Asheville-Buncombe Air Quality Agency
APPLICATION REVIEW SUMMARY

SECTION A: FACILITY INFORMATION			
Company Name:	Asheville Affordable Tree Men		
Site Name:	Char Yard		
Mailing Address:	46 English Road, Candler, NC 28715		
Site Address:	1239 Charlotte Highway, Fairview NC 28730		
General Description of Business:	Tree Cutting Business Operating a Wood Waste Management Yard		
Facility Classification:	Title V	**Site Status:**	New

SECTION B: APPLICATION INFORMATION			
Date Of Application:	September 25, 2025	**Application Tracking No.:**	N/A
Date Complete Application Received:	October 8, 2025	**Board Meeting Date:**	November 20, 2025
Confidentiality Requested?	No	**Board Agenda Type:**	New
Application Results:	The purpose of this review is to issue a general TV permit for an air curtain incinerator subject to NSPS CCCC.		
Permit No. / Date Issued by Application:	11-925-25 / November 20, 2025		
Permit No. / Date Voided by Application:	N/A		

SECTION C: REGULATORY INFORMATION	
AB Air Quality Regulations:	4.0524, 4.1904, 17.0500, 17.0509, 17.0510

SECTION D: FACILITY-WIDE EMISSIONS INFORMATION		
Pollutants Reviewed as a Result of this Application or AB Air Quality Action:	**Actual Emissions (TONS/YR) [1]**	**Potential Emissions (TONS/YR) [1]**
PM-Total	--	12.93
PM-10/PM-2.5	--	5.17
SO_2	--	1.00
NO_X	--	11.27
CO	--	24.19
VOC	--	10.21
Greenhouse Gases (GHG), $CO2_e$	--	30,337.4
All Hazardous Air Pollutants (HAPs)	--	0.002
List all HAPs >10TPY of potential emissions	None	

***Emission numbers denoted with an (*) reflect "controlled" emissions (i.e. emissions reduced by a pollution control device). [1]Potential emissions reported to be <100 are capped at those levels with federally enforceable permit limits.**

IN COMPLIANCE WITH EMISSION STANDARDS / RECOMMEND APPROVAL			
Prepared By:	James C. Raiford/ James C. Raiford	**Date Completed:**	11/12/2025
Reviewed By:	Ashley J. Featherstone/	**Date Reviewed:**	
Director:	Ashley J. Featherstone/ Ashley J Featherstone	**Date Approved:**	11/13/2025

SECTION A DETAILS

FACILITY INFORMATION

[Detailed discussion of any items in Section A]

Asheville Affordable Tree Men has applied for a general Title V permit to operate an air curtain incinerator at the address listed above. The facility is a tree cutting and trimming business and plans to operate the incinerator to dispose of excess tree waste. Specifically, they are a commercial wood-waste management yard with an air curtain incinerator handling only wood waste/clean lumber/yard waste from land-clearing operations. No municipal solid waste, treated/painted wood, or prohibited materials. They plan to operate no more than 8 hours per day.

In April of 2025, they requested to operate the ACI to dispose of storm debris from Helene. The agency granted permission for this operation for several weeks in accordance with the disaster declaration and EPA's no action assurance letter. Agency staff observed the site in July. The owner has indicated that they have completed storm debris processing and would like to continue to operate the unit to process wood waste going forward.

The agency submitted a draft general permit for air curtain incinerators to EPA for review and also issued a public notice for the general permit on August 1, 2019. General permits for owners and operators can be issued without going back to notice and EPA review, as described below. NC DAQ has modified their state burning regulations after our initial public notice was issued. Permit condition 2.1A.2.(f) contains a requirement that has been removed from the state rule. The agency is in the process of updating our rules and will issue a revised general permit to public notice to reflect the update.

