



OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

GENERAL TITLE V OPERATING PERMIT

Air Operation Section
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This permit is being issued in accordance with the provisions of ORS 468A.040.

ISSUED BY THE DEPARTMENT OF ENVIRONMENTAL QUALITY

Signed copy on file with DEQ

 Ali Mirzakhali, Air Quality Division Administrator

 Date

Source(s) Permitted to Discharge Air Contaminants (OAR 340-216-8010):

Table 1 Code	Source Description	SIC/NAICS
Part B, 43	Incinerators with two or more tons per day capacity – air curtain incinerator, stationary or portable	4953/ 562213
Part B, 88	All sources subject to a NESHAP under OAR 340 division 244, or a NSPS under OAR 340 division 238	NA

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1.0 PERMIT ASSIGNMENT

1.1. Qualifications

The permittee must meet all of the following conditions in order to qualify for assignment to this General Title V Operating Permit:

- a. The permittee is operating a fire box burner type air curtain incinerator with a certified Tier 4 engine or an electric motor listed in Condition 2.0 of this permit, including supporting activities;
- b. The permittee is not operating a trench burner air curtain incinerator;
- c. The permittee is operating the air curtain incinerator as an OSWI or a CISWI and complying with the applicable requirements for that type of ACI;
- d. The permittee is not having ongoing, recurring or serious compliance problems; and
- e. A Simple or Standard ACDP is not required for the source.

1.2. Assignment

DEQ will assign qualifying permittees to this permit that have and maintain a good record of compliance with DEQ's air quality regulations and that DEQ determines would be appropriately regulated by a General Title V Operating Permit. DEQ may rescind assignment if the permittee no longer meets the requirements of [OAR 340-218-0050](#) or the conditions of this permit.

1.3. Permitted Activities

- a. Until this permit expires, is modified, or is revoked, the permittee is allowed to discharge air contaminants from processes and activities directly related to or associated with the air contaminant source(s) listed in Condition 2.0 of this permit, in addition to any categorically insignificant activities, as defined in OAR 340-200-0020, at the source. Discharge of air contaminants from any other equipment or activity not identified herein is not authorized by this permit. If there are other emissions activities occurring at the site besides those listed in Condition 2.0 of this permit, the permittee may be required to obtain a source specific Title V Operating Permit.
- b. All conditions in this permit are federally enforceable, meaning that they are enforceable by DEQ, EPA, and citizens under the Clean Air Act, except where noted. Those noted conditions are enforceable by only the state. [OAR 340-218-0060]

1.4. Incinerator Definitions

- a. Other solid waste incineration (OSWI) unit means either a very small municipal waste combustion unit or an institutional waste incineration unit, as defined below.
- b. Institutional waste incineration unit means any combustion unit that combusts institutional waste (as defined in 40 C.F.R. 60.2977) and is a distinct operating unit of the institutional facility that generated the waste. Institutional waste incineration units include field-erected, modular, cyclonic burn barrel, and custom-built incineration units operating with starved or excess air, and any air curtain incinerator that is a distinct operating unit of the institutional facility that generated the institutional waste (except those air curtain incinerators listed in 40 C.F.R. 60.2888(b)).
- c. Commercial and industrial solid waste incineration unit (CISWI) means any distinct operating unit of any commercial or industrial facility that combusts, or has combusted in the preceding 6 months, any solid waste as that term is defined in 40 C.F.R. part 241.

2.0 DEVICE, PROCESS AND POLLUTION CONTROL DEVICE IDENTIFICATION

The devices, processes, and pollution control devices regulated by this permit are the following:

Devices and Processes Description	Device ID	Pollution Control Device Description	PCD ID
Air Curtain Incinerator (1)	ACI	Operation of air curtain	NA
Blower Engine (1) (Tier 4 certified diesel engine or electric engine)	ENG	May include Diesel Particulate Filter, Diesel Oxidation Catalyst, and/or Selective Catalytic Reduction	NA
Ash handling	ASH	NA	NA
Biochar handling	BIOCHAR	NA	NA
Fugitive Emissions	FUG	Work practices	NA

3.0 RELATION TO LOCAL LAND USE LAWS

3.1. Relation to Local Land Use Laws

This permit is not valid in Lane County, or at any location where the operation of the permittee's processes, activities, and insignificant activities would violate any local land use or zoning laws. It is the permittee's responsibility to obtain local land use approvals as, or where, applicable before operating this facility at any location. For operation in Lane County, contact Lane Regional Air Protection Agency for any necessary permits at (541)736-1056.

3.2. Rules for Areas with Unique Air Quality Needs

Some requirements in this permit will be applicable if the source operates in Medford-Ashland Air Quality Maintenance Area (AQMA). The boundary for this area is defined in OAR chapter 340 division 204 and maps are available on DEQ's website:

<https://www.oregon.gov/deq/air/Pages/Maintenance-Areas.aspx>.

4.0 GENERAL EMISSION STANDARDS AND LIMITS

4.1. Visible Emissions

The permittee must comply with the following visible emission limits from air contaminant sources other than fugitive emission sources, as applicable. Opacity must be measured as a six-minute block average using EPA Method 9 or an alternative monitoring method approved by DEQ that is equivalent to EPA Method 9.

- a. Emissions from the ACI and Blower Engine must not equal or exceed 20% opacity. [OAR 340-208-0110(4)]
- b. The opacity limits for the ACI and Blower Engine in Condition 4.1.a apply at all times and compliance must be determined using the methods in Condition 10.1.e.
- c. The opacity limitations and monitoring requirements of this condition do not supersede the opacity limitations and monitoring requirements of Conditions 5.1, 5.2, and 5.4.

4.2. Fugitive Emissions

The permittee must take reasonable precautions to prevent fugitive dust emissions from leaving the property of a source for a period or periods totaling more than 18 seconds in a six-minute period. [OAR 340-208-0210]

- a. At least weekly, the permittee must conduct a six (6) minute visible emission survey of the closest publicly accessible area or road within 200 feet downwind from the fugitive emissions sources using EPA Method 22, except as allowed by Condition 4.2.b. The person conducting this survey does not have to be EPA Method 9 certified but the individual must be trained and knowledgeable with respect to the general procedures for determining the presence of visible emissions. For purposes of this survey, excessive fugitive emissions are considered to be any visible emissions that leave the plant site boundaries. No monitoring is required if the ACI and supporting activities are shut down. [OAR 340-218-0050(3)]
 - i. If visible fugitive emissions are detected at the property boundary for more than 5% (18 seconds) of the survey time, the permittee must take corrective action which may include the following:
 - A. Applying water or other suitable chemicals on unpaved roads, materials stockpiles, and other surfaces which can create airborne dusts. Dust suppressant material must not adversely affect water quality;
 - B. Requiring slower driving speeds on unpaved roads;
 - C. Enclosing (full or partial) materials stockpiles in cases where application of water or other suitable chemicals are not sufficient to prevent particulate matter, including dust, from becoming airborne; and
 - D. Covering, at all times when in motion, open bodied trucks transporting materials likely to become airborne.
 - ii. The permittee must record in a log, the results of the EPA Method 22 emission surveys and any corrective actions taken.
- b. Visible emission surveys are not required if the ACI operates on federal or state lands where public access within 200 feet of the ACI is restricted.
- c. If requested by DEQ, the permittee must: [OAR 340-208-0210(3)]
 - i. Prepare and submit a fugitive emission control plan within 60 days of the request;
 - ii. Implement the DEQ approved plan whenever fugitive emissions leave the property for more than 18 seconds in a six-minute period; and
 - iii. Keep the plan on site and make the plan available upon request.

