

## Summary of Requirements for Wood-fired Forced Air Furnaces

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On February 3, 2015, the U.S. Environmental Protection Agency (EPA) updated its clean air standards for residential wood heaters to make new heaters significantly cleaner and improve air quality in communities where people burn wood for heat. The updates, which are based on improved wood heater technology, strengthen the emissions standards for new woodstoves, while establishing the first-ever federal air standards for previously unregulated new wood heaters, including outdoor and indoor wood-fired boilers (also known as hydronic heaters), indoor wood-fired forced air furnaces, and single burn-rate woodstoves. The final rule, known as New Source Performance Standards (NSPS), will phase in emission limits over a five-year period, beginning this year. The standards apply only to new wood heaters and will not affect wood heaters already in use in homes.

### ABOUT FORCED AIR FURNACES

- Wood-burning forced air furnaces, also known as wood-burning warm air furnaces, use a large firebox to burn wood. Heat from these furnaces, which typically are located indoors, is distributed using a blower. Stacks or chimneys from wood-burning forced air furnaces generally are on the roof of the building they heat.
- Forced air furnaces previously were not covered by EPA's regulations. The agency estimates that nearly 28,000 wood-burning forced air furnaces will be sold this year.

### REQUIREMENTS WILL LEAD TO CLEANER NEW FORCED AIR FURNACES

- The EPA's final rule establishes requirements for wood-burning forced air furnaces over a five-year period.
  - Beginning on the effective date of the rule (expected to be the spring of 2015), manufacturers of these heaters will have to meet new work practice and operational standards, including providing information on best operating practices in the owners' manuals provided with each furnace and ensuring their distributors are trained in best-burn practices. This step will allow manufacturers of wood-burning forced air furnaces, which previously have not been subject to regulation or covered by an EPA voluntary program, time to update their model lines and have emissions from their different models tested by qualified laboratories.
  - After the first year, furnaces will have to meet emissions limits in two steps: The Step 1 particle pollution (PM) emissions limit will become effective in 2016 for small forced air

furnaces, and 2017 for larger furnaces. All forced air furnaces will have to meet the Step 2 limit in 2020.

- To encourage manufacturers to meet the emissions limits early, EPA will allow a temporary, conditional approval while the certification application is reviewed. To qualify for the temporary approval, manufacturers must submit a complete application, including emissions test reports from an EPA-certified laboratory. The temporary approval will be good for one year or until EPA reviews the certification, whichever is earlier.
- The final rule does not apply to forced air furnaces that are fueled solely by gas, oil or coal.

<b>Standards and Compliance Deadlines for Forced Air Furnaces</b>		
<b>Step</b>	<b>Standard</b>	<b>Compliance Date</b>
<b>Step 1</b>	Operational/work practice standards	60 days after final rule is published in the Federal Register
<b>Step 2</b>	Emissions limit of 0.93 pounds of PM per million Btu heat output, weighted average. Cordwood testing is required for forced air furnaces.	<ul style="list-style-type: none"> <li>• Small furnaces: one year after the final rule is published (2016)</li> <li>• Large furnaces: two years after the final rule is published (2017)</li> </ul>
<b>Step 3</b>	Emissions limit of 0.15 pounds of PM per million Btu heat output for each individual burn rate. Cordwood testing required.	All furnaces: five years after the final rule is published (2020)

#### **DETERMINING COMPLIANCE**

- To improve compliance and consumer confidence, the standards require testing and certification by internationally accredited laboratories and certification bodies. EPA will also review the tests and make the results available to consumers on a website.
- While forced air furnace manufacturers have until 2016 or 2017 to meet the Step 1 emissions limits, depending on furnace size, EPA will allow a conditional certification for up to one year for manufacturers who meet the emissions limits early. To obtain the conditional certification, manufacturers must submit a complete certification application that includes a full emissions test report from an EPA-accredited laboratory and that meets other application requirements. After one year, internationally accredited laboratories and

certification bodies must be used for testing and certification. EPA will also review the tests and make the results available to consumers on a website.

- Wood-burning forced air furnaces sold in the United States will have to have a permanent label indicating they are EPA-certified to meet emission limits in the final rule. This label will signal to consumers that the heater meets EPA standards.
- Each model line subject to the emissions limits will be required to demonstrate compliance through performance testing, similar to requirements of the 1988 wood stove regulations. Under that certification program, manufacturers have one representative appliance tested by an accredited laboratory to demonstrate compliance for an entire model line. This is a commonly used approach and will minimize testing costs for manufacturers.
- The final rule also includes test methods that manufacturers will have to use to determine PM emissions and demonstrate compliance. For wood-burning forced air furnaces, EPA is requiring that emissions be tested using fires cordwood (split logs). Cordwood test methods have been available for forced air furnaces since 2010. EPA believes emission testing using cordwood is important, because it presents the most realistic estimate of emissions from wood heaters in daily use.
- The final rule allows forced air furnaces to use a special EPA label that will recognize that emissions from cordwood testing more closely reflect likely emissions from in-home use. Use of this label is voluntary.

**For additional information**

- For additional information about today’s final rule, including the text of the rule and additional fact sheets, visit: <http://www2.epa.gov/residential-wood-heaters> .