



Open Burning

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Disposing of our waste items by open burning has been a way of life for many years. Many of us grew up with the backyard burn barrel, and some of us may still use such a disposal device. However, today's waste contains more plastics and other synthetic materials than ever before. These materials release more harmful chemicals when burned than the cardboard and paper packaging of the past. Open burning can negatively impact our environment and our health. Many respiratory diseases such as asthma, emphysema, chronic bronchitis, and nervous system disorders have been linked to open burning. The problem is of special concern to children, the elderly, and individuals with compromised immune systems.



OPEN BURNING means the burning of any matter without a burn chamber approved by the Kentucky Division for Air Quality or without a stack or chimney with control devices approved by the Kentucky Division for Air Quality. Open burning is regulated under 401 KAR 63:005 in the Kentucky Division for Air Quality State Regulations. Fines can be issued up to \$25,000 per day per violation for illegal open burning.

How Does Open Burning Apply to Me?

Laws and Regulations

Open burning laws apply to all Kentuckians regardless if they are individual citizens, large or small businesses, or a community of people.

Many people believe that as long as they have checked with their local fire department about open burning that they are in compliance. Unfortunately, many towns and cities in Kentucky don't advise their citizens correctly about the need of required approval from the Kentucky Division for Air Quality before open burning is granted or allowed. Additionally, open burning approvals may be required from the Kentucky Division of Forestry, the local fire marshal, city emergency management, or the county judge executive.

Environmental Health Impacts of Open Burning

What you need to know to protect your health and the environment

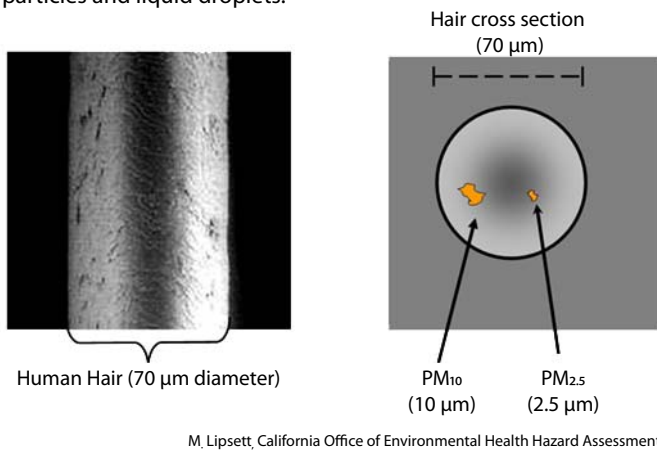
Hazardous Pollutants

Smoke from burn barrels can pollute our air, water, and soil. This smoke contains hazardous pollutants such as particulate matter (Figure 1), sulfur dioxide, lead, mercury, volatile organic compounds, and corrosives. Ashes containing these same compounds can settle on lakes and rivers or be washed into streams during heavy rains. These pollutants can have immediate and long-term health effects on you and your neighbor, including:

- Asthma, emphysema, or other respiratory illnesses
- Nervous system, kidney, or liver damage
- Reproductive or developmental disorders
- Headaches, dizziness, and fatigue

One extremely dangerous group of contaminants is known as dioxins. Dioxins are highly toxic, long-lasting organic compounds. They are dangerous even at extremely

Figure 1. Particulate matter: a complex mixture of extremely small particles and liquid droplets.



“Backyard burning is a health hazard and is a more serious threat to public health and the environment than previously believed. Burning household waste produces many toxic chemicals and is one of the largest known sources of dioxin in the nation.”

~U.S. Environmental Protection Agency

low levels and have been linked to several health problems, including cancer, developmental or reproductive disorders, and birth defects.

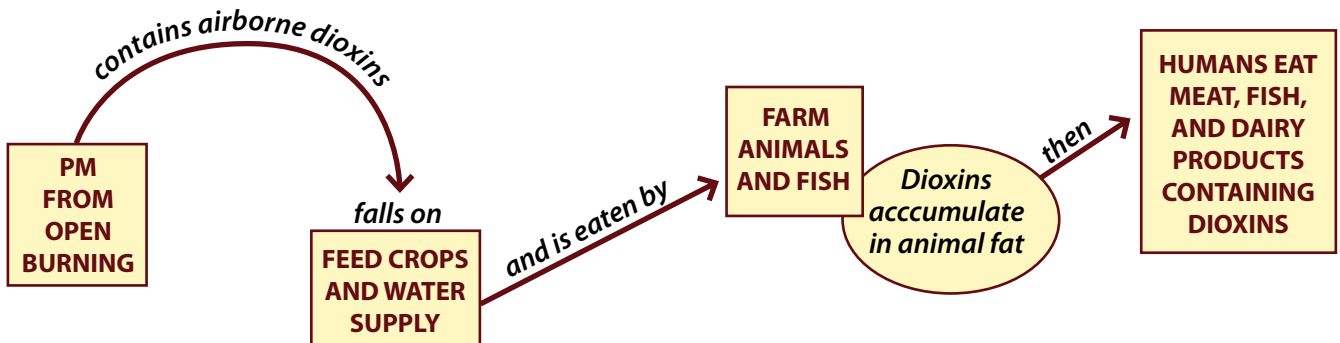
Dioxins are formed when products containing carbon and chlorine are burned. Even very small amounts of chlorine can produce dioxins. Low levels of chlorine are present in most household trash. Because burn barrels do not have the same strict controls as municipal incinerators, barrel burning releases significant amounts of dioxins.

