



6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 60

[EPA-HQ-OAR-2018-0195; FRL-9987-37-OAR]

RIN 2060-AU00

Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: In this action, the EPA proposes to amend the 2015 New Source Performance Standards (NSPS) for new residential hydronic heaters and new forced-air furnaces by adding a two-year “sell-through” period for all affected new hydronic heaters and forced-air furnaces that are manufactured or imported before the May 2020 compliance date to be sold at retail through May 2022. This will allow retailers additional time, after the May 2020 effective date of the “Step 2” standards, for the sale of “Step 1” compliant hydronic heaters and forced-air furnaces remaining in inventory. The EPA is also taking comment on whether a sell-through period for all affected new residential wood heaters is appropriate following the May 2020 compliance date and, if so, how long a sell-through period is needed and why. In addition, this action is taking comment on whether the current minimum pellet fuel requirements should be retained and, if so, whether they should be revised.

DATES: *Comments.* Comments must be received on or before **[INSERT DATE 45 DAYS**

AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]. Under the Paperwork Reduction Act (PRA), comments on the information collection provisions are best assured of consideration if the Office of Management and Budget (OMB) receives a copy of your

comments on or before **[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

Public Hearing. The EPA will hold a public hearing on December 17, 2018, in Washington, DC. Please refer to the **FOR FURTHER INFORMATION CONTACT** section for information on registering for the hearing and the **SUPPLEMENTARY INFORMATION** section for additional information on the public hearing.

ADDRESSES: *Comments.* Submit your comments, identified by Docket ID No. EPA-HQ-OAR-2018-0195, at <https://www.regulations.gov>. Follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. See **SUPPLEMENTARY INFORMATION** for details about how the EPA treats submitted comments. Regulations.gov is our preferred method of receiving comments. However, the following other submission methods are also accepted:

- *Email:* a-and-r-docket@epa.gov. Include Docket ID No. EPA-HQ-OAR-2018-0195 in the subject line of the message.
- *Fax:* (202) 566-9744. Attention Docket ID No. EPA-HQ-OAR-2018-0195.
- *Mail:* To ship or send mail via the United States Postal Service, use the following address: U.S. Environmental Protection Agency, EPA Docket Center, Docket ID No. EPA-HQ-OAR-2018-0195, Mail Code 28221T, 1200 Pennsylvania Avenue, NW, Washington, DC 20460.
- *Hand/Courier Delivery:* Use the following Docket Center address if you are using express mail, commercial delivery, hand delivery, or courier: EPA Docket Center, EPA WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC

20004. Delivery verification signatures will be available only during regular business hours.

Public Hearing. The hearing will be held at EPA Headquarters, EPA WJC East Building, Room 1117A&B, 1201 Constitution Avenue, NW, Washington, DC 20004. The hearing will convene at 8:00 a.m. local time and conclude at 6:00 p.m. local time. The EPA will end the hearing two hours after the last registered speaker has concluded their comments but no later than 6:00 p.m. local time. Two 15-minute breaks and a lunch break will be scheduled as time will allow depending on the number of registered speakers.

Because this hearing is being held at a U.S. government facility, individuals planning to attend the hearing should be prepared to show valid picture identification to the security staff in order to gain access to the meeting room. Please note that the REAL ID Act, passed by Congress in 2005, established new requirements for entering federal facilities. For purposes of the REAL ID Act, the EPA will accept government-issued IDs, including driver's licenses from the District of Columbia and all states and territories except from American Samoa. If your identification is issued by American Samoa, you must present an additional form of identification to enter the federal building where the public hearing will be held. Acceptable alternative forms of identification include: federal employee badges, passports, enhanced driver's licenses, and military identification cards. For additional information for the status of your state regarding REAL ID, go to: <https://www.dhs.gov/real-id-frequently-asked-questions>. Any objects brought into the building need to fit through the security screening system, such as a purse, laptop bag, or small backpack. Demonstrations will not be allowed on federal property for security reasons.

FOR FURTHER INFORMATION CONTACT: For questions about this proposed action, contact Ms. Amanda Aldridge, Outreach and Information Division, Mail Code: C304-05, Office

of Air Quality Planning and Standards, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711; telephone number: (919) 541-5268; fax number: (919) 541-0072; and email address: aldridge.amanda@epa.gov. For information about the applicability of the NSPS to a particular entity, contact Dr. Rafael Sanchez, Office of Enforcement and Compliance Assurance, U.S. Environmental Protection Agency, EPA WJC South Building (Mail Code 2227A), 1200 Pennsylvania Avenue, NW, Washington DC 20460; telephone number: (202) 564-7028; and email address: sanchez.rafael@epa.gov.

Public Hearing. The EPA will begin pre-registering speakers for the hearing upon publication of this document in the **Federal Register**. To register to speak at the hearing, please use the online registration form available at <https://www.epa.gov/residential-wood-heaters>, or contact Regina Chappell at (919) 541-3650 to register to speak at the hearing. The last day to pre-register to speak at the hearing will be December 13, 2018. On December 13, 2018, the EPA will post at <https://www.epa.gov/residential-wood-heaters> a general agenda for the hearing that will list pre-registered speakers in approximate order. The EPA will make every effort to follow the schedule as closely as possible on the day of the hearing; however, please plan for the hearing to run either ahead of schedule or behind schedule. Additionally, requests to speak will be taken the day of the hearing at the hearing registration desk. The EPA will make every effort to accommodate all speakers who arrive and register, although preferences on speaking times may not be able to be fulfilled.

SUPPLEMENTARY INFORMATION:

Public Hearing. Each commenter will have 5 minutes to provide oral testimony. The EPA encourages commenters to provide the EPA with a copy of their oral testimony electronically (via email) or in hard copy form.

The EPA may ask clarifying questions during the oral presentations but will not respond to the presentations at that time. Written statements and supporting information submitted during the comment period will be considered with the same weight as oral comments and supporting information presented at the public hearing. Commenters should notify Regina Chappell if there are special needs related to providing comments at the hearings. Verbatim transcripts of the hearings and written statements will be included in the docket for this rulemaking.

Please note that any updates made to any aspect of the hearing will be posted online at <https://www.epa.gov/residential-wood-heaters>. While the EPA expects the hearing to go forward as set forth above, please monitor our website or contact Regina Chappell at (919) 541-3650 or chappell.regina@epa.gov to determine if there are any updates. The EPA does not intend to publish a document in the **Federal Register** announcing updates.

The EPA will not provide audiovisual equipment for presentations. Any media presentations should be submitted to the public docket at <https://www.regulations.gov/>, identified by Docket ID No. EPA-HQ-OAR-2018-0195. The EPA must receive comments on the proposed action no later than **[INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

If you require the service of a translator or special accommodations such as audio description, please pre-register for the hearing and describe your needs by December 13, 2018. We may not be able to arrange accommodations without advanced notice.

Docket. The EPA has established a docket for this rulemaking under Docket ID No. EPA-HQ-OAR-2018-0195. All documents in the docket are listed in the Regulations.gov index. Although listed in the index, some information is not publicly available, *e.g.*, Confidential Business Information (CBI) or other information whose disclosure is restricted by statute.

Certain other material, such as copyrighted material, is not placed on the Internet and will be publicly available only in hard copy. Publicly available docket materials are available either electronically in Regulations.gov or in hard copy at the EPA Docket Center, Room 3334, EPA WJC West Building, 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 legal holidays. The telephone number for the Public Reading Room is (202) 566-1744, and the telephone number for the EPA Docket Center is (202) 566-1742.

Instructions. Direct your comments to Docket ID No. EPA-HQ-OAR-2018-0195. The EPA's policy is that all comments received will be included in the public docket without change and may be made available online at <https://www.regulations.gov>, including any personal information provided, unless the comment includes information claimed to be CBI or other information whose disclosure is restricted by statute. Do not submit information that you consider to be CBI or otherwise protected through <https://www.regulations.gov> or email. This type of information should be submitted by mail as discussed below.

