

FACT SHEET

FINAL AMENDMENTS TO NEW SOURCE PERFORMANCE STANDARDS AND EMISSION GUIDELINES FOR COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATION UNITS

ACTION

- On February 21, 2011, the Environmental Protection Agency (EPA) finalized revisions to the December 2000 new source performance standards (NSPS) and emission guidelines (EG) for new and existing commercial and industrial solid waste incineration (CISWI) units. This rule is expected to impact 88 units.
- The final rule will reduce emissions of a number of toxic air pollutants, including mercury, other metals and organic air toxics, which include dioxins. Toxic air pollutants, also known as hazardous air pollutants or air toxics, are those pollutants known or suspected of causing cancer and other serious health effects.
- A CISWI unit is any device that is used to burn solid waste at a commercial or industrial facility. Examples of CISWI units include:
 - units designed to discard solid waste;
 - energy recovery units designed to recover heat that combust solid waste; and
 - waste burning kiln that combust solid waste in the manufacture of a product.

FINAL REQUIREMENTS

- This final rule covers four CISWI subcategories:
 - incinerators
 - energy recovery units
 - waste burning kilns; and
 - small incinerators in very remote locations.
- The rule will establish emission limits for nine pollutants emitted from CISWI units:

○ mercury	○ carbon monoxide
○ lead	○ dioxins/furans
○ cadmium	○ nitrogen oxides
○ hydrogen chloride	○ sulfur dioxide
○ particulate matter	
- The emission limits will require reductions for 85 of the 88 currently operating CISWI. The units will need to comply no later than three years after EPA approves a state plan to implement these standards or by February 21, 2016, whichever is earlier.
- The final rule also requires:
 - Stack testing
 - Monitoring
 - Additional monitoring for new sources

- Annual inspections of emission control devices
 - Annual visible emissions test of ash handling operations
 - Owner/operators to follow certain procedures for test data submittal
- CISWI units must either comply with the emission limits in the final rule (i.e. install add-on controls to capture emissions), or use alternative waste disposal options such as diverting waste to a landfill.

BENEFITS AND COSTS

- EPA estimates that there are approximately 88 CISWI units operating in the United States. Three of these units are currently meeting the emission limits established in this rule for all pollutants. The remaining 85 will need to comply with these requirements no later than three years after EPA approves a state plan for implementing this rule or by February 21, 2016, whichever is earlier. In the next five years, EPA estimates that there could be one new incineration unit constructed and possibly five new small, remote incinerators constructed.
- EPA expects this rule will reduce nationwide emissions from CISWI by:
 - ◆ 5,700 tons per year (tpy) of acid gases (i.e., hydrogen chloride and sulfur dioxide),
 - ◆ 1,600 tpy of particulate matter,
 - ◆ 23,000 tpy of carbon monoxide,
 - ◆ 5,700 tpy of nitrogen oxides, and
 - ◆ 5.5 tpy of metals (i.e., lead, cadmium, and mercury) and dioxins/furans.
- These emissions reductions will lead to significant annual health benefits. In 2016, this rule will protect public health from exposure to fine particles and ozone by avoiding:
 - ◆ 40 to 100 premature deaths,
 - ◆ 27 cases of chronic bronchitis,
 - ◆ 64 nonfatal heart attacks,
 - ◆ 68 hospital and emergency room visits,
 - ◆ 65 cases of acute bronchitis,
 - ◆ 1,350 cases of respiratory symptoms,
 - ◆ 5,300 days when people miss work or school,
 - ◆ 700 cases of aggravated asthma, and
 - ◆ 31,000 days when people must restrict their activities.
- EPA did not provide a monetary estimate of 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.
- Installing and maintaining controls for this rule is estimated to cost \$232 million per year.

- We estimate the monetized benefits of this final rule will be \$360 million to \$870 million in the implementation year (2016).

KEY CHANGES FROM PROPOSAL

- Key changes based on information and comments received on the proposal include:
 - Further subcategorized the Energy Recovery Units (ERUs) to create two subcategories (solid and liquid ERUs)
 - Limited fuel switching provisions to prevent sources from switching more frequently than every six months (to avoid bouncing between boiler and CISWI categories)
 - Removed cyclonic burn barrels from the definition of an incinerator
 - Provided a process for waiving civil penalties for emissions during truly unavoidable malfunctions.

