pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

AIR POLLUTION FROM HOUSEHOLD OPEN BURNING IN PENNSYLVANIA

Concerns about household open burning.

Some may think that burning household trash in a burn barrel contributes to air pollution, but think again.

A study conducted by the U.S. Environmental Protection Agency and the New York State Department of Health shows that burn barrel emissions from 2 – 40 households burning their trash daily in barrels can produce levels of toxic emissions comparable to a well-controlled 200 ton/day municipal incinerator. These chemicals can include acid vapors and dioxins.

Burn barrels also emit heavy metals, such as lead, cadmium and chromium, as well as unhealthy levels of carbon monoxide. The closer a person is to waste that is burning, the higher the risk of inhaling dangerous pollutants.

This may not have been the case 50 or even 25 years ago when your parents or grandparents burned trash in a burn barrel. In the past, household waste consisted mostly of paper and glass. Today, metal cans, plastic packaging, plastic products, and other synthetic materials make up a large portion of society's waste. When burned, these items can emit toxic pollutants and contaminated soot particles into the air.

In addition to the health effects of breathing the pollutants, flying sparks and embers can easily lead to uncontrolled fires, posing a substantial threat to life and property.

What are the potential health effects of breathing the pollutants from burning trash?

The short-term effects are usually coughing or irritation of the respiratory tract and eyes. Smoke can be a vehicle for deep penetration of pollutants into the lungs.

Long-term exposure to these pollutants may lead to cancer and emphysema. Acid vapors can irritate the lungs and cause problems for people suffering from asthma and emphysema. Dioxins are linked to increased risks of cancer, delays in child development, and damage to the immune system.

How is household open burning regulated?

Pennsylvania law allows open burning of "domestic refuse" as long as the fire is on the property of a structure occupied solely as a residence by two families or less and when the refuse results from the normal occupancy of the structure. "Domestic Refuse" does not include such items as demolition waste, insulation, shingles, treated wood, paint, painted or stained objects or furniture, tires, mattresses, box springs, metal, insulating coating on wire, television sets and appliances, automobiles, automotive parts, batteries, PVC products, waste oil and other petroleum products.

Under state law, local officials have the authority to address the needs of their communities by enacting open burning ordinances for household waste with requirements that are equal to or more stringent than state regulations. Municipal ordinances cannot be less stringent than the state requirements.

Many communities across the state have enacted open-burning ordinances that restrict household open burning. Many of these are based on a model ordinance that the Department of Environmental Protection (DEP) has developed. Upon request, DEP can provide a copy of the model ordinance and copies of actual enacted ordinances. DEP can also provide copies of various studies about open burning.

What alternatives are there to open burning?

Because of the potential health and fire risks of open burning, DEP strongly recommends to recycle and reuse as much trash as possible or take it to a licensed landfill or municipal incinerator.

Instead of burning trash, consider the following alternatives:

- **Reduce** – Buy products in bulk, which requires less packaging, thereby producing less waste. Buy only what is needed.
- **Reuse** – Donate unused or unwanted items to local charities, have a yard sale, give the items to friends or repair items when practical.
- **Recycle** – Contact the municipality or waste hauler to find out what materials are collected for recycling. Encourage them to collect additional materials.

- **Compost –** Turn leaves, yard waste and kitchen fruit and vegetable scraps into a soil amendment by starting a compost pile.
- **Grasscycling –** Leave grass clippings where they fall. The clippings decompose and act as a natural fertilizer, reducing the need to buy commercial fertilizer.
- **Buy Recycled –** Buying recycled products closes the loop on the recycling process and creates the market to help recycle and reuse materials that would otherwise be disposed of in landfills or burned.

Is recycling required anywhere?

The municipality may be required to have a residential waste recycling program under the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988 (Act 101). If so, it is illegal under Act 101 to burn the kinds of waste and materials that the municipality requires residents to recycle. In communities that are required to recycle residential waste under Act 101, leaf waste must also be separated from other municipal waste. Leaf waste should then be composted by either the resident or the municipality.

To determine if residents are required to recycle specific materials or separate out leaf waste, call the local municipal office, the County Recycling Coordinator or the DEP regional planning and recycling coordinator (DEP regional office phone numbers are below).

How to limit open burning in the community and encourage recycling?

Work with the local elected officials to enact an open-burning ordinance that is as fair as possible to everyone. Communities that are required to recycle under Act 101 or have a recycling grant must have an open-burning ordinance that prohibits the burning of the materials that the municipality recycles. Composting of leaves and yard waste should be encouraged.

Contact the DEP regional recycling coordinator or the local county recycling coordinator for information about starting a municipal recycling and composting program. Grants are available to assist municipalities that qualify for funding to start and maintain recycling programs.

Where is there more information about open burning?

Information on open burning is available on DEP's Open Burning website at www.dep.state.pa.us, keyword: Open Burning. Call DEP's Bureau of Air Quality at 717-787-9702.

How to learn more about recycling, composting and grasscycling

For more information, visit www.dep.state.pa.us, keyword: Recycling or Composting or Grasscycling.

DEP Regional Offices

Northwest Region
230 Chestnut St.
Meadville, PA 16335-3481
814-332-6945

Counties: *Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango and Warren*

North-central Region
208 W. Third St., Suite 101
Williamsport, PA 17701-6448
570-327-3636

Counties: *Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga and Union*

Northeast Region
2 Public Square
Wilkes-Barre, PA 18701-1915
570-826-2511

Counties: *Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne and Wyoming*

Southwest Region
400 Waterfront Drive
Pittsburgh, PA 15222-4745
412-442-4000

Counties: *Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington and Westmoreland*

South-central Region
909 Elmerton Ave.
Harrisburg, PA 17110-8200
717-705-4700

Counties: *Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry and York*

Southeast Region
2 East Main St.
Norristown, PA 19401-4915
484-250-5900

Counties: *Bucks, Chester, Delaware, and Montgomery*

Allegheny County and Philadelphia County each have their own air quality program. For more information about air quality in Philadelphia County, call Air Management Services at 215-685-7572. In Allegheny County, call the Allegheny County Health Department at 412-578-8103.