4.3. Particulate Matter Emissions

The permittee must not allow particulate matter emissions from the ACI and the Blower Engine to exceed 0.10 grains per dry standard cubic foot. [OAR 340-228-0210(2)(c)]

4.4. Particulate Matter Fallout

The permittee must not cause or permit the deposition of any particulate matter larger than 250 microns in size at sufficient duration or quantity, as to create an observable deposition upon the real property of another person. [OAR 340-208-0450] (state-only enforceable)

4.5. Nuisance and Odors

The permittee must not cause or allow the emission of odorous or other fugitive emissions so as to create nuisance conditions off the permittee's property. Nuisance conditions will be verified by DEQ personnel. [OAR 340-208-0300] (state-only enforceable)

4.6. Complaint Log

The permittee must maintain a log of all complaints received by the permittee in person, in writing, by telephone or through other means that specifically refer to air pollution, odor, or

nuisance concerns associated with the permitted facility. Contact information for the permittee can be found on the Assignment to General Permit sheet. If DEQ's receives any complaints about operation of the ACI through the DEQ complaint line, <https://www.oregon.gov/deq/Get-Involved/Pages/File-Pollution-Complaint.aspx>, DEQ will notify the permittee and require the permittee to investigate the complaint and take action for complaint resolution. Documentation of complaints must include: [OAR 340-214-0114]

- a. The date the complaint was received;
- b. The date and time the complaint states the condition was present;
- c. A description of the pollution, nuisance, or odor condition;
- d. The location of the complainant/exposure location relative to the ACI location;
- e. The status of ACI operation or activities during the complaint's stated time of pollution, nuisance, or odor condition; and
- f. A record of the permittee's actions to investigate the validity of each complaint and a record of actions taken for complaint resolution.

4.7. Fuels and Fuel Sulfur Content

The permittee must not use any fuels other than ultra-low sulfur diesel with a sulfur content that cannot exceed 0.0015% sulfur by weight. [40 C.F.R. 60.4207(b) and 40 C.F.R. 80.510(b)]

5.0 SPECIFIC PERFORMANCE AND EMISSION STANDARDS

5.1. 40 C.F.R. Part 60 Subpart CCCC Opacity Limits for Commercial and Industrial Air Curtain Incinerators (CISWI)

When operating the ACI as a CISWI, the permittee must comply with the following visible emission limit for the ACI.

- a. Within 60 days after the ACI reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, emissions from the ACI must not exceed the following limits [40 C.F.R. 60.2250 and OAR 340-230-0500(7)(h)]:
 - i. 10% opacity except as described in Condition 5.1.a.ii below; and
 - ii. 35% opacity during the startup period that is within the first 30 minutes of operation.
- b. The opacity limit in Condition 5.1.a.i applies at all times except during periods of startup, shutdown, and malfunctions. Compliance must be determined using Condition 10.1.a [40 C.F.R. 60.8(c), 40 C.F.R. 60.2250 and OAR 340-230-0500(7)(i)]; and
- c. The opacity limit in Condition 5.1.a.ii applies during the startup period that is within the first 30 minutes of operation except during malfunctions. Compliance must be determined using Condition 10.1.b. [40 C.F.R. 60.2250 and OAR 340-230-0500(7)(i)]
- d. The opacity limitations and monitoring requirements of this condition do not supersede the opacity limitations and monitoring requirements of Condition 4.1.

5.2. 40 C.F.R. Part 60 Subpart EEEE Opacity Limits for Other Solid Waste Air Curtain Incinerators (OSWI)

When operating the ACI as an OSWI, the permittee must comply with the following visible emission limit for the ACI.

- a. Within 60 days after the ACI reaches the charge rate at which it will operate, but no later than 180 days after its initial startup, emissions from the ACI must not exceed the following limits [40 C.F.R. 60.2971]:

- i. 10% opacity except as described in Condition 5.2.a.ii below; and
- ii. 35% opacity during the startup period that is within the first 30 minutes of operation.
- b. The opacity limit in Condition 5.2.a.i applies at all times except during periods of startup and malfunctions. Compliance must be determined using Condition 10.1.c [40 C.F.R. 60.2971]; and
- c. The opacity limit in Condition 5.2.a.ii applies during the startup period that is within the first 30 minutes of operation except during malfunctions. Compliance must be determined using Condition 10.1.d. [40 C.F.R. 60.2971]
- d. The opacity limitations and monitoring requirements of this condition do not supersede the opacity limitations and monitoring requirements of Condition 4.1.

5.3. 40 C.F.R. Part 63 Subpart ZZZZ Requirements for Internal Combustion Engine

If the permittee utilizes a diesel-fired Blower Engine, the Blower Engine is subject to the National Emission Standard for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (40 C.F.R. Part 63, Subpart ZZZZ). Per 40 C.F.R. 63.6590(c)(1), the permittee must meet the requirements of Subpart ZZZZ by meeting the requirements of the Standards of Performance for Compression Ignition Internal Combustion Engines, 40 C.F.R. Part 60 Subpart III. No further requirements apply for this engine under Part 63 Subpart ZZZZ.

5.4. 40 C.F.R. Part 60 Subpart III Standards of Performance for Stationary Compression Ignition Internal Combustion Engines

- a. Compliance Requirements: Permittees not utilizing an electric Blower Engine must purchase an engine certified to the emission standards in Condition 5.4.b. The engine must be installed and configured according to the manufacturer's emission-related specifications; [40 C.F.R. 60.4211(c)]
- b. Emission Standard Requirements: The permittee must comply with the emission standards by certifying the engine to the following emission standards: [40 C.F.R. 60.4204(b) and 40 C.F.R. 60.4201(a)]
 - i. Table 1 of §1039.101—Tier 4 Exhaust Emission Standards after the 2014 Model Year, g/kW-hr

Maximum engine power	Application	PM	NO _x	NMHC	NO _x + NMHC	CO
kW <19	All	0.40			7.5	6.6*
19 ≤kW <56	All	0.03			4.7	5.0**
56 ≤kW <130	All	0.02	0.40	0.19		5.0
130 ≤kW ≤560	All	0.02	0.40	0.19		3.5
kW >560	All	0.04	3.5	0.19		3.5

*The CO standard is 8.0 g/kW-hr for engines below 8 kW.

**The CO standard is 5.5 g/kW-hr for engines below 37 kW.

- ii. Smoke emission standard: [40 C.F.R. 60.4201(a) and 40 C.F.R. 1039.105] The permittee must operate the engine such that smoke does not exceed the following standards:
 - A. 20% during the acceleration mode;
 - B. 15% during the lugging mode; and
 - C. 50% during the peaks in either the acceleration or lugging modes;

- D. The opacity limitations and monitoring requirements of this condition do not supersede the opacity limitations and monitoring requirements of Condition 4.1;
- c. Operation and Maintenance Requirements: The permittee must operate and maintain the engine to achieve the emission standards as required in Condition 5.4.b.i over the entire life of the engine by performing the following: [40 C.F.R. 60.4206 and 60.4211(a)]
 - i. Operate and maintain the stationary engine according to the manufacturer's emission-related written instructions; and
 - ii. Change only those emission-related settings that are permitted by the manufacturer.
- d. Fuel Requirements: The permittee must use diesel fuel that meets the following per-gallon standards for nonroad diesel fuel: [40 C.F.R. 60.4207(b) and 40 C.F.R. 80.510(b)]
 - i. Sulfur content: 15 ppm maximum;
 - ii. Cetane index or aromatic content, as follows:
 - A. A minimum cetane index of 40; or
 - B. A maximum aromatic content of 35 volume percent.