SEPARATE BUT RELATED ACTIONS

- EPA has finalized a rule that would reduce emissions of toxic air pollutants from new and existing industrial, commercial, and institutional boilers and process heaters located at *major* source facilities. A major source facility emits or has the potential to emit 10 or more tons per year (tpy) of any single air toxic or 25 tpy or more of any combination of air toxics.
- EPA has finalized a rule to reduce emissions of toxic air pollutants from new and existing industrial, commercial, and institutional boilers and process heaters located at *area* source facilities. An area source facility has the potential to emit less than 10 tpy of any single air toxic or less than 25 tpy of any combination of air toxics.
- EPA has finalized a rule to reduce air toxics from sewage sludge incinerators. Sewage sludge incinerators (SSI) are incinerators or combustion devices used to burn dewatered sewage. They are typically located at waste water treatment plants.
- EPA has finalized a definition of non-hazardous solid waste. The definition could potentially affect some units currently considered boilers by moving them into the category of incinerators if they burn solid waste.

RECONSIDERATION

- EPA also will issue a notice announcing that it will “reconsider” certain aspects of the boiler and CISWI rules. The SSI rule is not part of the reconsideration. The final boiler and CISWI rules reflect reasonable approaches consistent with the requirements of the Clean Air Act. However, some of the issues identified in the comments on our April 2010 proposals raised difficult technical issues that the Agency believes would benefit from additional public involvement. EPA is in the process of developing a proposed rule that will request additional comment on:
 - specific elements of the final rules that would benefit from additional public review and comment, and
 - any provisions that EPA proposes to modify or add after more fully evaluating the data and comments already received.

EPA will fully evaluate any petitions submitted to the Agency requesting that we reconsider specific aspects of these rules. Additional issues may be added for reconsideration as appropriate. Through the reconsideration process, EPA intends to ensure that the standards will protect the health of all Americans and be practical to implement.

BACKGROUND

- The Clean Air Act (CAA) requires EPA to develop and adopt NSPS and EG for solid waste incineration units including CISWI. In 2000, when EPA issued NSPS and EG for CISWI units, there were approximately 140 CISWI units operating in the United States. Only 20 of those 140 CISWI units currently remain in operation. The 2000 standards covered only incinerators but not the other subcategories covered by today's final rule.
- The 2000 NSPS and EG required new and existing incinerators to control emissions of the following nine pollutants: hydrogen chloride, carbon monoxide, lead, cadmium, mercury, particulate matter, dioxins/furans, nitrogen oxides, and sulfur dioxide to levels that reflect the degree of emission reduction based on the maximum achievable control technology (MACT).
- After promulgation of the final CISWI standards, EPA received and granted a request for reconsideration, pursuant to section 307(d)(7)(B) of the CAA, related to the definition of "commercial and industrial solid waste incineration unit" and "commercial or industrial waste" in EPA's CISWI rulemaking. In granting the petition for reconsideration, EPA agreed to undertake further notice and comment proceedings related to these definitions.
- In addition, the United States Court of Appeals for the District of Columbia Circuit granted EPA's request for a voluntary remand of the 2000 rule. The remand allowed the agency to address concerns related to the EPA's procedures for establishing MACT standards for CISWI units in light of the U.S. Court of Appeals for the District of Columbia Circuit's decision in *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855 (D.C. Cir. 2001). The 2000 rule was not vacated and remains in effect. The rule requirements were fully implemented in December 2005.
- In 2005, EPA proposed and finalized the CISWI definitions rule which revised the definition of "solid waste", "commercial and industrial waste", and "commercial and industrial waste incineration unit".
- In 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the 2005 CISWI definitions rule.
- Section 129(a)(5) of the CAA directs EPA to review standards of performance and revise them as necessary every five years.
- On April 29, 2010, EPA proposed revisions to the CISWI NSPS and EG in response to the Court's remand (without vacatur) of the 2000 CISWI and the remand and vacatur of the 2005 CISWI definition rule.

- Today's action revises the CISWI NSPS and EG in response to the Court's remand of the 2000 CISWI and responds to the remand and vacatur of the 2005 CISWI definitions rule. In addition, this action includes the five-year technology review of the NSPS and EG required under section 129 of the Clean Air Act. EPA considered the final non-hazardous solid waste definition (which has been finalized in a separate notice) when determining the units that should be considered CISWI units for purposes of establishing the NSPS and EG.

FOR MORE INFORMATION

- To download this final rule from EPA's website, go to:
<http://www.epa.gov/airquality/combustion/actions.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 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 action can be accessed using Docket ID No. EPA-HQ-OAR-2003-0119.

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