

Open Burning in Rural Alaska

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Solid Waste Program

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Open burning is defined as any burning in which smoke is emitted directly into the air, instead of passing through a smoke stack or vent. In simple terms, this distinguishes open burning from incineration. Open burning includes burning materials in piles on the ground, in burn barrels, or in other large open bins or containers.

The open burning of solid waste is a common practice in rural Alaska and there are some advantages to burning solid waste. These include:

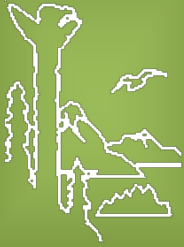
- Burning reduces the volume of waste that must be disposed;
- The ash is much less attractive to animals than is raw garbage;
- The ash does not need to be covered as frequently as raw garbage to prevent litter, odor, or leachate formation; and
- The ash is less reactive and easier to dispose.

Because of these advantages, if open burning is done properly, this can be an effective way to manage waste. Proper open burning begins with getting the waste off the ground, which means using a burn cage, burn barrel, or burn box. This increases airflow into the burn, which increases the temperature of the fire and results in a more complete burn.

However, if open burning is done improperly, it can cause problems. Poorly-managed open burns leave unburned waste in the ash. More importantly, unattended open burns can start wildfires. Poorly-managed open burns also tend to smolder, which creates more smoke and air pollution.

The amount of air pollution produced by open burning really depends on the completeness of combustion – on how much of the waste is fully burned to ash. As a rule of thumb, visible smoke is an indicator of incomplete combustion. The Alaska Department of Environmental Conservation (ADEC) encourages rural landfills that open burn solid waste to use good open burn practices to reduce the amount of smoke, air pollution, and unburned waste. Good practices are summarized in the following section.





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Good Open Burning Practices

- Open burning is most effective with clean, dry materials such as wood and paper. Typically, household garbage contains 20%-30% water. Covering waste between burns, and burning more frequently, will help prevent additional moisture from collecting in the waste.
- Before burning any waste, all plastics, batteries, household chemicals, oil, and other hazardous materials should be removed from the waste.
- Separating out glass, metal, and other items that will not burn will help increase the temperature of the fire and the completeness of the burn.
- Do not allow the fire to smolder or to generate black smoke as both conditions are a violation of the ADEC Air Quality regulations.
- Make sure the fire is completely out and the ash has had time to cool off before removing it from the burn device and putting it in the landfill. This will prevent unintended fires in the landfill.
- The effectiveness of open burning can be increased by using a fan or blower to force air into the fire. This increases the temperature of the fire and produces a more complete burn. Some burn boxes are designated to include a fan while others are designed to operate well using only natural airflow. (Remember that the fan only has to move air into the fire. If it is blowing hot ashes out of the container, the fan is running too fast.)

For More Information

View our factsheet “Burning Garbage and Land Disposal in Rural Alaska” available on our website or contact your local Solid Waste Program office.