The EPA may publish any comment received to its public docket. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. The EPA will generally not consider comments or comment contents located outside of the primary submission (*i.e.*, on the Web, cloud, or other file sharing system). For additional submission methods, the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <https://www2.epa.gov/dockets/commenting-epa-dockets>.

The <https://www.regulations.gov> website is an “anonymous access” system, which means the EPA will not know your identity or contact information unless you provide it in the body of your comment. If you send an email comment directly to the EPA without going through <http://www.regulations.gov>, your email address will be automatically captured and included as part of the comment that is placed in the public docket and made available on the Internet. If you submit an electronic comment, the EPA recommends that you include your name and other contact information in the body of your comment and with any digital storage media you submit. If the EPA cannot read your comment due to technical difficulties and cannot contact you for clarification, the EPA may not be able to consider your comment. Electronic files should not include special characters or any form of encryption and be free of any defects or viruses. For additional information about the EPA’s public docket, visit the EPA Docket Center homepage at <http://www.epa.gov/dockets>.

Submitting CBI. Do not submit information containing CBI to the EPA through <http://www.regulations.gov> or email. Clearly mark the part or all of the information that you claim to be CBI. For CBI information on a digital storage media that you mail to the EPA, mark the outside of the digital storage media as CBI and then identify electronically within the digital storage media the specific information that is claimed as CBI. In addition to one complete version of the comments that includes information claimed as CBI, you must submit a copy of the comments that does not contain the information claimed as CBI for inclusion in the public docket. If you submit any digital storage media that does not contain CBI, mark the outside of the digital storage media clearly that it does not contain CBI. Information not marked as CBI will be included in the public docket and the EPA’s electronic public docket without prior notice. Information marked as CBI will not be disclosed except in accordance with procedures set forth

in 40 Code of Federal Regulations (CFR) part 2. Send or deliver information identified as CBI only to the following address: OAQPS Document Control Officer (C404-02), OAQPS, U.S. Environmental Protection Agency, Research Triangle Park, North Carolina 27711, Attention Docket ID No. EPA-HQ-OAR-2018-0195.

Preamble Acronyms and Abbreviations. The Agency uses multiple acronyms and terms in this preamble. While this may not be an exhaustive list, to ease the reading of this preamble and for reference purposes, the following terms and acronyms are defined here:

BSER	Best System of Emissions Reduction
CAA	Clean Air Act
CBI	Confidential Business Information
CFR	Code of Federal Regulations
CO	Carbon Monoxide
EAV	Equivalent Annual Value
EPA	U.S. Environmental Protection Agency
EJ	Environmental Justice
FR	Federal Register
HAP	Hazardous Air Pollutant(s)
HPBA	Hearth, Patio and Barbecue Association
NAICS	North American Industry Classification System
NO _x	Nitrogen Oxides
NSPS	New Source Performance Standards
NTTAA	National Technology Transfer and Advancement Act of 1995
OAQPS	Office of Air Quality Planning and Standards (U.S. EPA)
OECA	Office of Enforcement and Compliance Assurance (U.S. EPA)
OMB	Office of Management and Budget
PM	Particulate Matter
PM _{2.5}	Particulate Matter with an aerodynamic diameter of 2.5 micrometers or less (“fine particles”)
PV	Present Value
R&D	Research and Development
RIA	Regulatory Impact Analysis
RTC	Response to Comments
tpy	tons per year
U.S.	United States
U.S.C.	United States Code
UMRA	Unfunded Mandates Reform Act
VOC	Volatile Organic Compound
Wood heaters	Refers to all appliances covered in 40 CFR part 60, subpart AAA - woodstoves & pellet stoves

Organization of this Document. The information presented in this preamble is organized as follows:

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I. General Information

A. Executive Summary

On March 16, 2015 (80 FR 13672), the Environmental Protection Agency (EPA) finalized the NSPS for new residential wood heaters, new residential hydronic heaters, and new

forced-air furnaces. For this action, the term wood heaters refers to all appliances covered in 40 CFR part 60, subpart AAA, and the terms hydronic heaters and forced-air furnaces refer to appliances covered in 40 CFR part 60, subpart QQQQ. Also, for this action, the term wood heating devices refers to all units regulated by the 2015 NSPS (40 CFR part 60, subparts AAA and QQQQ).

In this action, the EPA proposes to amend 40 CFR part 60, subpart QQQQ of the 2015 NSPS by adding a two year “sell-through” period for retailers to sell new hydronic heaters and forced-air furnaces that are manufactured or imported before the May 2020 compliance date and are compliant with the “Step 1” standards. This will allow retailers additional time after the May 2020 effective date of the “Step 2” standard, to sell “Step 1” compliant hydronic heaters and forced-air furnaces remaining in inventory. The EPA is also taking comment on whether a sell-through period for retailers to sell new residential wood heaters (40 CFR part 60, subpart AAA) is appropriate following the May 2020 compliance date and, if so, how long a sell-through period is needed and why. In addition, this action is taking comment on whether the current minimum pellet fuel requirements should be retained or revised. In the 2015 Final Rule Preamble (at 80 FR at 13682/2), the EPA stated: “For pellet-fueled appliances, operation according to the owner’s manual includes operation only with pellet fuels that are specified in the owner’s manual.”

The Agency estimated the cost and benefits of the proposed rule by developing a memorandum (supplemental RIA)¹ to supplement the Regulatory Impact Analysis prepared for the 2015 Final Rule. This memorandum acknowledges uncertainty driven by consumer,

¹ U.S. EPA. Memorandum: Supplemental Regulatory Impact Analysis (RIA) - Estimated Cost Savings and Forgone Benefits Associated with the Proposed Rule, “Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces.”

manufacturer, and retailer response to this proposed “sell-through” period and evaluates three scenarios. Section VII.A of this preamble summarizes the information in that supplemental RIA. Given the nature of this rule, costs are presented here as the forgone benefits of forgone emission reductions. We estimate the average annual cost savings to be \$0.01 billion. We estimate the average annual forgone benefits to be \$0.10 billion to \$0.23 billion at a 3 percent discount rate and \$0.09 billion to \$0.21 billion at a 7 percent discount rate. The Agency represents the benefits as cost savings, which the Agency estimates as the increase in revenues to manufacturers and retailers of affected hydronic heaters and forced air furnaces. Estimated costs and benefits reflect the average annual impacts for the 2019 to 2022 timeframe, which are the implementation years analyzed in the supplemental RIA. All estimates in the supplemental RIA reflect the primary scenario analyzed for this proposal (which estimates the number of affected wood heaters available during the sell-through period with no change in wood heater production as estimated in the 2015 NSPS). Results are also provided in the supplemental RIA for wood heaters covered by 40 CFR part 60, subpart AAA, which are wood heating devices not included in the proposed 2-year sell-through extension but for which comments are requested to determine if they should be.

B. Does this action apply to me?

Table 1 of this preamble lists categories and entities that are the subject of this proposal. Table 1 is not intended to be exhaustive, but rather provides a guide for readers regarding the entities likely to be affected by this proposed action. These standards, and any changes considered in this rulemaking, are directly applicable to sources as a federal program. Other federal, state, local and tribal government entities are not directly affected by this action.

Table 1. Source Categories Affected by this Action

Category	NAICS Code ¹	Examples of Regulated Entities
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Residential Wood Heating	333414	Manufacturers, owners, and operators of wood heaters, pellet heaters/stoves, and hydronic heaters
	333415	Manufacturers, owners, and operators of forced-air furnaces
Testing Laboratories	541380	Testers of wood heaters, pellet heaters/stoves, and hydronic heaters
Retailers	423730	Warm air heating and air-conditioning equipment and supplies merchant wholesalers

¹ North American Industry Classification System.

