

January 14, 2019

U.S. Environmental Protection Agency  
EPA Docket Center  
Air and Radiation Docket  
Mail Code 28221T  
Docket ID. No. EPA-HQ-OAR-2018-0195  
1200 Pennsylvania Avenue, NW  
Washington, DC 20460

To Whom It May Concern:

The National Association of Clean Air Agencies (NACAA) offers the following comments on the U.S. Environmental Protection Agency's (EPA) Notice of Proposed Rulemaking (NPRM), *Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces*, as published in the *Federal Register* on November 30, 2018 (83 Fed. Reg. 61,574).<sup>1</sup> NACAA is the national, non-partisan, non-profit association of air pollution control agencies in 40 states, including 114 local air agencies, the District of Columbia and four territories. The air quality professionals in our member agencies have vast experience dedicated to improving air quality in the U.S. These comments are based upon that experience. The views expressed in these comments do not represent the positions of every state and local air pollution control agency in the country.

NACAA opposes this proposed rule, which would amend EPA's final March 16, 2015 New Source Performance Standards (NSPS) for new residential wood heaters, pellet stoves, hydronic heaters (HH) and forced air furnaces (FAF)<sup>2</sup> – which took effect on May 15, 2015 – to provide a two-year “sell-through” period, through May 15, 2022, during which retailers may continue to sell Step1-compliant new residential HHs and FAFs manufactured or imported before May 15, 2020, which is the compliance deadline for the Step 2 NSPS.

Also in this action, EPA seeks comment on other issues including 1) whether a sell-through period of a different length (longer or shorter) is more appropriate for Step1-compliant new residential HHs and FAFs (i.e., appliances covered in 40 CFR part 60, subpart QQQQ) and 2) whether the current NSPS should also be amended to provide a two-year sell-through period (or a sell-through period as short as one year or as long as three years, or more) for the sale of Step 1-compliant wood heaters (i.e., devices covered in 40 CFR part 60, subpart AAA) after the May 15, 2020 Step 2 compliance date. NACAA opposes sell-through periods of any length for new residential HHs, FAFs and wood heaters after May 15, 2020.

Below, NACAA articulates concerns related to its opposition to sell-through periods for HHs, FAFs and wood heaters and also responds to the agency's request for comment on whether the current minimum pellet fuel requirements should be retained and, if so, whether they should be revised.

---

<sup>1</sup> 83 Fed. Reg. 61,574 (November 30, 2018) – <https://www.govinfo.gov/content/pkg/FR-2018-11-30/pdf/2018-26083.pdf>

<sup>2</sup> 80 Fed. Reg. 13,672 (March 16, 2015) – <https://www.gpo.gov/fdsys/pkg/FR-2015-03-16/pdf/2015-03733.pdf>

## Background on Residential Wood Heating Devices

In 1988, EPA established NSPS for woodstoves; most pellet stoves were exempt from those standards. In March 2015, 27 years later, EPA revised the NSPS for woodstoves. These revised standards were applicable to all pellet stoves and established the first-ever national emission standards for hydronic heaters (HH) and forced air furnaces (FAF).

Residential wood heating in the U.S. produces five times more direct PM<sub>2.5</sub> emissions than all U.S. petroleum refineries, cement manufacturers and pulp and paper plants combined.<sup>3</sup> Wood smoke contains a mixture of harmful substances that penetrate deep into the lungs. Fine particulates (PM<sub>2.5</sub>) from wood smoke not only affect air quality in entire regions, but also significantly impact air quality and public health at the local level including communities and neighborhoods located in valleys where wood smoke accumulates. In fact, a single wood-burning device can emit enough pollutants to place an entire neighborhood at risk.<sup>4</sup> Each year, residential wood combustion is responsible for hundreds of thousands of tons of PM<sub>2.5</sub> emissions. These emissions can increase the concentration of particle pollution to levels that cause serious health impacts ranging from exacerbation of cardiac and respiratory problems to premature death.<sup>5</sup> Further, PM<sub>2.5</sub> contributes significantly to our nation's regional haze problem. Residential wood smoke also contains volatile organic compounds, carbon monoxide and black carbon, as well as toxic air pollutants such as benzene, formaldehyde, dioxin and polycyclic organic matter (POM). EPA estimates that residential wood combustion contributes "44 percent of total stationary and mobile source POM emissions, which accounts for nearly 25 percent of all area source air toxics cancer risks and 15 percent of noncancer respiratory effects."<sup>6</sup>

## Amending the Current NSPS to Provide a Sell-Through Period for Step 1-Compliant Devices

Sell-through provisions of any length would delay critically needed emission reductions from residential HHs, FAFs and wood heaters throughout the country. Such delay is unnecessary and unwarranted and would harm public health and the environment.

