

SO WHAT'S THE BIG DEAL?

We have burned our garbage for years. Why stop now?

The practice of putting a match to your family's garbage has been a tradition for generations of Minnesotans. Until a few decades ago, the practice was much less dangerous to your health, since most household garbage contained only paper, wood and glass - materials that, when burned, give off smoke and ash. However, modern garbage is a mix of plastics and other synthetics that release a hazardous mixture of cancer-causing chemicals and other toxins when burned. Even seemingly harmless items, like white office paper and lightweight cardboard boxes can give off toxic emissions from inks and bleaches which cause serious environmental and health problems.

Incinerators burn garbage - why can't I?

Burn barrel fire temperatures rarely exceed 500°F., whereas municipal garbage incinerators operate at temperatures near 2200°F to insure complete combustion of the refuse and destruction of pollutants inside. Incinerators also employ a series of sophisticated filters to reduce harmful emissions of chemicals and ash from the chimney. Because burn barrels operate at temperatures far below the level for complete combustion and lack filtration entirely, they emit a much larger quantity of toxins and ash. For each pound of garbage burned in a burn barrel, seventeen times as much dioxin, and forty times as much ash is given off compared to the emissions from an incinerator.

What is given off when garbage burns?

Besides ash, and dioxins, burn barrels give off high levels of carbon monoxide, carbon dioxide, sulfur dioxide, and heavy metals such as lead, arsenic, mercury, barium, chromium, and cadmium. Together, these chemicals cause a wide variety of health problems, from mild irritation to serious chronic diseases. They need not be directly inhaled from the smoke of burning garbage to be harmful. Some of these toxins remain in the soil in the immediate vicinity and the area downwind of the burn barrel for decades. Other toxins in the ash and emissions gradually work their way into your ground water. This accumulation exposes you, your family, your neighbors, and future generations living on the same land to ever-increasing levels of hazardous substances. Is this a risk you are willing to take?

Not as safe as you thought?

Here's what you can do.

First, evaluate your buying habits to see if there are ways that you can reduce the amount of garbage you generate. Can you:

- buy in bulk?
- buy fewer disposable products?
- eliminate junk and duplicate mail?
- recycle everything you can?

Next, learn where the St. Louis County Solid Waste facilities are in your area and when they are open for business. You should also learn the correct way to recycle and where a convenient location is to drop off your materials. This is as simple as a phone call to **1-800-450-9278**.

If you prefer to have your garbage picked up from your home, check the yellow pages of your local phone book under "*Garbage Collection*".

**Burning Garbage is:
Unhealthy,
Unsafe,
Against the Law!**



St. Louis County Solid Waste Department



**749-9703
1-800-450-9278**

IT'S YOUR HEALTH AT RISK

Household burn barrels, wood stoves and similar homemade devices produce low temperature fires. They receive very little oxygen and produce lots of smoke and a variety of toxic substances. U.S. EPA research shows that burn barrels are the #1 source of dioxin in the U.S.

Dioxin is a group of chemicals which are given off in large quantities by burning plastics and paper. Soil concentrations of dioxin from burning household garbage in a burn barrel are 7,000 times the amount formed when garbage is burned in a municipal incinerator. Dioxin lingers for centuries in the affected area and is absorbed into plants that grow in the contaminated soil. Ultimately dioxin makes its way to animals and humans who eat the crops grown in this soil. Dioxin does not break down or pass out of our bodies; it accumulates in our fat cells. Dioxins can cause serious health problems even in very low concentrations.

Dioxin is listed as a known human carcinogen by the World Health Organization.

In Japan, where dioxin pollution from burning garbage is worse than any other industrialized nation, women are advised not to breast feed their babies, because dioxin is passed from mothers to their children through breast milk.

Based on studies on animals, dioxin has been linked to a long list of adverse health effects including:

- several types of cancer
- fatal wasting disease
- impairment of the immune system
- reproductive disorders
- endocrine dysfunction (alteration of sex and thyroid hormone levels)
- skin problems such as chloracne
- liver damage
- muscle dysfunction
- increased susceptibility to infections
- endometriosis
- impairment of the nervous system

Heavy metals like lead, mercury, arsenic, barium, chromium, and cadmium move through the soil into the ground water and cause serious health problems when taken internally. Lead accumulates in blood, bones, and body tissues where it affects the kidneys, central nervous systems, and all blood-forming organs, and eventually causes brain damage, mental retardation, seizures, and behavioral disorders. Cadmium, used in metal plating and in batteries, can cause kidney and bone marrow diseases and emphysema.

Ash and other particulate matter in smoke can irritate the eyes and throat, damage the lungs, cause bronchitis, emphysema, and lung cancer as well as restrict visibility. It can seriously affect people with asthma or certain allergies. Burn barrel ash laden with heavy metals is particularly toxic.

IT'S OUR ENVIRONMENT AT RISK

The Minnesota Department of Natural Resources estimates that 40% of all wildfires are started from burning debris. Particulates and sparks can escape and start nearby materials on fire. While the DNR does grant burning permits, they specifically limit materials to grass, leaves, brush and untreated wood. No garbage burning is allowed!

IN ST. LOUIS COUNTY, IT'S AGAINST THE LAW

St. Louis County Solid Waste Ordinance 45 prohibits burning or burying of garbage. This conforms with Minnesota §88.171 Section 27 which addresses prohibited materials including industrial waste, garbage, and hazardous wastes.

With 28 garbage drop-off sites, St. Louis County has opportunities for proper garbage disposal throughout its Solid Waste Management Area. For a drop-off site location near you call the St. Louis County Solid Waste Department.

For garbage pick-up services look in the Yellow Pages under "Garbage Collection."

St. Louis County Solid Waste Department

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