



Title V Permit Renewal Application
Kingsford Manufacturing Company
Beryl, West Virginia Facility

Submitted to:



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

Submitted by:

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1. INTRODUCTION

1.1 OVERVIEW

Kingsford Manufacturing Company (KMC) operates a char manufacturing facility in Beryl, Mineral County, West Virginia. Char is produced from bark/wood material and is used as an ingredient in the production of charcoal briquets. The Beryl facility is subject to Title V air permitting requirements because potential emissions of particulate matter (PM), particulate matter less than 10 microns (PM₁₀) and nitrogen oxides (NO_x) exceed 100 tons per year (tpy). KMC submitted a Title V operating permit application in May 1996. The original application was updated in 1998 and the revisions were determined to be administratively complete in March 1998. Further revisions were submitted in March 2001 and KMC was issued a Title V permit in January 2003, operating permit #R30-05700003-2003 which expires on January 7, 2008. This Title V permit renewal application is being submitted six (6) months prior to expiration date of the permit. The application addresses facility changes that have occurred since 2003 and addresses new regulatory requirements. The application also provides Compliance Assurance Monitoring (CAM) Plans for certain air pollution control devices at the Beryl facility to comply with the requirements of the federal CAM Rule at 40 CFR Part 64.

The major changes at the plant since 2003 include modifications to the plant's raw material receiving operations including installation of a belt conveyor system (E-01-03) to transfer bark directly to the Beryl plant from the adjacent NewPage woodyard. These modifications were addressed in a Notification of Minor Plant Modification (2005) and two (2) Applications for Authority to Operate (2004, 2005). Other plant changes have been minor consisting of the removal of a 250 gallon kerosene storage tank (E-05-03) and renovation of the Beryl facility's offices including replacement of existing HVAC equipment. Section 2 of this report provides a process description for the facility and summarizes facility changes that have occurred since 2003.

Section 3 of this report provides a facility-wide air emission inventory summarizing plant-wide emissions. Potential emissions of hazardous air pollutants (HAPs) are summarized to demonstrate that the KMC Beryl plant is a minor source of HAPs and therefore not subject to

potentially applicable federal NESHAP standards for major HAP sources. Supporting emissions calculations are provided in Appendix C.

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

The WVDEP application forms are provided in Appendix A.

1.2 REPORT ORGANIZATION

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

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

Section 2 – Process Description describes current facility operations including changes to the plant that have occurred since 2003.

Section 3 – Emission Inventory summarizes criteria air pollutant emissions estimates for the facility, provides background documentation for the current emission estimates, and provides HAP potential emissions estimates.

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

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

Appendix B – CAM Plans provides KMC's proposed CAM Plans for affected sources and pollution control devices at the Beryl facility.

Appendix C – Facility Emissions provides detailed potential emissions calculations for the Beryl facility.

2. PROCESS DESCRIPTION

2.1 FACILITY OPERATIONS

The KMC Beryl plant is located in Mineral County, West Virginia along WV Route 46. The location of the facility is shown in the WVDEP application forms (Appendix A, Attachment A) a section of the Westernport, West Virginia USGS quadrangle map. The facility is located on the Maryland border and is adjacent to a pulp and paper mill owned by NewPage.

KMC receives bark at the Beryl plant from the adjacent paper mill woodyard operations. The Beryl plant processes the bark in a wood dryer and retort furnace to produce char. The char is then conveyed by truck for further processing into briquets at the KMC Parsons, WV briquetting facility.

The Beryl 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 May 1996. KMC was issued a Title V permit in January 2003, #R30-05700003-2003 which expires on January 7, 2008. The WVDEP application forms (Appendix A, Attachment D) list the plant emitting units that are defined in the current Title V permit. The table lists the emitting units, and their associated sources, control devices, and stacks.

2.2 MODIFICATIONS TO PLANT

The major changes at the plant since 2003 include modifications to the plant's raw material receiving operations including installation of a belt conveyor (E-01-03) system to transfer bark directly to the Beryl plant from the adjacent NewPage paper mill woodyard. These modifications were addressed in a Notification of Minor Plant Modification (2005) and two (2) Applications for Authority to Operate (2004, 2005). Other plant changes have been relatively minimal including removal of a 250 gallon kerosene storage tank (E-05-02) and renovation of the Beryl facility's offices including replacement of existing HVAC equipment. The kerosene tank and HVAC modifications are relatively minor changes and will be reflected in the insignificant activities list included with the WVDEP forms.

The belt conveyor system transfers bark raw material directly from the neighboring NewPage paper mill woodyard operations to the Beryl plant. Before the conveyor was added, the bark was transported by truck. At the time of its installation, an additional material transfer point (Source ID 001-03, Emission Point S-07) was added to the Beryl facility's Title V operating permit. The conveyor was constructed and is currently owned and operated entirely by NewPage and KMC has no control over its operation. Consequently, Kingsford requests that this source and emission point be removed from the Beryl facility's Title V Operating permit.

2.3 REVISED INSIGNIFICANT ACTIVITIES LIST

A revised insignificant activities checklist list is attached with the WVDEP application forms (Attachment A – General Forms). This table lists the current types of insignificant sources in operation at the facility and reflects the modifications to the plant that have taken place since 2003. Both the kerosene tank and the HVAC operations are insignificant activities and the modifications are reflected in the list.

3. EMISSION INVENTORY

3.1 FACILITY-WIDE EMISSIONS

Table 3-1 summarizes potential emission rates from the Beryl facility. Supporting emissions calculations are provided in Appendix C. The table demonstrates that the facility is a major source of PM₁₀ and NO_x emissions because potential emission rates exceed 100 tpy based on allowable emission limits. However actual emissions, as submitted in the 2005 iSteps report, are below the 100 tpy threshold for both of these pollutants due to the fact that the plant is operating slightly below capacity and that actual emission rates (determined by stack testing) are lower than the permitted emission rates.

3.2 MINOR SOURCE STATUS FOR HAP EMISSIONS

The Beryl facility is a minor source of hazardous air pollutants (HAPs). As part of annual Toxics Release Inventory (Form R) reporting, KMC estimates air emission rates for two HAPs: methanol and lead. Annual emissions of methanol are estimated to be less than 2.0 tpy based on estimates of methanol generation rates in the wood charring operation and estimates of methanol destruction efficiency in the ACC afterburner. KMC also estimates small quantities of lead emissions in the Form R reports based on EPA guidance that trace quantities of lead are present in wood. Lead emission rates are estimated to be less than 0.001 tpy total.

In addition, the KMC Beryl Title V permit limits VOC emissions from the charring operation ACC stack to 8.1 tpy (Condition 6.1.1). Because methanol is a VOC, this demonstrates that potential emissions of methanol are less than the major source threshold of 10 tpy for a single HAP.

Based on these considerations, it is KMC's assessment that the Beryl plant is a minor source of HAP emissions. The permit requirement to maintain a minimum ACC combustion chamber temperature of 1,400F (Condition 6.2.2) ensures that potential methanol emissions remain below the major source threshold of 10 tpy.

**TABLE 3-1
FACILITY POTENTIAL EMISSIONS
KINGSFORD MANUFACTURING CO. - BERYL, WEST VIRGINIA**

Source	Potential Annual Emissions (tons/yr)						Potential Maximum Hourly Emissions (lbs/hr)					
	NO _x	CO	VOC	SO ₂	PM	PM ₁₀	NO _x	CO	VOC	SO ₂	PM	PM ₁₀
Wood Pile Management and Traffic					6.45	3.03					1.47	0.69
Material Handling					0.86	0.54					0.20	0.12
Charring and Drying	182.00	28.82	8.10	42.00	158.20	94.90	65.70	8.93	2.52	17.00	49.00	29.40
Plant Roadways					6.85	3.26					1.56	0.74
Storage Tanks				0.22					0.05			
Total	182.00	28.82	8.10	42.00	172.35	101.73	65.70	8.93	2.52	17.00	52.23	30.96

Source	Operating Schedule (hr/yr)	Units	Maximum Annual Production (ton/yr)	Average Hourly Production (ton/hr)	Maximum Hourly Production (ton/hr)	Yield (wood:char)	Wood Moisture Content (%)
Wood Pile	8,760	Wood (wet)	224,000			4.00	50%
		Wood (dry)	112,000				
Mulch Pile	8760	Mulch (wet)	33,900				
		Mulch (dry)	16,950				
ACC	8,760	Char	28,000	3.20	4.50		

4. APPLICABLE REQUIREMENTS

The following subsections contain an assessment of new federal and state air regulations that are potentially applicable to the Beryl 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 Beryl plant Title V permit conditions are requested in Subsection 4.3.

4.1 NEW FEDERAL REGULATIONS

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

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

4.1.1 New Source Review and Nonattainment Status

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

Because the KMC Beryl 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 Beryl plant has undergone several modifications since 2003 when Title V operating permit was issued. Each of the plant modifications since 2003 was determined to be a minor modification and did not trigger PSD review. Future plant modifications will be reviewed by KMC with regard to the revised federal PSD regulation and applicability provisions at 40 CFR 52.21 and at 45CSR14.

4.1.2 National Emission Standards for Hazardous Air Pollutants (NESHAP)

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

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

4.1.3 New Source Performance Standards (NSPS)

The federal NSPS regulations are promulgated at 40 CFR Part 60. There are currently no process specific NSPS promulgated or proposed which would specifically apply to charcoal manufacturing operations.

