



## Air Pollution Control Division

### Open burning - frequently asked questions

#### **What is open burning?**

Open burning is the burning of any material or substance, including rubbish, wastepaper, wood, vegetative material or any other flammable material, in the ambient air on any open premises or on any public street, alley or other land adjacent to such premises, or in a receptacle where emissions are released directly into the air without passing through a chimney or stack. Generally, anytime you light a fire outdoors, you are open burning.

#### **Who regulates open burning?**

In Colorado, open burning may be regulated at both the state and local levels. The Colorado Air Pollution Prevention and Control Act (C.R.S. 25-7-1) grants the Colorado Air Pollution Control Division authority to issue open burning permits and enforce state open burning regulations. C.R.S. 25-7-128(5) also states that the application, operation and enforcement of valid local air pollution laws shall be completely independent of the application, operation and enforcement of state air-quality control regulations.

This FAQ focuses on state regulations; it is important to remember, however, that local ordinances may apply. Contact your local health department, fire authority office, municipality office or other appropriate agency to determine what local ordinances apply to you.

#### **Why does the state require permits for open burning?**

The state of Colorado regulates open burning to help protect public health and the environment in Colorado. Open burning pollutes the air and poses a fire hazard. The air pollution created can cause serious health problems, obscure visibility, soil nearby surfaces and create annoying odors.

Burning wood and vegetative products produces an array of harmful chemicals. Carbon monoxide, hydrocarbons, formaldehyde, dioxin and hundreds of additional chemicals are released when wood and other products are burned. Burning plastics, tires, chemically treated wood products and other man-made materials also produces this type of air pollution and releases other toxic chemicals into the air. Tiny pieces of material, commonly called particulate matter, are created in the burning process and can be inhaled into our lungs.

## What are the health concerns associated with open burning?

The air pollutants produced by burning wood and vegetative material can irritate the eyes, nose and lungs and pose a threat to those who suffer from asthma and other respiratory conditions. These pollutants have been linked to several other health problems, including nervous system damage, kidney and liver damage, and reproductive and developmental disorders.

## Who needs a state permit to burn?

[Colorado Regulation No. 9](#) (Open Burning, Prescribed Fire, and Permitting) requires that no person shall conduct any open burning activity not exempted from state regulations without first obtaining a permit from the division or from a local agency authorized by the division to issue burning permits.

Any business or resident wishing to conduct an open burn must comply with state open-burning regulations, in addition to any local ordinances or regulations.

## Who does not need a state permit to burn?

Unless you meet one of the following exemptions, you must obtain a burn permit from the division or an authorized local agency:

- Non-commercial burning of private household trash in particulate matter attainment areas (unless local ordinances prohibit such burning)
  - All areas of Colorado are currently particulate matter attainment areas. Please note that private household trash is paper and cardboard. It is NOT food wastes, plastics, coated or treated wood products, rubber, tree limbs, shrub and garden trimmings or other vegetation
- Fires used for non-commercial cooking of food
- Fires used for instructional purposes (training for fire departments)
- Fires used for recreational purposes
- Safety flares used to signal danger
- Agricultural open burning
- Non-commercial burning of trash in unincorporated areas of counties of less than 25,000 population provided such open burning is subject to regulations of the Board of County Commissioners

Although exempted burns are not required to obtain a state permit, it is recommended that the appropriate local fire authority and/or health department be notified so that the local agency can be informed of the burn activity and issue a permit if local regulations apply.

### **What is agricultural open burning?**

The burning of cover vegetation for the purpose of preparing the soil for crop production, weed control, maintenance of water conveyance structures related to agricultural operations and other agricultural cultivation purposes.

Open burning of animal parts or carcasses is not agricultural burning (unless the State Agricultural Commission declares a public health emergency that requires the burning of diseased animal carcasses).

Open burning of household trash, wood and yard debris on agricultural land is not agricultural burning and is not exempt from state permitting requirements.

### **What types of open burning are permissible with a permit?**

- Burning of yard waste that does not include salvageable wood
- Burning of slash piles

Permits for other types of open burning are considered on a case-by-case basis.

\*Note: Exempted types of open burning are permissible without a permit.

### **What types of open burning are prohibited?**

- Burning of material that contains food wastes, plastic, coated or treated wood products, pallets, rubber, insulation, tires, car bodies, insulated wire, motor oil, aerosol cans, hazardous or toxic materials, or other materials that will produce substantial amounts of smoke and particulates
- Burning of wood residue, which includes bark, sawdust, slabs, chips, shavings, mill trim, and other wood products derived from wood processing
- Burning of construction debris (includes both clean and treated wood)
- Burning of buildings or structures for demolition purposes
- Burning of material for which a practical alternative method of disposal exists

Permits for some of these materials may be issued on a case-by-case basis.