5.5. 40 C.F.R. Part 60 Subpart III General Provisions

The permittee must comply with the applicable General Provisions as noted in Condition 19.0, Table 8 to Subpart III of Part 60 at the end of this permit. [40 C.F.R. 60.4218]

6.0 OPERATION AND MAINTENANCE REQUIREMENTS

6.1. Air Curtain Incinerator Operation and Maintenance

The permittee must comply with the following applicable conditions for the ACI: [OAR 340-218-0090, OAR 340-226-0120(1), OAR 340-230-0500(7) and (8)]

- a. Firebox burning: The air blower manifold length must be equal to the length of the burning area for an ACI operation using a manufactured aboveground container with a blower system. For purposes of this permit, air curtain incinerators include only fire box burner units and not trench burner units;
- b. Manufacturer's specifications:
 - i. The ACI must meet manufacturer's specifications for installation, operation, and maintenance to ensure complete combustion of exhaust gas;
 - ii. Manufacturer's specifications must be kept on site, wherever the ACI is located, and be made available upon request by DEQ staff;
 - iii. While operating in the Medford-Ashland AQMA, the permittee must prepare and implement an operation and maintenance (O&M) plan in accordance with OAR 340-240-0190. The plan must be kept on site and be made available upon request by DEQ staff;
- c. ACI operating locations:
 - i. The permittee must submit relocation notifications as required in Condition 12.6 if the ACI location is moved more than one mile away from the current location;
 - ii. The permittee must post signage on the roadway at the entrance of the relocated site for the entire time the ACI is operating at that site. Signage must include:
 - A. How long the ACI is expected to be at that location;

- B. How the public can obtain information about the ACI and a link or the QR Code to DEQ's ACI website; and
- C. Name and phone number of a contact person with information concerning operation of the ACI;
- iii. The permittee may collocate the ACI with any other facility that requires an air quality permit but must apply for and receive a source specific Air Contaminant Discharge Permit or Title V Operating permit, whichever is applicable, containing all applicable requirements for the collocated sources within one year of the collocation if the collocated sources are determined to be a single source for permitting purpose; and
- iv. Distances from nearest exposure locations at operating locations must meet the requirements in Conditions 8.1 and 9.4;
- d. Operating conditions:
 - i. The permittee must operate in accordance with the manufacturer's operating instructions and the Operations Plan required in Condition 6.2, both of which must be kept on site with the ACI and be made available upon request by DEQ staff;
 - ii. The ACI must be operated only by operators who have been properly trained through a certification program by the manufacturer of the ACI or by operators previously trained by the manufacturer before the operator is allowed to operate the ACI;
 - iii. The permittee must determine atmospheric conditions before the beginning of each burn to determine if burning is allowed that day. No fires shall be started or material added to existing fires when any of the following occurs:
 - A. The local fire department or the Oregon Department of Forestry has banned burning for that area;
 - B. DEQ has issued an air stagnation advisory for the area in which the ACI is operating. Air stagnation alerts are posted on the DEQ website; or
 - C. DEQ's Air Quality Index is 100 or greater at any DEQ monitor within 20 miles of where the ACI is located, meaning air quality is unhealthy for sensitive individuals;
 - iv. Operation of the ACI is restricted to operation from 7 AM to 7 PM;
 - v. An operator must remain with the ACI at all times when it is operating;
 - vi. The Blower Engine must be equipped with a non-resettable run time meter;
 - vii. Start-up conditions: For conducting a cold start, the operator must use a propane or butane torch, driptorch, or flare to ignite the material inside the air curtain incinerator. The amount of any oil-based starter used must be minimized to ensure compliance with Conditions 4.1, 5.1.a.ii, and 5.2.a.ii. No accelerants (e.g., gasoline, diesel fuel, kerosene, turpentine) may be used outside of a cold start;
 - viii. Material must not be loaded into the ACI such that it will protrude above the air curtain;
 - ix. Flames shall not be visible above the air curtain, except during loading;
 - x. Plumes of ash shall not be generated due to excessive loading;
 - xi. The proper blower speed must be maintained so as to meet emissions standards and minimize smoke and ash becoming airborne. The blower must be operating

- when and as long as any material in the ACI is burning, except during the 30-minute startup period;
- xii. The Blower Engine must only be used to operate the ACI and cannot be used to operate any other equipment; and
 - xiii. Smoke must not be allowed to pass onto or across a public road.
- e. Material Stockpiles:
- i. The permittee must operate in accordance with the Material Stockpiles section of the Operations Plan submitted to and approved by DEQ in accordance with Condition 6.2;
 - ii. The permittee must manage material stockpiles in quantities and under conditions that prevent spontaneous combustion;
 - iii. The permittee must take adequate measures at the end of each day of operation to ensure that no emissions emanate from materials left in the ACI overnight by:
 - A. Letting the fire burn out completely; and
 - B. Quenching biochar if it is produced;
- f. Startup/Shutdown: The permittee must operate in accordance with the Startup/Shutdown section of the Operations Plan submitted to and approved by DEQ in accordance with Condition 6.2;
- g. Operation Monitoring: The permittee must keep records of the following information that must be initialed by the operator each time information is added:
- i. Location of the operation;
 - ii. The date of entry of the records;
 - iii. Date and time the ACI is ignited;
 - iv. Date and time the Blower Engine is started;
 - v. Date and time when the operator ceases feeding authorized materials to the ACI;
 - vi. Date and time the Blower Engine is turned off;
 - vii. Volume, estimated dry weight, and type of each material fed to the ACI each day;
 - viii. Total volume and total estimated dry weight of all materials fed to the ACI per day; and
 - ix. Hours of Blower Engine operation and blower engine fuel usage per day.
- h. Authorized Materials Management:
- i. The permittee must operate in accordance with the Authorized Materials Management section of the Operations Plan submitted to and approved by DEQ in accordance with Condition 6.2;
 - ii. Authorized materials: The permittee is only allowed to burn the materials listed below: [OAR 340-245-0110, 40 C.F.R. 60.2888 and 40 C.F.R. 60.2970]
 - A. 100% wood waste. Wood waste is untreated wood and untreated wood products, including tree stumps (split to a size in accordance with manufacturer's specifications with as much soil removed as possible), trees, tree limbs (whole or chipped), bark, sawdust, chips, scraps, slabs, millings and shavings. Wood waste from orchard trees (fruit or nut) and from Christmas tree farms are authorized materials. Wood waste does not include:
 - 1. 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;

2. Construction, renovation, or demolition wastes;
 3. Clean lumber; and
 4. Treated wood and treated wood products, including wood products that have been painted, pigment-stained, or pressure treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board);
- B. 100% 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 does not include wood products that have been painted, pigment-stained, or pressure-treated by compounds such as chromate copper arsenate, pentachlorophenol, and creosote, or manufactured wood products that contain adhesives or resins (e.g., plywood, particle board, flake board, and oriented strand board);
- C. 100% yard waste. Yard waste means grass, grass clippings, bushes, shrubs and clippings from bushes and shrubs. Only yard waste incidental to land clearing is allowed. Yard waste comes from residential, commercial/retail, institutional, or industrial sources as part of maintaining yards or other private or public lands. Yard waste does not include two items:
1. Construction, renovation, and demolition wastes; and
 2. Clean lumber.
- D. 100% mixture of only wood waste, clean lumber and/or yard waste;
- iii. Agricultural waste is not allowed;
- iv. Soil on the authorized materials must be minimized;
- v. The authorized materials must be as dry as possible;
- vi. Unless an alternative method is approved in writing by DEQ, the permittee must use the University of Washington's [Piled Fuels Biomass and Emissions Calculator](https://depts.washington.edu/nwfire/piles/) (<https://depts.washington.edu/nwfire/piles/>) on the Oregon Department of Forestry's website to estimate the amount of dry material burned each day (the "consumed fuel tons" column, not emissions) using the machine piles option and the following information:
- A. Shape and measured dimensions the piles;
 - B. Estimated pile volume that is soil. Pile quality should be 'Clean (0% soil)' since soil must be minimized. If stumps are included, pile quality should be 'Dirty (>0 to 10% soil);'
 - C. Packing ratio;
 - D. Pile wood species
 - E. Pile quality; and
 - F. Consumption (assume 100% for ash and 95% for biochar);
- vii. A visual onsite inspection of the ACI and the material must be conducted prior to start of each burn. Any unauthorized material must be removed prior to burning;
- i. Ash/Biochar handling and disposal:

- i. The permittee must operate in accordance with the Ash/Biochar Removal and Disposal section of the Operations Plan submitted to and approved by DEQ in accordance with Condition 6.2;
- ii. The permittee must remove ash/biochar from the ACI during burning as necessary to maintain efficient combustion;
- iii. The permittee must allow the ash/biochar to cool and must quench the ash/biochar prior to its removal to prevent the ash/biochar from becoming airborne;
- iv. The permittee must remove ash/biochar from the ACI in such a manner as to minimize the ash/biochar from becoming airborne. If any ash/biochar becomes airborne, the permittee must perform an EPA Method 22 visible emission survey to determine the accumulated emission time in accordance with Condition 4.2; and
- v. The permittee must ensure that all material removed from the ACI is:
 - A. Completely extinguished before being disposed of or placed in contact with combustible material;
 - B. Stored in a manner that does not constitute a fire hazard; and
 - C. Not allowed to smolder or burn outside of the ACI.