4.1.4 Regional Haze Rule

The federal Regional Haze Rule regulations (40 CFR 51.300 through 51.309) require affected sources to prepare Best Available Retrofit Technology (BART) assessments and to implement

BART pollution controls to reduce visibility-impairing air emissions to protect federal Class I areas from adverse visibility impacts. BART-eligible sources are “grandfathered” sources in certain source categories that were constructed prior to 1977 and that have potential emissions in excess of 250 tpy for any single visibility-impairing pollutant (e.g., PM10, NOx, SO2).

The Beryl plant is a charcoal manufacturing plant and the facility was constructed prior to 1977. However, potential emissions of each affected pollutant from the Beryl plant do not exceed 250 tpy. Consequently, the Regional Haze Rule BART provisions are not applicable to the Beryl plant.

4.1.5 Title V and CAM Requirements

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

The deadline for submission of the CAM Plans is set forth in 40 CFR 64.5. This regulation states that sources to which the CAM requirements are applicable, which have complete Title V applications by April 20, 1998, and which have post control emissions less than major source status may submit CAM plans at the time of the Title V operating permit renewal. The KMC Beryl plant submitted a complete and timely Title V application for existing operations in May 1996 and therefore the deadline for CAM Plan submittal is January 2008 when the initial Title V permit is due for renewal. CAM Plans for affected sources at the Beryl plant are provided in Appendix B of this application.

The Beryl facility has an emissions unit with potential pre-control emissions in excess of major source thresholds. The affected emission sources are:

Title V Source ID	Title V Emission Point ID	Source	Control Device	Pollutant
EU003-01,02	S-02	Rotary wood dryer E-03-01 Multi-hearth retort furnace E-03-02	After combustion chamber (ACC) C-08	PM/PM ₁₀ /CO/VOC

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

To meet the CAM requirements, KMC is proposing parametric monitoring. Specifically, the ACC temperature will be monitored and the temperature will be maintained above 1,400°F (3-hour average). As stated in the current operating permit, this will assure compliance with the hourly PM, PM₁₀, CO and VOC limits for the ACC (Emission point S-02, Control device C-08) that controls the rotary wood dryer (EU03-01) and the multi-hearth retort furnace (EU-03-02).

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 Beryl plant operations. In particular, the NO_x and SO₂ emissions limitations for electric generating units (45CSR39 and 45CSR41) are not applicable to the Beryl operations based on the facility source types and equipment capacities.

4.3 REQUESTED REVISIONS TO TITLE V PERMIT

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

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

- Delete Source ID 001-03 – Wood pile management: bark conveyor transfer to bark pile. As detailed in subsection 2.2, KMC does not own or operate the bark conveyor. It is owned and operated by NewPage. For this reason, KMC requests that this emission point be deleted from the Beryl permit.
- Delete Source ID 005-03 – Kerosene tank. The 250-gal kerosene tank has been removed from the plant.
- Add Regulations 45CSR39 and 45CSR41 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 Beryl plant has no affected sources.

KMC also requests that the WVDEP include a facility-wide emissions cap for HAP emissions from the Beryl plant to ensure the plant is classified as a minor HAP source. This request was made in subsection 4.1.2 above to ensure MACT standards for major HAP sources do not apply to the Beryl plant. KMC formally requests that the WVDEP include a federally enforceable HAP emissions cap in the Title V permit when it is renewed. KMC requests that the WVDEP identify that the federal NESHAP standards at 40 CFR Part 63 are not applicable to the Beryl facility based on the inclusion of a HAP emissions cap and the plant's minor source status. This request is made pursuant to the Title V "permit shield" provisions of 45CSR30-5.6.

APPENDIX A
WVDEP APPLICATION FORMS



WEST VIRGINIA DEPARTMENT OF ENVIRONMENTAL PROTECTION

DIVISION OF AIR QUALITY

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

www.wvdep.org/daq

TITLE V PERMIT APPLICATION - GENERAL FORMS

Section 1: General Information

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

11. Mailing Address		
Street or P.O. Box: P.O. Box 6		
City: Luke	State: MD	Zip: 21540-0006
Telephone Number: (304) 355-2311	Fax Number: (304) 355-2312	

12. Facility Location		
Street: Route 46	City: Beryl	County: Mineral
UTM Easting: 666.0 km	UTM Northing: 4371.0 km	Zone: <input checked="" type="checkbox"/> 17 or <input type="checkbox"/> 18
Directions: The facility is located adjacent to WV Route 46 near the WV-Maryland border, slightly west of the town of Luke, MD.		
Portable Source? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		
Is facility located within a nonattainment area? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If yes, for what air pollutants?	
Is facility located within 50 miles of another state? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the affected state(s). Maryland, Pennsylvania,	
Is facility located within 100 km of a Class I Area ¹ ? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If no, do emissions impact a Class I Area ¹ ? <input type="checkbox"/> Yes <input type="checkbox"/> No	If yes, name the area(s). Dolly Sods Otter Creek	
¹ Class I areas include Dolly Sods and Otter Creek Wilderness Areas in West Virginia, and Shenandoah National Park and James River Face Wilderness Area in Virginia.		

13. Contact Information		
Responsible Official: Lonnie Wolfe		Title: Plant Manager
Street or P.O. Box: P.O. Box 464		
City: Parsons	State: WV	Zip: 26287-
Telephone Number: (304) 478-2911	Fax Number: (304) 478-2129	
E-mail address: lonnie.wolfe@clorox.com		
Environmental Contact: Scott Stephenson		Title: Plant Engineering Manager
Street or P.O. Box: P.O. Box 464		
City: Parsons	State: WV	Zip: 26287-
Telephone Number: (304) 478-2911	Fax Number: (304) 478-2129	
E-mail address: scott.stephenson@clorox.com		
Application Preparer: Gavin L. Biebuyck		Title: Principal Consultant
Company: Liberty Environmental, Inc.		
Street or P.O. Box: 10 N. Fifth Street		
City: Reading	State: PA	Zip: 19601-
Telephone Number: (610) 375-9301	Fax Number: (610) 375-9302	
E-mail address: gbiebuyck@libertyenviro.com		

14. Facility Description

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

Process	Products	NAICS	SIC
Wood char manufacturing facility	Wood char	N/D	2861

Provide a general description of operations.

The Kingsford Manufacturing Company Beryl plant processes bark from the paper mill woodyard operations and produces char for use at the KMC Parsons, WV charcoal briquetting plant. The plant receives bark, which is processed in a wood dryer and retort furnace to produce char. The char is then conveyed by truck for further processing into briquets at the Parsons facility.

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 type="checkbox"/> PSD (45CSR14)
<input type="checkbox"/> NESHAP (45CSR15)	<input type="checkbox"/> Nonattainment NSR (45CSR19)
<input type="checkbox"/> Section 111 NSPS	<input type="checkbox"/> Section 112(d) MACT standards
<input type="checkbox"/> Section 112(g) Case-by-case MACT	<input type="checkbox"/> 112(r) RMP
<input type="checkbox"/> Section 112(i) Early reduction of HAP	<input type="checkbox"/> Consumer/commercial prod. reqts., section 183(e)
<input type="checkbox"/> Section 129 Standards/Reqs.	<input type="checkbox"/> Stratospheric ozone (Title VI)
<input type="checkbox"/> Tank vessel reqt., section 183(f)	<input type="checkbox"/> Emissions cap 45CSR§30-2.6.1
<input type="checkbox"/> NAAQS, increments or visibility (temp. sources)	<input type="checkbox"/> 45CSR27 State enforceable only rule
<input checked="" type="checkbox"/> 45CSR4 State enforceable only rule	<input type="checkbox"/> Acid Rain (Title IV, 45CSR33)
<input type="checkbox"/> Emissions Trading and Banking (45CSR28)	<input checked="" type="checkbox"/> Compliance Assurance Monitoring (40CFR64)
<input type="checkbox"/> NO _x Budget Trading Program Non-EGUs (45CSR1)	<input type="checkbox"/> NO _x Budget Trading Program EGUs (45CSR26)

19. Non Applicability Determinations

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

Existing (in current permit shield) Non-applicable Requirements		
Requirement	Regulatory Citation	Basis for Non-Applicability
PM Emissions from Fuel Combustion in Indirect Heat Exchangers	45CSR2	Per 45CSR§7-10.1. if PM emissions are subject to 45CSR7, they are exempt from this Rule
PM emissions from Coal Preparation and Handling Plants	45CSR5	No coal handling operations at Beryl facility.
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.
Type "d" chemical operation source	45CSR7A	This facility was previously determined by the Director as type "a" source, therefore it is not considered a type "d" source
Testing, Monitoring, Recordkeeping and Reporting of Sulfur Oxides emissions	45CSR§10-8	Per 45CSR§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
PSD source	45CSR14	Emission limits and production caps are accepted by the facility to avoid triggering PSD
Hazardous Air Pollutants Federal NESHAP standards	45CSR15 40CFR61	No affected sources at Beryl facility
Federal NSPS standards	45CSR16 40CFR60	No affected sources at Beryl facility
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	Beryl facility is not in affected areas
VOC emissions regulations	45CSR21	Beryl facility is not in affected areas
Emissions of toxic air pollutants	45CSR27	Beryl 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 Beryl facility
Federal MACT standards	45CSR34 40CFR63	Beryl facility discharges less than 10 tpy of a single HAP and less than 25 tpy of aggregated HAPs