Manufacturers had five years notice of the 2020 compliance date for the Step 2 standards and were aware years earlier that EPA was preparing to revise the decades-old standards for wood heaters and set new standards for other devices that were never regulated at all. EPA worked closely with these stakeholders as the March 2015 rule was developed and incorporated a number of provisions – including an accommodating two-step phase in of standards with a five-year lag before Step 2 compliance was required. Numerous manufacturers have now made investments enabling them to produce over 200 different models (in all categories – boilers, furnaces and stoves) of the cleaner devices necessary to meet the Step 2 standards in order to be ready for on-time compliance with the May 2020 regulatory deadline.

Further, when EPA designed the 2015 NSPS rule it built into the five-year lag between Step 1 and Step 2 a sell-through period for retailers: "The 1988 NSPS addressed some of the specific characteristics of

---

<sup>3</sup> *Introduction to Hearth Appliances, Nature and Magnitude of Residential Wood Smoke*, Presentation of Larry Brockman, U.S. Environmental Protection Agency (March 6, 2018), p. 5 – <https://www.nescaum.org/documents/march-2018-residential-wood-heating-workshop/epa-intro-to-appliances-and-nature-magnitude.pdf>

<sup>4</sup> Source: Bay Area Air Quality Management District

<sup>5</sup> *Strategies for Reducing Residential Wood Smoke*, U.S. Environmental Protection Agency (March 2013), p. 4 – <https://www.epa.gov/sites/production/files/documents/strategies.pdf>

<sup>6</sup> *Regulatory Impact Analysis (RIA) for Residential Wood Heater NSPS Revision – Final Report*, U.S. Environmental Protection Agency (February 2015), p. 1-2 – <https://www.epa.gov/sites/production/files/2015-02/documents/20150204-residential-wood-heaters-ria.pdf>

this source category by developing a stepped compliance approach that provided manufacturers a two-phased implementation of emission limits. Considering that over 90 percent of the manufacturers and retailers are small businesses, we have included this approach in the revised subpart AAA and new subpart QQQQ in order to allow manufacturers lead time to develop, test, field evaluate and certify current technologies across their consumer product lines to meet Step 2 emission limits and in most cases to allow retailers to sell-through inventory.”<sup>7</sup>

EPA’s proposal to provide a sell-through period is evidently driven by manufacturers’ claims (with examples included in the NPRM) that they will not be able to sell off their Step 1 devices without a sell-through beginning in May 2020. In its *Supplemental Regulatory Impact Analysis* (SRIA) for the NPRM,<sup>8</sup> EPA presents its estimates of the “cost savings” of the proposal; EPA defines “cost savings” as the “increase in revenues to manufacturers that produce appliances affected by this sell-through and retailers of these appliances.”<sup>9</sup> The agency also presents estimates of the monetized “foregone benefits” – “the monetized value of the reduction in incidence of morbidity and premature death projected under the 2015 NSPS that might no longer occur if this proposal is finalized as proposed.”<sup>10</sup>

The bottom line of EPA’s analysis is that based on Scenario 2 – the more conservative (in terms of excess emissions) of the two sell-through scenarios examined by EPA – with respect to a two-year HH and FAF sell-through, EPA estimates that industry would increase revenue by an average of \$8.3 million a year from 2019 through 2022 at a cost of between \$94 million and \$210 million a year, on average, in foregone health benefits. With respect to a two-year wood heater sell through, also under Scenario 2, EPA estimates that industry would increase revenue by an average of \$5.7 million a year from 2019 through 2022 at a cost of between \$32 million and \$72 million a year, on average, in foregone health benefits.<sup>11</sup>

As substantial as the foregone health benefits reported by EPA appear, the agency’s methodology for estimating them underrepresents the true level of the adverse impacts on public health that would result from a sell-through. EPA only calculates the foregone health benefits associated with a sell-through for a “truncated” period of time – 2019 through 2022 – that does not include the excess emissions that Step 1 devices sold during the sell-through period will continue to emit every year throughout the full lives of these devices, typically 20 years or more. This omission of the foregone health benefits to accrue during those additional 16+ years is a serious flaw of the SRIA. Another flaw of the SRIA is the further underestimation of monetized foregone health benefits due to the fact that EPA monetizes only the impact of lost PM<sub>2.5</sub> emission reductions and not lost reductions in other emissions – such as volatile organic compounds, carbon monoxide, hazardous air pollutants and black carbon – or lost reductions in ecosystem and visibility impairment and climate effects.

