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Public Health
Prevent. Promote. Protect.

TO: LAND CLEARING CONTRACTORS AND PROSPECTIVE OPEN BURNERS

FROM: SHELBY CO. HEALTH DEPT., POLLUTION CONTROL

**RE: STANDARD OPERATING PROCEDURES FOR ISSUANCE OF AN OPEN
BURNING PERMIT IN SHELBY COUNTY**

Open burning in Shelby County is prohibited. Exceptions can be granted under specific conditions that do not interfere with the maintenance of acceptable air quality or create a public nuisance.

The Health Department's Air Pollution Control Section operates under Memphis City (16-50) or Shelby County (3-16) codes, and works in conjunction with local Fire Departments in issuing permits. At land clearing sites, temporary permits for the controlled burning of waste trees and brush can be issued. Grinding or chipping is the preferred method of disposal, however, burning this material is environmentally and economically preferred over disposal by landfill.

The Fire Departments are concerned with preventing the spread of fire and potential fire hazards to nearby citizens. The Health Department is interested in minimizing the amount of smoke and fly ash released into the air that also impacts nearby residents.

(1) PERMITS

To burn in Shelby County, outside incorporated areas, contact the Shelby County Health Department at 222-8270. The Shelby County Fire Department currently charges fifty dollars (\$50.00) in addition to the one hundred thirty dollars (\$130.00) charged by the Health Department. A minimum 24-hour advance notice is requested to allow coordination of the joint on site visit by both inspectors. We will attempt to schedule the appointment on the day and time requested by the land clearing contractor, however, a permit may be delayed if both inspectors are unable to meet at the requested time.

To burn inside the Memphis City Limits, first obtain a permit from the Memphis Fire Department at 320-5422. The City of Memphis requires a 48-hour advance notice to schedule a permit inspection and their fee is fifty dollars (\$50.00) or seventy-five dollars (\$75.00) for a 24-hour notice. Other incorporated areas of Shelby County may require an additional permit to be issued by their city fire department. Permits are currently required by the City of Collierville and the City of Germantown. Incorporated areas include: Arlington, Bartlett, Collierville, Germantown, Lakeland, and Millington.

Mission

To promote, protect and improve the health and environment of all Shelby County residents.

814 Jefferson Avenue ♦ Memphis, Tennessee 38105
(901) 222-9000

After obtaining the appropriate city permit, contact the Health Department at 222-8270 to schedule a burn permit inspection. The Air Pollution Control's controlled burn permit fee for either the incorporated or unincorporated areas is one hundred thirty dollars (\$130.00) and is collected at the time of permit issuance. Please make check or money order payable to "SHELBY COUNTY GOVERNMENT". Cash may be accepted at the discretion of the inspector.

If you are uncertain about the jurisdiction of the area where you are planning to burn or if you are not sure the site meets the minimum distances specified in part (5), contact the Health Department for a site suitability inspection. There is no charge for this service. Information regarding nearby streets, cross streets, direction, and distance will help determine the exact location of the burn site. If the location is remote and cannot be adequately identified or located on our maps, the clearing contractor will be asked to meet the inspector at a nearby location, such as an identified cross street, and the inspector will accompany the contractor to the site.

The Health Department permit is valid for thirty days (30) after issuance. If weather conditions prohibit burning for a significant period during those thirty days, a short extension may be granted, if requested, **before the permit expires**.

Only trees and brush from the burn site may be burned. Material may not be hauled in from other sites. Other materials including buildings, construction debris, furniture, plastic, tires, and roofing material **must not be burned in the pit**.

(2) BURN PIT SPECIFICATIONS

The air curtain destructor (ACD) blows a sheet of air across the top of the pit to increase burning efficiency and reduce smoke and fly ash emissions. The ACD's nozzles are slanted so they impact about three (3) feet below the surface on the side opposite the blower. The ACD **does not blow directly down into the fire**. In a properly operating pit, the air curtain rolls under and oxygenates the fire for more complete combustion (see Figure 1). The pit walls must be vertical, not sloped or slanted. The pit must be no more than twelve (12) feet wide because the air stream must reach the far side. A pit width of less than twelve (12) feet should be used for smaller air blowers.

The pit length is determined by the length of the air curtain plenum or blower manifold. The plenum should be centered on the pit and the pit length can extend up to a maximum of five (5) feet beyond each end of the plenum.

