Permit by Rule (PBR) Registration
Technical Review

Company:	Cinder Residuals Texas LLC	**Registration No.:**	179384
Nearest City:	Fairfield	**Project No.:**	390075
County:	Freestone	**Project Type:**	Initial
Project Reviewer:	Amanda Andrews	**Regulated Entity No.:**	RN112170113
Unit Name:	Big Brown Scm	**Customer Reference No.:**	CN606363125
PBR No(s).:	106.183, 106.261, 106.262	**Project Received Date:**	March 11, 2025
Physical Location:	850 Fm 2570		

Project Overview / Process Description
Cinder Residuals Texas LLC (Cinder) has submitted form PI-7-CERT and supporting documentation to authorize emissions from an ash reclamation and processing facility located in Fairfield, Freestone County, Texas.

This registration package is being submitted to register emissions from an ash storage building, an ash dryer burner, and several baghouses that control emissions from the various sorting, screening, processing, storage, and loading operations to be constructed on site.

Cinder plans to construct ash reclamation and processing facility to reclaim boiler ash that has been deposited at the site for many years. Boiler ash at approximately 10% moisture is transported to an on-site ash storage building using front-end loaders and trucks. From the ash storage building, the ash is conveyed to an ash dryer. The ash dryer burner heats air to dry the boiler ash. The ash dryer burner has a maximum heat input of 35 MMBTU/hr and is fueled with sweet natural gas. After the dryer, the ash is conveyed through a number of sorting, separating, and screening processes before it is stored in five storage silos prior to loading onto trucks for transportation off site. All of the emissions from the drying, processing, silo storage, and loading of the ash are controlled using nine separate baghouses. A maximum of 40 tons per hour and 120,000 tons per year will be processed in the facility.

Permit by Rule Requirements - 30 TAC Chapter 106

General Requirements	
Registration Fee Reference No.:	**Application fee: 757021 / 582EA000658878** **Surcharge fee: 757022 / 582EA000658878**
Is this registration certified?	**Yes**
Is planned MSS included in the registration?	**No**
Are there affected NSR or Title V authorizations for the project?	**No**
Are there any upstream or downstream affects associated with this registration?	**No**
Are associated upstream/downstream emissions either included in the registration OR within current permitted limits with no changes to underlying air authorizations for the applicable units regarding BACT, health and environmental impacts, or other representations.	**NA**
Are emissions for each PBR authorized facility less than the § 106.4(a)(1) limits?	**Yes**
Are total emissions from all sitewide PBR authorized facilities less than the § 106.4(a)(4) limits, OR has the site been subject to public notice requirements? **Meets 106.4 requirements.**	**Yes**
Are there permit limits on using PBRs at the site?	**No**
Is the facility in compliance with all other applicable rules and regulations?	**Yes**
Does the registration include an appropriate PBR workbook, and has the workbook been verified?	**Yes**

Federal Applicability	
Does this project trigger a PSD or Nonattainment review?	**No**
Does the Major NSR applicability analysis include all associated upstream and/or downstream emissions?	**NA**
Are there any applicable standards under NSPS, NESHAP, or NESHAP for source categories (MACT)?	**No**

Permit by Rule Requirements - Compliance Demonstrations

PBR 106.183 Boilers, Heaters, And Other Combustion Devices

Boilers, heaters, drying or curing ovens, furnaces, or other combustion units, but not including stationary internal combustion engines or turbines are permitted by rule, provided that the following conditions are met.

(1) The only emissions shall be products of combustion of the fuel.

(2) The maximum heat input shall be **35 million British thermal unit (Btu)** per hour with the fuel being:

(2)(A) **sweet natural gas;**

(3) Distillate fuel oil shall be fired as a backup fuel only. Firing shall be limited to 720 hours per year. The fuel oil shall contain less than 0.3% sulfur by weight and shall not be blended with waste oils or solvents.

(4) All gas fired heaters and boilers with a heat input greater than ten million Btu per hour (higher heating value) shall be designed such that the emissions of nitrogen oxides shall not exceed 0.1 pounds per million Btu heat input.

(5) Records of hours of fuel oil firing and fuel oil purchases shall be maintained on-site on a two-year rolling retention period and made available upon request to the commission or any local air pollution control agency having jurisdiction.

PBR 106.261/262 Facilities (Emission Limitations / Emission and Distance Limitations)

- The emission point(s) associated with the facilities or changes to facilities are **located 2299 ft** from the nearest off-site receptor.
- The total new or increase emissions will comply with the applicable hourly and annual emission limits as represented in the table below.
- NA – No chemicals for this section.
- There are no changes to or addition of any pollution abatement equipment.
- Visible emissions to the atmosphere, from any point or fugitive source, do not exceed 5.0 percent opacity in any six-minute period.
- This registration does not authorize construction or changes to a facility authorized under another section of this chapter or under standard permit.

