

## **NARRATIVE**

TO: Cynthia Dorrough

FROM: Bradley Belflower

DATE: April 21, 2022

Facility Name: **Waste AG**  
AIRS No.: 777-00200  
Location: Statewide Georgia  
Application No.: 28325  
Date of Application: March 14, 2022

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### **Background Information**

Waste AG was issued Permit No. 2499-115-0128-S-01-0 on March 2, 2021, for the construction and operation of an air curtain burner on Vaughn Road in Rome, Georgia. The company subsequently inquired about changing the location of the facility. The company was informed that Air Quality Permits are issued for locations and cannot be “moved” to a new location. The company has, therefore, decided to apply for a mobile air curtain burner. The facility is classified as a PSD minor source because potential emissions are below 250 tpy and it is not one of the 28 named source categories under PSD. The facility currently has no air quality permit. The facility is a synthetic minor source with regard to Title V regulations.

### **Purpose of Application**

Application No. 28185 was received on November 9, 2021. This application incorrectly included the previous facility’s AIRS number. A new Application No. 28325 was issued for the “new” statewide facility on March 14, 2022 for the construction and operation of an air curtain burner. The air curtain burner will be an AirBurners FireBox Model S330. A public advisory was issued for Application No. 28185 which expired on January 7, 2022. No comments were received.

### **Updated Equipment List**

Source Code	Description	Installation Date	Construction Date
ACB	AirBurners FireBox Model S330 air curtain burner	2021	2021
ENG	75 hp (55 Kw) diesel engine	2021	2021

### **Emissions Summary**

Potential to emit (PTE) calculation is based on maximum throughput of 10 tons/hour wood waste and 2,500 hours per year of operation of the air curtain burner, per permit Condition 2.4. The PTE calculations are based on the most conservative emission factors approved by the Division.

$$\text{PM} = (10 \text{ ton/hr}) * (7.7 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 96.25 \text{ tons/yr}$$

$$\text{PM}_{10} = (10 \text{ ton/hr}) * (1.5 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 18.75 \text{ tons/yr}$$

$$\text{PM}_{2.5} = (10 \text{ ton/hr}) * (1.4 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 17.50 \text{ tons/yr}$$

$$\text{NO}_x = (10 \text{ ton/hr}) * (1.6 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 20.00 \text{ tons/yr}$$

$$\text{SO}_2 = (10 \text{ ton/hr}) * (0.1 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 1.25 \text{ tons/yr}$$

$$\text{CO} = (10 \text{ ton/hr}) * (6.9 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 86.25 \text{ tons/yr}$$

$$\text{VOC} = (10 \text{ ton/hr}) * (1.1 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 13.75 \text{ tons/yr}$$

$$\text{Total HAPs} = (10 \text{ ton/hr}) * (0.302 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 3.78 \text{ tons/yr}$$

$$\text{HCl (Individual HAP)} = (10 \text{ ton/hr}) * (0.171 \text{ lb/ton}) * (2,500 \text{ hr/yr}) * (1 \text{ ton}/2000 \text{ lb}) = 2.14 \text{ tons/yr}$$

Actual emissions are from calculation provided by the Applicant.

**Facility-Wide Emissions**  
(in tons per year)

Pollutant	Potential Emissions	Actual Emissions
PM	96.25	48.05
PM <sub>10</sub>	18.75	9.36
PM <sub>2.5</sub>	17.50	468
NO <sub>x</sub>	20.00	7.59
SO <sub>2</sub>	1.25	0.72
CO	86.25	19.16
VOC	13.75	6.50
Max. Individual HAP (HCl)	2.14	1.06
Total HAP	3.78	1.89

**Regulatory Applicability****40 CFR 60 Subpart CCCC – Standards of Performance for Commercial and Industrial Solid Waste Incineration Units**

Because the air curtain burner commenced construction after June 4, 2010 it is subject to the requirements of Subpart CCCC. Air curtain burners that burn only 100 percent wood waste, 100 percent clean lumber; and 100 percent mixture of only wood waste, clean lumber, and/or yard waste are only required to meet the requirements of 40 CFR 60.2245 through 60.2260.