The pit must be at least ten (10) feet deep. Pit depth is determined by available digging equipment and the water table. A pit cannot be permitted where groundwater is encountered during construction. Deeper pits usually burn better and cleaner.

(3) PROCEDURE FOR THE SCHEDULED INSPECTION DAY

Prior to the scheduled inspection, construct a pit according to the permit requirements. The pit must be partially filled with trees and brush, **do not overfill**. An overfilled pit has material above the sheet of air that results in blockage of airflow and excessive smoke emissions.

After the inspectors approve the pit's dimensions and position, diesel fuel may be used to ignite the contents. The equipment's ability to control smoke is observed before the permit is issued.

A Health Department permit fee is not required for pits that are not approved.

(4) PROCEDURES FOR DAYS YOU BURN

During the burn period, the jurisdictional Fire Department **must be notified each day before burning begins and again when burning ends for the day**. The Fire Department telephone number is usually written at the bottom of the permit.

Arlington Fire Department	867-8905
Bartlett Fire Department	385-5536 or 385-6412
Collierville Fire Department	457-2400 or 457-2481
Germantown Fire Department	757-7269
Memphis Fire Department	320-5422 or 320-5401
Millington Fire Department	872-7851
Shelby County Fire Department	379-7070
Memphis & Shelby County Health Dept.	222-8270 or 222-8215
Computerized Local Air Index Reporting System (CLAIR)	222-9167 or 222-9573

Burning normally takes place only during daylight hours for fire safety and to protect the workers charging the pit. **Someone must be at the site to monitor the pit when burning is taking place.** Operation of the blower should continue until the fire has burned down completely and a fence or barrier should be placed completely around the pit or the pit completely filled and covered with dirt prior to leaving the site. A metal fence is required for the prevention of mishaps such as falling into unfilled pits. A wooden or plastic fence is unacceptable.

(5) PROBLEMS SOMETIMES ENCOUNTERED WITH BURN PITS

A permit is issued for a particular pit. If a pit is moved, another inspection, permit, and fee are required for the new pit, even if both pits are on the same construction site.

A pit too long for the ACD plenum or wider than the permit specifications will have to be backfilled and replaced with another pit.

Burning must take place below the air curtain. Overfilled pits tend to smoke and release fly ash which are the most common citizen complaints.

Additional restrictions, such as limited burning hours and days or the presence of a water truck on site may be imposed based on the site's location and distance to the nearest water hydrant. Wind speed and direction limitations may also be imposed, either at the time the permit is issued or as a result of citizen complaints.

Occasionally a permit cannot be issued because of the small size of the site or the site's proximity to occupied residences, schools, nursing homes, hospitals, airports, major roadways, or public parks. The presence of overhanging trees or other flammable material may also prevent the issuance of a permit. No standing timber or overhead electrical lines are permitted within one hundred (100) feet of the burn pit.

Minimum allowable distances for acceptable burn pits:

Five hundred (500) feet away from any Federal or State highway

One thousand (1000) feet from any school, occupied residence, or National/State park

