

## OVERVIEW OF PROPOSED UPDATES TO AIR EMISSIONS REQUIREMENTS FOR NEW RESIDENTIAL WOOD HEATERS

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### ACTION

- On Jan. 3, 2014, the U.S. Environmental Protection Agency (EPA) proposed to make new residential wood heaters significantly cleaner than currently required, through updates to its Clean Air Act standards for residential wood heaters. Today's proposed updates would strengthen the emissions standards for new wood stoves, while establishing federal air standards for other new wood heaters, including outdoor and indoor wood-fired boilers (also known as hydronic heaters). The proposed rule would not affect existing woodstoves and other wood-burning heaters currently in use in people's homes.
- Smoke from residential wood heaters contains fine particle pollution, also known as fine particulate matter or PM<sub>2.5</sub>, along with other pollutants including carbon monoxide, volatile organic compounds (VOCs), black carbon, and air toxics such as benzene. Smoke from residential wood heaters, which are used around the clock in some areas, can increase particle pollution to levels that pose serious health concerns. In some areas, residential wood smoke constitutes a significant portion of the fine particle pollution problem.
- EPA issued the existing regulations for wood heaters in 1988. That rule applied to adjustable burn-rate woodstoves (including a type of adjustable burn-rate woodstove known as a fireplace insert). Since that time, the technology for reducing emissions from wood heaters has significantly improved and now is available to make a range of wood heaters more efficient and less-polluting.
- Today's proposed standards, known as new source performance standards, or NSPS, also would set PM emission limits for newly manufactured adjustable-rate woodstoves, pellet stoves, wood-fired hydronic heaters, forced-air furnaces, masonry wood heaters, and a type of previously unregulated woodstove known as a "single burn-rate" stove.
- EPA is proposing to phase in emission limits over five years for most wood heaters to allow manufacturers time to adapt emission control technologies to their particular model lines. The proposal would allow manufacturers of new residential wood heaters to meet PM emission limits in two steps, with the first limit taking effect 60 days after the final rule is published in the Federal Register, and the second limit taking effect five years later. EPA also is seeking comment on whether to phase in the limits in three steps over an eight-year period.

- Masonry heaters compliance deadlines would be set based on the number of heaters manufactured each year: either 60 days after the final rule is published in the Federal Register, or within five years, depending on the number of heaters built.

***Proposal would not cover some heaters***

- Today's proposed rule would not affect existing woodstoves and other wood-burning heaters currently in use in people's homes. The proposal also would not apply to outdoor fireplaces, pizza ovens, barbecues or chimineas, and it would not apply to new or existing heaters that are fueled solely by oil, gas or coal. In addition, the proposal would not prohibit or restrict the use of wood-burning appliances for residential heating.
- EPA has a number of tools available to help state and local governments address particle pollution from existing heaters, including "Strategies for Reducing Residential Wood Smoke." Issued by EPA's Burn Wise program, this comprehensive document covers options for local regulations, voluntary programs, funding mechanisms and best burn practices - all of which can help reduce particle pollution from existing wood-burning appliances.
- In addition, EPA did not include new indoor fireplaces for regulation in the proposal, because fireplaces are not effective heaters and thus would not be subject to the rule. However, the agency is seeking additional data and comments on this issue. Fireplaces are included in an EPA voluntary program that encourages manufacturers to make cleaner-burning fireplaces and retrofits available for consumers.
- EPA conducted extensive public outreach as it developed the proposed rule, seeking input from numerous wood heater manufacturers, state, local and tribal governments, regional air quality agencies, and citizen and environmental groups. The agency also participated in a Small Business Advocacy Review Panel to seek input and advice as it developed the proposed rule.
- EPA will take public comment on today's proposal for 90 days after it is published in the Federal Register. The agency will hold a public hearing Feb. 26, 2014 in Boston.

***Proposal would lead to cleaner, more efficient heaters***

- Wood smoke is made up of a mixture of gases and fine particles that are produced when wood and other organic matter burns. The fine particles in smoke – also called fine particle pollution or PM2.5 – can get deep into the lungs, harming the lungs, blood vessels and heart. People with heart, vascular or lung disease, older adults and children are the most at risk.

- Today's proposed rule would reduce emissions of fine particle pollution from new manufactured woodstoves, pellet stoves, hydronic heaters and forced air furnaces by an estimated 4,825 tons a year – an 80 percent reduction over estimated emissions without the rule. EPA projects that VOC emissions from future new heaters would be 76 percent lower as a result of the rule; and carbon monoxide emissions would be 72 percent lower compared to current requirements. VOCs are a key ingredient in smog.
- EPA estimates the benefits of the proposed requirements for new residential wood heaters at \$1.8 to \$4.2 billion annually, with costs estimated at \$15.7 million – or \$118 to \$267 in benefits for every dollar spent to comply. The projected benefits do not include the value of the carbon monoxide, VOCs, air toxics (including formaldehyde, benzene and polycyclic organic matter), and black carbon emissions that would be reduced along with PM emissions.
- In addition to the health benefits provided by the proposed rule, wood heaters meeting the proposed standards generally would be more efficient than older ones, meaning homeowners will be able to heat their homes using less wood.
- Homeowners will play an important role in ensuring new stoves and other heaters are as efficient and clean as possible, by operating heaters according to the manufacturer's instructions. In many cases, not doing so could void the heater's warranty.
- Wood heaters sold in the United States would have to have a permanent label indicating they are EPA-certified to meet emission limits in the proposed rule. This label – currently required for adjustable burn-rate woodstoves -- will signal to consumers that the heater meets EPA standards. Today's proposal also would require efficiency and carbon monoxide testing and reporting, which will provide consumers additional information to help them select the best wood heater for their homes.
- EPA's Burn Wise program provides a wealth of information to help consumers ensure wood heaters burn as cleanly and efficiently as possible. For more information, visit: <http://www.epa.gov/burnwise/bestburn.html>

## **BACKGROUND**

- The Clean Air Act requires EPA to set new source performance standards (NSPS) for industrial categories that cause, or significantly contribute to, air pollution that may endanger public health or welfare. The law requires EPA to review these standards every

eight years.

- EPA issued the first NSPS for residential wood heaters in 1988. The agency amended the standards once – in 1998 – to prohibit the sale of wood heaters to consumers if the manufacturer had used an invalid test to obtain EPA certification that the heater met NSPS requirements. The 1998 amendments did not change the emission limits in the original rule.

## HOW TO COMMENT

- Please identify all comments with Docket ID No. EPA-HQ-OAR-2009-0734. Comments may be submitted by any of the following methods:
  - [www.regulations.gov](http://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](mailto:a-and-r-docket@epa.gov).
  - Fax: Fax your comments to: (202) 566-9744.
  - 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 Avenue, 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. To make special arrangements or for questions, call (202) 566-1742.

## FOR MORE INFORMATION

- Today's proposed rule and additional background information is available at: <http://www2.epa.gov/residential-wood-heaters> .
- Information also is available at EPA's electronic public docket and comment system, (<http://www.regulations.gov>), using Docket ID No. EPA-HQ-OAR-2009-0734.
- The proposed rule and materials also are available in hard copy at the EPA Docket Center's Public Reading Room, room 3334 in the EPA West Building, located at 1301 Constitution Avenue, NW, Washington, DC. The Public Reading Room is open from 8:30 a.m. to 4:30 p.m., Monday through Friday, excluding federal holidays. The telephone number for the Public Reading Room is (202) 566-1744.
  - Visitors to the Public Reading Room are required to show photo identification, pass through a metal detector and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine. Visitors will be provided a badge that must be visible at all times.