

**ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
SPECIFICATIONS FOR AIR CURTAIN INCINERATORS**

**Please Type or Print in Ink**

1. **The air curtain incinerator will be/is:** Stationary ( )      Mobile ( )
2. **The pit will be/is free standing with refractory walls:** Yes ( )      No ( )
3. **The pit dimensions will be/are:**  
Length\_\_\_\_\_Ft      Depth\_\_\_\_\_Ft      Width\_\_\_\_\_Ft
4. **There will be/is an ash clean-out door:** Yes ( )      No ( )
5. **Source of power:** Electricity ( )      Diesel Engine ( )      Other ( ) \_\_\_\_\_
6. **Combustion Air Parameters:**
  - a. **Overfire Air:**
    1. Nozzle Velocity:\_\_\_\_\_ft/min
    2. Air Flow:\_\_\_\_\_cfm/linear foot of nozzle
    3. Air directed how many feet below top of opposite wall?\_\_\_\_\_ft
  - b. **Underfire Air:**
    1. From line off of overfire air fan:\_\_\_\_\_
    - From separate fan:\_\_\_\_\_
    2. Nozzles in center below floor level: Yes ( )      No ( )
    3. Nozzle in each side panel except door? Yes ( )      No ( )
    - Height of tops of nozzle openings above bottom of pit:\_\_\_\_\_in

**Facility Name:** \_\_\_\_\_

**Signature**\_\_\_\_\_

**Printed Name**\_\_\_\_\_ **Title**\_\_\_\_\_

**Date**\_\_\_\_\_ **Telephone #**\_\_\_\_\_

**Mail to:  
AIR DIVISION  
ALABAMA DEPARTMENT OF ENVIRONMENTAL MANAGEMENT  
P. O. BOX 301463  
MONTGOMERY, AL 36130-1463**

**MINIMUM SPECIFICATIONS  
FOR  
AIR CURTAIN INCINERATORS**

1. An air curtain incinerator, also called a pit burner, may be stationary or mobile. The site of a stationary air curtain burner must be preapproved by the Department.
2. The pit must be free standing with refractory walls. The refractory walls must be made of replaceable panels, as opposed to continuous refractory walls. The floor design and composition are usually optional {see 5b (1) below}.
3. The interior dimensions of the pit may be as follows:
  - Length - 12 to 50 feet
  - Depth - 9 to 12 feet
  - Width - 7 to 9 feet
  - or as approved by the Department
4. There must be an ash clean-out door on one end of the pit which can be securely closed when burning.
5. There must be overfire air and underfire air for maximum efficiency during combustion
  - a. The overfire air nozzle must exit above the top and along the entire interior length of one of the long walls. The nozzle should have exit air velocities in excess of 10,000 feet per minute and an air volume in excess of 1000 cubic feet per minute per linear foot of nozzle. The air must be directed to an imaginary line on the opposite wall parallel to and one-fourth to one-third down from the top.
  - b. The underfire air may come from a line off of the overfire fan or from a separate fan. The underfire air nozzles must comply with one of the two following designs.
    - (1) Nozzles will be in a center trough, below floor level, four or less feet apart along the lone axis of the pit. A portion of the floor must be solid on both sides to act as rails to protect the nozzles during pit cleaning.
    - (2) Nozzles will exit from the sides of the pit, one in each bottom panel, except for the clean-out door. The tops of the underfire air nozzle openings cannot be greater than 5 inches above the bottom of the pit.
6. The addition of screens, tops or extended walls is optional, but may be required by the Department under special circumstances.