C. How do I obtain a copy of this document and other related information?

In addition to being available in the docket, an electronic copy of this action is available on the Internet. Following signature by the EPA Administrator, the EPA will post a copy of this proposed action at <https://www.epa.gov/residential-wood-heaters/final-new-source-performance-standards-residential-wood-heaters>. Following publication in the **Federal Register**, the EPA will post the **Federal Register** version of the proposal at this same website.

II. Background

A. Statutory Background

Section 111 of the Clean Air Act (CAA) requires the EPA Administrator to list categories of stationary sources that, in his or her judgment, cause or contribute significantly to air pollution which may reasonably be anticipated to endanger public health or welfare. The EPA must then issue “standards of performance” for new sources in such source categories. The EPA has the authority to define the source categories, determine the pollutants for which standards should be developed, and identify within each source category the facilities for which standards of performance would be established.

CAA section 111(a)(1) defines “a standard of performance” as “a standard for emissions of air pollutants which reflects the degree of emission limitation achievable through the

application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any non-air quality health and environmental impact and energy requirement) the Administrator determines has been adequately demonstrated.” This definition makes clear that the standard of performance must be based on controls that constitute “the best system of emission reduction (BSER).” The standard that the EPA develops, based on the BSER, is commonly a numerical emission limit, expressed as a performance level. As provided in CAA 111(b)(5), the EPA does not prescribe a specific technology that must be used to comply with a standard of performance. Rather, sources generally can select any measure or combination of measures that will achieve the emission level of the standard.

The Residential Wood Heaters source category is different from most NSPS source categories in that it is for mass-produced residential consumer products. Thus, important elements in determining BSER include the costs and environmental impacts on consumers of delaying production while wood heating devices with those systems are designed, tested, field evaluated and certified.

Section 111(b)(1)(B) of the CAA requires that the standards be effective upon promulgation of the NSPS. Given this statutory requirement, as discussed more fully in the **Federal Register** notice for the 2015 NSPS rulemaking (80 FR 13672), the EPA adopted the stepped (phased) approach for residential wood heaters, hydronic heaters and forced-air furnaces to provide sufficient implementation time for manufacturers and retailers to comply with Step 2 limits.

B. Regulatory Background

Residential wood heaters were originally listed under CAA section 111(b) in February 18, 1987 (see 52 FR 5065). The NSPS for wood heaters (40 CFR part 60, subpart AAA) was

proposed on February 18, 1987 (see 52 FR 4994) and promulgated on February 26, 1988 (see 53 FR 5859) (1988 Wood Heater NSPS). The NSPS was amended in 1998 to address an issue related to certification testing (see 63 FR 64869).

On February 3, 2014, the EPA proposed revisions to the NSPS (See 79 FR 6330) and promulgated revisions on March 16, 2015 (See 80 FR 13672). The final 2015 NSPS updated the 1988 Wood Heater NSPS emission limits, eliminated exemptions over a broad suite of residential wood combustion devices, and updated test methods and the certification process. The 2015 NSPS also added a new subpart (40 CFR part 60, subpart QQQQ) that covers new wood burning residential hydronic heaters and new forced-air furnaces. It also directs owners of pellet or wood chip heaters to burn only the fuel specified in the owner's manual and that meet certain minimum requirements.

As a part of the 2015 rulemaking, the EPA identified the percentage of wood heaters estimated to be meeting the Step 2 standards prior to promulgation of the 2015 NSPS as 70 percent of pellet stoves and 26 percent of wood stoves. Similarly, 18 percent of hydronic heaters were meeting the Step 2 standards prior to promulgation of the 2015 NSPS, while the limited dataset for forced-air furnaces showed no models meeting the Step 2 standards prior to promulgation of the 2015 NSPS. As of March 20, 2018, there were a total of 78 models (44 pellet models and 34 crib/cord wood) that met the Step 2 standard for wood heaters (as required under 40 CFR 60.532(b) or 60.532(c)), nine models that met the Step 2 standard for hydronic heaters (as required under 40 CFR 60.5474(a)(2) or (b)(3)) and one model that met the Step 2 standard for forced-air furnaces (as required under 40 CFR 60.5474(a)(6)). The inventory of certified models as of March 2018 is provided in the document titled: "List of EPA certified

Wood Heating Devices March 2018," which is available in the docket and at the website <https://www.epa.gov/compliance/wood-heater-compliance-monitoring-program>.

In promulgating the 2015 NSPS, the EPA took a “stepped compliance approach” in which certain “Step 1” standards became effective in May 2015 and more stringent “Step 2” standards would become effective five years later, in May 2020.

A major component of demonstrating compliance with either Step 1 or Step 2 is a certification test, using an EPA approved test method, for a given wood heating device. Among other requirements, the emissions from the certification test cannot exceed the emission limit for the standard for which it is certifying (either Step 1 or Step 2). It is worth noting that, because these certification test methods were developed outside of the 2015 NSPS, certification test methods have their own requirements independent of the 2015 NSPS, such as fuel requirements.

The 2015 NSPS included a sell-through provision which allowed seven and a half months for retailers to sell current wood heater and hydronic heater non-compliant inventory (Step 1 sell-through). No sell-through provision was provided for forced-air furnaces because small forced-air furnaces did not have to comply with a numerical emission standard until May 2016, and large forced-air furnaces did not have to comply with a numerical emission standard until May 2017 (see 80 FR 13682 and 13685). While manufacturers could no longer make units that were not certified for the Step 1 standard (after the May 2015 Step 1 effective date), the Step 1 sell-through allowed retailers several months to sell their existing inventory that was not Step 1 compliant. The 2015 NSPS provided no such sell-through provision for the more stringent Step 2 standards that are currently scheduled to become effective in May 2020. The Step 1 and Step 2 standards are discussed further below.

III. Proposed Action

In promulgating the 2015 NSPS, the EPA took a stepped compliance approach to implementing the emission limits for the rule. The Step 1 standard was intended to codify emission limits that were already being met. For wood heaters, (40 CFR part 60, subpart AAA), the Step 1 limit was based on the Washington State standard that had been in effect since 1995 and had been met by most wood heater manufacturers. For hydronic heaters, the Step 1 emission limit was based on the 2010 Phase 2 Voluntary Hydronic Heater Program. Step 1 for forced-air furnaces was what the EPA concluded would be immediately achievable based on a limited dataset.

The Step 1 standard went into effect in May 2015, and Step 2 becomes effective in May 2020 (see discussion at 80 FR 13676-13677). For the Step 1 standards, the EPA provided a “sell-through” period of seven and a half months, until December 2015, to allow retailers additional time after the effective date of the rule to sell the non-compliant wood heaters and hydronic heaters remaining in inventory (see 80 FR 13685). Specifically, the 2015 NSPS allowed non-compliant wood heaters and hydronic heaters manufactured before May 15, 2015, to be imported and/or sold at retail through December 31, 2015 (see 40 CFR 60.532(a) and 60.5474(a)(1)).² For the Step 2 standards, the EPA did not provide a sell-through period following the May 2020 compliance date. The EPA concluded at the time that the 5-year period leading up to the May 2020 Step 2 compliance date would provide manufacturers with sufficient lead time to develop, test, and certify Step 2-compliant wood heating devices. Meanwhile, in the time before the Step 2-certified models were available for sale, both manufacturers and retailers would be able to

² The EPA did not provide any sell-through period for forced-air furnaces, because the EPA determined that the requirements that became effective for these heaters in May 2015 (to revise the owner manuals, and training and marketing materials) could be accomplished without disrupting sales and creating undue burden on manufacturers or retailers. See 80 FR 13682 and 13685.

continue making and selling Step 1-certified wood heating devices (see 80 FR 13676). The EPA provided further explanation in the 2015 Response to Comments (RTC) document (Docket ID EPA-HQ-OAR-2009-0734). On page 99 of the RTC, the EPA noted that the 5-year period from 2015 to 2020 “matches the window of time many manufacturers noted they would need to conduct research and development (R&D) and bring a new model to market,” and on page 231 of the RTC, the EPA concluded that Step 2 standards provide “appropriate lead times for manufacturers to redesign their model lines to accommodate the improved technology across multiple model lines and test, field evaluate, and certify new model lines.”

