FACT SHEET: EPA’s Air Rules for Major and Area Source Boilers and Commercial and Industrial Solid Waste Incinerators

ADJUSTMENTS FROM DECEMBER 2011 RECONSIDERATION PROPOSAL

On December 20, 2012, the U.S. Environmental Protection Agency (EPA) finalized a specific set of adjustments to Clean Air Act standards, originally finalized in March 2011, for boilers and certain solid waste incinerators.

- These adjustments maintain extensive public health protections achieved by the March 2011 standards by reducing toxic air pollution, including mercury and particle pollution.
- At the same time, these adjustments increase the rules’ flexibility and address concerns raised by stakeholders.
- The specific set of adjustments address new data provided to the agency and additional information about real-world performance and conditions under which affected boilers and incinerators operate.
- These adjustments maintain the dramatic cuts in the cost of implementation that were achieved in the final standards issued in March 2011.

This fact sheet summarizes the key comments received and the adjustments from the December 2011 proposal.

COMMENTS SUBMITTED ON PROPOSALS

Substantive comments were received on the proposals, including new data. Comments focused on a number of key topics.

- **Boiler Major Source Rule**:
  - Achievability of carbon monoxide (CO) limits
  - Justification for a solid fuel subcategory for mercury and hydrogen chloride (HCl)
  - Establishment of a single PM emission limit for the solid fossil fuel subcategory
  - Ability of certain gases to qualify as Gas 1 fuel (i.e., as clean as natural gas)
  - Extending the compliance date
  - Allowing averaging between subcategories for units that use natural gas

- **Boiler Area Source Rule**:
  - Extension of the initial compliance date for existing boilers subject to tune-up requirements
  - Reduced frequency of tune-ups for certain boilers
  - Applicability based on definitions of “seasonal boiler,” “temporary boiler,” and “residential boiler”

- **CISWI Rule**:
  - Further subcategorization of the solid-fuel Energy Recovery Unit (ERU) subcategory
  - Proposed definition of “homogeneous waste”
  - Definition of “contained gaseous material”
  - Use of uncorrected CO Continuous Emissions Monitoring System (CEMS) data during periods of startup and shutdown

- **NHSM Rule**:
  - Revised definitions of “clean cellulosic biomass,” “contaminants,” and “established tire collection program”
  - Concepts of “grouping” of contaminants and “design to burn” within the contaminant legitimacy
KEY ADJUSTMENTS FROM RECONSIDERATION PROPOSAL TO FINAL
Based on additional data received, EPA made adjustments to several emission limits for major source boilers and CISWI units. Other changes are mainly editorial, to clarify applicability and implementation issues raised by the commenters.

- **Boiler Major Source Rule**
  - Adding a separate subcategory for fluidized bed units with fluidized bed heat exchangers designed to burn coal
  - Adjusting the definition of the limited use subcategory, allowing more flexibility on unit operations without increasing emissions or harm to human health and the environment.
  - Adding performance test procedures for conducting performance stack test for demonstrating compliance with the alternate TSM emission limits.
  - Establishing one single PM limit for all coal/solid fossil fuel subcategories.
  - Allowing alternative total TSM emission limits for three liquid fuel subcategories, increasing the flexibility of the final rule.
  - Adjusting some emission limits due to new data, corrections to old data and inventory changes.
  - Reducing frequency of required tune-ups for some units, including units with continuous oxygen and CO trim systems.
  - Revising definitions, including those for “30-day rolling average” and “daily block average,” “energy assessment” and “qualified energy assessor,” and “startup” and “shutdown.”
  - Revising the sampling frequency for gaseous fuel-fired units that elected to demonstrate that the unit meets the specification for mercury for the unit designed to burn gas 1 subcategory.
  - Extending the compliance time for demonstrating compliance with the numeric emission limits and energy assessment requirement to three years from the effective date of the amended rule, to provide facilities sufficient time to install controls or to make other compliance-related decisions. Existing boilers may request an additional year beyond that if technology cannot be installed in time.

- **Boiler Area Source Rule**
  - Extending the initial compliance date for existing boilers subject to tune-up requirements to March 21, 2014.
  - Revising the deadline for initial notification for existing boilers to no later than January 20, 2014.
  - Dual-fuel fired boilers: revising provisions for existing dual-fuel fired units that fuel switch from gas to coal, biomass or oil such that they would still be considered existing sources.
  - Temporary boilers: amending the definition to allow petitioning for an extension beyond 12 months for qualifying as a temporary boiler.
  - Seasonal boilers: revising the definition of seasonal boiler to allow for 15 days of use during the shutdown period for periodic testing and to clarify that the shutdown must be for a period of at least 7 consecutive months each 12-month period.
  - Limited-use boilers: adding a subcategory for boilers that have a federally enforceable average annual capacity factor of no more than 10 percent and requiring these units to conduct tune-ups every five years.
  - Reducing frequency of tune-ups for boilers with an oxygen trim system that maintain an optimum air-to-fuel ratio.
  - Changing the energy assessment provisions and related definitions to better define the scope of the assessment and allow for more streamlined assessments, including allowing sources already operating under certain energy management programs to satisfy the assessment requirement.
o **Revising PM emission limit requirements** such that combustion of oil meeting certain sulfur content requirements by new oil-fired boilers is considered an alternative method of meeting the PM emission standard and that such units are not required to meet the PM emission limit.

o **Reducing the fuel sampling and performance testing requirements** such that after demonstration of initial compliance, under certain circumstances, further fuel sampling for boilers subject to a Hg emission limit and further PM performance testing for boilers subject to a PM emission limit is not required.

- **Commercial and Industrial Solid Waste Incinerator (CISWI) Rule**
  - **Revising emission limits**, include small remote incinerators (SRI), incinerators, energy recovery units (ERU) and waste burning kilns subcategories resulting from additional data, updated unit inventories, and methodology adjustments.
  - **Establishing separate emission standards for all nine pollutants from coal and biomass energy recovery units (ERUs).**
  - **Expanding authorization to use uncorrected continuous emissions monitoring system (CEMS) data during periods of startup and shutdown to all pollutants for which a source demonstrates compliance with CEMS.**
  - **Clarifying the methodology for establishing and monitoring oxygen levels.**
  - **Removing the definition of homogeneous waste** and retaining the requirement that certain facilities that combust solid waste obtain a determination from the EPA that such waste is homogenous.
  - **Requiring continuous parameter monitoring systems**, instead of PM CEMS, for waste-burning kilns and large ERUs.
  - **Extending the effective dates for all CISWI**, including small remote incinerators, to provide facilities sufficient time to install controls or to make other compliance-related decisions. Existing units will need to comply no later than three years after EPA approves a state plan or five years after the publication date of these final changes, whichever is earlier.
  - **Correcting the definition of waste-burning kiln** and clarifying that the threshold for determining if a unit is subject to the CISWI rule is whether it “combusts” solid waste material.

- **NHSM Rule**
  - **Revising contaminant legitimacy criterion** for NHSMs used as fuels, to make clear flexibility in how contaminant comparisons between NHSMs and traditional fuels may be made.
  - **Adding “dewatered pulp and paper sludges** burned on-site at facilities that use a significant portion of materials as fuels where such dewatered sludges are managed in a manner that preserves the meaningful heating value of the materials” to the list of categorical non-waste fuels.
  - **Adding “coal refuse** that has been recovered from legacy piles and processed in the same manner as currently-generated coal refuse” to the list of categorical non-waste fuels.
  - **Finalizing new rulemaking petition process** for other categorical non-waste determinations.
  - **Streamlining existing petition process** for NHSMs transferred off-site.