Exposure to Pollutants in the Food Chain

Dioxins accumulate in the food chain when airborne dioxins settle onto feed crops or water supplies, which are then consumed by domestic meat and dairy animals. Dioxins accumulate in the fats of animals and then in humans when we consume meat, fish, and dairy products. (Figure 2.)

The particulate matter from backyard burning can contain toxic pollutants, such as mercury, lead, chromium, and arsenic, which can contaminate vegetables if scattered in gardens. Children can swallow toxic materials from dirt on their hands while playing near discarded ash.

Figure 2. Dioxins attach to particulate matter (PM) and enter the food chain.



The Following Open Burning Activities are Allowed with Certain Restrictions:

Individual and Small-Group Activities

- Campfires
- Ceremonial bonfires
- Cooking (campfires)
- Household trash (paper products only, NO GARBAGE, and accumulated by less than five family units on a daily basis, if the fires are maintained by an occupant)

Construction Activities

- Warming fires at construction sites (not intended as a means of disposal of waste material)

Agricultural Activities

- Burning leaves and weeds (in cities with less than 8,000 population)
- Natural growth from land clearing
- Plant beds
- Tobacco curing
- Tree limbs felled by storms
- Natural land management (fires set for recognized agricultural, silvicultural, range, or wildlife management practices)

Miscellaneous Activities

- Animal carcasses (Disease Control – See Incineration Regulations)
- Fire training

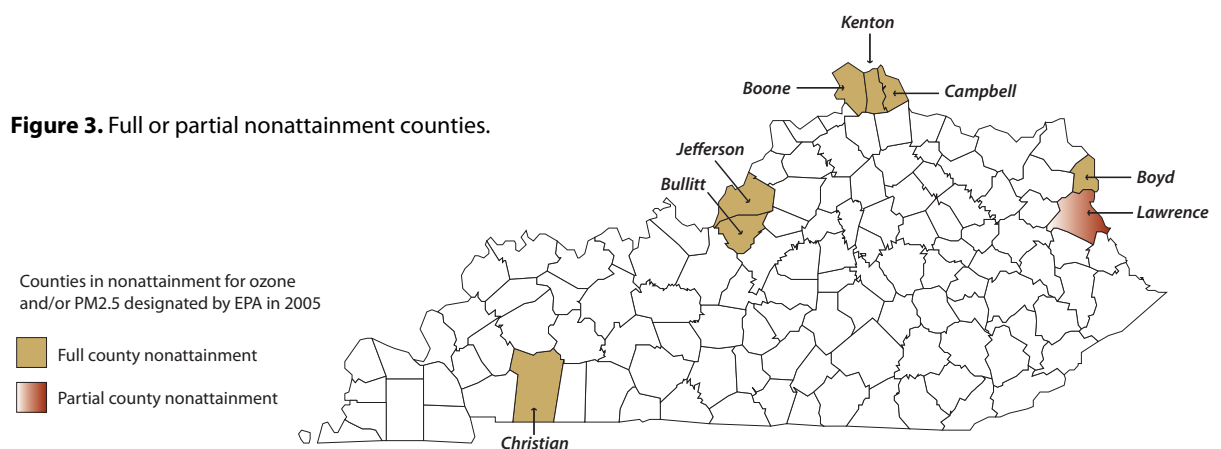
Burning Restrictions

Approved materials may be burned at any time, EXCEPT:

- In an area that is or was designated as moderate nonattainment for 1 hour ozone or PM 10, or an area that is or was designated nonattainment for 8 hour ozone or PM 2.5 (Figure 3) national ambient air quality standards, between the months of May 1 and Sept. 30
- During fire season between the hours of 6 a.m. to 6 p.m. Feb. 15 to April 30, and Oct. 1 to Dec. 15th

Burning of approved materials should be done in a common sense manner. Nearly half of Kentucky's wildfires occur when open burning gets out of control. Following these guidelines, and always staying with your fire, should help to minimize the problem of environmental contamination and wildfires from open burning.

- Do NOT locate fires near streams, sinkholes, or under/over utility lines because environmental contamination and fire hazards are a real danger in these areas.
- Locate fires away from nearby residences or businesses.
- Locate fires at least 150 feet from nearest forested area and brushlands during fire season.
- Check local city/county ordinances.