Recently, the EPA has learned from manufacturers and retailers that a substantial number of retailers are already reducing or even ending their purchases of Step 1-certified wood heating devices from the manufacturers because they are concerned that they will not be able to sell these devices before the May 2020 Step 2 compliance date and will be left with unsaleable inventory.³

³ The following statements from various groups or individuals demonstrate these concerns:

Hearth, Patio & Barbecue Association (HPBA): *As time goes on and we get closer to the May 2020 effective date, retailers will reduce their purchase orders of Step 1 products. We are already seeing this happen today – a full two years before the effective date of Step 2. If orders are decreased or cut off, this implies that manufacturing is also being cut off or decreased.* (May 31, 2018, response to request for information from the EPA.)

Frank Moore (President & Owner, Hardy Manufacturing): *Like manufacturers, retailers are making business decisions right now based on the Step 2 2020 requirements. It can sometimes take up to five years for a retailer to sell a hearth product from the time they purchase it from a manufacturer. With that in mind, many retailers aren't purchasing products from manufacturers that don't already meet the 2020 requirements. Even though it is still 2017, in practice the effective date is already having an impact.* (September 13, 2017, testimony before the House Committee on Energy & Commerce Subcommittee on the Environment in support of H.R. 453 (the Relief from New Source Performance Standards Act)).

Mark Freeman (Owner, Kuma Stoves): *SELL THROUGH - This is the most immediate need. I can't tell you how important this is to provide sell-through relief for manufacturers of AAA appliances as well as for the QQQQ manufacturers. Already we are seeing Early-buy orders for the 2018 season being affected from our dealers who are worried about having stock that they*

Additionally, some manufacturers have indicated that they will need until May 2020 to develop, test, and certify wood heating devices to meet the 2020 Step 2 standards. As a result, manufacturers may face revenue losses as retailers are not willing to buy the Step 1-certified models and the Step 2-certified models have not yet been developed, tested, and certified. Further, as May 2020 approaches, the EPA expects that retailers will become increasingly reluctant to purchase non-Step 2-compliant wood heating devices which they will not be able to sell after May 2020, resulting in stranded capital. The EPA also acknowledges that the price differential between the Step 2 models and Step 1 models may dampen demand for these heaters

won't be able to sell by May 2020. We need this as it is hurting my business and our industry. (May 1, 2018, email to the EPA.)

Chris Neufeld (Vice President, Blaze King): The 2015 New Source Performance Standards failed to provide a sell through date. The magnitude of this omission in the 2015 NSPS is growing and growing quickly. Here is what we have learned from my visits to nearly 60 retail locations in the past 3 months:

- 1. Retailers are hesitant to order products that are set to expire on May 15th, 2020.*
- 2. Compounding their concerns, by some estimates, there are 100,000 or more wood and pellet heaters in showrooms across the country that must be sold by May 15th, 2020. Based on these estimates, this could represent an entire year of industry sales. This does not include inventory held by distributors.*
- 3. Dealers expressed real concern that excessive discounting will result and in turn cause their small businesses to become vastly less profitable resulting in layoffs or closure.*
- 4. Retailers are hesitant to schedule summer and fall participation in fairs, home shows and other costly public events, which will reduce profitability.*

As a manufacturer, one that has acted in good faith, this could hurt our company to an insurmountable degree. Even though our company and others may demonstrate compliance in advance of May 15, 2020, the very real threat is retailers stop ordering our products in an effort to sell off all the products with the expiration date of May 15, 2020. This matter is very time sensitive. A decision to provide an extension needs to be communicated soon and effectively so as to avoid a serious disruption to our business and that of retailers. (June 1, 2018, email to the EPA.)

and could result in consumers declining to purchase new heaters altogether (although the supplemental RIA does not examine this consumer response in detail).

To address this situation, the EPA is proposing to amend the 2015 NSPS, 40 CFR part 60, subpart QQQQ requirements to create a two-year sell-through period for retailers after the Step 2 compliance date that is similar to the Step 1 sell-through period. The EPA is proposing an amendment that will allow Step 1-compliant hydronic heaters and forced-air furnaces manufactured or imported before May 15, 2020, to be sold at retail through May 15, 2022. The EPA is not proposing any changes to its BSER determination and is not proposing any changes to the 5-year compliance period for Step 2 or the associated May 2020 compliance date. As stated in the March 16, 2015, notice of final rulemaking, the EPA concluded that:

- a final hydronic heater Step 2 emission level of 0.10 lb/mmBtu within 5 years as BSER is a reasonable balance of environmental impacts and costs; and
- a final forced-air furnace Step 2 emission level of 0.15 lb/mmBtu within 5 years as BSER is a reasonable balance of environmental impacts and costs.

While the EPA is soliciting comment on the compliance date for the Step 2 emission limits in a separate **Federal Register** notice, this notice of proposed rulemaking maintains the Agency's 2015 BSER determination, while at the same time seeking to ensure that the full 5-year compliance period is available so that consumers, manufacturers, and retailers are not adversely affected.

In this action, the EPA is seeking comment on this two-year sell-through period for retailers after the Step 2 compliance date, including the reasonableness of the Agency's determination that there is a need for a Step 2 sell-through period and, if providing a sell-through period is reasonable, what length of sell-through period is appropriate and why. The EPA is

particularly interested in soliciting comments for the following topics regarding compliant hydronic heaters and forced-air furnaces and the sell-through period:

(1) The Agency solicits comment on whether retailers are currently declining to purchase Step 1-compliant hydronic heaters and forced-air furnaces and how widespread is this reduction in purchases. The EPA also solicits comment as to whether this will become a more significant issue as the May 2020 compliance date approaches and, if so, when is it likely that retailers will no longer be willing to buy Step 1-compliant hydronic heaters and forced-air furnaces at all. The EPA solicits comment on the cost or other impacts that retailers could have on manufacturers who are small businesses if they decline to purchase Step 1-compliant hydronic heaters and forced-air furnaces.

(2) The Agency is soliciting comment as to what is the typical period of time between (a) when a retailer purchases a hydronic heater or forced-air furnace, and (b) when the device is sold to a consumer. In particular, the Agency is soliciting comment on these periods of time for small businesses.

(3) The Agency is soliciting comment on the EPA's proposal that a sell-through period for retailers to sell Step 1-compliant hydronic heaters and forced-air furnaces is a reasonable way to address concerns about retailers' reluctance to purchase Step 1-compliant hydronic heaters and forced-air furnaces and/or manufacturers' inability to sell such heaters and furnaces before Step 2-certified models are available. In particular, the EPA is soliciting comment on the sell-through as a reasonable way to address concerns about retailers of devices and products from small businesses.

(4) The Agency is soliciting comments regarding, if a sell-through period for the May 2020 compliance date were to be promulgated, what period of time after May 2020 would be sufficient

for retailers to sell their inventory of Step 1-compliant hydronic heaters and forced-air furnaces. The EPA is proposing a two-year period but is also taking comment on whether either a shorter or a longer sell-through period may be more reasonable and, if so, why a sell-through period other than two years is appropriate. For small businesses in particular, the Agency is soliciting comment on a two-year period and whether that amount of time is reasonable.