### **Why can't I burn in a burn barrel?**

- It's the law - burn barrels are defined as incinerators using the definition given in the AQCC Common Provisions Regulation. Incinerators require Construction Permits (different from Open Burn Permits) and are subject to federal and state testing requirements and regulations. Incinerators are required by the EPA to have pollution control systems that reduce emissions.

- Burn barrels do not combust efficiently, resulting in limited oxygen and lower temperatures that create smoke, odors and a variety of toxic pollutants like dioxins. Dioxins are known carcinogens and can increase the risk of both short-term and long-term health problems. Burn barrels not only impact your own health, but the health of your neighbors and the environment. The smoke created by burn barrels also creates a nuisance.

### Who issues state open burning permits?

The Colorado Air Pollution Control Division and authorized local agencies issue state open burning permits. The authorized local agencies in Colorado include:

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|---------------------|---------------------|
| • Boulder County    | • Lake County       |
| • Broomfield County | • Larimer County    |
| • Denver County     | • Las Animas County |
| • Eagle County      | • Mesa County       |
| • El Paso County    | • Pueblo County     |
| • Grand County      | • Routt County      |
| • Huerfano County   | • Summit County     |
| • Jefferson County  | • Teller County     |
| • Kiowa County      | • Weld County       |

Many cities and counties have adopted local rules and ordinances related to open burning. Any person seeking a state permit for an open burn should also check with any appropriate fire control office, local agency or other officials regarding specific local requirements for open burns prior to applying for a state open burning permit.

### What factors does the state consider when issuing a burn permit?

- Whether a practical alternative for the disposal of the material is available
- The potential contribution of the proposed burn to air pollution
- The potential impact from the smoke on the health and welfare of the public
- Location and proximity of the proposed burn to other structures
- Meteorological conditions on the day of the proposed burn
- Compliance by the applicant with fire protection and safety requirements
- Size of the burn. A prescribed fire permit (also issued by the division) must be obtained for larger open burns. Burns meeting the following size requirements should apply for a state open burning permit; larger burns need a state prescribed fire permit. You can find more information about prescribed fire permits at <https://www.colorado.gov/pacific/cdphe/smoke-management-permits>

- **Broadcast burns:** 10 acres or less of grass or 5 acres or less of other vegetation
- **Pile burns:** No more than 50 total piles per project (all fires must be out cold prior to sunset); no pile may exceed 8'x8'x8'

### What are some alternatives to open burning?

In many cases, open burning is not necessary. Please see the list below for some ideas on alternatives to open burning.

- **Reduce**
  - Look for items with less packaging
  - Buy items with packaging that can be reused or recycled
- **Reuse**
  - Donate old clothing, books, appliances, electronics, furniture, toys and other items to charity
  - Use your own coffee mug instead of disposable cups
  - Bring your own reusable bags to the store or reuse plastic bags
  - Reuse old lumber whenever possible
  - Use chipped yard waste as landscaping mulch
- **Recycle**
  - Many items, including paper products, many plastics, cardboard, aluminum, steel, glass, and electronics, can be recycled. You can find more information about recycling in Colorado, including a statewide recycling guide, at <https://www.recyclecolorado.org/>
- **Compost**
  - Yard debris and kitchen scraps can be composted into a nutrient-rich substance that can be used as mulch or fertilizer
  - You can find more information on composting at <https://www.epa.gov/recycle/composting-home>
- **Disposal at a landfill**
  - Items that cannot be reused or recycled should be taken to the landfill. For a list of active solid waste facilities in Colorado, see <https://www.colorado.gov/pacific/cdphe/swfacilities>
  - You can find information on the disposal of household hazardous waste at <https://www.colorado.gov/cdphe/hhw>

### What can I do to promote efficient burning and reduce smoke emissions when I must burn?

- Assure that all material is dried to greatest extent practicable
- Loosely stack or windrow the material to eliminate dirt from the pile and to promote an adequate air supply to the burning pile
- Build piles that are at least as tall as they are wide
- Do not include wood larger than six inches in diameter or stumps in the pile; these materials are likely to smolder and produce large amounts of smoke

- As a pile burns down, move unburned and smoldering material from the perimeter of the pile into the center of the fire
- Burn on days with moderate winds or during heavy snowfall as this provides good smoke dispersal
- Do not ignite material when a thermal inversion is present; inversions are unlikely to be present after 10 a.m.

### **What happens if I am caught illegally open burning?**

The division has the authority to enforce the state's open burning regulations. Violations can result in substantial penalties.

### **How do I apply for a state open burning permit and what does it cost?**

Complete a state open burning permit application and submit it by email, fax, or mail. There is no charge to obtain a state open burning permit. The application can be found online at: <https://www.colorado.gov/cdphe/openburn> or by calling the division at 303-692-3268.

Completed applications can be emailed to [cdphe.apopenburning@state.co.us](mailto:cdphe.apopenburning@state.co.us).

### **Other questions?**

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