6.2. **Air Curtain Incinerator Operations Plan** [OAR 340-226-0120]

- a. The permittee must maintain a copy of the DEQ approved Operations Plan onsite at all times and comply with the Operations Plan immediately upon startup.
- b. The Operations Plan must include sections for each of the activities listed below and how the permittee will operate and manage the following:
 - i. Operating conditions in accordance with Condition 6.1.d;
 - ii. Material stockpiles in accordance with Condition 6.1.e;
 - iii. Startup/Shutdown procedures in accordance with Condition 6.1.f;
 - iv. Authorized materials in accordance with Condition 6.1.h;
 - v. Ash/biochar handling in accordance with Condition 6.1.i;
- c. The permittee must review the Operations Plan at least once every six months to determine if any change to the plan is needed;
- d. Any changes to Operations Plan must include explanations for why the changes are necessary and must be submitted to the DEQ regional office from where the ACI permit was issued at least 30 days prior to any change. Changes may be implemented after approval from DEQ or within 30 days of submittal of the revised plan, whichever comes first; and
- e. The current Operations Plan must be kept on site with the ACI and be made available upon request.

6.3. **40 C.F.R. Part 60 Subpart III Operation and Maintenance of Internal Combustion Engine**

- a. If the ACI is equipped with a diesel-fired Blower Engine, the permittee must demonstrate compliance with the applicable emission standards in Condition 5.4 by purchasing a compression ignition internal combustion engine for the blower that is certified according to 40 C.F.R. part 1039, as applicable; [40 C.F.R. 60.4201(a) and 40 C.F.R. 60.4204(b)]
- b. The permittee must install and configure the Blower Engine according to the manufacturer's emission-related specifications; [40 C.F.R. 60.4211(c)]
- c. The permittee must operate and maintain the Blower Engine according to the

- manufacturer's emission-related written instructions and only change those emission-related settings that are allowed by the manufacturer; [40 C.F.R. 60.4204, 40 C.F.R. 60.4201(a) and 40 C.F.R. 60.4211(a)(1)]
- d. The permittee must operate and maintain the Blower Engine so that it achieves the emission standards as required in Condition 5.4.b over the entire life of the engine; and [40 C.F.R. 60.4206]
 - e. If the Blower Engine is equipped with a diesel particulate filter to comply with the emission standards in Condition 5.4.b, the permittee must install the diesel particulate filter with a backpressure monitor that notifies the permittee when the high backpressure limit of the engine is approached. [40 C.F.R. 60.4209(b)]

7.0 PLANT SITE EMISSION LIMITS

7.1. Plant Site Emission Limits (PSEL)

The permittee must not cause or allow plant site emissions to exceed the following, except for PM₁₀ as required by Condition 7.2, if applicable: [OAR 340-222-0040]

Pollutant	Limit	Units
PM	24	tons per year
PM ₁₀	14	
PM _{2.5}	9	
SO ₂	39	
NO _x	39	
CO	99	
VOC	39	
GHGs (CO ₂ e)	74,000	

7.2. PM₁₀ PSEL for Medford-Ashland AQMA

For sources operating in the Medford-Ashland AQMA, the permittee must not cause or allow plant site emissions of PM₁₀ to exceed the following: [OAR 340-222-0040 and OAR 340-222-0042]

Pollutant	Limit	Units
PM ₁₀	4.5	tons per year
	49	pounds per day

7.3. Annual Period

The annual plant site emissions limits apply to any 12-consecutive calendar month period. [OAR 340-222-0035]

7.4. Daily Period

The daily plant site emissions limits apply to any 24-hour period beginning at 12:00 a.m. midnight. [OAR 340-200-0020]

8.0 SOURCE RISK LIMITS

8.1. Operating Location Limit

The permittee must maintain the minimum distance to the closest exposure location in the table below, depending on the maximum hourly throughput of the ACI. An exposure location is a location where people may spend two (2) hours in one day, or a dwelling, group of dwellings, or commercial or institutional establishment, or other occupied structure not located on the property on which the burning is conducted. [OAR 340-245-0110]

ACI Size Category	Maximum Capacity (tons/hour)	Daily Capacity (tons/day)	Minimum Distance to Closest Exposure Location (meters)
Micro	<=1	12	90
Small	>1 but <=5	60	375
Medium	>5 but <=10	120	700
Large	>10 but <=13	156	1,000
35 ton/day limit	NA	35	225

9.0 SPECIAL CONDITIONS

9.1. Operating Limits and Location Requirements

The permittee must comply with the most stringent operating limits in Conditions 8.1, 9.2, 9.3, 9.4, or 9.5, depending on the location and the distance to the nearest exposure location. [OAR 340-222-0020 and 340-218-0020]

9.2. PM_{2.5} Synthetic Minor Limit

The permittee must not exceed the annual throughput limit of 16,000 dry tons for each 12-consecutive calendar month period for the ACI for all locations combined. [OAR 340-222-0020 and 340-218-0020]

9.3. Medford-Ashland AQMA PM₁₀ Synthetic Minor Limit

While operating in the Medford-Ashland AQMA, the permittee must not exceed the daily throughput limit of 37 dry tons per day and the annual throughput limit of 6,750 dry tons for each 12-consecutive calendar month period for the ACI for all locations within the AQMA. [OAR 340-222-0020 and 340-218-0020]

9.4. Prevention of Significant Deterioration Class I Areas

While operating within 10 kilometers of any Class I Area defined in OAR 340-204-0050(1), the permittee must maintain the minimum distance to the closest boundary of the Class I area in the table below, depending on the maximum hourly throughput of the ACI. The distance limits in this paragraph are additional limits that do not supersede the applicable limits in Condition 8.1. The limits in this paragraph are to ensure that the operations would have an impact on such area less than 1 µg/m³ (24-hour average) for the regulated pollutants listed in OAR 340-200-0020(161)(b) through (v). [OAR 340-200-0020(161)(w)].

ACI Size Category	Maximum Capacity (tons/hour)	Daily Capacity (tons/day)	Minimum Distance to Class I Area (meters)
Micro	≤1	12	600
Small	>1 but ≤5	60	4,000
Medium	>5 but ≤10	120	9,000
Large	>10 but ≤13	156	10,000
35 ton/day limited	NA	35	2,000

9.5. OSWI Throughput Limit

While operating the ACI as an OSWI unit at a location other than an institutional facility and burning authorized materials collected from the general public and from residential, commercial, institutional, and industrial sources, the permittee must not exceed the daily throughput limit of 35 tons per day. [40 C.F.R. 60.2888(b)]

10.0 COMPLIANCE DEMONSTRATION

10.1. 40 C.F.R. Part 60 Subparts CCCC (CISWI) and EEEE (OSWI) Opacity Limits Monitoring Requirements

The permittee must demonstrate compliance with ACI opacity limits as specified in 40 C.F.R. 60.8 and OAR 340-230-0500:

- a. While operating the ACI as a CISWI using EPA Method 9 to determine compliance with the opacity limitations in Condition 5.1.a.i as determined by the average of three 1-hour blocks consisting of ten 6-minute average opacity values during normal operation; [40 C.F.R. 60.2250 and 40 C.F.R. 60.2255]
- b. While operating the ACI as a CISWI using EPA Method 9 to determine compliance with the opacity limitations in Condition 5.1.a.ii as determined by the average of five 6-minute average opacity values during startup periods that are within the first 30 minutes of operation; [40 C.F.R. 60.2250 and 40 C.F.R. 60.2255]
- c. While operating the ACI as an OSWI using EPA Method 9 to determine compliance with the opacity limitation in Condition 5.2.a.i as determined by a 6-minute average opacity value during normal operation; [40 C.F.R. 60.2971 and 40 C.F.R. 60.2972]
- d. While operating the ACI as an OSWI using EPA Method 9 to determine compliance with the opacity limitation in Condition 5.2.a.ii as determined by a 6-minute average opacity value during startup periods that are within the first 30 minutes of operation; [40 C.F.R. 60.2971 and 40 C.F.R. 60.2972]
- e. Using the monitoring results from Conditions 10.1.a through 10.1.d to determine compliance with the opacity limit in Condition 4.1.a for any 6-minute block average; [OAR 340-208-0110(2)]
- f. Conducting an initial test for opacity within 60 days after achieving the maximum production rate at which the ACI will be operated, but not later than 180 days after initial startup and at such other times as may be required by DEQ. The permittee must conduct the opacity performance tests during both a startup period that is within the first 30 minutes of operation and normal operation and furnish DEQ a written report of the results of such performance test(s); [40 C.F.R. 60.2250 and 40 C.F.R. 60.2971]

