



Johns Creek Fire Department

Fire Marshal
11360 Lakefield Drive
Johns Creek, GA 30097
Johnscreekga.gov

THIS IS NOT A BURN PERMIT. A PERMIT WILL BE ISSUED AFTER APPROVAL FROM YOUR FINAL INSPECTION FROM JOHNS CREEK FIRE DEPARTMENT.

SECTION 2 – AIR CURTAIN DESTRUCTORS

Pit fires are the only type of fire permitted for the purpose of land clearing. No aboveground fires are allowed in the city of Johns Creek, Georgia. All pit fires shall be operated in strict accordance with the “Air Curtain Destructor Operating Guide and Procedures” as published by the North Georgia Region Environmental Protection Division. Pit fires shall comply with the following requirements:

1. The pit shall be at least **three hundred (300)** feet from any structure or public road. Air curtain destructors (ACD) used solely for utility line clearing or road clearing may be located at a lesser distance upon approval of the Fire Marshal.
2. Only wood wastes consisting of trees, logs, brush and stumps may be burned. Sawdust, other densely packed wood wastes, paper (any type), chemically treated, coated or impregnated wood, or non-wood construction materials **CANNOT** be burned.
3. No more than one (1) ACD can be operated within a **ten (10)** acre area at one time, or there must be at least one thousand (**1000**) feet between any two air curtain destructors. The air curtain destructor must be under control of a trained operator at all times during operation.
4. Air Curtain Destructor must be able to pass an even, non-turbulent flow of air across the top of the pit. Air curtain destructors with an air duct or manifold that has been altered by bends, dents, holes, etc., and are incapable of providing an even and non-turbulent flow of air across the top of the pit shall not be approved for use.
5. The Air Curtain Destructor shall be operated in a manner to prevent air, land or water pollution, safety/health hazards, or nuisances.
6. Tires or other rubber products, plastics, heavy oils or asphaltic-based or impregnated materials shall not be used start or maintain the operation of the air curtain destructor.
7. No smoke emissions exceeding forty (40) percent capacity may be produced during operation except for a reasonable period during ignition and charging of the pit.
8. When the pit is cleaned of ash, airborne particulate is to be minimized by wetting or mixing the ashes with dirt.
9. Diesel fuel or kerosene may be used to start pit fires.

!!OPERATING PROCEDURES FOR AIR CURTAIN DESTRUCTORS!!

STEP 1 – SITE SELECTION AND PREPARATION

Select a site which will likely have a low water table, can be easily excavated, and will be not less than three hundred (300) feet from any occupied structure.

STEP 2 – PIT PREPARATION

Excavate the pit (Figure 2) using either a front end loader or back hoe.

PIT DIMENSIONS:

Eight (8) feet wide X twelve (12) to fifteen (15) feet deep X fifteen (15 to thirty (30) feet long. The pit must be excavated with at least three (3) vertical sides in soil capable of maintaining vertical walls of fifteen (15) foot depth with out failure. Additional wall support may be necessary.

- Note:
1. The length is dependent upon the length of the air curtain destructor manifold.
 2. Caution must be exercised to ensure the walls are not undercut during excavation. If a front end loader is used, the end used for travel must be filled in with dirt beginning at the end of the manifold and filling up the ramp.

STEP 3 – AIR CURTAIN DESTRUCTOR SET UP

Using a small berm of soil (1 to 1 ½ foot high), place the manifold (plenum and nozzles), such that the manifold is properly supported, and the space between the manifold and the ground is sealed (Figures 1 and 2). Rotate the manifold until the air curtain will be directed at an imaginary horizontal line 24 to 36 inches below the top of the opposite wall. Slide the skid containing the blower and motor into place and connect the manifold.

STEP 4 – IGNITION PROCEDURE

Load the pit half full with homogeneous mixture of trees, logs, and large brush. Douse the wood with ½ gallon fuel oil. The majority of the fuel oil should be put on the wood at the front center side of the pit. Allow sufficient time for the fire to take hold before introducing any air from the air curtain destructor. As the fire grows in intensity, gradually bring the blower up to optimum speed (generally between 1100 and 1400 RPM).

CAUTION: DO NOT USE TIRE OR HIGHLY VOLATILE SOLVENTS SUCH AS GASOLINE, MINERAL SPIRITS, ETC. FOR IGNITION.

