

## Residential Burn Barrels Potential Source of Toxics

### Burning Residential Waste

The burning of residential waste isn't as simple or safe as it used to be. When commercial packaging material was primarily paper and wood, the burning of household wastes was accepted as a disposal method.

Today's packaging materials are largely made from a variety of plastic materials including polyvinyl chloride (PVC). Many plastic materials can produce poisonous chemicals when burned.

### How Does Burning Produce Toxic Chemicals?

Burn barrels are inefficient and polluting; they produce low temperature fires, receive very little oxygen, and produce a lot of smoke. Under these conditions, many toxic substances are produced. Virtually all of the pollutants are released into the air close to ground level, where they are easily inhaled.

The major share of pollutants emitted from burning household wastes in a burn barrel are carbon monoxide, carbon dioxide, very small breathable particles and nitrogen oxides.

However, smaller amounts of more poisonous chemicals are also released into the air when household waste is burned. These include benzene, styrene, formaldehyde, dioxins and furans.

Dioxins and furans are known to cause cancer in humans. Unfortunately, burn barrels provide the right combustion conditions to promote the production of dioxins and furans. Those conditions include low temperature, low oxygen, high particulate matter, and the presence of chlorine.

When compared with municipal waste incinerators, burn barrels produce 10,000 times more dioxins and 1,000 times more furans for the amount of waste burned. Also, unlike a commercial incinerator with pollution controls in place, all of the pollution from a burn barrel is released to the environment, frequently in residential areas.

It is for these reasons that many cities have banned the use of burn barrels, or open burning

altogether. Some of these cities include: Brookings, Bandon, Florence, Medford, Jacksonville, Talent, and Salem/Keizer.

### Residential Waste Options

Before creating household waste, consider other options. You will have less garbage if you buy products in bulk or economy sizes; if you donate unwanted articles; and if you recycle items such as newspapers, glass and plastic containers.

But most households do create some waste. So, what are the disposal options for residential garbage?

- Garbage pickup service in most areas costs about \$16 per month.
- If you're the do-it-yourself type, you can haul your trash to a permitted landfill or transfer site and save money.
- Recycling, which is readily available in most areas, can reduce your disposal costs by lowering the quantity of trash to be disposed. Local recycling centers accept tin cans, aluminum, newspaper, cardboard, office paper, glass, plastic containers and used oil.

### What Materials Can Be Burned?

Oregon law prohibits the open burning of several materials. Burning in burn barrels is considered open burning. Prohibited materials include: plastics, foam cups, meat trays and foam egg containers, rubber, plastic food wraps, carpeting and carpet padding, PVC piping, and vinyl flooring. Other prohibited materials include: asphalt roofing material, tarpaper, wire insulation and fiberglass.

It's probably easier to remember the materials that are permitted to be burned: untreated wood, paper and natural vegetative materials.

Burning prohibited materials can result in serious fines. For further information on Oregon's open burning rules and recycling options, contact DEQ staff:

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