Information for the General Title V Permit:

An air curtain incinerator (ACI) means a stationary or portable incinerator that operates by forcefully projecting a curtain of air across an open, integrated combustion chamber (fire box) or open pit or trench (trench burner) in which combustion occurs. Incinerators of this type can be constructed above or below ground and with or without refractory walls and floor. Air curtain incinerators are different from conventional combustion devices which typically have enclosed fireboxes and controlled air technology such as mass burn, modular, and fluidized bed combustors.

Section 129 of the Clean Air Act directs the Environmental Protection Agency's (EPA) Administrator to develop regulations under Section 111 of the Act limiting emissions of nine air pollutants (i.e., particulate matter, carbon monoxide, dioxins/furans, sulfur dioxide, nitrogen oxides, hydrogen chloride, lead, mercury, and cadmium) from four categories of solid waste incineration units: municipal solid waste; hospital, medical and infectious solid waste; commercial and industrial solid waste; and other solid waste. EPA promulgated the New Source Performance Standards (NSPS) and Emission Guidelines (EG) to reduce air pollution from commercial and industrial solid waste incineration (CISWI) units, under Subparts CCCC and DDDD. Those standards and guidelines apply to incinerators, also known as CISWI units, used by commercial and industrial facilities to burn non-hazardous solid waste. NSPS Subpart CCCC applies to new CISWI units that commenced construction after June 4, 2010, or that commenced reconstruction or modification after August 7, 2013 while NSPS Subpart DDDD applies to existing CISWI units.

An air curtain incinerator is a CISWI unit that shall meet certain provisions of NSPS Subpart CCCC if the following conditions are met. Pursuant to 40 CFR 60.2020, air curtain incinerators that burn only the materials listed in paragraphs (1) through (3) below are only required to meet the requirements under ''Air Curtain Incinerators'' (40 CFR 60.2245 through 60.2260)

(1) 100 percent wood waste: *Wood waste means untreated wood and untreated wood products, including tree stumps (whole or chipped), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings, and shavings. Wood waste <u>does not</u> include: Grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands, construction, renovation, or demolition wastes, or clean lumber.*

(2) 100 percent clean lumber: *Clean lumber means wood or wood products that have been cut or shaped and include wet, air-dried, and kiln-dried wood products. Clean lumber <u>does not</u>*

include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote.

(3) 100 percent mixture of only wood waste, clean lumber, and/or yard waste. *Yard waste means grass, grass clippings, bushes, shrubs, and clippings from bushes and shrubs. They come from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands.*

Also, the owner or operator of each CISWI and air curtain incinerator (ACI) shall apply for and obtain a Title V operating permit pursuant to 40 CFR 60.2242 as required by Section 129(e) and Title V of the Clean Air Act.

Therefore, air curtain incinerators shall be subject to AB Air Quality Code 17.0500, Title V Procedures. The owner or operator of a new ACI as defined above and in 40 CFR 60.2015 that meets the requirements in 40 CFR 60.2020(i) shall obtain a General Title V Operating Permit pursuant to AB Air Quality Code 17.0509 Permitting of Numerous Similar Facilities. Pursuant to AB Air Quality Code 17.0509, the Director may issue, after notice and opportunity for public participation provided in AB Air Quality Code 17.0521, a permit to cover numerous similar facilities or sources.

The purpose of this engineering review is to evaluate the rules and standards applicable to the commercial air curtain incinerators that burn 100 percent wood waste, 100 percent clean lumber, and 100 percent mixture of only wood waste, clean lumber and/or yard waste.

SECTION B DETAILS

APPLICATION INFORMATION

[List all emission sources (permitted and exempt) reviewed as a result of this application, their associated control devices and pollutants. Provide a detailed discussion of any other items in Section B at bottom under "Application Notes"]

Emission Source ID	Emission Source Description 1. Type, manufacturer, capacity 2. Control device with ID (if any)	Pollutant(s) Emitted	Miscellaneous Notes
AC1	AirBurners Firebox S119 Air Curtain Incinerator	PM, PM-10, PM-2.5, CO, SO2, NOx, VOC, CO2e	Maximum charge rate of 5 tons per hour. Manufactured in April of 2025. Powered by a 74 Horsepower EPA Tier 4 rated engine.