- Note:
1. Only wood waste consisting of trees, logs, large brush, stumps, relatively free of soil and lumber may be burned.

2. Leaves, sawdust, other densely packed wood wastes, paper (any type), or chemically treated, coated, or impregnated wood CANNOT be burned.

STEP 5 – LOADING PROCEDURES

Once the fire reaches full intensity, successive intermittent charging may begin.

The intervals between charges may be determined by observing the burning rate. Generally, if the fire is kept at its maximum intensity, it will keep one man, operating a front end loader, constantly busy. Also, the material should be charged toward the rear of the pit under the air curtain.

The pit should not be overloaded, that is, the material should not be piled up so high that it will protrude above the air curtain. Also, no material should extend outside the boundaries of the pit and air curtain.

STEP 6 – MAINTENANCE AND SAFETY REQUIREMENTS

Ash removal is required in order to maintain efficient and proper combustion. Ashes should not be allowed to build up higher than 1/3 the pit depth, or below the point where they begin to impede combustion and are blown out of the pit.

If spalling, “cave off”, of the pit walls occurs during operation, a new pit must be constructed and the existing pit filled with soil.

Note: Each new pit will require an inspection by the Johns Creek Fire Department.

Any accumulation of water in the pit must be removed prior to operation.

SAFETY: It is recommended that a fence or barrier be erected around the pit to protect the public.

STEP 7 – PERMIT

To obtain a permit, please contact the John Creek Fire Department, Fire Marshal Office at (678) 512-3363.

Note: The pit shall be constructed and the air distributor in place before you request an inspection from the Johns Creek Fire Department prior to obtaining permit.

