FACT SHEET

Standards of Performance for New Stationary Sources and Emission Guidelines for Existing Sources: Sewage Sludge Incineration Units

ACTION

- On September 30, 2010, the Environmental Protection Agency (EPA) proposed new source performance standards (NSPS) and emission guidelines (EG) for new and existing sewage sludge incineration (SSI) units. The proposal would reduce emissions of air toxics and several of the common pollutants called criteria pollutants.

- A SSI unit is an incinerator or combustion device that is used to burn dewatered sewage sludge. SSI units are typically located at wastewater treatment facilities.

- The types of incinerators subject to the proposed standards are Multiple Hearth (MH) and Fluidized Bed (FB) Incinerators.

- Units incinerating sewage sludge at other types of facilities (e.g. commercial, industrial, and institutional) will be covered under different air pollution incineration standards.

- The proposed rules would establish opacity limits and emission limits for nine pollutants emitted from the regulated SSI units.
  - mercury
  - lead
  - cadmium
  - hydrogen chloride
  - particulate matter
  - carbon monoxide
  - dioxins/furans
  - nitrogen oxides, and
  - sulfur dioxide

- The proposed rules would reduce emissions of these pollutants by an estimated 6,330 tons per year (tpy)

- SSI units are the sixth highest emitting source of mercury in the country. This proposed rule would reduce emissions of mercury from sewage sludge incinerators by 76%.

- The proposed standards may require approximately 196 of 218 SSI units to install one or more air pollution control devices including: activated carbon injection, fabric filters, or high efficiency scrubbers.

- The proposal also requires provisions for testing, monitoring, recordkeeping, reporting and operator training.

- Comments may be submitted on this action for 30 days following publication of the proposed rule in the Federal Register.

ADDITIONAL ANALYSES

- The Clean Air Act requires EPA to set a minimum emission standard for each regulated pollutant. The act allows EPA to adopt emissions limitations and requirements that are more stringent than the minimum requirement. When considering more stringent standards, EPA must consider costs, non-air quality health and environmental impacts and energy requirements.

- EPA conducted an analysis to determine whether it was appropriate to propose more stringent standards for pollutants emitted from this industry. Based on the analysis, the Agency has proposed a standard that is more stringent for mercury emitted from multiple hearth incineration units. EPA requests comments on the standard.

BENEFITS AND COSTS

- These emissions reductions will lead to significant annual health benefits. In 2015, this rule will protect public health from exposure to fine particles by avoiding:
    - 14 to 36 premature deaths,
    - 10 cases of chronic bronchitis,
    - 23 nonfatal heart attacks,
    - 24 hospital and emergency room visits,
    - 23 cases of acute bronchitis,
    - 1,900 days when people miss work,
    - 1250 cases of aggravated asthma, and
    - 11,000 minor restricted activity days.

- EPA estimates that the value of the benefits associated with reduced exposure to fine particles are $130 million to $320 million in the year 2015.

- EPA did not estimate the benefits associated with reducing exposure to air toxics or other air pollutants, ecosystem effects, or visibility impairment. However, the rule would cut emissions of pollutants that are of particular concern for children. Mercury and lead can adversely affect developing brains – including effects on IQ, learning, and memory.

- EPA estimates that larger facilities will choose to comply with the proposed rule. The Agency estimates that smaller facilities may choose to switch from incineration to a more cost-effective disposal alternative such as landfilling.

- EPA estimates that the total capital cost for the approximately 94 large facilities to comply and the approximately 18 small facilities to choose a more cost-effective disposal alternative would be approximately $89 million per year to the industry.

- If all currently operating SSI units were to comply with the proposed rule, EPA estimates that the costs would be approximately $105 million.

- EPA anticipates two new SSI units to come on-line in the next five years.

BACKGROUND

- The Clean Air Act (CAA) requires EPA to develop and adopt NSPS and EG for solid waste incineration units including SSI. EPA has never regulated SSI units under section 129 of the CAA. There are currently 218 SSI units in the United States and Puerto Rico.

- EPA issued standards for other solid waste incineration (OSWI) units on December 16, 2005. The OSWI rule established numerical emission limits for very small municipal waste combustion and institutional waste incineration units.

- Following the finalization of the OSWI rule, EPA received a petition for reconsideration asking that SSI and other units be covered under the OSWI rule. In January 2007, EPA took final action on the reconsideration and concluded that no changes to OSWI were necessary.

- In 2007, the U.S. Court of Appeals for the District of Columbia Circuit vacated and remanded the 2005 Commercial and Industrial Solid Waste Incineration (CISWI) definition rule.

- On June 4, 2010, the Office of Solid Waste and Emergency Response (OSWER) proposed a new definition of solid waste. OSWER determined that sewage sludge is a solid waste. Sewage sludge incineration will be regulated under CAA section 129 rather than CAA section 112.

- Today's proposed standards are consistent with the June 4, 2010 proposed definition of solid waste. (http://www.epa.gov/epawaste/nonhaz/define/index.htm).

HOW TO COMMENT

- EPA will accept comment on the proposal for 30 days after publication in the Federal Register. Comments identified by Docket ID No. EPA-HQ-OAR-2009-0559, may be submitted by one of the following methods:
  - www.regulations.gov: Follow the on-line instructions for submitting comments.
  - E-mail: Comments may be sent by electronic mail (e-mail) to a-and-r-Docket@epa.gov.
  - Fax: Fax your comments to: 202-566-1741.
  - Mail: Send your comments to: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460.
  - Hand Delivery or Courier: Deliver your comments to: EPA Docket Center, Room 3334, 1301 Constitution Ave., NW, Washington, DC, 20460. Such deliveries are

only accepted during the Docket's normal hours of operation and special arrangements should be made for deliveries of boxed information.

FOR MORE INFORMATION

- To download this proposed rule from EPA's website, go to Recent Actions at http://www.epa.gov/ttn/oarpg/new.html.

- Today's action and other background information are also available either electronically at http://www.regulations.gov, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.

  - The Public Reading Room is located at EPA Headquarters, Room Number 3334 in the EPA West Building, 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding federal holidays.
  - Visitors are required to show photographic identification, pass through a metal detector and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
  - Materials for this proposed action can be accessed using Docket ID No. EPA-HQ-OAR-2009-0559.

- For further information about the proposed rule, contact Ms. Amy Hambrick of EPA's Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Natural Resources and Commerce Group at (919) 541-0964 or by e-mail at hambrick.amy@epa.gov.