(5) The EPA is also soliciting comment on whether the Agency's proposal to provide the same two-year Step 2 sell-through period for both hydronic heaters and forced-air furnaces is reasonable, or whether a sell-through period of some different length may be more appropriate for each of these types of wood heating devices. The EPA is also soliciting comment on whether it may be more appropriate not to provide a sell-through period at all for either hydronic heaters or forced-air furnaces.

(6) The Agency is soliciting information on the number of Step 1 forced-air furnaces and hydronic heaters that are currently in production and the number that are being designed for Step 2 compliance that have not yet received their EPA certification for Step 2 compliance. The EPA requests information on the number of Step 2 pellet and cord/crib wood forced-air furnaces and hydronic heaters that are currently certified to meet Step 2. The EPA is soliciting comment on how far in advance of the current May 2020 Step 2 compliance date manufacturers will need to submit their EPA certification applications to not only meet the standards, but also to manufacture, market, and distribute their products without disruption to their business.

(7) The Agency seeks comment on whether and what type of small business relief may be appropriate in place of the extended sell-through period that would accomplish the same goal.

(8) The Agency seeks comment on the effects on the consumer as a result of a sell-through period.

Providing specific information and data to explain the basis of your comments on these topics discussed above (and on all matters that you address in your comments) will be helpful in the Agency's consideration of the issues presented by this proposed rule.⁴

IV. Request for Comments on Wood Heaters (40 CFR part 60, subpart AAA)

The EPA is also taking comment on whether the 2015 NSPS, 40 CFR part 60, subpart AAA, should also be revised to create a two-year sell-through period for retailers after the Step 2 compliance date for wood heaters similar to what is being proposed for 40 CFR part 60, subpart QQQQ appliances in section III of this preamble. The EPA is seeking comment on whether to allow Step 1-compliant 40 CFR part 60, subpart AAA wood heaters manufactured or imported before May 15, 2020, to be sold at retail through May 15, 2022. In this action, the EPA is seeking comment on a two-year sell-through period for retailers after the Step 2 compliance date, including comment on whether a Step 2 sell-through period for wood heaters is needed, and, if a sell-through period is added, what length of sell-through period is reasonable, and why.

The EPA is particularly interested in soliciting comments for the following topics regarding compliant wood heaters and the sell-through period:

(1) The Agency solicits comment on whether retailers are currently declining to purchase Step 1-compliant wood heaters and whether this reduction in purchases is widespread. In particular, the EPA solicits comment on whether there is a disproportionate change in purchases of crib/cord

⁴ In an Advanced Notice of Proposed Rulemaking in another **Federal Register** document that the EPA plans to publish soon, the EPA intends to seek comment on several additional matters, including whether the May 2020 Step 2 compliance date should be extended. The EPA does not view this proposed action for a retailer sell-through period as a measure that would preclude an extension of the Step 2 compliance date. The EPA might both (1) finalize the proposed sell-through period, and (2) subsequently extend the 2020 compliance date. In short, the EPA views the proposed sell-through period and a possible extension of the 2020 compliance date as related, but not mutually exclusive. Whether the EPA does one or both (or neither) will be decided after the EPA considers comments and the other pertinent information.

wood heaters (certification tests with either crib wood or cord wood) compared to pellet wood heaters due to the approaching May 2020 compliance date. The EPA also solicits comment as to whether this will become a more significant issue as the May 2020 compliance date approaches and, if so, when it is likely that retailers will no longer be willing to buy Step 1-compliant wood heaters. The EPA solicits comment on the cost or other impacts that retailers could have on manufacturers who are small businesses if they decline to purchase Step 1-compliant wood heaters.

(2) The Agency is soliciting comment as to what is the typical period of time between (a) when a retailer purchases a wood heater, and (b) when the device is sold to a consumer. In particular, the Agency is soliciting comment on these periods of time for small businesses.

(3) The Agency is soliciting comment as to whether a sell-through period for retailers to sell Step 1-compliant wood heaters is a reasonable way to address these concerns about retailers' reluctance to purchase Step 1-compliant wood heaters and/or manufacturers' inability to sell wood heaters before Step 2-certified models are available. In particular, the Agency is soliciting comment on the sell-through as a reasonable way to address concerns about retailers of devices and products from small businesses.

(4) The Agency is soliciting comments regarding if a sell-through period for the May 2020 compliance date were to be promulgated, what period of time after May 2020 would be sufficient for retailers to sell their inventory of Step 1-compliant wood heaters. The EPA is also taking comment on whether the sell-through period should be as short as one year or as long as three years (or more), and, if so, why such a sell-through period would be more appropriate than two years. For small businesses in particular, the Agency is soliciting comment on a two-year period and whether that amount of time is reasonable.

- (5) The Agency is soliciting information on the number of Step 1 wood heater models that are currently in production and the number that are being designed for Step 2 compliance that have not yet received their EPA certification for Step 2 compliance. The EPA requests information on the number of Step 2 pellet and crib/cord wood heaters that are currently certified to meet Step 2. The EPA is soliciting comment on how far in advance of the current May 2020 Step 2 compliance date manufacturers will need to submit their EPA certification applications to not only meet the standards, but also to manufacture, market, and distribute their products without disruption to their business. The EPA solicits comment on any potential impact on consumers if the production of Step 2-compliant wood heaters is limited.
- (6) The Agency seeks comment on whether and what type of small business relief may be appropriate in place of the extended sell-through period that would accomplish the same goal.
- (7) The Agency seeks comment on the effects on the consumer as a result of a sell-through period.

Providing specific information and data to explain the basis of your comments on these topics discussed above (and on all matters that you address in your comments) will be helpful in the Agency's consideration of the issues presented by this proposed rule.

V. Request for Comments on Pellet Fuel Requirements

Certification tests for residential wood pellet heaters require pellet fuels be made of wood with certain minimum quality requirements to ensure consistent operation for every certification test. These requirements have the added benefit to manufacturers of minimizing emissions during certification testing.

The 2015 NSPS requires that pellets burned in a residential wood pellet heater meet the same minimum quality requirements to ensure consistent operations and comparable emissions.

See Pellet Fuel Requirements stated in 40 CFR 60.532(e) and 60.5474(e). These requirements were intended to maintain a level of quality consistent with the requirements of a pellet heater certification test to ensure these pellets are similar to pellets used in certification testing. The EPA concluded at the time that this requirement provided some assurance that the wood pellet heater's performance in the home would be consistent with the laboratory certification test. A pellet manufacturer is not obligated to produce pellets that meet the pellet fuel requirements, but operators and manufacturers of residential pellet heaters in the United States are prohibited from using pellets that do not meet the pellet fuel requirements. However, the Agency has learned of issues regarding these requirements since publication of the 2015 rule. Therefore, the EPA is taking comment on whether the minimum quality pellet fuel requirements in the 2015 NSPS (40 CFR part 60, subparts AAA and QQQQ) should be retained and, if they are retained, whether they should be revised.

(1) The EPA is taking comment on whether 40 CFR part 60, subparts AAA and QQQQ should retain the minimum pellet fuel requirements, which are currently found at 40 CFR 60.532(e) and 60.5474(e). In support of the 2015 NSPS and in response to a remand of the record requested by the EPA, the EPA prepared a memorandum that set forth the Agency's rationale for including pellet fuel requirements. See November 21, 2016, Memorandum from Stephen D. Page, Director, Office of Air Quality Planning and Standards, titled "EPA's Response to Remand of the Record for Residential Wood Heaters New Source Performance Standards."⁵ The EPA is requesting comment on the rationale presented in the above-mentioned memorandum and if the

⁵ This memorandum was placed in the 2015 docket as Docket ID No. EPA-HQ-OAR-2009-0734-1805 and is in the docket for this proposed rule at EPA-HQ-OAR-2018-0195.

current minimum requirements should be retained in its current form at 40 CFR 60.532(e) and 60.5474(e).