Compliance History and Site Review

In accordance with 30 TAC Chapter 60, a compliance history report was reviewed on:			**March 14, 2025**
Site rating / classification:	**N/A**	Company rating / classification:	**N/A**
Has any action occurred on the basis of the compliance history or rating?			**No**
Did the Regional Office provide site approval and confirm distances?			**NA**

106.261(a)(2) Emissions

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	Emission Threshold (lb/hr)	Emission Threshold (tpy)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)	Meets Threshold?
Alumina	PM		6	10	1.36E-01	2.04E-01	Yes
Iron Oxide Dust	PM		6	10	1.26E-02	1.90E-02	Yes
Zinc Oxide	PM		6	10	4.52E-05	6.77E-05	Yes

106.261(a)(3) Emissions

Chemical	Criteria Pollutant Designation	L Value (mg/m^3)	CAS No. (optional input)	Emission Threshold (lb/hr)	Emission Threshold (tpy)	Hourly Emissions (lb/hr)	Annual Emissions (tpy)	Meets Threshold ?
Silicon Dioxide	PM			1	4.38	2.70E-01	4.05E-01	Yes
Sulfur Trioxide	PM			1	4.38	9.03E-05	1.35E-04	Yes
Sodium Carbonate	PM			1	4.38	1.08E-03	1.63E-03	Yes
Potassium Oxide	PM			1	4.38	1.09E-02	1.64E-02	Yes

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Phosphorus Pentoxide	PM			1	4.38	3.61E-04	5.42E-04	Yes
Strontium Oxide	PM			1	4.38	2.26E-04	3.39E-04	Yes
Barium Oxide	PM			1	4.38	5.42E-04	8.13E-04	Yes

106.262(a)(2) Distance

Distance to nearest off-plant receptor (feet):	2299
K value:	12.206

106.262(a)(2) Emissions – Table 262

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m^3)	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
Chromium Metal, Chromium II and III Compounds	PM		0.1	8.19E-03	3.59E-02	1.35E-04	2.03E-04	Yes

106.262(a)(2) Emissions – 1997 ACGIH Guide

Chemical	Criteria Pollutant Designation	CAS No. (optional input)	L Value (mg/m^3)	E, maximum Hourly Emission Threshold (lb/hr)	Actual Emission Threshold (tpy)	Actual Hourly Increases (lb/hr)	Actual Annual Increase (tpy)	Meets Threshold?
Calcium oxide	PM	1305-78-8	2	1.64E-01	7.18E-01	3.30E-03	4.95E-03	Yes
Magnesium oxide fume	PM	1309-48-4	10	8.19E-01	3.59E+00	3.75E-03	5.62E-03	Yes
Titanium dioxide	PM	13463-67-7	10	8.19E-01	3.59E+00	7.23E-03	1.08E-02	Yes
Manganese - elemental and inorganic compounds	PM	7439-96-5	0.2	1.64E-02	7.18E-02	9.03E-05	1.35E-04	Yes

Total 106.261/262 Combined Emissions

	Total Hourly Emissions (lb/hr)	Total Annual Emissions (tpy)
Total Emissions:	0.4465	0.6696

NOTE: PM includes PM_{10} and $PM_{2.5}$ in speciation.

Emission Summary

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EPN / Emission Source	VOC		NOx		CO		PM		PM_{10}		$PM_{2.5}$		SO_2	
	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy	lb/hr	tpy
ASB-1 / Ash Storage Building							0.01	0.02	0.01	0.08	<0.01	<0.01		
DB-1 / Dryer Burners	0.19	0.28	1.72	2.57	2.88	4.32	0.26	0.39	0.26	0.39			0.02	0.03
BH-1 thru BH-9 / Ash Processing							0.44	0.66						
TOTAL EMISSIONS (TPY):		**0.28**		**2.57**		**4.32**		**1.07**		**0.47**		**<0.01**		**0.03**
MAXIMUM OPERATING SCHEDULE:												**Hours/Year**		3000

NOTE: Difference in totals is due to rounding.

Amanda Andrews — March 18, 2025

Ms. Amanda Andrews — Date
Permit Reviewer
Rule Registration Section

Michael Partee — March 18, 2025

Michael Partee, Manager — Date
Rule Registrations Section
Air Permits Division
Section Manager