New Non-applicable Requirements		
Requirement	Regulatory Citation	Basis for Non-Applicability
NOx Budget Trading Program	45CSR1	No affected sources at Beryl facility
Emission Standards for Hot Mix Asphalt Plants	45CSR3	No affected sources at Beryl facility
Emission Standards for Municipal Solid Waste Landfills	45CSR23	No affected sources at Beryl facility
Emission Standards for Medical Waste Incinerators	45CSR24	No affected sources at Beryl facility
Emission Standards for Hazardous Waste Treatment, Storage or Disposal Facilities	45CSR25	No affected sources at Beryl facility
NOx Budget Trading Program for Electric Generating Units	45CSR26	No affected sources at Beryl facility
Transportation Plan Requirements	45CSR36	No affected sources at Beryl facility
Mercury Budget Trading Program	45CSR37	No affected sources at Beryl facility
Interstate PM/NOx/Ozone/SO2 Transport Rule	45CSR39,40,41	No affected sources at Beryl facility

Permit Shield

20. Facility-Wide Applicable Requirements

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

Existing Facility-Wide Requirements	
Requirement	Regulatory Citation
Odors	45CSR4
Open Burning	45CSR6
Fugitive Particulate Emissions and Opacity	45CSR7
SOx Emission Requirements	45CSR10
Air Pollution Episode Requirements	45CSR11
Construction Permitting	45CSR13
Fee Program	45CSR22
Title V Permitting	45CSR30
Confidential Information	45CSR31
Emission Inventory/Testing Requirements	WVa Code 22-5-4
Asbestos Demolition/Renovation	40CFR61
Risk Management Plan	40CFR68
Ozone Depleting Substances	40CFR82
Please refer to the current Title V operating permit (R30-05700003-2003) for additional detail	

New Facility-Wide Requirements	
Requirement	Regulatory Citation
Compliance Assurance Monitoring	40CFR64

Permit Shield

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

Facility-Wide Requirement Compliance Demonstration Methods		
Requirement	Citation	Compliance Demonstration Method
Existing Facility-Wide Requirements	See above	See existing Title V operating permit for details
Compliance Assurance Monitoring	40CFR64	KMC is submitting a CAM plan as part of this permit renewal application

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

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

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

Permit Shield

22. Inactive Permits/Obsolete Permit Conditions

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

23. Facility-Wide Emissions Summary [Tons per Year]	
Criteria Pollutants	Potential Emissions
Carbon Monoxide (CO)	See Section 3 of attached report
Nitrogen Oxides (NO _x)	
Lead (Pb)	
Particulate Matter (PM ₁₀) ¹	
Total Particulate Matter (TSP)	
Sulfur Dioxide (SO ₂)	
Volatile Organic Compounds (VOC)	
Hazardous Air Pollutants ²	Potential Emissions
Regulated Pollutants other than Criteria and HAP	Potential Emissions
¹ PM ₁₀ is a component 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 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"/>	<p>19. Emission units which do not have any applicable requirements and which emit criteria pollutants (CO, NO_x, SO₂, 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.</p> <p>Please specify all emission units for which this exemption applies along with the quantity of criteria pollutants emitted on an hourly and annual basis:</p> <p>E-05-01 Gasoline storage tank with conservation vent – 1,000 gallons E-05-02 Diesel oil tank with conservation vent – 1,000 gallons</p> <p>See Attachment D for emissions information.</p>

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. Emission Units Table
Fill out the Emission Units Table and provide it as ATTACHMENT D .
26. Emission Units Form(s)
For each emission unit listed in the Emission Units 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 Emission Units 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. Applications without a signed certification will be returned as incomplete.

a. Certification of Truth, Accuracy and Completeness

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

b. Compliance Certification

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

Responsible official (type or print)

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

Responsible official's signature:

