to correct to CO₂e.

**TABLE C-13
FACILITY LEAD EMISSIONS
KINGSFORD MANUFACTURING CO. - PARSONS, WEST VIRGINIA**

Emissions Unit Number	Emission Unit	Emissions Point Number	Emission Point	Material Processed	Maximum Hourly PM Emissions (lb/hr)	Maximum Annual PM Emissions (tons/yr)	Emission Factor ^a (lb Pb/ton PM)	Pb Emission Rate	
								(lb/hr)	(ton/yr)
01	Wood & Char Piles	01	Wood Pile	Wood	2.85	12.50	4.0E-03	5.71E-06	2.50E-05
		02	Char and Coal Pile	Char	0.57	2.50	2.2E-02	6.28E-06	2.75E-05
02	Raw Material Handling	01-06	Wood Handling Operations	Wood	0.14	0.63	4.0E-03	2.90E-07	1.27E-06
		07,09,0B	Char Handling Operations	Char	0.01	0.05	2.2E-02	1.29E-07	5.65E-07
		0A	Coal Handling Operations	Coal	0.01	0.03	8.00E-02	2.59E-07	1.13E-06
03	Charring and Briquet Dryers	01	ACC/Retort	Wood	N/A	175.78	1.5E-01	N/A	1.29E-02
		02,03	Briquet Dryers	Briquets	N/A	38.50	3.34E-02	N/A	6.43E-04
04	Briquet Coolers	01/02	Briquet Coolers	Briquets	N/A	38.50	3.34E-02	N/A	6.43E-04
06	Minor Ingredient Batching	01	Coal Tank	Coal	0.01	0.04	8.00E-02	3.43E-07	1.50E-06
		02-05,0G	Char Tanks	Char	0.37	1.61	2.2E-02	4.04E-06	1.77E-05
07	Natural Gas Use	01	Natural Gas Use	Natural Gas	See Table C-8 "Natural Gas Combustion"		1.14E-05	5.00E-05	
08	Briquet Handling	01-03/35	Briquet Handling	Briquets	6.73	29.47	3.34E-02	1.12E-04	4.92E-04

^aEmission factors based on following material lead content assumptions:

- Wood - 2 ppm, dry wood per University of Missouri study
- Char - based on worst-case char yield assumption of 5.5 (2ppm * 5.5 = 11 ppm = 2.2E-2 lb/ton)
- Char ash content assumed to be 15%, ACC PM = 2.2E-02/0.15 = 0.147 lb/hr
- Coal based on 40 ppm lead content
- Briquets = 16.7 ppm based on char and coal in formulation of product.