- g. After the initial tests for opacity, the permittee must conduct quarterly tests during each operating calendar quarter, at least one month apart, during both a startup period that is within the first 30 minutes of operation and during normal operation except as allowed by Condition 10.1.h; [OAR 340-212-0120]
- h. The permittee is not required to monitor opacity if the ACI is shut down for the entire quarterly monitoring period; [OAR 340-208-0210]
- i. The permittee must provide DEQ at least 7 days prior notice of any performance test to afford DEQ the opportunity to have an observer present. If after 7-day notice for an initially scheduled performance test, there is a delay (due to operational problems, etc.) in conducting the scheduled performance test, the permittee must notify DEQ as soon as possible of any delay in the original test date, either by providing at least 7 days prior notice of the rescheduled date of the performance test, or by arranging a rescheduled date with DEQ by mutual agreement; [OAR 340-212-0120 and 40 C.F.R. 60.8(d)]
- j. If the ACI has been out of operation for more than 12 months following the date of the previous test, then the permittee must conduct a test for opacity upon startup of the unit during both startup and normal operations. [40 C.F.R. 60.2972]

10.2. PSEL Compliance Monitoring using Emission Factors

The permittee must calculate the emissions for each 12-consecutive calendar month period, by the end of the 15th day of the following month, based on the following calculation for each pollutant except GHGs: [OAR 340-222-0080]

$$E = \Sigma(EF \times P) \times 1 \text{ ton}/2000 \text{ pounds}$$

where:

- E = pollutant emissions (tons/year);
- Σ = symbol representing summation of;
- EF = pollutant emission factor (see Condition 16.0);
- P = process production (see Condition 17.0)

10.3. PM₁₀ PSEL for Medford-Ashland AQMA Compliance Monitoring using Emission Factors

- a. While operating in Medford-Ashland AQMA the permittee must calculate the PM₁₀ emissions for each 12-consecutive calendar month period, by the end of the 15th day of the following month, based on the calculation in Condition 10.2. [OAR 340-222-0080]
- b. While operating in Medford-Ashland AQMA the permittee must calculate the PM₁₀ emissions for each 24-hour period beginning at 12:00 a.m. midnight, by the end of the 15th day of the following month, based on the following calculation: [OAR 340-222-0080]

$$E = \Sigma(EF \times P)$$

where:

- E = PM₁₀ emissions (pounds/day);
- Σ = symbol representing summation of;
- EF = PM₁₀ emission factor (see Condition 16.0);
- P = daily process production (see Condition 17.0)

10.4. Emission Factors

The permittee must use the default emission factors provided in Condition 16.0 for calculating pollutant emissions unless alternative emission factors are approved in writing by DEQ. The

permittee may request or DEQ may require using alternative emission factors provided they are based on actual test data or other documentation (e.g., AP-42 compilation of emission factors) that has been reviewed and approved by DEQ. [OAR 340-222-0080]

10.5. Greenhouse Gas Emissions

The permittee must calculate greenhouse gas emissions in metric tons and short tons for each 12-consecutive calendar month period to determine compliance with the GHG PSEL by using the DEQ Fuel Combustion Greenhouse Gas Calculator:

<https://www.oregon.gov/deq/FilterDocs/ghgCalculatorFuelCombust.xlsx>. [OAR 340-215-0040]

10.6. PSEL Compliance Monitoring

The permittee must demonstrate compliance with the PSEL by totaling the emissions from all point sources calculated under Condition 10.2, Condition 10.3, if applicable, and Condition 10.5. [OAR 340-222-0080]

11.0 RECORDKEEPING REQUIREMENTS

- 11.1. Prior to commencing construction of the ACI, the permittee must submit the information listed below: [40 C.F.R.60.2260 and 40 C.F.R. 60.2973]
 - a. The planned initial startup date; and
 - b. Types of materials the permittee plans to burn in the ACI.
- 11.2. To demonstrate compliance with Conditions 4.1, 5.1, and 5.2, the permittee must keep records of all EPA Method 9 opacity readings at the permittee's office and make the records available to DEQ within 24 hours upon request. Operating conditions during the opacity readings must be documented and include the following; [OAR 340-214-0110]
 - a. The amount and type of materials being burned;
 - b. The amount of materials added during the EPA Method 9 opacity readings;
 - c. The type and amount of accelerant used to start the fire;
 - d. The blower setting, if applicable; and
 - e. All other records required by the EPA Method 9 Visible Emission Observation Form.
- 11.3. To demonstrate compliance with Condition 4.2, the permittee must keep records of the EPA Method 22 surveys and any corrective action taken. [OAR 340-214-0110]
- 11.4. To demonstrate compliance with Conditions 4.7, 5.4 and 6.3, the permittee must keep records of the following information for the Blower Engine: [OAR 340-214-0110 and OAR 340-226-0100]
 - a. Engine certification: Documentation from the manufacturer that the engine is certified to meet the emission standards in Condition 5.4.b and information as required in 40 C.F.R. parts 89 and 1039, as applicable, and the applicable requirements for 2013 or later model year non-emergency engines.
 - b. The following notifications and all documentation supporting any notification:
 - i. Notification of the date construction is commenced, postmarked no later than 30 days after such date;
 - ii. Notification of the actual date of initial startup, postmarked within 15 days after such date; and
 - iii. Notification of any physical or operational change which may increase the emission rate of any air pollutant, postmarked no later than 60 days before the

- change is commenced and must include information describing the precise nature of the change, present and proposed emission control systems, productive capacity of the facility before and after the change, and the expected completion date of the change;
- c. Records of the occurrence and duration of any startup, shutdown, or malfunction in the operation of the engine;
 - d. Records of maintenance performed on the engine over the entire life of the engine;
 - e. If the engine is equipped with a DPF, records of any notifications that the high backpressure limit of the engine is approached; and
 - f. Fuel requirements:
Monitoring the diesel sulfur content and cetane index or aromatic content by:
 - i. Keeping records of fuel purchases from gasoline dispensing facilities;
 - ii. Obtaining a billing statement or purchase receipt to indicate that the diesel burned meets the requirements of Condition 4.7 and Condition 5.4.d from each vendor for each shipment of fuel received;
 - iii. Obtaining a fuel content certificate from each vendor for each shipment of diesel received; or
 - iv. Analyzing or having analyzed by a contract laboratory a representative sample taken by the permittee from each shipment of diesel received; and
 - g. Records to demonstrate compliance with Conditions 4.7, 5.4 and 6.3 must be kept at the permittee's office and be made available within 24 hours to DEQ upon request.
- 11.5. To demonstrate compliance with Condition 6.1, the permittee must, at a minimum, meet the following requirements: [OAR 340-214-0110(3)]
- a. A written record or log of the ACI operation and maintenance must be maintained at the current operating site and made available upon request. This record or log must be organized such that compliance can be readily determined and must include the following:
 - i. For portable ACIs:
 - A. Location(s) and closest exposure location on a map or plot plan showing any operating location is more than the distance specified in Condition 8.1 from any exposure location;
 - B. Location(s) and distance to Class I Area on a map or plot plan showing any operating location is more than the distance specified in Condition 9.4 from any exposure location;
 - C. A copy of the acknowledgement of receipt demonstrating notification to the appropriate regional office, and maps or plot plans showing distance limits are met; and
 - D. Pictures of signage posted at all ACI locations with the address or GPS coordinates;
 - ii. Records of operator training;
 - iii. Records of the date and reason for any instances when the ACI could not be operated because of atmospheric conditions, unless the ACI is not operating for an extended period of time (e.g., at least one whole calendar quarter);
 - iv. Identification of the ACI;
 - v. Initials of the individual recording the operations;
 - vi. Date and daily hours of operation, including start and stop times of the ACI;
 - vii. Date and daily hours of operation, including start and stop times of the Blower Engine;