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

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

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

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



10 N. Fifth Street, Suite 800
 Reading, PA 19601
 Phone: 610-375-9301
 Fax: 610-375-9302



ATTACHMENT A: SITE LOCATION MAP

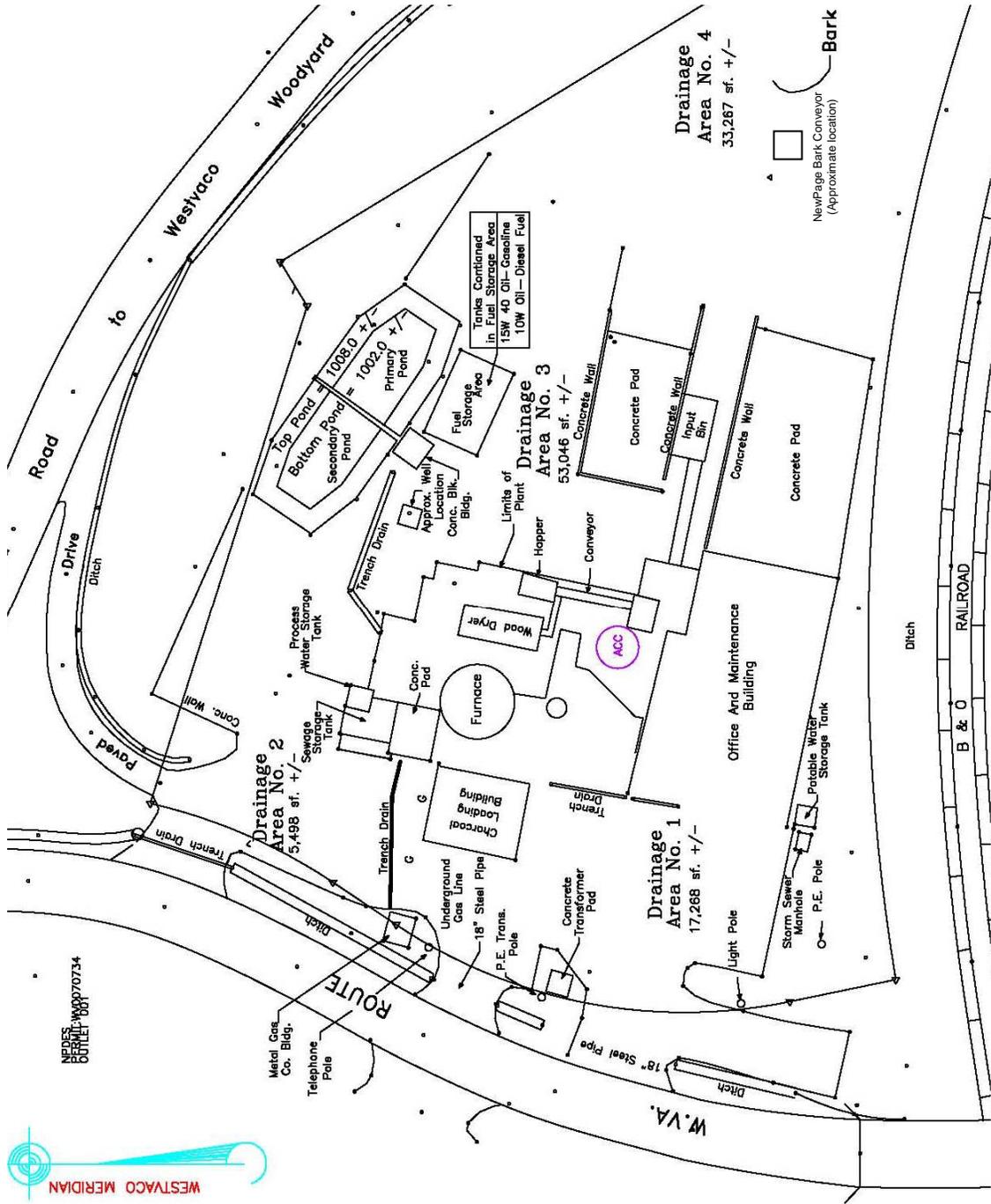
BERYL PLANT

KINGSFORD MANUFACTURING COMPANY

USGS MAP QUADRANGLE: WESTERNPORT, MD

SCALE : 1" = 2000 FEET





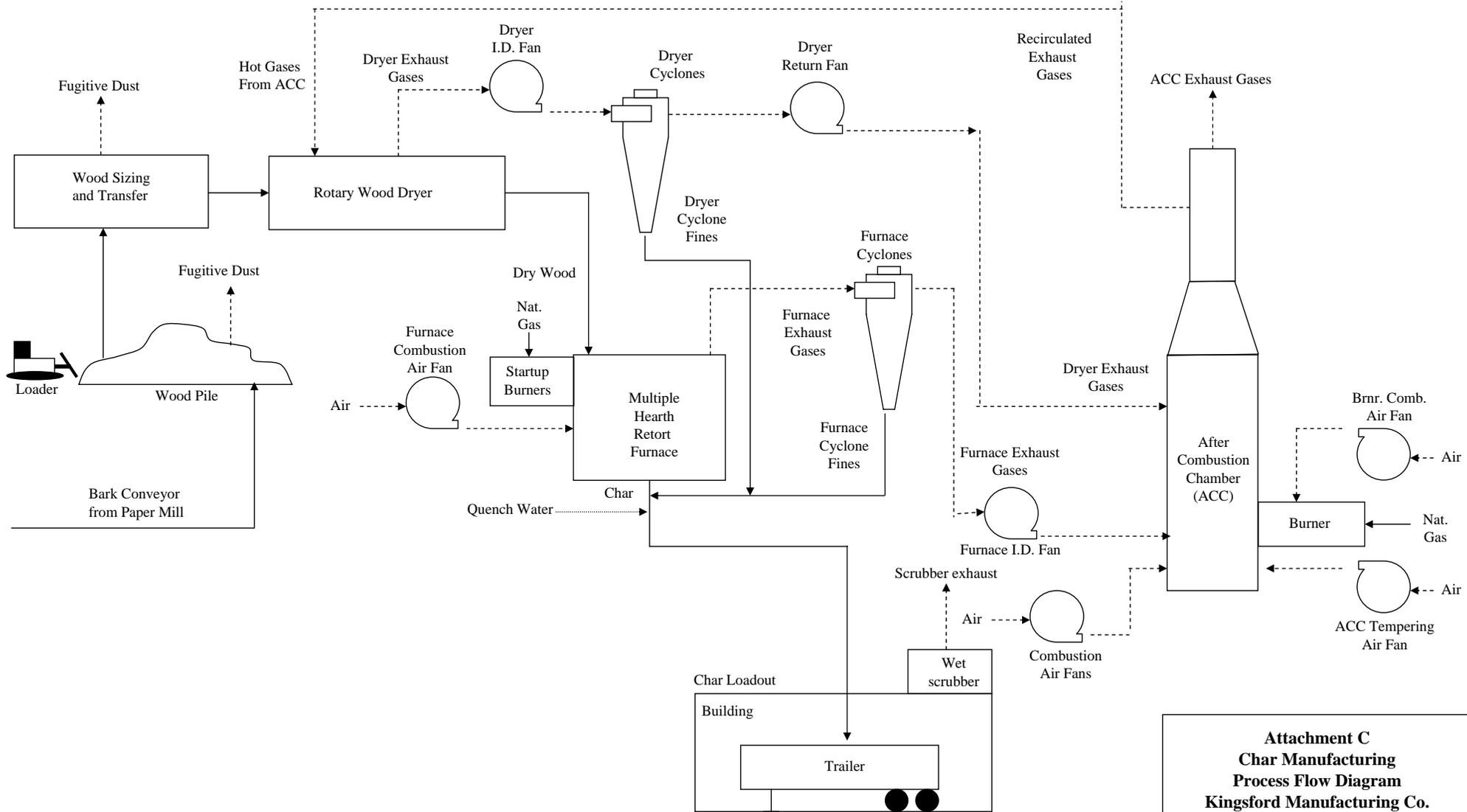
NEDES
00111 100070734



10 N. Fifth Street, Suite 800
 Reading, PA 19601
 Phone: 610-375-9301
 Fax: 610-375-9302



ATTACHMENT B: PLOT PLAN
 BERYL PLANT
 KINGSFORD MANUFACTURING COMPANY



Attachment C
Char Manufacturing
Process Flow Diagram
Kingsford Manufacturing Co.
Beryl, WV Plant

ATTACHMENT D - Emission Units Table (includes all emission units at the facility except those designated as insignificant activities in Section 4, Item 24 of the General Forms)					
Source ID	Emission Point ID	Equipment Description and ID	Year Installed	Design Capacity or Allowable Limit	Control Device Description and ID
001-01	S-07	Wood Pile management: wood pile E-01-01	1963	N/A	None
001-02	S-07	Wood Pile management: mulch pile E-01-02	1984	N/A	None
001-03	S-07	Wood Pile management: bark conveyor transfer to bark pile E-01-03^a	2005	50 ton/hr	None
002-01	S-07	Transfer to hopper by end loader E-02-01	1963, mod.1994	257,900 TPY	None
002-02	S-07	Hopper reverse chain to ground E-02-02	1963, mod.1994	257,900 TPY	None
002-03	S-07	Hopper to 48" belt E-02-03	1963, mod.1994	257,900 TPY	Full Enclosure
002-04	S-07	48" belt into hog E-02-04	1963, mod.1993	257,900 TPY	Full Enclosure
002-05	S-07	Scrape bottom of 48" belt to ground E-02-05	1993	258 TPY	Partial Enclosure
002-06	S-07	Block conveyor to live bottom bin E-02-06	1963	224,000 TPY	Full Enclosure
002-07	S-07	Mulch chute to ground E-02-07	1996	33,900 TPY	None
002-08	S-07	Wood bypass screw to hopper E-02-08	1998	124 TPY	Partial Enclosure
002-09	S-07	Char to trailer E-02-09	1999	28,000 TPY	Wet Scrubber
002-10	S-07	Bypass Hopper E-02-10	2001	50 TPY	None
002-11	S-07	Bypass Block conveyor E-02-11	2001	50 TPY	Partial enclosure
003-01	S-02	Rotary Wood Dryer E-03-01 (Heil SD-105-32)	1998	36 tph wet wood	Primary Dryer Cyclone C-05; (2) Secondary Dryer Cyclones C-06; After Combustion Chamber (ACC) C-08
003-02	S-02	Multi-hearth Retort Furnace E-03-02 (Nichols-Herreshoff)	1962, mod.1997	4.5 tph char	(2) Furnace Cyclones C-07; After Combustion Chamber (ACC) C-08
003-02	S-02	(1) Low NOx natural gas burner to provide heat to ACC during start ups and system interruptions, to maintain temperature during operation; (6) natural gas burners for Retort Furnace start up periods	1998	40 MMBtu/hr 4 MMBtu/hr each	None
004-01	S-07	Paved Roads: End-loader Traffic E-04-01, Vehicle Traffic E-04-02	1990	N/A	None
005-01	S-04	Gasoline tank E-05-01 with conservation vent	1990	1,000 gal	None
005-02	S-05	Diesel oil tank E-05-02 with conservation vent (negligible emissions)	1990	1,000 gal	None
005-03	S-06	Kerosene tank E-05-03 with conservation vent (negligible emissions)^b	1990	250 gal	None
Control Device	S-02	Primary Dryer Cyclone C-05 (Heil)	1963	unknown	(2) Secondary Dryer Cyclones C-06
Control Device	S-02	(2) Secondary Dryer Cyclones C-06 (Fisher- Klosterman XQ 120-41)	1997	22,000 ACFM each	After Combustion Chamber (ACC) C-08
Control Device	S-02	(2) Furnace Cyclones C-07 (Fisher-Klosterman XQ 120-27-2.75CR)	1997	11,000 ACFM each	After Combustion Chamber (ACC) C-08
Control Device	S-02	Thermal After Combustion Chamber (ACC) C-08 (self-manufactured)	1997	368,970 ACFM of wood derived gases, destruction efficiency: 99% for CO, VOC	None
Control Device	S-07	Wet Scrubber Hosokawa Model 30DS.2	1999	90% of PM	None

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.

^aKMC requests that this emission point be deleted from the permit because NewPage owns and operates the belt conveyor.

^bKMC requests that the kerosene tank be deleted from the permit because it has been removed from the plant.

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 001-01, 02, 03	Emission unit name: Wood Pile E-01-01 Mulch Pile E-01-02 Bark Conveyor Transfer to Bark Pile E-01-03	List any control devices associated with this emission unit. None
---	---	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Wet bark is transferred from the adjacent NewPage paper mill to the KMC bark storage area via a belt conveyor (E-01-03). The bark is transferred into storage piles (E-01-02, 03) using a front end loader. A partial enclosure (sleeve) has been installed at the outfall of the bark conveyor to minimize fugitive emissions from the transfer point. **The conveyor is owned and operated by NewPage and KMC requests that the belt conveyor “drop point” be removed form the KMC Beryl Title V permit.**

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

Construction date: E-01-01 1963 E-01-02 1984 E-01-03 2005	Installation date: E-01-01 1963 E-01-02 1984 E-01-03 2005	Modification date(s): E-01-01 1963 E-01-02 1984 E-01-03 2005
---	---	--

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
E-01-03 50 tph wet wood

Maximum Hourly Throughput: E-01-03 50 tph wet wood	Maximum Annual Throughput: Not determined	Maximum Operating Schedule: 8,760 hours/yr
--	---	--

Fuel Usage Data (fill out all applicable fields)

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

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

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

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

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

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Applicable Requirements

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

(Per Title V Operating Permit No R30-05700003-2003)

7.1. Limitations and Standards

7.1.1. The control devices and procedures, specified in the Emission Units Table 1.0. for Emission Point S-07, shall be maintained and operated to control and minimize any fugitive escape of pollutants including but not limited to: enclosures, wet scrubber, chemical dust suppressants. 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§30-5.1.c. and 45CSR§7-5.2.]

7.1.2. The permittee shall inspect all fugitive dust control systems, specified in the Emission Units Table 1.0 for Emission Point S-07, weekly to ensure that they are operated and maintained in conformance with their designs. [45CSR§30-5.1.c.]

Permit Shield

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

(Per Title V Operating Permit No R30-05700003-2003)

7.2. Monitoring Requirements

7.2.1. Visual emission checks of the units listed in the Emission Units Table 1.0. for Emission Point S-07 emitting directly into the open air from points other than a stack outlet (including visible fugitive dust emissions that leave the plant site boundaries), shall be conducted during periods of normal facility operation for a minimum of 6 minutes to determine if the unit has visible emissions using procedures outlined in 40 C.F.R. 60, Appendix A, Method 22. If sources of visible emissions are identified during the survey, or at any other time, permittee shall conduct an evaluation as outlined in 4 5CSR§7A-2.1.a,b within 24 hour period unless the permittee can demonstrate a valid reason that the time frame should be extended. A 45CSR§7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions. Upon issuance of this Permit weekly Method 22 checks shall be conducted for a minimum of 4 consecutive weeks. If in compliance with the opacity limit per 45CSR§7-3.1, 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. [45CSR§30-5.1.c.]

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

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

Applicable Requirements

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

See above

Permit Shield

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

(Per Title V Operating Permit No R30-05700003-2003)

7.3. Recordkeeping Requirements

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

7.3.2. The permittee shall maintain records of the results of weekly inspections of the systems to minimize fugitive emissions per Requirement 7.1.2. Records shall state the times the systems were inoperable, what corrective actions taken as a result of the weekly inspections and all scheduled and unscheduled maintenance procedures. Such records 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. [45CSR§30-5.1.c.]