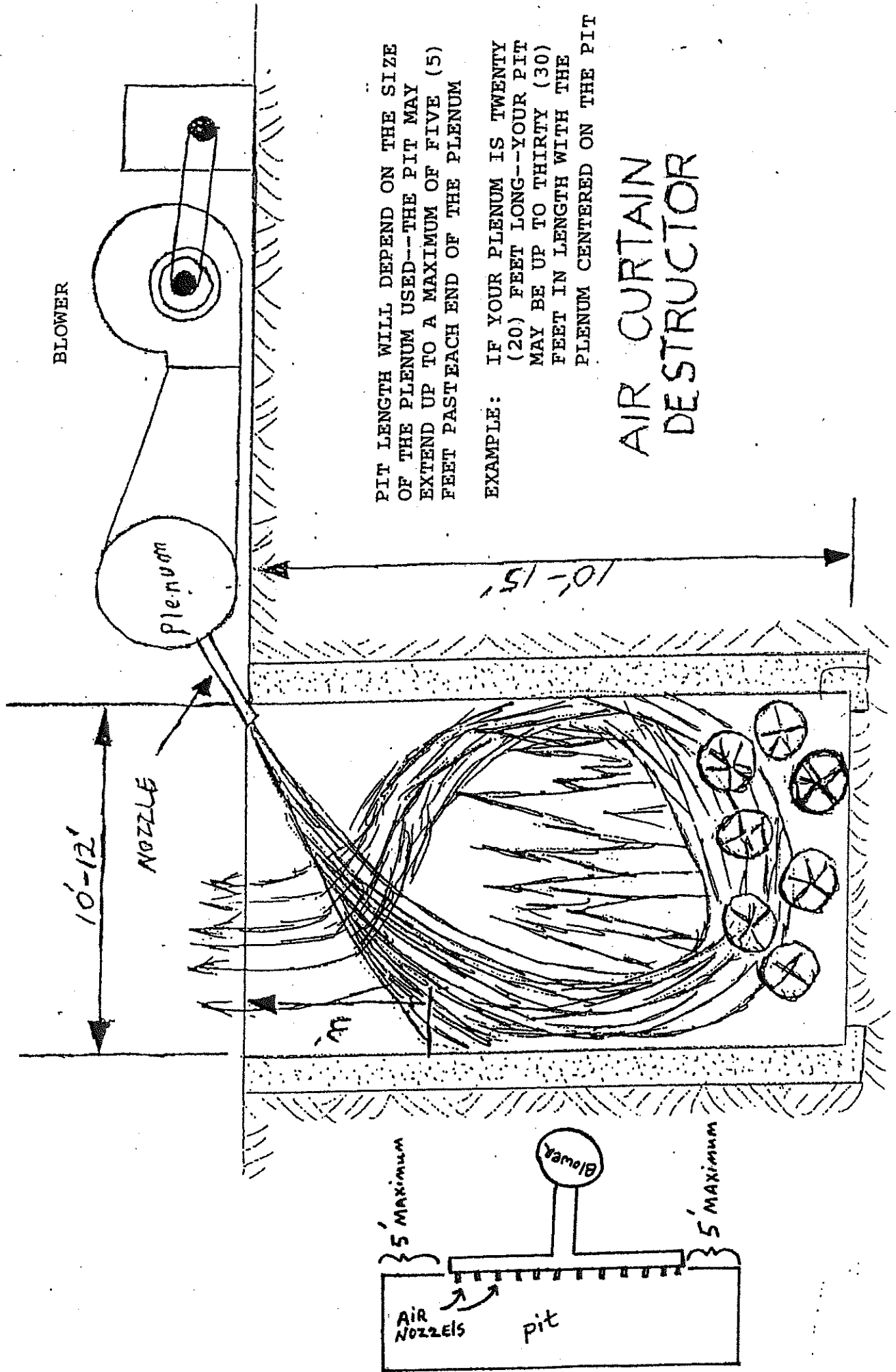
One half (1/2) mile from any airport, nursing home, or hospital

Burning is to be conducted when ambient conditions ensure maximum dispersion of smoke. **Burning is not allowed when the air quality index for the Memphis area is in the "unhealthful" (code orange) or higher range (code red or code purple).** Burn permit holders are not allowed to burn when projected weather conditions and pollution modeling indicates a code orange or higher condition is expected. **To determine if burning has been restricted you must call the Health Department's Computerized Local Air Index Reporting System (CLAIR) at 222-9167 or 222-9573 each day.** The automated system will tell you if it is a "burn" or "no burn" day. The permit can be revoked and the company/owner may be assessed a penalty for violation of this permit condition. Permits are also occasionally revoked because of substantiated complaints regarding excessive smoke and fly ash due to improper burn pit operation. The Health Department is authorized to fine violators of permit conditions up to a maximum of twenty-five thousand dollars (\$25,000.00) per violation, per day.

Most problems and complaints associated with burn pit operation may be avoided by following these guidelines.

If you have any questions regarding this document, please call the Memphis & Shelby County Health Department, Air Pollution Control Section, Field Services Branch at 222-8270 or 222-8215.

FIGURE 1



PIT LENGTH WILL DEPEND ON THE SIZE OF THE PLENUM USED--THE PIT MAY EXTEND UP TO A MAXIMUM OF FIVE (5) FEET PAST EACH END OF THE PLENUM

EXAMPLE: IF YOUR PLENUM IS TWENTY (20) FEET LONG--YOUR PIT MAY BE UP TO THIRTY (30) FEET IN LENGTH WITH THE PLENUM CENTERED ON THE PIT

AIR CURTAIN DESTRUCTOR