**391-3-1-.02(2)(c) – Incinerators**

Because the air curtain incinerator is subject to 40 CFR 60 Subpart CCCC, it is not subject to Georgia Rule (c) [see 391-3-1-.02(2)(c)6.(vi)].

**40 CFR 60 Subpart IIII – “Standards of Performance for Stationary Compression Ignition Internal Combustion Engines”**

Subpart IIII regulates the compression ignition engines (on the diesel engine) constructed after July 11, 2005 and manufactured after April 1, 2006. The diesel engine was constructed after July 11, 2005 and manufactured after April 1, 2006, so it is subject to Subpart IIII. The facility must comply with the emission standards and opacity requirement under NSPS Subpart IIII by purchasing certified engine. The facility indicated that the diesel engine is a USEPA Tier 4 certified engine.

**40 CFR Part 63 Subpart ZZZZ – “National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines”**

This facility is an area source for HAPS. The diesel engine is constructed after June 12, 2006. Therefore, it is considered new stationary reciprocating internal combustion engines (RICE) and it is subject to 40 CFR 63 Subpart ZZZZ. 40 CFR 63 Subpart ZZZZ [40 CFR 63.6590(c)] states that new stationary RICE located at an area source, must meet the requirements of 40 CFR 63 Subpart ZZZZ by meeting the requirements of 40 CFR 60 Subpart IIII. No further requirements of MACT apply to this engine.

**Permit Conditions**

Condition 2.1 states the general applicability of 40 CFR 60 Subparts A and CCCC for the operation of the air curtain burner (ACB).

Condition 2.2 limits materials combusted in the ACB to 100 percent wood waste, 100 percent clean lumber; and 100 percent mixture of only wood waste, clean lumber, and/or yard waste per the requirements of Subpart CCCC.

Condition 2.3 limits the opacity from the ACB per the requirements of Subpart CCCC.

Condition 2.4 limits the hours of operation for the ACB to 2,500 hours per year to ensure that the ACB is a synthetic minor source. Note: Waste AG is expected to operate less than 1,500 hours per year.

Condition 2.5 prohibits the facility from burning yard trimming in the ACB. This restriction is due to Georgia's Solid Waste Management Rules [see 391-3-4-.08(2)].

Condition 2.6 specifies when the open burning rules, Georgia Rule 391-3-1-.02(5), apply.

Conditions 3.1 and 3.2 incorporate Georgia Rule (n) to minimize fugitive dust for the entire facility.

Conditions 4.1 requires the facility to conduct routine maintenance.

Conditions 5.2 requires the facility to monitor the hours of operation for the air curtain incinerator.

Conditions 6.2 and 6.3 incorporate the requirements for initial and annual opacity testing on the ACB per the requirements of Subpart CCCC.

Condition 7.1 requires the facility submit written notification of startup.

Condition 7.2 requires the facility to maintain recordkeeping of the initial opacity test and annual opacity test for the period of five years per the requirements of Subpart CCCC.

Conditions 7.3 and 7.4 require the facility to maintain recordkeeping and reporting of the total operating hours of the ACB to track compliance with the hours of operation limit in Condition 2.4.

Condition 7.5 requires a notification of each time the portable ACI is located in Georgia.

Condition 8.3 states that if the ACI is located on the site where the material to be burned is generated, then the State's open burning requirements apply.

### **Toxic Impact Assessment**

A TIA was not required to be performed.

### **Summary & Recommendations**

I recommend that Permit No. 2499-777-0200-S-01-0 be issued to Waste AG for the construction and operation of a portable air curtain burner. The Waste AG air curtain burner will be a synthetic minor source. It is assigned to the Stationary Source Compliance Program for compliance responsibility. A 30-day Public Advisory expired on January 7, 2022. No comments received.