7.3.3. A record of each visible emission check per Requirement 7.2.1. 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.]

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 11 Material Handling and Transfer Operations	Emission unit name: See Attachment D	List any control devices associated with this emission unit. E-02-03,04,06 Full enclosure E-02-05,07,11 Partial enclosure E-02-09 - Wet scrubber (C-09)
---	--	---

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Wet bark is transferred from the KMC storage piles (E-01-01, 02) to the bark handling and transfer operations via a front end loader (E-02-01). The bark conveying and handling operations consist of various hoppers, chutes, and conveyors that move the bark from the storage piles through a bark sizing hog to the rotary wood dryer (E-03-01) followed by the multi-hearth retort furnace (E-03-02). After the bark has been converted to char, the material handling and transfer operations convey the char to trailers for shipment to the KMC Parsons, WV facility.

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
---	---	--

Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? Not applicable ___ Indirect Fired ___ Direct Fired
--	---

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

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

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

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

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Applicable Requirements

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

See E-01-01,02,03 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-01-01,02,03 requirements

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 003-01	Emission unit name: Rotary Wood Dryer E-03-01	List any control devices associated with this emission unit. Primary Dryer Cyclone C-05 (2) Secondary Dryer Cyclones C-06 After Combustion Chamber (ACC) C-08
---	---	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Sized, wet bark 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 primary dryer cyclone (C-05) followed by the secondary dryer cyclones (C-06) followed by the ACC (C-08). The cyclones are primarily used for product recovery. The primary cyclone recovers the dry wood which is then conveyed to the retort furnace. Dried wood particles captured by the secondary cyclones are combined with the char produced by the furnace.

Manufacturer: Heil	Model number: SD-105-32	Serial number: 1427
Construction date: 1998	Installation date: 1998	Modification date(s): Not applicable

Design Capacity (examples: furnaces - tons/hr, tanks - gallons):
36 tph wet wood

Maximum Hourly Throughput: 36 tph wet wood	Maximum Annual Throughput: Not determined	Maximum Operating Schedule: 8,760 hours/.yr
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <input checked="" type="checkbox"/> No	If yes, is it? Not applicable ___ 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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Applicable Requirements

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

(Per Title V Operating Permit No R30-05700003-2003)

4.1. Limitations and Standards

- 4.1.1. The Rotary Wood Dryer, Equipment ID E-03-01, shall process no more than 36 tons of wet wood per hour. [45CSR13, R13-2117D, A.1.]
- 4.1.2. Emissions generated as a result of the operation of the Rotary Wood Dryer shall be routed to and combusted by the After Combustion Chamber, Control Device ID C-08, prior to their release to the atmosphere. [45CSR13, R13-2117D, A.3.]
- 4.1.3. The control devices in the Emission Units Table 1.0. for the Rotary Wood Dryer, shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. [45CSR§30-5.1.c.]
- 4.1.4. The permittee shall inspect all control systems, specified in the Emission Units Table 1.0 for the Rotary Wood Dryer, weekly to ensure that they are operated and maintained in conformance with their designs. [45CSR§30-5.1.c.]

Permit Shield

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

(Per Title V Operating Permit No R30-05700003-2003)

4.2. Recordkeeping Requirements

- 4.2.1 The permittee shall maintain accurate records on the amount of wet wood charged to the Rotary Wood Dryer. [45CSR13, R13-2117D, B.7.]
- 4.2.2. The permittee shall maintain accurate records on the hours of operation of the Rotary Wood Dryer on a daily basis. According to the facility process specifications, hours of operation of the Rotary Wood Dryer are equivalent to the time to load trailers with finished wood char. [45CSR§30-5.1.c.]
- 4.2.3. Compliance with the hourly maximum limit [of wet wood charged to the Rotary Wood Dryer] shall be calculated on the basis of a rolling thirty day average expressed in pounds per hour based on the hours of production for any specific 30 day period. Said records shall be certified by a responsible official and maintained on site for a period of no less than five (5)years. [45CSR13, R13-2117D, B.7.]
- 4.2.4. Calculation of amount of wood charged to the Rotary Wood Dryer shall be performed as set forth in Section 5.2.4.
- 4.2.5. The permittee shall maintain records of the results of weekly inspections of the control systems per Requirement 4.1.4. 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. Such records 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. [45CSR§30-5.1.c.]

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 003-02	Emission unit name: Multi-Hearth Retort Furnace E-03-02	List any control devices associated with this emission unit. (2) Furnace Cyclones C-07 After Combustion Chamber (ACC) C-08
---	--	--

Provide a description of the emission unit (type, method of operation, design parameters, etc.):
Dried bark is pyrolyzed into char in a 5-hearth continuous retort furnace. Charred wood is quenched with water and transferred by screws to trailers (E-02-09) for shipment to the KMC Parsons, WV plant. The furnace exhaust gas stream passes through the furnace cyclones (C-07) for material recovery followed by the ACC (C-08) for combustion. Charred wood particles captured by the furnace cyclones are combined with the char produced by the furnace. Natural gas burners, 6 @ 4MMBtu/hr, are used during startup of the furnace. The ACC is equipped with a 40 MMBtu/hr natural gas-fired burner to maintain temperatures in the afterburner of at least 1,400F. During normal operations, the ACC heat is supplied by the combustion of retort furnace off-gases.

Manufacturer: Nichols-Herreshoff	Model number: None	Serial number: None
Construction date: Retort 1962 Burners 1998	Installation date: Retort 1962 Burners 1998	Modification date(s): Retort 1998 Burners 1998

Design Capacity (examples: furnaces - tons/hr, tanks – gallons):
18 tph dry wood
4.5 tph char

Maximum Hourly Throughput: 18 tph dry wood 4.5 tph char	Maximum Annual Throughput: 28,000 tpy char	Maximum Operating Schedule: 8,760 hours/yr
--	--	--

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? Not applicable <input type="checkbox"/> Indirect Fired <input checked="" type="checkbox"/> Direct Fired
--	--

Maximum design heat input and/or maximum horsepower rating: One (1) Low NOx burner @ 40 MMBtu/hr (ACC burner) Four (4) burners @ 4 MMBtu/hr, each (Retort Furnace burners)	Type and Btu/hr rating of burners: 40 MMBtu/hr 4 MMBtu/hr, each
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List the primary fuel type(s) and if applicable, the secondary fuel type(s). For each fuel type listed, provide the maximum hourly and annual fuel usage for each.
Natural gas

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

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

Emissions Data

Criteria Pollutants	Potential Emissions	
	PPH	TPY
Carbon Monoxide (CO)	See Appendix C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY

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

Applicable Requirements

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

(Per Title V Operating Permit No R30-05700003-2003)

5.1. Limitations and Standards

- 5.1.1. The Multi-Hearth Retort Furnace, Equipment ID E-03-02, shall process no more than 18 tons of dry wood per hour. [45CSR13, R13-2117D, A.2.]
- 5.1.2. The permittee shall produce no more than 4.5 tons of wood char per hour or 28,000 tons of wood char per year. [45CSR13, R13-2117D, A.5.]
- 5.1.3. Emissions generated as a result of the operation of the Multi-Hearth Retort Furnace shall be routed to and combusted by the After Combustion Chamber, Control Device ID C-08, prior to their release to the atmosphere. [45CSR13, R13-2117D, A.3.]
- 5.1.4. The control devices in the Emission Units Table 1.0. for the Multi-Hearth Retort Furnace, shall be maintained and operated in a manner consistent with good air pollution control practice for minimizing emissions. [45CSR§30-5.1.c.]
- 5.1.5. The permittee shall inspect all control systems, specified in the Emission Units Table 1.0 for the Multi-Hearth 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 be used to demonstrate compliance. If the method is based on a permit or rule, include the condition number or citation. (Note: Each requirement listed above must have an associated method of demonstrating compliance. If there is not already a required method in place, then a method must be proposed.)

(Per Title V Operating Permit No R30-05700003-2003)

5.1. Recordkeeping Requirements

- 5.2.1. The permittee shall maintain accurate records on the amount of dry wood charged to the Multi-hearth Retort Furnace. [45CSR13, R13-2117D, B.7.]
- 5.2.2. The permittee shall maintain accurate records on the hours of operation of the Multi-hearth Retort Furnace on a daily basis. According to the facility process specifications, hours of operation of the Multi-hearth Retort Furnace are equivalent to the time to load trailers with finished wood char. [45CSR§ 30-5.1.c.]
- 5.2.3. Compliance with the hourly maximum limit [of the amount of dry wood charged to the Multi-hearth Retort Furnace] shall be calculated on the basis of a rolling thirty day average expressed in pounds per hour based on the hours of production for any specific 30 day period. Said records shall be certified by a responsible official and maintained on site for a period of no less than five (5) years. [45CSR13, R13-2117D, B.7.]
- 5.2.4. The permittee shall maintain accurate records on the amount of wood char produced by the facility. The permittee shall keep accurate records of the date and time to load each truck at the Beryl Facility (production time), the quantity (tons) of char loaded on each truck and the monthly total of char produced. The rate of char production will then be utilized to back calculate the amount of wood charged to the process. Said records shall be certified by a responsible official and maintained on site for a period of no less than five (5) years. [45CSR13, R13-2117D, B.7.]

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.

Applicable Requirements (Continued)

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

See above.

Permit Shield

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

(Per Title V Operating Permit No R30-05700003-2003)

5.1. Recordkeeping Requirements (continued)

5.2.5. Compliance with the hourly maximum limit [of wood char produced] shall be calculated on the basis of a rolling thirty day average expressed in tons per hour based on the hours of production for any specific 30 day period. [45CSR13, R13-2117D, B.7.]