AIR CURTAIN DESTROYER
OPERATING GUIDE AND PROCEDURES

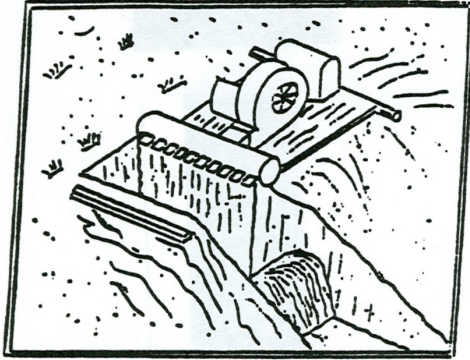


FIGURE 1 - Site Preparation

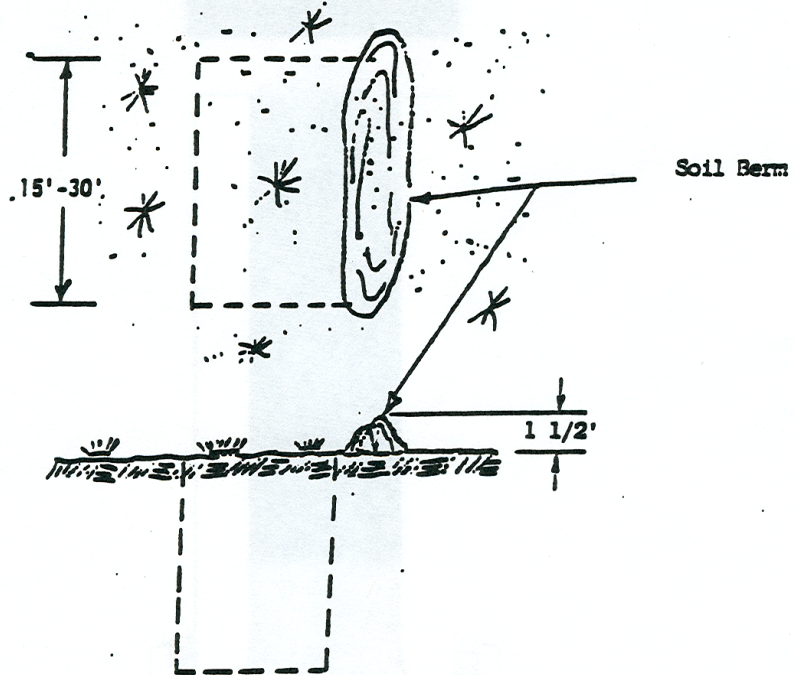


FIGURE 2 - Air Curtain Destructor (ACD) Set up

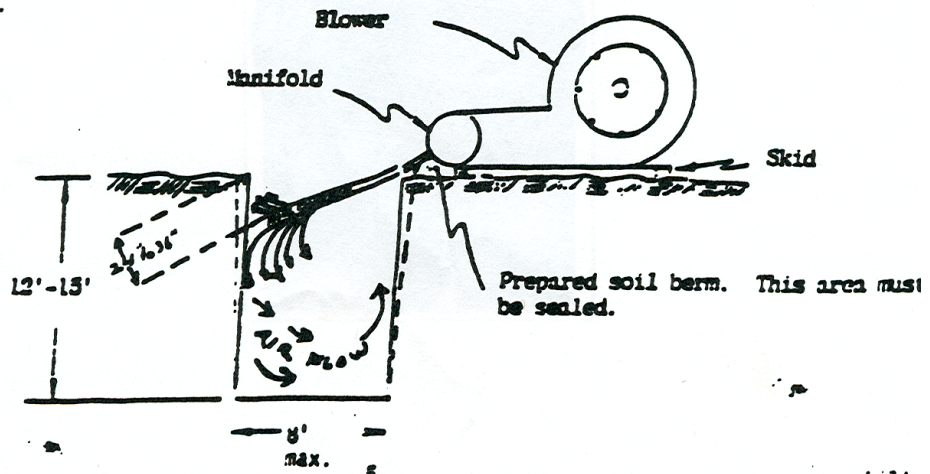


FIGURE 3 - Cross-section of Pit and ACD

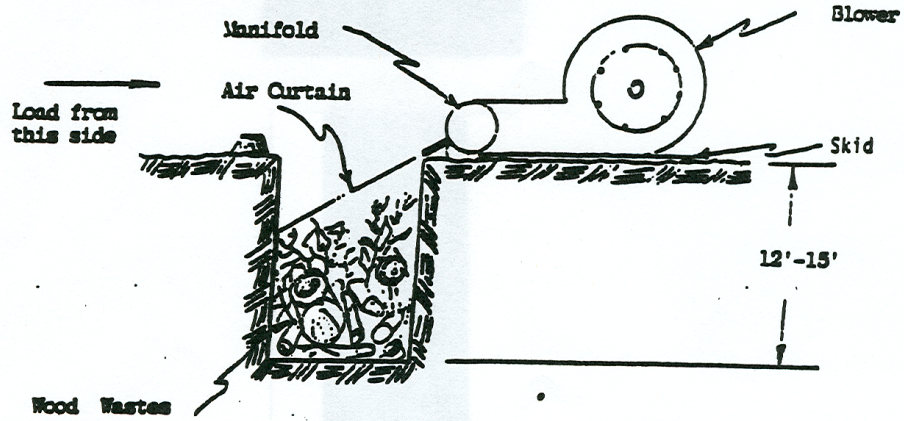
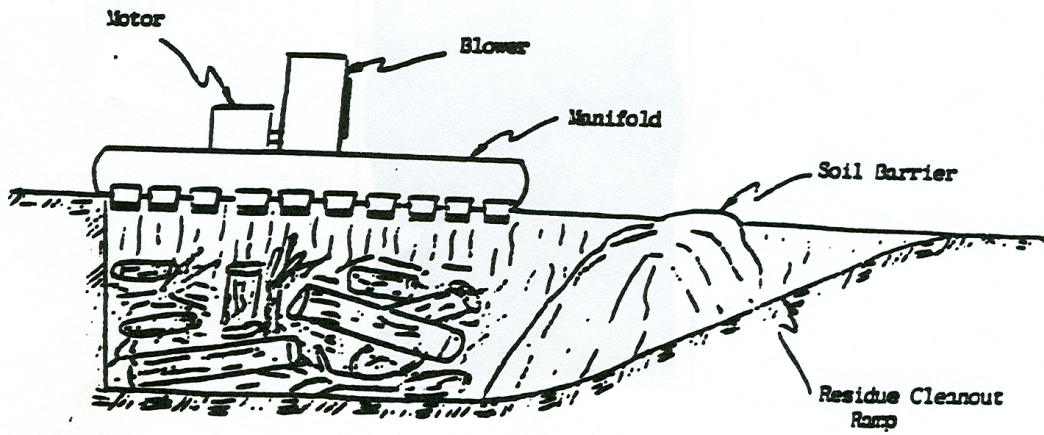


FIGURE 4 - Profile of Pit and ACD



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FIGURE 5 - Plan View of Pit and ACD