(2) The EPA is taking comment on whether the minimum pellet fuel requirements in 40 CFR 60.532(e) and 60.5474(e) should be eliminated entirely.

(3) The EPA is taking comment on whether the pellet fuel requirements, if retained, should be revised. Such revisions could include adding new requirements or removing one or more of the current requirements or revising the requirements that are currently stated. For example, with respect to the maximum dimensions stated in 40 CFR 60.532(e)(2) and 60.5474(e)(2), the Agency is seeking comment on whether this criterion should be removed or replaced with larger or smaller dimensions. The EPA has reviewed the pellet requirements and solicits comment on whether the Agency should revise the current minimum pellet fuel requirements:

1. Density: minimum of 38 lbs/ft³

2. Dimensions: maximum length of 1.5"

3. Fines: < 1% (EPA referred to "inorganic fines" in the 2015 NSPS. Should this be modified to "fines"?)

4. Chlorides: $\leq$ 300 ppm

5. Ash content: $\leq$ 2%

6. Contains no demolition or construction waste

7. Total of each trace metal: 100 mg/kg. Clarify if this should be reported "as received" or "dry basis". The trace metals include mercury, cadmium, lead, arsenic, chromium, copper, nickel, and zinc.

8. None of the prohibited fuels in paragraph (f) of this section. The prohibited list does not prevent the use of unseasoned wood as an input material for manufacturing pellets.

The EPA is interested in receiving comments that both support the current requirements (and explain why they are necessary) and comments that advocate that the requirements be removed or revised.

VI. Impacts of this Proposed Rule

A. What are the air impacts?

The air impacts associated with the requirements of this proposed rule are the forgone emission reductions of PM_{2.5}, HAPs, as well as other criteria pollutants and their precursors, including CO and VOC. VOCs are precursors to PM_{2.5} and ozone. These forgone emission reductions are estimated using the baseline emissions reflected in the final 2015 NSPS as presented in the emissions estimation memorandum and the 2015 NSPS RIA.⁶ The average annual forgone emission reductions for the primary scenario (Scenario 2), calculated over the timeframe of 2019-2022, is 257 tons of PM_{2.5}, 271 tons of VOC, and 1,444 tons of CO. More information on how these impacts are estimated can be found in the supplemental RIA.

B. What are the energy impacts?

These proposed actions are anticipated to have negligible impacts on energy costs or usage. To the extent that Step 1-compliant hydronic heaters and forced-air furnaces continue to be sold for an additional two years, it is difficult to determine the precise energy impacts that might result from this proposed action. Wood-fueled appliances compete with other biomass forms for residential heating as well as more traditional energy sources such as oil, electricity, and natural gas. There is also a lack of sufficient data to determine the potential for affected

⁶ Memo to Gil Wood, USEPA, from EC/R, Inc. Estimated Emissions from Wood Heaters. January 30, 2015. Available in Docket ID: Docket ID No. EPA-HQ-OAR-2009-0734. Regulatory Impact Analysis for Residential Wood Heaters NSPS, Final Report. EPA-452/R-15-001. February 2015. Available at Docket ID: EPA-HQ-OAR-2009-0734-177407344.

consumers to choose other types of fuels and their associated appliances, nor the potential impacts to affected manufacturers.

C. What are the cost savings?

The cost savings of the proposed action are the increase in revenues for manufacturers and retailers of hydronic heaters and forced-air furnaces affected by this rulemaking. The overall distribution of the avoided compliance costs as well as the distribution of forgone benefits is uncertain. The increase in revenues is calculated by estimating the reduction in unit costs from producing Step 1-compliant hydronic heaters and forced-air furnaces as compared to Step 2-compliant devices with estimates of sales taken from the 2015 NSPS RIA, using the estimates calculated for the final 2015 NSPS requirements as the baseline. The revenue estimate calculated is the average of the annual estimates calculated for the 2019-2022 timeframe and the primary scenario (Scenario 2). The estimate of additional average annual revenues to manufacturers is \$0.01 billion (2016 dollars). Calculated as an EAV, the estimate is \$0.01 billion (2016 dollars). More information on how these impacts are estimated can be found in the supplemental RIA of this proposed rule.

D. What are the economic and employment impacts?

The economic impacts of this proposal are the cost savings that are shown in section VI.C of this preamble. Impacts on employment are qualitatively examined in the supplemental RIA.

E. What are the forgone benefits of the proposed rule?

The overall distribution of the avoided compliance costs as well as the distribution of forgone benefits is uncertain. Although this proposed action may result in the delay of the emission reductions from the 2015 NSPS by up to two years, this proposed action to establish a sell-through period does not change the standards upon implementation. The proposed revisions

in this action would defer emission reductions into the future, thus delaying the health benefits estimated in the Residential Wood Heaters 2015 NSPS RIA. Due to analytical limitations, it was not possible to conduct air quality modeling for this proposed rule. Instead, the Agency used a “benefit-per-ton” approach to estimate the forgone benefits. In brief, the EPA calculated benefit per-ton (BPT) values for this sector by: (1) characterizing the photochemical modeled PM_{2.5} air quality levels associated with this sector; (2) quantifying the number and economic value of adverse health impacts attributable to these PM_{2.5} concentrations; (3) dividing these values by the sum of the emissions for the sector. The BPT reflects the average national benefits of reducing PM_{2.5} and PM_{2.5} precursors from the residential wood sector and cannot characterize the benefits occurring in discrete geographic locations such as non-attainment areas. For more detailed discussion of the benefit-per-ton approach, please refer to the benefits section in the supplemental RIA accompanying this proposed rulemaking.

As compared to the 2015 NSPS RIA, for the years 2019 to 2022, this proposed rule, if finalized, would result in less emission reduction of PM_{2.5}, HAPs, as well as other criteria pollutants and their precursors, including CO and VOC, compared to the 2015 NSPS final rule. VOC are precursors to PM_{2.5} and ozone. For this proposed rule, the Agency was only able to quantify the monetized forgone health benefits associated with forgone decreased exposure to directly emitted PM_{2.5}. The forgone benefits reflect the average of annual PM_{2.5} forgone emission reductions occurring between 2019 and 2022 (inclusive). The Agency estimates the annual average monetized PM_{2.5}-related forgone health benefits of the residential wood heaters NSPS in the 2019-2022 timeframe to be \$0.10 billion to \$0.23 billion (2016 dollars) at a 3-percent discount rate and \$0.09 billion to \$0.21 billion (2016 dollars) at a 7-percent discount rate. The ends of the range are quantified using Hazard Ratios reported in the Krewski, et al. (2009) and

Lepeule, et al. (2012) long-term epidemiological studies. Using alternate relationships between PM_{2.5} and premature mortality supplied by experts, higher and lower estimates of forgone benefits are plausible; but, most of the expert-based estimates fall between these two estimates.⁷

A summary of the forgone emissions and monetized forgone benefits estimates for this proposed rule at discount rates of 3 percent and 7 percent is provided in Table 2 of this preamble. All estimates reflect the primary scenario analyzed for this proposal (Scenario 2). Another metric that can be used to calculate such estimates, EAV, yields monetized forgone benefits estimates of \$0.09 billion to \$0.21 billion at a 3 percent discount rate and \$0.07 billion to \$0.16 billion at a 7 percent discount rate. More information on all of these calculations can be found in the supplemental RIA.