5.2.6. Compliance with the yearly char production limit shall be determined using a rolling yearly total. A rolling yearly total shall mean the sum of char production, in tons, at any given time for the previous twelve (12) months. [45CSR13, R13-2117D, B.7.]

5.2.7. The permittee shall maintain records of the results of weekly inspections of the control systems per Requirement 5.1.5. 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. Such records 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. [45CSR§30-5.1.c.]

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

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

ATTACHMENT E - Emission Unit Form

Emission Unit Description

Emission unit ID number: 004-01 and 02 Paved Roads	Emission unit name: End loader traffic (E-04-01) Vehicle Traffic (E-04-02)	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.):
A front end loader (E-04-01) is used to move wet bark from the bark conveyor drop (E-01-03) to the wood and mulch piles (E-01-01, 02). Char and mulch are transferred out of the facility using tractor trailers (E-04-02). Plant traffic has been greatly reduced since the installation of the bark conveyor (E-01-03) which reduced the need to transport bark into the plant using trucks.

Manufacturer: Not applicable	Model number: Not applicable	Serial number: Not applicable
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Construction date: 1990	Installation date: Not applicable	Modification date(s): Not applicable
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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
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Fuel Usage Data (fill out all applicable fields)

Does this emission unit combust fuel? ___ Yes <u>X</u> No	If yes, is it? Not applicable ___ 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 C	
Nitrogen Oxides (NO _x)		
Lead (Pb)		
Particulate Matter (PM ₁₀)		
Total Particulate Matter (TSP)		
Sulfur Dioxide (SO ₂)		
Volatile Organic Compounds (VOC)		
Hazardous Air Pollutants	Potential Emissions	
	PPH	TPY
Regulated Pollutants other than Criteria and HAP	Potential Emissions	
	PPH	TPY
<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.). See Appendix C</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.

See E-01-01,02,03 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-01-01,02,03 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 F - Schedule of Compliance Form NOT APPLICABLE

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

1. Applicable Requirement

Unit(s):

Applicable Requirement:

2. Reason for Noncompliance:

3. How will Compliance be Achieved?

4. Consent Order Number (if applicable):

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

Remedial Measure or Action

Date to be Achieved

6. Submittal of Progress Reports.

Content of Progress Report:

Report starting date: MM/DD/YYYY

Submittal frequency:

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number: C-05 Primary Dryer Cyclone	List all emission units associated with this control device. E-03-01 Rotary Wood Dryer
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Manufacturer: Heil	Model number: None	Installation date: 1963
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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 checked="" type="checkbox"/> Single Cyclone
<input type="checkbox"/> Carbon Drum(s)	<input type="checkbox"/> Other Wet Scrubber	<input type="checkbox"/> Cyclone Bank
<input type="checkbox"/> Catalytic Incinerator	<input type="checkbox"/> Condenser	<input type="checkbox"/> Settling Chamber
<input type="checkbox"/> Thermal Incinerator	<input type="checkbox"/> Flare	<input type="checkbox"/> Other (describe) _____
<input type="checkbox"/> Wet Plate Electrostatic Precipitator	<input type="checkbox"/> Dry Plate Electrostatic Precipitator	

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

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10	100%	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 this cyclone for the primary purpose of material recovery. The recovered material is sent to the retort and the exhaust gas goes on to the secondary dryer cyclones (C-06).

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 the requirements for the ACC (C-08).

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
C-06 Two (2) Secondary Dryer
Cyclones

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

Manufacturer:
Fisher-Klosterman

Model number:
XQ 120-41

Installation date:
1997

Type of Air Pollution Control Device:

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

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

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10	100%	90+%

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

The primary dryer cyclone (C-05) exhaust is passed through two (2), 22,000 cfm secondary dryer cyclones (C-06) in parallel for the purpose of material recovery. The recovered wood is mixed with char and shipped offsite. 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).

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
C-07 Two (2) Furnace Cyclones

List all emission units associated with this control device.
E-03-02 Multi-hearth Retort Furnace

Manufacturer:
Fisher-Klosterman

Model number:
XQ 120-27-2.75CR

Installation date:
1997

Type of Air Pollution Control Device:

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

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

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10	100%	90+%

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

The retort furnace E-03-02) exhaust is passed through two (2) 11,000 cfm furnace cyclones (C-07) in parallel for the purpose of material recovery. The recovered wood is mixed with char, conveyed to the char trailers and shipped offsite. 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).

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 E-03-02 Multi-hearth Retort Furnace	
Manufacturer: Kingsford Mfg. Co.	Model number: None	Installation date: 1997

Type of Air Pollution Control Device:

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

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

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

Explain the characteristic design parameters of this control device (flow rates, pressure drops, number of bags, size, temperatures, etc.).
 The purpose of the ACC is waste heat energy recovery and control of particulates, CO and VOC. Volatile gases from the retort furnace are ducted by the furnace cyclones (C-07) 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 (S-02). A low-NOx natural gas burner (40 MMBtu) is used during startups short duration maintenance shutdowns, and periodically during operation to maintain ACC temperatures above 1,400°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.

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 R30-05700003-2003)

6.1. Limitations and Standards

6.1.1. Emissions generated as a result of the operation of the After Combustion Chamber shall be limited to the following:

Pollutant	Maximum Allowable Emissions	
	(lbs/hr)	(tons/yr)
CO	8.93	28.82
NOx	65.7	182
PM	49	158.2
PM10	29.4	94.9
SO2	17	42
VOC	2.52	8.1

[45CSR13, R13-2117D, A.4.]

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

6.1.3. 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.]**

6.2. Monitoring Requirements

6.2.1. The permittee shall install, calibrate, maintain, and operate a monitoring device with recorder for the measurement of the ACC combustion chamber temperature. The monitoring device is to be certified by the manufacture to be accurate within + one (1) percent in degrees Fahrenheit. **[45CSR§30-5.1.c.]**

6.2.2. Compliance with the hourly emission limits set forth in Requirement 6.1.1. will be demonstrated if the ACC combustion chamber temperature is maintained at or above a minimum of 1,400°F during normal operations (not including periods of system startup, shutdown or maintenance). **[45CSR§30-5.1.c.]**

6.2.3. Compliance with Section 3 of 45CSR7 and with requirement of Section 6.1.2. of this Permit shall be determined by conducting daily visual emission observations in accordance with Method 22 of 40 CFR 60, Appendix A for emission point S-02. These observations shall be conducted during periods of normal facility operation for a sufficient time interval to determine if the unit has visible emissions using procedures outlined in 40CFR60 Appendix A, Method 22. If sources of visible emissions are identified during the survey, the permittee shall conduct an Opacity Evaluation as outlined in 45CSR7A-2.1.a,b, within 24 hours. A 45CSR7A-2.1.a,b evaluation shall not be required if the visible emission condition is corrected in a timely manner and the units are operated at normal operating conditions with no visible emissions being observed. Records shall be maintained on site reporting the results of each test. An Opacity Evaluation shall only be conducted by an employee or contractor certified in 40CFR60 Appendix A, Method 9 . Upon observing any visible emissions during an Opacity Evaluation in excess of twenty percent (20%) opacity (but less than forty percent (40%) opacity) for any period or periods aggregating more than five (5) minutes in any sixty (60) minute period, or upon observing any visible emissions in excess of forty percent (40%) opacity, the Company shall submit a written report, certified by a responsible official, to the Director of the Division of Air Quality within five (5) days after taking said reading. When in compliance on a daily basis for four (4) consecutive weeks, then the observation frequency shall be decreased to a once-a-week sampling schedule. If an exceedance of the opacity limit is measured, then the observation frequency shall be reverted to the once-a-day sampling schedule and begin the progressive monitoring cycle again. **[45CSR13, R13-2117D, B.6. 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 R30-05700003-2003)

6.2. Monitoring Requirements (continued)

6.2.4. Each opacity evaluation observation per 45CSR§ 7A-2.1.a,b (6.2.3.) shall be a minimum of six (6) minutes (24 single fifteen (15) second readings) without averaging of results, unless any one fifteen (15) second 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 fifteen (15) second readings of opacity 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. The permittee shall demonstrate compliance with the emission limits set forth in Requirement 6.1.1. by conducting performance tests utilizing the methods listed below. The performance tests shall be conducted in accordance with the schedule specified in Condition 6.3.2.

Test Method	Pollutant
EPA Reference Method 5	PM
EPA Reference Method 201 and 202	PM10
EPA Reference Method 6	SO ₂
EPA Reference Method 7E	NO _x
EPA Reference Method 10	CO
EPA Reference Method 18, 25 or 25A	VOC

This compliance testing shall be conducted in accordance with corresponding U.S. EPA test method. The Director may require a different test method or approve an alternative method in light of any new technology advancements or special operating conditions that may occur. [45CSR13, R13-2117D, B.5. and 45CSR§30-5.1.c.]

6.3.2. Stack testing per Requirement 6.3.1. shall be performed in accordance with 40 C.F.R. 60, Appendix A, once per permit term within the first 14 months of the Permit issuance. The permittee shall submit an emissions testing protocol for DAQ review within 180 days after issuance of the permit. Results from such testing shall be submitted to the Director within sixty (60) days from the date of completion of said testing. The test shall demonstrate that the ACC unit can operate at the maximum processing rate specified in Requirements 4.1.1. and 5.1.1. in compliance with the emissions limits set forth in Requirement 6.1.1. [45CSR§30-5.1.c.]