- viii. Daily quantity and type of fire starter;
- ix. Daily and annual quantity, as estimated by University of Washington's [Piled Fuels Biomass and Emissions Calculator](https://depts.washington.edu/nwfire/piles/) (<https://depts.washington.edu/nwfire/piles/>), or other DEQ approved method, in Condition 6.1.h.vi, and type of material burned in the ACI for each ACI operating location;
- x. The source of material burned (e.g., residential, commercial/retail, institutional, or industrial sources) in the ACI for each ACI operating location;
- xi. Daily and annual quantity and type of fuel burned by the Blower Engine;
- xii. Monthly and rolling 12-month totals of the amount of material, fire starter, and fuel burned;
- xiii. Any maintenance and repairs on the ACI and the Blower Engine;
- xiv. Records of the occurrence and duration of all upsets, breakdowns and malfunctions which result in excess emissions;
- xv. Routine follow-up evaluation of upsets, breakdowns and malfunctions to identify the cause of the problem and changes needed to prevent a recurrence;
- xvi. Any instances of spontaneous combustion and what the permittee did to minimize emissions; and
- xvii. The results of any on-site inspections that identified any unauthorized materials and the disposal method of the unauthorized materials;
- b. Records of results of all initial and annual opacity tests in either paper copy or computer-readable format that can be printed upon request, unless DEQ approves another format; [40 C.F.R. 60.2260 and 40 C.F.R. 60.2973]
- c. Records of the daily and annual quantity of ash/biochar utilization or disposal;
- d. Records of all EPA Method 22 surveys as a result of ash/biochar becoming airborne;
- e. A copy of operating instructions must be kept at the ACI location, followed by the operator, and made available upon request;
- f. A copy of all operator training certificates from the manufacturer of the ACI or the records of operator training conducted by the operators previously trained by the manufacturer (e.g., date, persons, etc.);
- g. Records must be maintained for a minimum of five years as follows, unless otherwise specified: [40 C.F.R. 60.2260 and 40 C.F.R. 60.2973]:
 - i. For permanent facilities, on site for a minimum two-year rolling period and must be available at all times for inspection by DEQ. The permittee may keep the records off site for the remaining three-year rolling period;
 - ii. For portable facilities, once relocated to a new site, at a central location for a five-year rolling period.

11.6. Excess Emissions

- a. The permittee must maintain the records of excess emissions listed below and as defined in OAR 340-214-0300 through 340-214-0340, recorded on occurrence. Typically, excess emissions are caused by process upsets, startups, shutdowns, or scheduled maintenance. In many cases, excess emissions are evident when visible emissions are equal to or greater than 20% opacity as a six-minute block average.
 - i. The date and time of the beginning of the excess emissions event and the duration or best estimate of the time until return to normal operation;
 - ii. The date and time the permittee notified DEQ of the event;
 - iii. The equipment involved;
 - iv. Whether the event occurred during planned startup, planned shutdown,

- scheduled maintenance, or as a result of a breakdown, malfunction, or emergency;
- v. Steps taken to mitigate emissions and corrective action taken, including whether the approved procedures for a planned startup, shutdown, or maintenance activity were followed;
 - vi. The magnitude and duration of each occurrence of excess emissions during the course of an event and the increase over normal rates or concentrations as determined by continuous monitoring or best estimate (supported by operating data and calculations); and
 - vii. The final resolution of the cause of the excess emissions;
- b. If there is an ongoing excess emission caused by an upset or breakdown, the permittee must immediately take action to minimize emissions by reducing or ceasing operation of the equipment or facility, unless doing so could result in physical damage to the equipment or facility, or cause injury to employees. No additional material may be added to the ACI until the unit can be returned to normal operation. [OAR 340-214-0330].
 - c. In the event of any excess emissions which are of a nature that could endanger public health and occur during non-business hours, weekends, or holidays, the permittee must immediately notify DEQ by calling the Oregon Emergency Response System (OERS). The current number is 1-800-452-0311.
 - d. If startups or shutdowns may result in excess emissions, the permittee must submit startup/shutdown procedures used to minimize excess emissions to DEQ for prior authorization, as required in OAR 340-214-0310. New or modified procedures must be received by DEQ in writing at least 72 hours prior to the first occurrence of the excess emission event. The permittee must abide by the approved procedures and have a copy available at all times.
 - e. The permittee must maintain a log of all excess emissions in accordance with OAR 340-214-0340(3).

11.7. Complaint Log

To demonstrate compliance with Condition 4.6, the permittee must maintain a log with all the information included in Condition 4.6 for all complaints received by the permittee. [OAR 340-214-0114]

11.8. Retention of Records

Unless otherwise specified, the permittee must retain all records for a period of at least five (5) years from the date of the monitoring sample, measurement, report, or application and make them available to DEQ upon request. The permittee must maintain the two (2) most recent years of records onsite for permanent facilities. The permittee must maintain records at the home office location for a five-year rolling period for portable facilities. [OAR 340-214-0114]

12.0 REPORTING REQUIREMENTS

12.1. NSPS Opacity Reporting for Air Curtain Incinerators

The permittee must submit the following to DEQ for the ACI:

- a. While operating the ACI as a CISWI, the results of the initial opacity tests no later than 60 days following the initial test. The permittee must submit quarterly opacity test results within 60 days following the previous report. [OAR 340-212-0120 and 40 C.F.R. 60.2260]

- b. While operating the ACI as an OSWI, the results of the initial opacity tests no later than 60 days following the initial test. The permittee must submit quarterly opacity test results within 60 days following the previous report. [OAR 340-212-0120 and 40 C.F.R. 60.2973]

12.2. Excess Emissions

- a. The permittee must notify DEQ of excess emissions events if the excess emission is of a nature that could endanger public health. Initial notice must be provided as soon as possible, but never more than one hour after becoming aware of the problem. Notice must be made to the regional office identified in Condition 14.3 by email, telephone, facsimile, or in person.
- b. The permittee must also submit follow-up reports summarizing records of excess emissions as required in Condition 11.6 within 15 days of the date of the event. Notice must be made to the regional office identified in Condition 14.3 by email, telephone, facsimile, or in person.

12.3. Semi-Annual and Annual Report

- a. The permittee must submit reports of any required monitoring at least every 6 months, completed on forms approved by DEQ. Six month periods are January 1 to June 30, and July 1 to December 31. If the report due date falls on a weekend or Monday holiday, the permittee must submit their report on the next business day. One paper copy of the report must be submitted to the EPA and two copies (one paper copy and one electronic copy) to the DEQ regional office from where the permit was issued, unless otherwise approved in writing by DEQ. All instances of deviations from permit requirements must be clearly identified in such reports: [OAR 340-218-0050(3)(c)(A) and 340-218-0080(6)(d)]
 - i. The first semi-annual report is due on July 30 and must include the semi-annual compliance certification; [OAR 340-218-0080]
 - ii. The annual report is due on February 15 and must include the second semi-annual compliance certification and the information in Condition 12.3.b below;
- b. Each year this permit is in effect, the permittee must submit to DEQ and to EPA, by **February 15** one (1) paper copy, unless otherwise required by DEQ in writing, and one (1) electronic copy of the following information for the previous calendar year: [OAR 340-218-0050(3)(c)(A) and OAR 340-218-0080(6)(d)]
 - i. Operating parameters:
 - A. Location(s) for portable ACIs, including closest exposure location for each location of operation;
 - B. Daily hours of operation, including start and stop times for each ACI operating location;
 - C. Daily quantity and type of fire starter for each ACI operating location;
 - D. Daily and annual quantity and type of material burned in the ACI for each ACI operating location;
 - E. The source of material burned (e.g., residential, commercial/retail, institutional, or industrial sources) in the ACI for each ACI operating location;
 - F. Daily and annual quantity and type of fuel burned by the Blower Engine for each ACI operating location;

- G. Monthly and rolling 12-month totals of the amount of material, fire starter, and fuel burned;
 - H. Daily and annual quantity of ash/biochar utilization or disposal; and
 - I. Results of all EPA Method 9 opacity tests for each ACI operating location;
- ii. Calculations of annual pollutant emissions determined for each 12-consecutive calendar month period in accordance with Condition 10.2;
 - iii. A brief summary listing the date, time, and the affected device/process for each excess emission that occurred during the reporting period;
 - iv. Summary of complaints relating to air pollution, odor, or nuisance concerns received by permittee during the year in accordance with Condition 11.7;
 - v. Summary of the EPA Method 22 surveys and any corrective actions taken;
 - vi. List permanent changes made in facility process, production levels, and pollution control equipment which affected air contaminant emissions; and
 - vii. List major maintenance performed on equipment.