APPLICATION NOTES

The application fee was receive with the application on September 30, 2025. Facility emailed Buncombe County Planning Department on September 23, 2025 asking for a zoning consistency determination. The Agency has not received a zoning consistency determination from Buncombe County planning, but fifteen days have elapsed since the email and therefore fulfills the requirement that the zoning authority is notified. Specific Condition 2.E states that the permittee is required to comply with all lawfully adopted local ordinances, and that the local zoning authority is responsible for enforcing those ordinances.

SECTION C DETAILS

REGULATORY INFORMATION

(Identify the AB Air Quality Regulations reviewed because of this application. At a minimum, the regulations already listed should be reviewed and reason given for applicability or non-applicability. If a regulation has a standard, list the standard and indicate how the source is in compliance.)

AB Air Quality Regulation Number / Title	Emission Source ID No(s). Subject	Notes on Regulation (Compliance demonstration, applicability, etc.)
17.0500 – Title V Procedures	NA	Title V does apply to this facility at this time. Calculated potential emissions for this facility are below Title V permitting thresholds, however, Section 129(e) and Title V of the Clean Air Act require the owner or operator of each CISWI and air curtain incinerator (ACI) to apply for and obtain a Title V operating permit pursuant to 40 CFR 60.2974.
4.0524 – New Source Performance Standards	AC1	NSPS does apply to this facility. This facility is subject to 40 CFR Part 60 Subpart CCCC "Standards of Performance for Other Solid Waste Incineration Units for Which Construction is Commenced After June 4, 2010, or for Which Modification or Reconstruction is Commenced on or After August 7, 2013". Visible emissions are limited to 10 percent opacity (6-minute average), except 35 percent opacity (6-minute average) during the startup period that is within the first 30 minutes of operation. EPA Method 9 testing for opacity is required initially and annually.
4.1904 – Air Curtain Burners	AC1	Air quality permits are required for air curtain burners subject to 40 CFR Part 60 Subpart CCCC 60.2245 through 60.2260. WNCRAQA Code 4.1904 has several work practice standards that apply, including a setback requirement of 300 feet from the nearest occupied dwelling not located on the property where the burning is conducted.
4.1806 – Control and Prohibition of Odorous Emissions	AC1	The facility must not cause or contribute to objectionable odors beyond the facility's boundary.

REGULATORY NOTES

17.0509 Permitting of Numerous Similar Facilities

Air curtain incinerators are very similar facilities with regard to operation and resulting emissions, and therefore may be granted a General Title V Permit by the Director in accordance with AB Air Quality Code 17.0509 below.

17.0509 Permitting of Numerous Similar Facilities

(a) The Director may issue, after notice and opportunity for public participation provided in Rule .0521 of this Section (Title V Procedures), a permit to cover numerous similar facilities or sources.

(b) The Director shall not issue a permit under this Rule unless the following conditions are met:

(1) There is no unique difference that would require special permit conditions for any individual facility; and
(2) No unique analysis is required for any facility covered under the permit.

(c) A permit issued under this Rule shall comply with all the requirements of this Section.
(d) A permit issued under this Rule shall identify criteria by which facilities or sources may qualify for the permit. To facilities or sources that qualify, the Director shall grant the terms and conditions of the permit.
(e) The facility or source shall be subject to enforcement action for operating without a permit if the facility or source is later determined not to qualify for the terms and conditions of the permit issued under this Rule.
(f) Sources subject to Title IV shall not be eligible for a permit issued under this Rule.
(g) The owner or operator of a facility or source that qualifies for a permit issued under this Rule shall apply for coverage under the terms of the permit issued under this Rule or shall apply for a regular permit under this Section.
(h) The Agency need not repeat the public participation procedures required under Rule .0521 of this Section (Title V Procedures) when it grants a request by a permit applicant to operate under a permit issued under this Rule.