6.4. Recordkeeping Requirements

6.4.1. Records shall be maintained on site reporting the results of each visible emission test (as per Requirement 6.2.3.). A record of each visible emission check required above shall be maintained on site for a period of no less than five (5) years. Said record shall include, but not be limited to, the date, time, name of emission unit, the applicable visible emissions requirement, the results of the check, what action(s) if any, was/were taken, and the name of the observer. [45CSR13, R13-2117D, B.6. and 45CSR§30-5.1.c.]

6.4.2. The combustion chamber temperature records per Requirement 6.2.2 shall be recorded hourly and maintained on site for a period of at least five years and be made available to the Director or his/her duly authorized representative upon request. [45CSR§30-5.1.c.]

6.4.3. To demonstrate compliance with Requirement 6.1.3. 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.]

6.5. Reporting Requirements

6.5.1. Reporting shall be initiated as noted in 6.2.3.

ATTACHMENT G - Air Pollution Control Device Form

Control device ID number:
C-09 Wet Scrubber

List all emission units associated with this control device.
E-02-09 Char to Trailer

Manufacturer:
Hosokawa

Model number:
30DS.2

Installation date:
1999

Type of Air Pollution Control Device:

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

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

Pollutant	Capture Efficiency	Control Efficiency
PM/PM10	100%	90+%

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

The char conveying system and char truck loading operations are controlled by a wet scrubber. The scrubber is used to control dust from the char transfer process. The scrubber water is discharged to an onsite settling pond.

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.** Potential uncontrolled PM emissions have been calculated to be less than 100 tpy for the scrubber.

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

See the requirements for material handling and transfer operations (E-02-01 through 11).

ATTACHMENT H - Compliance Assurance Monitoring (CAM) Plan Form

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

CAM APPLICABILITY DETERMINATION

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

YES NO

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

LIST OF EXEMPT EMISSION LIMITATIONS OR STANDARDS:

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

BASIS OF CAM SUBMITTAL

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

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

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

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

3) ^a BACKGROUND DATA AND INFORMATION

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

PSEU DESIGNATION	DESCRIPTION	POLLUTANT	CONTROL DEVICE	^b EMISSION LIMITATION or STANDARD	^c MONITORING REQUIREMENT
E-03-01 E-03-02	Rotary Wood Dryer/Multi-Hearth Furnace	CO	ACC (C-08)	Title V permit condition 6.1.1: 8.93 lb/hr	ACC operating temperature must be continuously monitored and maintained above 1,400F
		VOC	ACC (C-08)	Title V permit condition 6.1.1: 2.52 lb/hr	ACC operating temperature must be continuously monitored and maintained above 1,400F
		PM/PM10	ACC (C-08)	Title V permit condition 6.1.1: 49/29.4 lb/hr	ACC operating temperature must be continuously monitored and maintained above 1,400F
<u>EXAMPLE</u> Boiler No. 1	Wood-Fired Boiler	PM	Multiclone	45CSR§2-4.1.c.; 9.0 lb/hr	Monitor pressure drop across multiclone: Weekly inspection of multiclone

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

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

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

CAM MONITORING APPROACH CRITERIA

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

4a) PSEU Designation: E-03-01 E-03-02	4b) Pollutant: PM/PM10 CO, VOC	4c) ^a Indicator No. 1: ACC combustion temperature	4d) ^a Indicator No. 2:
5a) GENERAL CRITERIA Describe the <u>MONITORING APPROACH</u> used to measure the indicators:		Thermocouple and datalogger used to continuously monitor ACC combustion temperature.	
^b Establish the appropriate <u>INDICATOR RANGE</u> or the procedures for establishing the indicator range which provides a reasonable assurance of compliance:		ACC combustion temperatures above 1,400°F (3-hour average) indicate adequate combustion efficiency for oxidation of CO, VOC and carbonaceous PM pollutants.	
5b) PERFORMANCE CRITERIA Provide the <u>SPECIFICATIONS FOR OBTAINING REPRESENTATIVE DATA</u> , such as detector location, installation specifications, and minimum acceptable accuracy:		Thermocouple is located in a representative location in the ACC combustion chamber.	
^c For new or modified monitoring equipment, provide <u>VERIFICATION PROCEDURES</u> , including manufacturer's recommendations, <u>TO CONFIRM THE OPERATIONAL STATUS</u> of the monitoring:		N/A – Existing temperature monitoring system.	
Provide <u>QUALITY ASSURANCE AND QUALITY CONTROL (QA/QC) PRACTICES</u> that are adequate to ensure the continuing validity of the data, (i.e., daily calibrations, visual inspections, routine maintenance, RATA, etc.):		Monthly thermocouple accuracy checks will be conducted. A second thermocouple will be placed in the ACC combustion chamber and acceptance criterion will be that the two thermocouples are +/- 100°F.	
^d Provide the <u>MONITORING FREQUENCY</u> :		Temperatures are measured every second and averages will be calculated every 15 seconds and datalogged.	
Provide the <u>DATA COLLECTION PROCEDURES</u> that will be used:		Temperature data will be electronically datalogged.	
Provide the <u>DATA AVERAGING PERIOD</u> for the purpose of determining whether an excursion or exceedance has occurred:		Temperatures will be averaged for each one-hour period. One-hour temperature averages will be compared with an “excursion level” of 1,450°F. Rolling three-hour temperature averages will be computed and compared with the exceedance level of 1,400°F.	

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

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

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

RATIONALE AND JUSTIFICATION

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

6a) PSEU Designation:

E-03-01

E-03-02

6b) Regulated Air Pollutant:

PM/PM10

CO, VOC

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

The ACC is a thermal oxidizer used to oxidize CO, VOC and carbonaceous particulate pollutants generated by the rotary wood dryer (E-03-01) and the multi-hearth retort furnace (E-03-02). Combustion temperatures are maintained above 1,400°F by the combustible furnace off-gases and by supplemental heat provided by the ACC natural gas-fired burner. Maintaining combustion temperatures above 1,400°F, coupled with the gas mixing and residence times inherent in the design of the ACC, will ensure adequate destruction efficiency of VOC, CO and PM pollutants.

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

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

RATIONALE AND JUSTIFICATION:

The existing Title V permit for the Beryl plant requires that the ACC temperature be maintained above 1,400°F. This temperature limit was established by KMC through an engineering assessment as part of the minor NSR permit application for the installation of the ACC in 1998. The ACC is designed to achieve good mixing of the dryer and furnace exhaust gases and to achieve a residence time in excess of 1.0 second. The combination of the ACC design and a minimum combustion temperature of 1,400°F is adequate to achieve VOC and CO destruction efficiencies in excess of 99% and to meet the PM/PM10 emission limits specified in the Beryl Title V permit.

**APPENDIX B
CAM PLANS**

APPENDIX B - CAM PLANS

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

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

B.1 CAM APPLICABILITY

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

The sources that employ air pollution control devices at the Beryl facility are:

- E-03-01 & E-03-02 – Rotary wood dryer and multi-hearth furnace employ the ACC thermal oxidizer.
- E-02-09 – Char conveying system which employs a wet scrubber

The CAM Rule excludes devices that are primarily used for product recovery from the definition of “control device”. The cyclone collectors (C-04, C-06, C-07) serving the rotary wood dryer and the multi-hearth furnace (E-03-01 & E-03-02) are designed to recover product and are therefore not considered control devices in the CAM Rule. Consequently, KMC will not be

proposing CAM for the cyclones. KMC does consider the ACC thermal oxidizer to be a control device for both the charring and drying operation (E-03-01 & 02) and is addressing ACC monitoring in the CAM Plans for these units.

KMC is addressing CAM requirements for the ACC thermal oxidizer serving both the drying and charring operation (E-03-01 & 02). The ACC is a control device for the pollutants PM, CO, and VOC. Pre-control emission rates for these pollutants are believed to exceed 100 tpy for each pollutant. CAM is not triggered for SO₂ and NO_x since the ACC does not control these pollutants.

KMC has evaluated applicability of CAM to the remaining scrubber based on pre-control emission rates of PM. KMC has calculated a pre-control emission rate of less than 100 tpy PM for the wet scrubber serving the char handling operations. This rate was calculated based on the controlled PM emission rate and an assumed PM removal efficiency of 90%. Due to the fact that the pre-control emission rate does not exceed the 100 tpy threshold, KMC will not be addressing CAM for the scrubber.

B.2 CAM PLAN FOR E-03-01 & 02 DRYING/CHARRING SYSTEM ACC OXIDIZER

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

Although oxidizers are not typically considered to be PM control devices, the ACC is designed to achieve very high destruction efficiency for fine combustible wood particulate matter. The ACC is designed to achieve very high residence times (in excess of 1 second), turbulent mixing, and high temperatures (in excess of 1,400°F) to ensure that the combustible fraction of the fine wood particles from the cyclone exhausts are fully combusted. KMC estimates that the combustible fraction of the wood fines is approximately 95% and that the inorganic ash fraction is approximately 5%. This demonstrates that the ACC is capable of destroying up to

approximately 95% of the PM/PM₁₀ emissions exhausted from the cyclones. As such, the ACC is considered by KMC the primary PM/PM₁₀ emissions control device for the charring and drying operations (E-03-01 & 02). The CAM Plan therefore addresses ACC parametric monitoring to ensure high PM/PM₁₀ emissions destruction in the ACC.