12.4. Greenhouse Gas Registration and Reporting

- a. If the calendar year greenhouse gas emissions (CO₂e) are ever greater than or equal to 2,756 tons (2,500 metric tons), the permittee must annually register and report its greenhouse gas emissions with DEQ in accordance with OAR 340 division 215, except as allowed under Condition 12.4.b; and
- b. If the calendar year greenhouse gas emissions (CO₂e) are less than 2,756 tons (2,500 metric tons) for three consecutive years, the permittee may stop reporting greenhouse gas emissions but must retain all records used to calculate greenhouse gas emissions for the five years following the last year that they were required to report. The permittee must resume registration and reporting its greenhouse gas emissions if a calendar year greenhouse gas emissions (CO₂e) are greater than or equal to 2,756 tons (2,500 metric tons) in any subsequent calendar year.

12.5. Initial Startup Notice

The permittee must notify DEQ in writing of the date a newly permitted ACI is first brought into normal operation. The notification must be submitted no later than seven (7) days after the initial startup. [OAR 340-214-0110]

12.6. Relocation Notice for Portable ACIs

- a. The permittee must not install or operate the facility or any portion of the facility at any new site that is more than one mile away from the current site, without first providing written notice to the Permit Coordinator in the appropriate regional office identified in Condition 14.2, except as allowed by Condition 12.6.c. The written notice must be submitted no later than fourteen (14) days in advance of the relocation and include the date of the proposed move, approximate dates of operation, a detailed map showing access to the new site with GPS coordinates, and a description of the air pollution controls and procedures to be installed, operated, and practiced at the new site if different from previous sites; [OAR 340-214-0110]
- b. The permittee must submit a DEQ Relocation Notice for Air Curtain Incinerators form. The form must be completed accurately, and all required information must be submitted with the form; and
- c. On federal or state lands, the permittee must restrict operation of the ACI to areas of operation requested in the permit application. If the permittee moves the operation to

a new area that was not previously disclosed, the permittee will submit a notice of relocation prior to moving to the new location.

12.7. Notice of Change of Ownership or Company Name

The permittee must notify DEQ in writing using a DEQ “Transfer Application Form” within 60 days after the following: [OAR 340-216-0030 and OAR 340-218-0150]

- a. Legal change of the name of the company as registered with the Corporations Division of the State of Oregon; or
- b. Sale or exchange of the activity or facility.

12.8. Construction or Modification Notices

The permittee must notify DEQ in writing using a DEQ “Notice of Intent to Construct Form,” or other permit application form and obtain approval in accordance with OAR 340-210-0205 through 340-210-0250 before:

- a. Constructing, installing, or establishing a new stationary or portable source that will cause an increase in any regulated pollutant emissions;
- b. Making any physical change or change in operation of an existing stationary or portable source that will cause an increase, on an hourly basis at full production, in any regulated pollutant emissions;
- c. Replacement of any new stationary or portable source; or
- d. Constructing or modifying any air pollution control equipment.

13.0 ADMINISTRATIVE REQUIREMENTS

13.1. Annual Compliance Fee

The permittee must pay the annual fees specified in OAR 340-216-8020, Table 2 or in OAR 340-220-0030 by **December 1** of each year this permit is in effect. An invoice indicating the amount, as determined by DEQ regulations will be mailed prior to the above date. **Late fees in accordance with Part 5 of the table will be assessed as appropriate.**

13.2. Change of Ownership or Company Name Fee

The permittee must pay the non-technical permit modification fee specified in OAR 340-216-8020, Table 2 or the administrative amendment fee in OAR 340-220-0050 with an application for changing the ownership or the name of the company.

13.3. Special Activity Fees

The permittee must pay the applicable special activity fees specified in OAR 340-216-8020, Table 2 with an application.

13.4. Reassignment to the General Title V Operating Permit

A permittee that wishes to continue assignment to this General Title V Operating Permit must submit to DEQ an application for reassignment as follows:

- a. The application must be received by DEQ within 30 days prior to the expiration date listed on this permit; and
- b. The application must be sent to the appropriate regional office identified in Condition 14.2.

14.0 DEQ CONTACTS / ADDRESSES

14.1. Business Office

The permittee must submit all documentation, which includes fees or payments, to DEQ's Business Office:

Oregon Dept. of Environmental Quality
Financial Services – Revenue Section
700 NE Multnomah St., Suite 600
Portland, Oregon 97232-4100

14.2. Permit Coordinator Addresses

The permittee must submit all notices and applications that do not include payments or fees to the Permit Coordinator in the DEQ regional office from where the ACI permit was issued.

Counties	Permit Coordinator Address and Telephone
Statewide	Once DEQ's online portal Environmental Data Management System, 'Your DEQ Online' is available for this permit, the permittee will be directed to submit any reports, notices, applications, or fees required by this permit within the online system or through the addresses and information provided at that time. Until the online portal is available for this permit, the permittee must use the addresses and information identified below.
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Northwest Region 700 NE Multnomah Street, Suite 600 Portland, OR 97232 Telephone: (503) 229-5696 NWRaqPermits@deq.oregon.gov
Benton, Coos, Curry, Douglas, Jackson, Josephine, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Western Region 4026 Fairview Industrial Drive SE Salem, OR 97302 Telephone: (503) 378-8240 WRaqPermits@deq.oregon.gov
Baker, Crook, Deschutes, Gilliam, Grant, Harney, Hood River, Jefferson, Klamath, Lake, Malheur, Morrow, Sherman, Umatilla, Union, Wallowa, Wasco, and Wheeler	Department of Environmental Quality Eastern Region 475 NE Bellevue, Suite 110 Bend, OR 97701 Telephone: (541) 388-6146 ERaqPermits@deq.oregon.gov

14.3. Report Submittals

Unless otherwise notified, the permittee must submit all reports (annual reports, source test plans and reports, etc.) to DEQ's Region from where the ACI permit was issued. If you know the name of the Air Quality staff member responsible for your permit, please include it:

Counties	Office Address and Telephone
Clackamas, Clatsop, Columbia, Multnomah, Tillamook, and Washington	Department of Environmental Quality Portland Office 700 NE Multnomah Street, Suite 600 Portland, OR 97232 Telephone: (503) 229-5696
Benton, Lincoln, Linn, Marion, Polk, and Yamhill	Department of Environmental Quality Salem Office 4026 Fairview Industrial Drive SE Salem, OR 97302 Telephone: (503) 378-8240
Coos, Curry, Western Douglas	Department of Environmental Quality Coos Bay Office 465 Elrod Ave., Suite 202 Coos Bay, OR 97420 Telephone: (541) 269-2721
Eastern Douglas, Jackson, and Josephine	Department of Environmental Quality Medford Office 221 Stewart Ave. Suite 201 Medford, OR 97501 Telephone: (541) 776-6010
Crook, Deschutes, Harney, Hood River, Jefferson, Klamath, Lake, Sherman, Wasco, and Wheeler	Department of Environmental Quality Bend Office 475 NE Bellevue, Suite 110 Bend, OR 97701 Telephone: (541) 388-6146
Baker, Gilliam, Grant, Malheur, Morrow, Umatilla, Union, and Wallowa	Department of Environmental Quality Pendleton Office 800 SE Emigrant Avenue, Suite 330 Pendleton, OR 97801 Telephone: (541) 276-4063
EPA	US Environmental Protection Agency Enforcement and Compliance Assurance Division Region 10 (20-C04) 1200 Sixth Avenue, Suite 155 Seattle, WA 98101 Or through the EPA's Central Data Exchange (CDX) (https://cdx.epa.gov/).

14.4. Web Site

Information about air quality permits and DEQ's regulations may be obtained from the DEQ web page at www.oregon.gov/deq/.

