

## FACT SHEET

### PROPOSED RULES TO REDUCE AIR EMISSIONS FROM OTHER SOLID WASTE INCINERATION UNITS

#### ACTION

- On November 30, 2004, the Environmental Protection Agency (EPA) proposed rules to reduce emissions of air pollutants from the category of incinerators known as “other solid waste incinerators” (OSWI). OSWI consists of two classes of incinerators: (1) institutional waste incinerators and (2) very small municipal waste combustors.
- Institutional waste incinerators are located at institutions (e.g., public or private school; college or university; church or civic organization; fire or police department; town, city, county, State or Federal government; etc.) which burns waste generated at that institution.
- Very small municipal waste combustors are incinerators which burn less than 35 tons per day of municipal solid waste. Municipal solid waste is nonhazardous solid waste or refuse collected from residential, commercial, institutional, and industrial sources.
- The proposed rules would establish emission limits for the following nine air pollutants from these incinerators: particulate matter (PM), sulfur dioxide (SO<sub>2</sub>), hydrogen chloride (HCl), nitrogen oxides (NO<sub>x</sub>), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), and dioxins. The proposed rules would also establish opacity limits.
- The emission limits in the proposed rules are based on levels that can be achieved by installing wet scrubbers. Other emission control technologies could also be used, as long as they meet the required emission limits.
- The proposed rules consist of new source performance standards (NSPS) for new (built after November 30, 2004) OSWI and emission guidelines for existing OSWI. The emission guidelines are implemented through state plans. If states do not develop approvable state plans, a federal plan will apply to existing OSWI located in that state.
- A new OSWI must demonstrate compliance with the emission limits in the NSPS upon start-up. Generally, existing OSWI would have 5 years from the date EPA adopts final rules (i.e., NSPS and emission guidelines) to demonstrate compliance with the emission limits in the emission guidelines. EPA is under a consent decree to adopt final rules by November 30, 2005.
- EPA estimates that 372 existing OSWI (358 institutional waste incinerators and 14 very small municipal waste combustors) would be subject to the proposed emission guidelines and that none that would be subject to the proposed NSPS since no new incinerators in this category are expected to be built.

- Comments may be submitted on this action for 60 days following publication of the proposed rules in the Federal Register.

**HEALTH/ENVIRONMENTAL BENEFITS**

- The proposed rules will provide important improvements in protecting human health and the environment by reducing pollutant emissions. EPA estimates total pollutant reductions of almost 2,800 tons per year when fully implemented. The emissions reductions by pollutant are listed below:

<u>Pollutant</u>	<u>Emissions Reductions</u>
Cd	0.5 tons
CO	83 tons
Dioxins/furans	4.2x10 <sup>-4</sup> tons
HCl	1,187 tons
Pb	6 tons
Hg	1 ton
NO <sub>x</sub>	338 tons
PM	314 tons
SO <sub>2</sub>	828 tons

- Exposure to emissions of some of these pollutants, such as dioxins/furans, HCl and metals, may produce a wide variety of human health effects including irritation of the lungs, skin and mucous membranes; problems with the central nervous system; kidney damage; and cancer.
- Exposure to PM may produce aggravated asthma, acute respiratory symptoms, chronic bronchitis, increased frequency of childhood illness, and other significant health problems. Furthermore, PM also impairs visibility by scattering and absorbing light. In many parts of the U.S., the visual range has been reduced by 70% from natural conditions.
- Acid gases, such as NO<sub>x</sub> and SO<sub>2</sub>, may produce both temporary and long-term respiratory symptoms, such as shortness of breath, changes in airway responsiveness, and increased susceptibility to respiratory infection. Additionally, NO<sub>x</sub> reacts in air to form ground-level ozone and fine particulate pollution which are both associated with adverse health effects. Both NO<sub>x</sub> and SO<sub>2</sub> are major precursors to acid rain which, when deposited, is associated with acidification of soil and surface water.
- The health threat of CO is the reduction of oxygen delivery to the body's organs and tissues and is most serious for those who suffer from cardiovascular disease. At high levels of exposure, CO can be poisonous.

## **COST**

- EPA estimates that no new OSWI units will be constructed, so there is no cost expected due to implementation of the NSPS, as proposed.
- EPA estimates that the total nationwide annual costs to comply with the proposed emission guidelines would be approximately \$63 million per year, if all OSWI units installed wet scrubber controls to meet the proposed emission limits.
- Alternatively, owners or operators of OSWI could choose to close their OSWI and use other means of waste disposal, such as landfilling.
- Over the past decade, the number of OSWI has declined substantially, even in the absence of Federal regulation. This has been due to availability of more cost-effective waste disposal methods, such as landfilling. Therefore, it is likely that most owners or operators of existing OSWI will find that other waste disposal methods are more cost effective than the costs of compliance associated with the proposed rules.

## **BACKGROUND**

- The Clean Air Act requires EPA to promulgate NSPS and emission guidelines for “other solid waste incineration units” that reflect the application of strict emissions controls known as maximum achievable control technology.
- EPA identified institutional waste incineration units and very small municipal waste combustion units as the two subcategories of OSWI source category.

## **FOR MORE INFORMATION**

- To download the proposed rules from EPA’s web site, go to “Recent Actions” at the following address: <http://www.epa.gov/ttn/oarpg>.
- For further information about the proposed rules, contact Ms. Mary Johnson at EPA’s Office of Air Quality Planning and Standards at 919-541-5025.
- For information regarding other solid waste incinerators, visit EPA’s web site at: <http://www.epa.gov/ttn/atw/129/oswi/oswipg.html>. For other combustion-related regulations, visit EPA’s Combustion Related Rules page at: <http://www.epa.gov/ttn/atw/combust/list.html>.