



## ***Facts about*      The Ban on Small, On-Site Incinerators**

The Minnesota Pollution Control Agency estimates that currently some 1,300 small waste combustors (incinerators) are being operated by retailers or other commercial and industrial companies, schools, hospitals, and nursing homes. These small incinerators have not been required to have air emissions permits from the MPCA.

Agency enforcement staff have encountered a number of problems at these incinerators, including the burning of wastes that should have been disposed of separately as hazardous wastes, failure to preheat units and maintain temperatures that will burn wastes cleanly (along with a lack of temperature monitors), lack of training for operators so that they understand the potential pollution associated with burning wastes, and a lack of afterburners (or a failure to use existing afterburners).

MPCA staff estimated that these small, poorly controlled and operated incinerators release large quantities of pollutants, including metals and dioxins. Small incinerators are estimated to be responsible for 93 percent of the dioxin emissions from waste combustors in Minnesota.

In June 1994, new MPCA rules became effective to regulate all waste combustors in the state. Besides placing new requirements on large incinerators, the agency's rule placed a ban on all small waste combustors, with the exception of those at hospitals, crematoria, metals recovery incinerators, or those used for

the disposal of animal carcass or pathological wastes.

### **The Ban on Small Waste Combustors**

The ban is on "Class IV" waste combustors, except for the uses listed above.

**As of June 20, 1994, installing a new "Class IV" waste combustor is not allowed.**

**After January 30, 1996, the rule does not allow the use of a Class IV waste combustor, with the same exceptions.**

Class IV hospital or metals recovery waste combustors still allowed will have new requirements and must have MPCA air emissions permits. Animal carcass, pathological waste incinerators, and crematoria need not have permits, but must meet the following performance standards:

- Emissions must not exceed 20 percent opacity;
- Combustors must be equipped with afterburners that maintain flue gases at 1,200° Fahrenheit for at least 0.3 seconds; and
- Ash must be stored and transported in a way that avoids its becoming airborne.

*(fact sheet continues on next page)*

## What is a Class IV Waste Combustor?

A Class IV waste combustor is one that has a heat input from waste only of less than 3 million Btu per hour. The heat input can be obtained from the incinerator's manufacturer. It can also be estimated by using the formula at the end of this fact sheet.

## More questions?

For a copy of the MPCA's waste combustor rule, contact the Air Quality Document Coordinator at (651)282-5843. For more information about the rule or provisions, contact Anne Jackson at (651)296-7949.

### Calculation to determine heat input from waste

$$\text{Heat input} = (\text{HHV}) \times (\text{R})$$

HHV = the heat value of the waste

Commercial, retail, or institutional waste = 7,000 Btu/lb.

General industrial wastes = 9,000 Btu/lb.

Medical/infectious wastes = 10,000 Btu/lb.

R = the waste input rate, in lbs/hr, as defined by the manufacturer

**For example:** A grocery store has a waste combustor that is estimated to burn 100 pounds of cardboard in an hour. Using the heat value of commercial waste, the estimated heat input from waste alone is  $(100) \times (7,000)$ , or 700,000 Btu/hr, which is less than 3 million Btu/hr. This waste combustor is a Class IV and is banned after January 30, 1996.



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