EPA does not substantiate in the NPRM or SRIA the claims of industry representatives with respect to the purported harms to their business and that of retailers if a sell-through is not provided. Indeed, not all manufacturers are of the same mind regarding the need for a sell-through. In a December 7, 2018 letter to EPA Acting Administrator Andrew Wheeler, Daryl Lamppa, founder and owner of Lamppa Manufacturing, Inc., a manufacturer of FAFs, wrote the following in opposition to any change to the 2020

---

<sup>7</sup> *Supra* note 2, at 13,676

<sup>8</sup> *Supplemental Regulatory Impact Analysis (RIA) for “Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces”*, U.S. Environmental Protection Agency (November 20, 2018) – [https://www.epa.gov/sites/production/files/2018-11/documents/wood\\_heaters\\_proposal\\_nsps\\_supp\\_ria\\_final.pdf](https://www.epa.gov/sites/production/files/2018-11/documents/wood_heaters_proposal_nsps_supp_ria_final.pdf)

<sup>9</sup> *Supra* note 8, at 4

<sup>10</sup> *Supra* note 8, at 11

<sup>11</sup> *Supra* note 8

NSPS compliance date: “Thirty years ago, the EPA started to test wood-burning stoves for emissions. This should have been an early notice to the furnace manufacturers that they were next and they should have immediately started to examine, test and improve their furnace products. But they didn't. Lamma Manufacturing, however, took a proactive approach to invest in our design to make our furnaces burn as close to ‘smokeless’ as possible. No smoke also means no creosote and minimal pollution. We firmly believed this would allow us to pass any EPA test. Are we now expected to sit back and be punished for our hard work and extensive investment while the other manufacturers are rewarded for their inactivity?”<sup>12</sup>

Also of concern are EPA's statements in the NPRM that “EPA does not believe that the environmental health risks or safety risks addressed by the NSPS present a disproportionate risk to children”<sup>13</sup> and that “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.”<sup>14</sup> These statements are at odds with what EPA reported in its March 2013 publication, *Strategies for Reducing Residential Wood Smoke*: “People with diseases that affect the heart or lung (including asthma), older adults, children, and people living in lower socioeconomic conditions are at greatest risk from PM<sub>2.5</sub> exposure.”<sup>15</sup> Further, a comparison of median household income in communities across the country with elevated levels of PM<sub>2.5</sub> to corresponding state median household income reveals that median household income in at least half of those communities is below the median state household income.<sup>16</sup>

NACAA is also interested in understanding the legal authority under which EPA would provide a sell-through. As EPA acknowledges in the NPRM, Section 111 of the Clean Air Act (CAA) requires the agency to establish standards of performance that reflect “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)’ ... 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.”<sup>17</sup>

First, the NSPS EPA established for HHs, FAFs and wood heaters require full compliance with Step 2 by all devices sold at retail beginning May 15, 2020. A sell-through would allow for compliance with a weaker standard of performance than EPA has concluded reflects BSER even though EPA has not asserted that the BSER upon which the Step 2 standards are based cannot be achieved; in fact, such an assertion cannot be made because it has been demonstrated that the Step 2 standards are achievable for all categories of devices.

---

<sup>12</sup> Letter from Lamma Manufacturing, Inc. to EPA Acting Administrator Andrew Wheeler (December 7, 2018) – <https://www.regulations.gov/contentStreamer?documentId=EPA-HQ-OAR-2018-0196-0010&attachmentNumber=2&contentType=pdf>

<sup>13</sup> *Supra* note 1, at 61,584

<sup>14</sup> *Supra* note 1, at 61,585

<sup>15</sup> *Supra* note 5, at 5

<sup>16</sup> *American Fact Finder: Community Facts*, U.S. Census Bureau Website (December 4, 2018) – [https://factfinder.census.gov/faces/nav/jsf/pages/community\\_facts.xhtml](https://factfinder.census.gov/faces/nav/jsf/pages/community_facts.xhtml)

<sup>17</sup> *Supra* note 1, at 61,577

Second, CAA Section 111 is clear in stating that NSPS must take effect upon their promulgation; EPA has not identified a mechanism that would allow for a sell-through that sanctions violations of the NSPS.

The Step 2 NSPS set to take effect in 2020 will put in place consistent health-protective residential wood heater emission standards nationwide and help to ensure the cleanest and most efficient wood heaters are available for purchase, providing significant long-term benefits to reduce fine particulate emissions regionally and locally. A few states have enacted legislation barring their jurisdictions from enforcing the March 2015 federal NSPS for residential wood-burning heating devices. However, emissions from residential wood combustion cause many counties across America to either exceed, or come precariously close to exceeding, the health-based National Ambient Air Quality Standards (NAAQS) for PM<sub>2.5</sub>.