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

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

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

1) ACC Temperature Monitoring

- Exceedance if ACC temperature drops below 1,400°F (3-hour average) during normal operation (not including startups/shutdowns/malfunctions/maintenance)
- Excursion if ACC temperature drops below 1,450°F (1-hour average) during normal operations, triggering need for corrective actions

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

Table B-1

ACC Combustion Temperature

Parametric Monitoring and Monitoring Performance Criteria

Measured Parameter	ACC combustion temperature measured with a Type K thermocouple.
Rationale for Measured Parameter	A minimum combustion temperature in the ACC is required to maintain adequate destruction efficiencies of organic material that could otherwise condense in the atmosphere as fine particulate.
Parameter Ranges and Set Points	The ACC combustion temperature is controlled by operators based on wood feed rates, moisture content of the wood, and other process variables. Due to equipment design limitations, the combustion temperature is typically kept below 2,200 F with tempering air. The ACC temperature will be maintained above 1,400 F based on a rolling three-hour average. An exceedance will be defined as a 3-hour rolling average temperature <1,400 F.
Alarms	An on-screen alarm will energize if the ACC temperature during normal operations is less than 1,450 F (1-hour average).
Data Representativeness	The ACC thermocouple is located in a representative location in the ACC stack.
QA/QC Practices and Criteria	Accuracy of each thermocouple will be verified by a second thermocouple in the ACC stack. The validation check will be conducted monthly. The acceptance criterion is +/- 100 F.
Monitoring Frequency	Temperatures are measured every second and displayed on one of the control room computer screens.
Data Collection Procedure	Average ACC combustion temperatures will be recorded every hour.
Averaging	Averages will be calculated using real data collected every 15 seconds.
Data Retention	The data will be retained for a minimum of 5 years.

APPENDIX C
FACILITY EMISSIONS

**TABLE C-1
FACILITY POTENTIAL EMISSIONS
KINGSFORD MANUFACTURING CO. - BERYL, WEST VIRGINIA**

Source	Potential Annual Emissions (tons/yr)						Potential Maximum Hourly Emissions (lbs/hr)					
	NO _x	CO	VOC	SO ₂	PM	PM ₁₀	NO _x	CO	VOC	SO ₂	PM	PM ₁₀
Wood Pile Management and Traffic					6.45	3.03					1.47	0.69
Material Handling					0.86	0.54					0.20	0.12
Charring and Drying	182.00	28.82	8.10	42.00	158.20	94.90	65.70	8.93	2.52	17.00	49.00	29.40
Plant Roadways					6.85	3.26					1.56	0.74
Storage Tanks				0.22					0.05			
Total	182.00	28.82	8.10	42.00	172.35	101.73	65.70	8.93	2.52	17.00	52.23	30.96

Source	Operating Schedule (hr/yr)	Units	Maximum Annual Production (ton/yr)	Average Hourly Production (ton/hr)	Maximum Hourly Production (ton/hr)	Yield (wood:char)	Wood Moisture Content (%)
Wood Pile	8,760	Wood (wet)	224,000			4.00	50%
		Wood (dry)	112,000				
Mulch Pile	8760	Mulch (wet)	33,900				
		Mulch (dry)	16,950				
ACC	8,760	Char	28,000	3.20	4.50		

**TABLE C-2
STORAGE PILE POTENTIAL EMISSIONS
KINGSFORD MANUFACTURING CO. - BERYL, WEST VIRGINIA**

EMISSIONS UNIT NUMBER	EMISSIONS POINT NUMBER	NAME OF EMISSIONS UNIT	THROUGHPU T	THROUGHPU T	EMISSION FACTOR	CONTROL FACTOR	HOURLY PM EMISS. RATE	PM ₁₀ EMISS. RATE	ANNUAL PM EMISS. RATE	PM ₁₀ EMISS. RATE
			(WET TONS)	(DRY TONS)	(LB/DRY TON)		(LBS)	(LBS)	(TONS)	(TONS)
01	01	BARK PILE	224,000	112,000	0.1		1.28	0.60	5.60	2.63
	02	MULCH PILE	33,900	16,950	0.1		0.19	0.09	0.85	0.40
TOTALS							1.47	0.69	6.45	3.03

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

EMISSIONS UNIT NUMBER	EMISSIONS POINT NUMBER	NAME OF EMISSIONS UNIT	ANNUAL TPY/NORMAL CFM	PM EMISSION FACTOR*	PM ₁₀ EMISSION FACTOR	CONTROL FACTOR	HOURLY PM EMISS. RATE	HOURLY PM ₁₀ EMISS. RATE	ANNUAL PM EMISS. RATE	ANNUAL PM ₁₀ EMISS. RATE
			(WET TONS)	(LB/WET TON) (GR/CF)	(LB/WET TON) (GR/CF)		(LBS)	(LBS)	(TONS)	(TONS)
02	01	TRANSFER TO HOPPER BY END LOADER	257,900	9.19E-04	4.35E-04	0	0.027069572	0.012803176	0.119	0.056
02	02	HOPPER REVERSE CHAIN TO GROUND	257,900	9.19E-04	4.35E-04	0	0.027069572	0.012803176	0.119	0.056
02	03	HOPPER TO 48" BELT	257,900	9.19E-04	4.35E-04	0	0.027069572	0.012803176	0.119	0.056
02	04	48" BELT INTO HOG	257,900	9.19E-04	4.35E-04	0	0.027069572	0.012803176	0.119	0.056
02	05	SCRAPE BOTTOM OF 48" BELT TO GROUND	258	9.19E-04	4.35E-04	0	2.70696E-05	1.28032E-05	0.000	5.61E-05
02	06	BLOCK CONVEYOR TO LIVE BOTTOM BI	224,000	9.19E-04	4.35E-04	0	0.023511377	0.01120246	0.103	0.049
02	07	MULCH CHUTE TO GROUND	33,900	9.19E-04	4.35E-04	0	0.003558195	0.00168293	0.016	0.007
02	08	WOOD BYPASS SCREW TO HOPPER	124	9.19E-04	4.35E-04	0	1.30619E-05	6.17791E-06	5.72E-05	2.71E-05
SUBTOTAL							0.135	0.064	0.593	0.280
02	09	CHAR TO TRAILER	700	0.1	0.1	0.9	0.06	0.06	0.263	0.263
TOTALS							0.20	0.12	0.86	0.54

*PM and PM₁₀ emission factors estimated per AP-42, Section 13.2.4

Emissions Factor = Particle Size Multiplier x 0.0032 x (Wind Speed/5)^{1.3} / (Moisture Content/2)^{1.4}
per AP-42, Section 13.2.4.

Particle size multiplier = 0.74 for PM₃₀, 0.35 for PM₁₀.

Wind speed = 6.2 mph

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

**TABLE C-4
ACC POTENTIAL EMISSIONS
KINGSFORD MANUFACTURING CO. - BERYL, WEST VIRGINIA**

Emissions Unit Number	Emissions Point Number	Name of Emissions Point	Pollutant	Maximum Annual Char Production (tons/yr)	Maximum Hourly Char Production (tons/hr)	Emission Factor (lbs/ton char)	Control Efficiency (%)	ACC Stack Emission Rate ^a	
								(lb/hr)	(ton/yr)
03	01/02	Drying/Charring System	VOC	28,000	4.5	N/A	N/A	65.7	182
			CO	28,000	4.5	N/A	N/A	8.93	28.82
			VOC	28,000	4.5	N/A	N/A	2.52	8.1
			SO ₂	28,000	4.5	N/A	N/A	17	42
			PM	28,000	4.5	N/A	N/A	49	158.2
			PM ₁₀	28,000	4.5	N/A	N/A	29.4	94.9

^aCriteria pollutant ACC emission rates from current permit (R30-05700003-2003).

**TABLE C-5
PLANT ROAD POTENTIAL EMISSIONS
KINGSFORD MANUFACTURING CO. - BERYL, WEST VIRGINIA**

Emissions Unit Number	Emissions Point Number	Path	Throughput (tons)	Truck Payload (tons)	Round Trips (#)	Round Trip Distance (miles)	Annual VMT (miles)	Operating Schedule (hours/yr)	Pollutant	Emission Factor (lbs/VMT)	Emission Rate (lb/hr)	Emission Rate (tons/yr)
04	01	Hogfuel	224,000	7	32,000	0.102	3,273	8,760	PM	3.23	1.21	5.29
								8,760	PM10	1.58	0.59	2.58
		Beryl Outbound	28,000	14	2,000	0.140	280	8,760	PM	2.72	0.09	0.38
								8,760	PM10	1.33	0.04	0.19
		Mulch Lower End (Dirty)	22,600	20	1,130	0.106	120	8,760	PM	3.23	0.04	0.19
								8,760	PM10	1.58	0.02	0.09
		Mulch Lower End (Clean)	22,600	20	1,130	0.091	103	8,760	PM	2.72	0.03	0.14
								8,760	PM10	1.33	0.02	0.07
		Mulch Upper End	11,300	20	565	0.303	171	8,760	PM	8.29	0.16	0.71
								8,760	PM10	2.98	0.06	0.26
		Routine Traffic					100	8,760	PM	2.72	0.03	0.14
								8,760	PM10	1.33	0.02	0.07
		Total							PM		1.56	6.85
									PM10		0.74	3.26

**TABLE C-6
STORAGE TANK POTENTIAL EMISSIONS
KINGSFORD MANUFACTURING CO. - BERYL, WEST VIRGINIA**

Emissions Unit Number	Emissions Point Number	Name of Emissions Point	Pollutant	Capacity (gal)	Emission Rate ^a	
					(lb/hr)	(ton/yr)
05	01	Gasoline Tank	VOC	1,000	0.05	0.22
05	02	Diesel Tank	VOC	1,000	Neg.	Neg.
					0.05	0.22

^aTank emissions calculated based on EPA Tanks 4.0 program and a throughput of 52,000 gallons per year per tank.