Open Burning of These Items is PROHIBITED at All Times:

Agriculture

- Animal bedding
- Hay muck piles (horse manure/hay)

Construction

- Asbestos materials
- Buildings (houses, barns, and garages)
- Construction debris
- Demolition debris
- Drywall
- Shingles

Wood Materials

- Fence posts
- Painted wood
- Pallets
- Sawdust
- Treated wood
- Wood chips and shavings
- Wood mulch

Chemical Containers

- Agricultural
- Household rubbish (including aerosol cans)



Miscellaneous

- Coated wire
- Garbage (defined as degradable animal or vegetable matter, plastic materials, foam insulation, Styrofoam, etc.)
- Insulated wire
- Motor oil
- Plastic
- Rubber
- Tires
- Used oil
- Waste generated by businesses, schools, hospitals, churches, and farms



Alternatives to Open Burning

Reduce

- Purchase wisely and avoid buying products that are overly packaged.
- Purchase items that contain recycled material.
- Buy only items you really need.
- Buy as few items containing hazardous materials as possible.
- Take advantage of a “community bank,” a system of tools and materials that are available for a community’s use. If your community does not have one available, think about starting one.

Reuse

- Find art schools or technical vocational schools to reuse metals, wire, and other material for educational or art projects.
- Have equipment and other items repaired instead of just buying new ones.

Recycle

- Utilize recycling services that will accept aluminum, steel, copper, glass, paper, cardboard, and other products to reduce processing of raw material.

Composting

- Yard waste and some food scraps can be turned into nutrient-rich compost. Contact your local Cooperative Extension Service for more information.

Amnesty Programs

- Tire Amnesty operated by the Kentucky Division of Waste Management is a free waste tire collection program for counties. Find out more online at www.waste.ky.gov/ or by calling (502) 564-6716.
- Kentucky Department of Agriculture administers a farm chemical collection program. This is a free program offered to farmers for disposal of farm chemicals. Find out more online at www.kyagr.com/ or by calling (502) 564-5126.
- Other amnesty programs can reduce the need to illegally dispose of trash.

Household Hazardous Waste Drives

- Look for local household hazardous waste drives coordinated by your county solid waste coordinator. Check local listings or visit: www.waste.ky.gov/ to find your solid waste coordinator.

Community Recycle Programs

- Staff at the Kentucky Recycling and Marketing Assistance (KRMA) Program within the Division of Waste Management can assist in starting a program. KRMA: www.waste.ky.gov/ or by calling (502) 564-6716.

Kentucky Department of Agriculture’s Rinse and Return Program

- Farmers are encouraged to participate in this program by rinsing their pesticide containers and taking them to designated drop-off locations for recycling. See this link for more information: www.kyagr.com. Or call (502) 564-5126 or your county Extension office.

Freecycle

- Freecycle is a Web-based, grassroots effort that is a mechanism for trading goods. Once in a network, people can post the items they would like to give away for free or can use the site to find items. This keeps items such as old furniture, clothing, housewares, etc., from ending up in the burn barrel. Check out www.freecycle.org.

KIME (KY Industrial Materials Exchange)

- This is a program sponsored by the Kentucky Pollution Prevention Center and it works much like Freecycle, but it is for businesses. Find out more at www.kppc.org/KIME/ or by calling (800) 334-8635.

Fund-raisers

- Fund-raisers that require people to collect recyclables such as cell phones and ink cartridges are a great way to keep these items out of burn barrels while raising money for important causes. Numerous Web sites offer information on these types of programs. Do an online search using keywords such as “environmental fund-raisers” for more information.

Donate

- Give usable items to charitable organizations such as churches and community centers, etc.

Take Waste to an Approved Landfill

- And when all other options are exhausted, take waste material to an approved solid waste landfill. **DO NOT LITTER.**

Still Not Sure About Open Burning?

CALL:

Division for Air Quality.....(502) 573-3382
Air Quality REGIONAL OFFICES
Ashland(606) 929-5285
Bowling Green(270) 746-7475
Florence.....(859) 525-4923
Frankfort.....(502) 564-3358
Hazard.....(606) 435-6022
London.....(606) 878-0157
Owensboro(270) 687-7304
Paducah.....(270) 898-8468
Division of Compliance Assistance.....(800) 926-8111
Kentucky Business Environmental
Assistance Program (800) 562-2327
University of Kentucky Cooperative Extension Service
check local listings
Louisville Metro Air Pollution
Control District(800) 562-2327
County Solid Waste Coordinator
Check local listings

Kentucky Division of Forestry(800) 866-0555
Kentucky Fire Marshal's Office(502) 564-3626
Kentucky Department of Agriculture.....(502) 564-4696
Kentucky Division of Waste Management (502) 564-6716
Kentucky Department of Fish and
Wildlife Resources(502) 564-3400

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