Table 2. Summary of Annual Average Monetized PM_{2.5}-related Health Forgone Benefits for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces NSPS Proposal in 2019-2022 Timeframe (Billions of 2016 Dollars)^{a, b, c, d}

Pollutant	Estimated Emission Increases (tpy)	Total Monetized Forgone Benefits (3% Discount Rate)	Total Monetized Forgone Benefits (7% Discount Rate)
Directly emitted PM _{2.5}	257	\$0.10 to \$0.23	\$0.09 to \$0.21
PM _{2.5} Precursors			
VOC	271	--	--
CO	1,444	--	--

^a All estimates are for the 2019-2022 timeframe (inclusive) and are rounded to two significant figures. The total monetized forgone benefits reflect the human health benefits associated with reducing exposure to PM_{2.5} through reductions of PM_{2.5} precursors, such as NO_x, and directly emitted PM_{2.5}. It is important to note that the monetized benefits do not include reduced health effects from exposure to HAP, direct exposure to nitrogen dioxide (NO₂), exposure to ozone, VOC, ecosystem effects, effects from black carbon or visibility impairment.

^b Forgone PM benefits are shown as a range from Krewski, *et al.* (2009) to Lepeule, *et al.* (2012).

^c These models assume that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effects estimates by particle type.

^d All estimates reflect the primary scenario (or Scenario 2) for the proposal.

⁷ Roman, *et al.*, 2008. "Expert Judgment Assessment of the Mortality Impact of Changes in Ambient Fine Particulate Matter in the U.S.," *Environ. Sci. Technol.*, 42, 7, 2268 – 2274.

These forgone benefit estimates represent the annual average economic value of the health benefits that would have occurred in the years 2019, 2020, 2021 and 2022, were the proposed sell-through date not deferred from 2020 to 2022.

The Agency assumes that all fine particles, regardless of their chemical composition, are equally potent in causing premature mortality because the scientific evidence is not yet sufficient to allow differentiation of effects estimates by particle type. Even though the Agency assumes that all fine particles have equivalent health effects, the benefit-per-ton estimates vary between precursors depending on the location and magnitude of their impact on PM_{2.5} levels, which drive population exposure.

For this analysis, policy-specific air quality data are not available. Thus, the Agency is unable to estimate the percentage of forgone premature mortality associated with this specific proposed rule's forgone emission reductions at each PM_{2.5} level. As a surrogate measure of mortality impacts, the Agency provides the percentage of the population exposed at each PM_{2.5} level using the source apportionment modeling used to calculate the benefit-per-ton estimates for this sector. Using the Krewski, *et al*, (2009) study, 93 percent of the population is exposed to annual mean PM_{2.5} levels at or above the lowest measured level (LML) of 5.8 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$). Using the Lepeule, *et al*, (2012) study, 67 percent of the population is exposed above the LML of 8 $\mu\text{g}/\text{m}^3$. Therefore, caution is warranted when interpreting the LML assessment for this proposed rule. The Agency refers the reader to the supplemental RIA prepared for this proposed rule for detailed discussion.

Every benefit analysis examining the potential effects of a change in environmental protection requirements is limited, to some extent, by data gaps, model capabilities (such as geographic coverage) and uncertainties in the underlying scientific and economic studies used to

configure the benefit and cost models. A detailed discussion of these uncertainties is provided in the supplemental RIA. Despite these uncertainties, the benefit analysis for this action provides a reasonable indication of the expected forgone health benefits of the proposed rulemaking under a set of reasonable estimations.

The monetized forgone benefits estimates provided above do not include forgone benefits from a variety of additional benefit categories. Although the Agency does not have sufficient information or modeling available to provide monetized estimates for these forgone benefits, the Agency includes a qualitative assessment of these unquantified forgone benefits in the supplemental RIA for this proposed rule. For more information on the benefits analysis, refer to the supplemental RIA for this proposed rule, which is available in the docket at Docket ID No. EPA-HQ-OAR-2018-0195.

VII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at <http://www2.epa.gov/laws-regulations/laws-and-executive-orders>.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is an economically significant regulatory action that was submitted to the Office of Management and Budget (OMB) for review. Any changes made in response to OMB recommendations have been documented in the docket. The EPA prepared an analysis of the potential costs and benefits associated with this action. This analysis, Supplemental Regulatory Impact Analysis (RIA) - Estimated Cost Savings and Forgone Benefits Associated with the Proposed Rule, “Standards of Performance for New Residential Wood Heaters, New Residential

Hydronic Heaters and Forced-Air Furnaces” is a memorandum that is available in the docket. It is also summarized in section I of this preamble.

Consistent with Executive Orders 12866 and 13563, “Improving Regulation and Regulatory Review,” the Agency has estimated the cost and benefits of the proposed rule. Given the nature of this rule, the Agency modified the discussion of net benefits (benefits – costs) to be more consistent with the relevant terminology of traditional net benefit analysis. The costs are presented here as the forgone benefits presented in section 5 of the supplemental RIA and section VI.E of this preamble. The Agency represents the benefits as the cost savings presented in section 2 of the supplemental RIA and section VI.C of this preamble, which the Agency estimates as the increase in revenues to manufacturers of affected wood heaters. The net benefits are the benefits (cost savings) minus the costs (forgone benefits). In this proposed rule, the estimated costs are greater than the benefits, leading to a negative net benefit (or net cost). The estimated annual average net benefit at a 3-percent discount rate is \$0.09 billion to \$0.22 billion, and \$0.08 billion to \$0.20 billion at a 7-percent discount rate in 2016 dollars, over the 2019 to 2022 timeframe. The net benefit estimate reflects an annual average of 257 tons of forgone PM_{2.5} emission reductions per year, and a total annual average cost savings of \$0.01 billion (2016 dollars). The forgone benefits also include forgone emission reductions of 271 tons of VOC reductions per year and 1,444 tons of CO reductions per year; forgone reduced exposure to HAP, including formaldehyde, benzene, and POM; forgone reduced climate effects due to forgone reduced black carbon emissions and GHG emissions; forgone reduced ecosystem effects; and forgone reduced visibility impairments. Table 3 summarizes the estimated costs and forgone benefits for the affected forced-air furnaces and hydronic heaters. The estimated costs and benefits reflect the average annual impacts for the 2019 to 2022 timeframe, which are the

implementation years analyzed in the supplemental RIA for this proposed rule. All estimates reflect the primary scenario analyzed for this proposal (Scenario 2). Results for wood stoves, a category not included in the 2-year sell through proposed extension but for which comments are requested to determine if they should be, are also provided in the supplemental RIA.

Table 3. Summary of Annual Average Cost Savings, Monetized Forgone Benefits, and Monetized Net Forgone Benefits (Billions of 2016 dollars) in the 2019–2022 Time Frame for the Proposed Rule^{a, b}

	3% Discount Rate	7% Discount Rate
Costs: Forgone Benefits ^c	(\$0.10) to (\$0.23)	(\$0.09) to (\$0.21)
Benefits: Cost Savings from Increased Manufacturers' and Retailers' Revenues		\$0.01
Net Benefits:	(\$0.09) to (\$0.22)	(\$0.08) to (\$0.20)

^a All estimates in this table are rounded to one decimal point, so numbers may not sum due to independent rounding. All estimates reflect the primary scenario (Scenario 2) as described in the supplemental RIA.

^b All estimates are for the time frame from 2019 to 2022 inclusive. All estimates reflect the primary scenario (Scenario 2) for this proposal. These results include units anticipated to come online and the lowest cost disposal assumption. These cost savings are presented in the supplemental RIA. The monetized forgone net benefits at a 3% interest rate are minimally different than those calculated at a 7% interest rate.

^c The total monetized forgone benefits reflect the forgone human health benefits associated with reducing exposure to PM_{2.5} through reductions of directly emitted PM_{2.5}. Monetized forgone benefits include many, but not all, health effects associated with PM_{2.5} exposure. Forgone benefits are shown as a range from Krewski *et al.* (2009) to Lepeule *et al.* (2012). We do not report the total monetized forgone benefits by PM_{2.5} species.