15.0 GENERAL CONDITIONS AND DISCLAIMERS

15.1. Other Regulations

In addition to the specific requirements listed in this permit, the permittee must comply with all other applicable legal requirements enforceable by DEQ.

15.2. **Conflicting Conditions**

In any instance in which there is an apparent conflict relative to conditions in this permit, the most stringent conditions apply. [OAR 340-200-0010]

15.3. **Masking of Emissions**

The permittee must not cause or permit the installation of any device or use any means designed to mask the emissions of an air contaminant that causes or is likely to cause detriment to health, safety, or welfare of any person or otherwise violate any other regulation or requirement. [OAR 340-208-0400] [State only enforceable]

15.4. **DEQ Access**

The permittee must allow DEQ's representatives access to the plant site and pertinent records at all reasonable times for the purposes of performing inspections, surveys, collecting samples, obtaining data, reviewing and copying air contaminant emissions discharge records and conducting all necessary functions related to this permit in accordance with ORS 468.095.

15.5. **Permit Availability**

The permittee must have a copy of the permit available at the facility at all times. [OAR 340-216-0020(3) and OAR 340-218-0050]

15.6. **Open Burning**

The permittee may not conduct any open burning except as allowed by OAR 340, division 264.

15.7. **Asbestos [40 C.F.R. Part 61, Subpart M (federally enforceable), OAR 340-248-0200 through 340-248-0280 state-only enforceable]**

The permittee must comply with the asbestos abatement requirements in OAR 340, division 248 for all activities involving asbestos-containing materials, including, but not limited to, demolition, renovation, repair, construction, and maintenance.

15.8. **Property Rights**

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations. [OAR 340-218-0050]

15.9. **Permit Termination, Revocation, or Modification**

DEQ may terminate, revoke, or modify this permit pursuant to OAR chapter 340 division 216 or 218. [OAR 340-216-0082 and OAR 340-218-0050].

16.0 EMISSION FACTORS

- a. The emission factors below are from the "[Air Curtain Incinerator Emissions Factor Determination](#)" written by the San Joaquin Valley Air Pollution Control District. Table 1 below summarizes the emission factors selected for an ACI burning woody biomass derived from forest vegetation.

Table 1: Emission Factors for Air Curtain Incinerator		
Pollutant	Emission Factor (lb/ton as burned)	Source
NO _x	1.0	Derivation of NO _x Emission Factor for Air Curtain Incineration of Woody Biomass
SO ₂	0.1	ARB Open Burn for Orchard and Vine Crops and Forest Biomass
PM _{2.5}	1.1	USDA, Baker, Oregon Air Curtain Test
PM ₁₀	1.3	Average of USDA Baker, Oregon and USDA San Bernardino Air Curtain Tests
PM	1.7	DEQ estimate
CO	2.6	USDA, Baker, Oregon Air Curtain Test
VOC	0.9	Average of USDA Baker, Oregon and USDA San Bernardino Air Curtain Tests

- b. Table 2 below includes a wood ash handling emission factor, which is based on the combined activities of unloading from a dump truck and spreading coal fly ash at a landfill.

Table 2: Emission Factor for Wood Ash Handling		
Pollutant	Emission Factor (lb/ton of ash)	Source
PM	0.30	DEQ Estimate
PM ₁₀	0.23	Fugitive particulate emission factors for dry fly ash disposal, Journal of the Air & Waste Management Association, 63(&): 806-818, 2013
PM _{2.5}	0.035	Fugitive particulate emission factors for dry fly ash disposal, Journal of the Air & Waste Management Association, 63(&): 806-818, 2013.

- c. Table 3 below includes blower engine diesel emission factors.

Table 3: Emission Factors for Blower Engine		
Pollutant	Emission Factor (lb/ gal diesel)	Source
PM/PM ₁₀ /PM _{2.5}	0.0018	USEPA Tier 4 certified diesel engine emission standards as required by NSPS subpart IIII
CO	0.44	

Table 3: Emission Factors for Blower Engine		
Pollutant	Emission Factor (lb/ gal diesel)	Source
NMHC (VOC)	0.017	AP-42 Sec 3.3
NO _x	0.035	
SO ₂	0.0021 lb/hour	

17.0 PROCESS/PRODUCTION RECORDS

Emissions device or activity	Process or production parameter	Frequency
ACI	Material burned (tons)	Daily and annual
Blower Engine	Diesel burned (gallons)	Daily and annual
Ash handling	Ash handled (tons)	Daily and annual

18.0 ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

ACDP	Air Contaminant Discharge Permit	NSPS	New Source Performance Standard
ACI	Air curtain incinerator	NSR	New Source Review
ARB	Air Resources Board	O ₂	oxygen
ASTM	American Society for Testing and Materials	OAR	Oregon Administrative Rules
AQMA	Air Quality Maintenance Area	ORS	Oregon Revised Statutes
calendar year	The 12-month period beginning January 1st and ending December 31 st	O&M	operation and maintenance
CAO	Cleaner Air Oregon	PAHs	polycyclic aromatic hydrocarbons
CAS	Chemical Abstracts Service	Pb	lead
C.F.R.	Code of Federal Regulations	PCD	pollution control device
CI ICE	Compression Ignition Internal Combustion Engine	PEMS	Predictive emission monitoring system
CO	carbon monoxide	PM	particulate matter
CO _{2e}	carbon dioxide equivalent	PM ₁₀	particulate matter less than 10 microns in size
DEQ	Oregon Department of Environmental Quality	PM _{2.5}	particulate matter less than 2.5 microns in size
DPF	diesel particulate filter	ppm	part per million
dscf	dry standard cubic foot	PSD	Prevention of Significant Deterioration
EPA	US Environmental Protection Agency	PSEL	Plant Site Emission Limit
FCAA	Federal Clean Air Act	PTE	Potential to Emit
Gal	gallon(s)	QR	Quick response
GHG	greenhouse gas	RACT	Reasonably Available Control Technology
gr/dscf	grains per dry standard cubic foot	scf	standard cubic foot
HAP	Hazardous Air Pollutant as defined by OAR 340-244-0040	SER	Significant Emission Rate
I&M	inspection and maintenance	SIC	Standard Industrial Code
lb(s)	pound(s)	SIP	State Implementation Plan
LRAPA	Lane Regional Air Protection Agency	SO ₂	sulfur dioxide
Mgal	Thousand gallons	TACT	Typically Achievable Control Technology
MMBtu	million British thermal units	USDA	United States Department of Agriculture
NA	not applicable	VE	visible emissions
NESHAP	National Emissions Standards for Hazardous Air Pollutants	VOC	volatile organic compound
NO _x	nitrogen oxides	year	A period consisting of any 12-consecutive calendar months

19.0 GENERAL PROVISIONS

Table 8 to Subpart III of Part 60—Applicability of General Provisions to Subpart III Part 60 Standards of Performance for New Stationary Sources Subpart A – General Provisions			
General Provisions citation	Subject of citation	Applies to subpart	Explanation
§60.1	General applicability of the General Provisions	Yes	
§60.2	Definitions	Yes	Additional terms defined in §60.4219.
§60.3	Units and abbreviations	Yes	
§60.4	Address	Yes	
§60.5	Determination of construction or modification	Yes	
§60.6	Review of plans	Yes	
§60.7	Notification and Recordkeeping	Yes	Except that §60.7 only applies as specified in §60.4214(a).
§60.8	Performance tests	Yes	Except that §60.8 only applies to stationary CI ICE with a displacement of (≥ 30 liters per cylinder and engines that are not certified).
§60.9	Availability of information	Yes	
§60.10	State Authority	Yes	
§60.11	Compliance with standards and maintenance requirements	No	Requirements are specified in subpart III.
§60.12	Circumvention	Yes	
§60.13	Monitoring requirements	Yes	Except that §60.13 only applies to stationary CI ICE with a displacement of (≥ 30 liters per cylinder).
§60.14	Modification	Yes	
§60.15	Reconstruction	Yes	
§60.16	Priority list	Yes	
§60.17	Incorporations by reference	Yes	
§60.18	General control device requirements	No	
§60.19	General notification and reporting requirements	Yes	