17.0510 Permitting of Facilities at Multiple Temporary Sites
Since air curtain burners are often built as temporary mobile operations, AB Air Quality Rule 17.0510 states that the Director can issue a single permit for operation at multiple temporary sites under the following conditions.

17.0510 Permitting of Facilities at Multiple Temporary Sites

(a) The Director may issue a single permit authorizing emissions from similar operations by the same facility owner or operator at multiple temporary sites.
(b) In order for a facility to qualify for a permit for multiple temporary site under this Rule, the operation must involve at least one change of site during the term of the permit.
(c) Sources subject to Title IV shall not be eligible for a permit under this Section.
(d) Permits for facilities at multiple temporary sites shall include:
(1) identification of each site;
(2) conditions that will assure compliance with all applicable requirements at all authorized locations;
(3) requirements that the permittee notify the Agency at least 10 days in advance of each change of location; and
(4) conditions that assure compliance with all other provisions of this Section.

A condition will be included in the permit to require that the permittee notify the agency at least 10 days in advance of each change of location and obtain a zoning consistency letter for each location.
North Carolina General Statute § 143-215.108(f) requires that applications for air quality permits for new or expanded facilities include a request for a zoning consistency determination.

4.1904 Air Curtain Burners
Chapter 4.1904(b)(5) requires dispersion modeling analysis to be performed to protect the ambient air quality standard and prevention of significant deterioration (PSD) increment for particulate. This modeling analysis was performed by James Raiford of this Agency via memorandum on November 11, 2025. This modeling shows compliance with the total solid particulate state standard, and the PM10 and PM2.5 National Ambient Air Quality Standards. While the PM2.5 modeling number was close to the 24 hour national standard, it was conservatively modeled assuming 24 hours of operation. This facility is limited to operating for only 10 hours a day per Chapter 4.1904(c)(4), so compliance with the standards is expected. See the table below. The modeling demonstration is documented here and not included in the general permit.

Pollutant	Averaging Period	Background Concentration ($\mu g/m^3$)	Modeled Impact ($\mu g/m^3$)	Total ($\mu g/m^3$)	AAQS ($\mu g/m^3$)	% AAQS
PM2.5	24-hour	16	17.95	33.95	35	97.00%
	Annual	6.1	1.75	7.85	9	87.22%
PM10	24-hour	12.4	25.22	37.62	150	25.10%
TSP	24-hour	--	98.24	98.24	150	65.49%
	Annual	--	2.22	2.22	75	2.96%

SECTION D DETAILS				
EMISSION INFORMATION				
Calculation Method Codes (List all that apply)	**1 = Stack test result** **2 = Material (mass) balance** **3 = EPA approved information (AP-42, CTG, etc.)** **4 = Other (specify in table below)**			
Calculation Rejection Codes (List all that apply)	**1 = Calculation error** **2 = Wrong emission factor(s) used** **3 = Control efficiency(ies) not accepted** **4 = Other (specify in table below)**			
Emission Source (ID No.)	**Calculation Method Code**	**Accept or Reject?**	**Calculation Rejection Code**	**AB Air Quality Calculations Attached?**
AC1	3,4	NA	NA	Yes

EMISSION NOTES

Emissions calculations come from two sources: San Joaquin Valley APCD, and USDA Forest Service. SJV APCD was used for PM, SO_x, NOX, CO and VOC, while Greenhouse Gas emissions were obtained from USDA Forest Service. Emissions were also calculated for the engine using AP-42.

Total emissions included those from the internal combustion engine.

SECTION E

SUPPORTING DOCUMENTATION

(Provide brief description of any attachments)

1. Draft of permit
2. Emissions estimates prepared by agency staff
3. Permit application and copy of check for fee
4. Zoning consistency email
5. Modeling Memo