In addition, Table 4 reports the present values and equivalent annualized values of the net benefits discounted at 7 and 3 percent. EAV are the annualized present values, or the levelized flow of the present values (PV), over the three years affected by the proposal. The PV of the net benefits are negative \$0.07 billion to negative \$0.19 billion when using a 7 percent discount rate and negative \$0.07 billion to negative \$0.20 billion when using a 3 percent discount rate. The equivalent annualized values of the net benefits are negative \$0.06 billion to negative \$0.15 billion per year when using a 7 percent discount rate and negative \$0.08 billion to negative \$0.20 billion per year when using a 3 percent discount rate. The negative values indicate that EAV of

the estimated benefits (cost savings) of the proposal are smaller than the EAV of estimated costs (forgone benefits). All these estimates are in 2016 dollars and are discounted to 2016.

Table 4. Estimated Present Values and Equivalent Annualized Values of the Benefits, Costs, and the Net Benefits of the New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces NSPS Proposal (Billions of 2016\$)

	7% Discount Rate		3% Discount Rate	
	PV	EAV	PV	EAV
Benefits ¹	\$0.025	\$0.01	\$0.029	\$0.01
Costs ²	(\$0.09) to (\$0.21)	(\$0.07) to (\$0.16)	(\$0.10) to (\$0.23)	(\$0.09) to (\$0.21)
Net Benefits	\$(0.07) to (\$0.19)	\$(0.06) to (\$0.15)	\$(0.07) to (\$0.20)	\$(0.08) to (\$0.20)

¹ The EAV of benefits are the EAV of the cost savings.

² The EAV of costs are calculated from the PV of the forgone monetized benefits. Results are rounded to two significant figures. Totals may not sum due to rounding. Values in parentheses are negative.

For more information on the forgone benefits analysis, the cost analysis and the calculation of net benefits, please refer to the supplemental RIA prepared for this proposed rulemaking under Docket ID No. EPA-HQ-OAR-2018-0195.

B. Executive Order 13771: Reducing Regulations and Controlling Regulatory Costs

This action is expected to be an Executive Order 13771 deregulatory action. Details on the estimated cost savings of this proposed rule can be found in the rule's economic analysis. See section VI of this preamble.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA. OMB has previously approved the information collection activities contained in the existing regulations and assigned OMB Control number 2060-01 for 40 CFR part 60, subpart AAA and OMB Control number 2060-0693 for 40 CFR part 60, subpart QQQQ. This action is believed to

result in no changes to the information collection requirements of the 2015 Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-air Furnaces rule, so that the information collection estimate of project cost and hour burden from the 2015 final rule have not been revised.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the impact of concern is any significant adverse economic impact on small entities. An agency may certify that a rule will not have a significant economic impact on a substantial number of small entities if the rule relieves regulatory burden, has no net burden, or otherwise has a positive economic effect on the small entities subject to the rule. This proposed rule will not impose any new requirements on any entities because it does not impose any additional regulatory requirements relative to those specified in the 2015 NSPS. The Agency has, therefore, concluded that this action will have no net regulatory burden for all directly regulated small entities.

E. Unfunded Mandates Reform Act of 1995 (UMRA)

This action does not contain any unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local, or tribal governments or the private sector.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have tribal implications as specified in Executive Order 13175. This rule will not impose any requirements on tribal governments. Thus, Executive Order 13175 does not apply to this action. Consistent with the EPA Policy on Consultation and Coordination with Indian Tribes, the EPA will provide outreach through the National Tribal Air Association and will offer consultation to tribal officials.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

This proposed action is subject to Executive Order 13045 because it is an economically significant regulatory action as defined by Executive Order 12866. As noted in the preamble to the 2015 NSPS, the EPA does not believe that the environmental health risks or safety risks addressed by the NSPS presents a disproportionate risk to children based on distributional assessments of effects from residential wood smoke emissions (see 80 FR 13700). Although this proposed action may result in the delay of the emission reductions of some hydronic heater and forced air furnace appliances in the 2015 NSPS by up to two years, this will not alter the EPA's prior findings that on a nationwide basis, cancer risks due to residential wood smoke emissions among disadvantaged population groups generally are lower than the risks for the general population due to residential wood smoke emissions. (One of the demographic variables examined by the EPA was that of people 18 years and younger.) Furthermore, the proposed action does not affect the level of public health and environmental protection already being provided by existing NAAQS and other mechanisms in the CAA. This proposed action does not affect applicable local, state, or federal permitting or air quality management programs that will continue to address areas with degraded air quality and maintain the air quality in areas meeting

current standards. Areas that need to reduce criteria air pollution to meet the NAAQS will still need to rely on control strategies to reduce emissions. To the extent that states use other mechanisms in order to comply with the NAAQS, this action will not have a disproportionate adverse effect on children's health.

I. Executive Order 13211: Actions Concerning Regulations that Significantly Affect Energy Supply, Distribution, or Use

This action is not a "significant energy action" because it is not likely to have a significant adverse effect on the supply, distribution or use of energy. This action allows affected wood heating devices to sustain their current levels of operation. It does not promote the reduction in energy use nor does it increase the cost of energy production. Further information on the energy impacts can be found in section VI.B of this preamble.

J. National Technology Transfer and Advancement Act (NTTAA) and 1 CFR part 51

This rulemaking does not involve technical standards.

K. Executive Order 12898: Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations

The EPA believes that this proposed action will not have disproportionately high and adverse human health or environmental effects on minority populations, low-income populations or indigenous peoples as specified in Executive Order 12898 (59 FR 7629, February 16, 1994). As noted in the preamble to the 2015 NSPS, the EPA believes that the human health or environmental risk addressed by the NSPS will not have potential disproportionately high and adverse human health or environmental effects on minority, low-income or indigenous populations from residential wood smoke emissions (see 80 FR 13701). Although this proposed action may result in the delay of the emission reductions of some hydronic heater and forced air

furnace appliances in the 2015 NSPS by up to two years, this will not alter the EPA's prior findings that on a nationwide basis, cancer risks due to residential wood smoke emissions among disadvantaged population groups generally are lower than the risks for the general population due to residential wood smoke emissions.

Furthermore, the overall distribution of the avoided compliance costs as well as the distribution of forgone benefits is uncertain. Although this proposed action may result in the delay of the emission reductions of some hydronic heater and forced air furnace appliances in the 2015 NSPS by up to two years, this proposed action to establish a sell-through period does not change the standards upon implementation.

List of Subjects in 40 CFR Part 60

Environmental protection, Administrative practice and procedure.

Dated: November 21, 2018

Andrew R. Wheeler,
Acting Administrator.

For the reasons set out in the preamble, title 40, chapter I of the Code of Federal Regulations is proposed to be amended as follows:

PART 60-STANDARDS OF PERFORMANCE FOR NEW STATIONARY SOURCES

1. The authority citation for part 60 continues to read as follows:

Authority: 42 U.S.C. 7401, *et seq.*

Subpart QQQQ - [Amended]

2. Section 60.5474 is amended by revising paragraphs (a)(2) and (a)(6) to read as follows.

§ 60.5474 What standards and requirements must I meet and by when?

(a)***

(2) On or after May 15, 2020, manufacture or sell at retail a residential hydronic heater unless it has been certified to meet the 2020 particulate matter emission limit in paragraph (b)(2) or (b)(3) of this section except that a residential hydronic heater certified to meet the 2015 particulate matter emission limit in paragraph (b)(1) of this section manufactured or imported on or before May 15, 2020, may be sold at retail on or before May 15, 2022.

(6) On or after May 15, 2020, manufacture or sell at retail a small or large residential forced-air furnace unless it has been certified to meet the 2020 particulate matter emission limit in paragraph (b)(6) of this section except that a small or large residential forced-air furnace certified to meet the applicable 2015 particulate matter emission limit in paragraph (b)(4) or (b)(5) of this section, respectively, manufactured or imported on or before May 15, 2020 may be sold at retail on or before May 15, 2022.

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