Many state and local air quality agencies are relying on the emission reductions that will result from the Step 2 NSPS to attain and maintain the NAAQS and/or meet other clean air goals, and have included these reductions in their State Implementation Plans. If EPA allows the continued sale of Step 1 HHS, FAFs and/or wood heaters after the Step 2 compliance date these states and localities will be left with a shortfall in emission reductions that could impede their attainment efforts and put nonattainment areas at risk of missing statutory deadlines and attainment areas at risk of violating the NAAQS. Furthermore, such an outcome would be directly counter to EPA's first Priority Goal for FY 2018-2019 – "Improve air quality by implementing pollution control measures to reduce the number of nonattainment areas" – as stated in *Working Together: FY 2018-2022 U.S. EPA Strategic Plan*.<sup>18</sup>

There are complexities around regulating emissions from residential woodstoves at the state or local level because the devices are installed and operated in private homes. Nonetheless, in the face of a sell-through, some states and localities that depend on the emission reductions to occur from implementation of the Step 2 standards in May 2020 – as an alternative to regulating other industries or source categories to offset the emission reduction shortfall, if such other industries or source categories are even available – may have no choice but to pursue or build upon their own residential wood heating device regulatory programs in order to ensure the anticipated reductions are realized.

In summary, NACAA opposes any changes to the current NSPS as adopted in March 2015 to allow for any sell-through and, instead, supports full compliance with the Step 2 NSPS by all new residential wood heating devices, with no exceptions, by May 15, 2020.

### Whether to Retain or Revise the Minimum Quality Pellet Fuel Requirements

EPA included in the March 2015 NSPS rule minimum fuel quality requirements for residential wood pellet heaters. In the NPRM, EPA states that it has since learned of issues regarding these requirements and, therefore, is taking comment on whether the minimum quality pellet fuel requirements of the March 2015 NSPS rule should be retained and, if so, whether they should be revised.

Minimum quality pellet fuel requirements help ensure 1) that performance of residential wood pellet stoves in the home is comparable to that during laboratory certification testing, 2) consistent operations and comparable emissions; and 3) that contaminated pellets do not enter the marketplace. In addition, an

---

<sup>18</sup> *Working Together: FY 2018-2022 U.S. EPA Strategic Plan*, U.S. Environmental Protection Agency (February 2018), p. 5 – <https://www.epa.gov/sites/production/files/2018-08/documents/fy-2018-2022-epa-strategic-plan-print.pdf>

elemental analysis of wood fuels published by the New York State Energy and Research Development Authority (NYSERDA)<sup>19</sup> included the finding that some pellet samples contained “unusually high concentrations of several heavy metals, including arsenic, copper and chromium” and other harmful contaminants including mercury that can increase toxic air emissions and potentially damage equipment and affect operation and combustion efficiency. The NYSERDA report also included the recommendation that “(e)stablishing enforceable U.S. standards for elemental compositions of commercial wood pellets and chips would also help exclude inappropriate materials and promote cleaner combustion.”

NACAA recommends that minimum quality pellet fuel requirements be retained but with revisions. In particular, we suggest the following and would welcome the opportunity to discuss with EPA staff the specific components of minimum quality requirements:

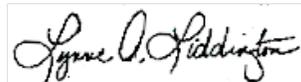
- 1) Eliminate the size requirements for pellets.
- 2) Retain all requirements related to metals, sulfur, chlorine, ash and fine particulate matter content.
- 3) Require that approved voluntary programs include oversight mechanisms to allow compliance to be monitored and, as necessary, appropriate enforcement action to be taken.
- 4) Require certification of pellet fuel through a quality assurance program administered by a third-party selected by EPA and include minimum requirements such as:
  - a. Random annual compliance audits, including unannounced inspection and testing for metals content with limits that are consistent with those adopted by the Pellet Fuel Institute, and quarterly or monthly testing for compliance with pellet standards,
  - b. Means to allow for the review of pellet sampling and inspection reports by appropriate authorities,
  - c. Use of clean wood fuels and
  - d. Prohibition on the use of any waste wood or construction or demolition waste products, *de minimis* waste materials or binders.

Thank you for considering our perspectives on these important issues. If you have questions or would like further information please do not hesitate to contact either of us.

Sincerely,



George S. (Tad) Aburn, Jr.  
(Maryland)  
Co-Chair  
NACAA Criteria Pollutants Committee



Lynne A. Liddington.  
(Knoxville, Tennessee)  
Co-Chair  
NACAA Criteria Pollutants Committee

---

<sup>19</sup> *Elemental Analysis of Wood Fuels*, the New York State Energy and Research Development Authority (June 2013) – [http://www.nescaum.org/documents/nyserda-rept-13-13\\_elemental\\_analysis\\_of\\_wood\\_fuel-201306.pdf](http://www.nescaum.org/documents/nyserda-rept-13-13_elemental_analysis_of_wood_fuel-201306.pdf)