

## Comments of the Pellet Fuel Institute

Proposed Rule: Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced Air Furnaces  
83 Fed. Reg. 61,574 (Nov. 30, 2018)  
EPA-HQ-OAR-2018-0195

---

### I. Summary of Comments

- The Pellet Fuel Institute (“PFI”) has diligently worked over many years to develop and implement standards for densified biomass fuel (pellet fuel). PFI continues to review its standards on a regular basis and make revisions when necessary; it remains the leading forum for sharing expertise with regard to pellet fuels.
- During 2014 and 2015, the Environmental Protection Agency (“EPA”) promulgated new source performance standards (“NSPS”) for wood heaters under the authority of Clean Air Act (“CAA”) §111. Included within this rulemaking, for the first time, were federally enforceable regulations for pellet fuel.
- PFI argued in 2015 and contends now that the EPA lacks legal authority to promulgate such standards. First placed into the Clean Air Act (“CAA”) in 1970, CAA §111 is designed to regulate emissions from stationary sources, including large industrial facilities. In its 2015 rule, however, EPA extended the regulatory reach of this provision well beyond the fence line of an industrial plant to regulate a commercial product and the homeowners that buy this product to heat their homes.
- In doing so, EPA ignored 40 years of case law and regulatory precedent by failing to properly analyze the best system of emission reduction (“BSER”) with respect to pellet fuels. It also set a standard that is specifically prohibited under CAA §111(h) as a “particular system of technological control.”
- Even if EPA had authority to regulate pellet fuel under CAA §111, the 2015 standards are unreasonable and defy common sense:
  - Under the NSPS, pellet sizes are regulated down to a thousandth of an inch. If pellets vary from size standards, they cannot be used in certified stoves.
  - EPA’s current regulations define 34 different requirements for pellet fuel, compared with just 7 requirements for chip wood and no specifications at all for cord wood, the largest fuel source in the NSPS category. EPA illogically applies the most onerous regulations to the cleanest fuel.

- Homeowners and even casual operators of pellet fuels are potentially subject to fines of \$37,500 per day if they use non-compliant pellet fuel. Under EPA’s regulations, consumer “misfueling” of a pellet stove is a violation of CAA.
  - EPA’s 2015 analysis shows particulate matter and volatile organic baseline emissions from pellet stoves to be far below the 2020, Step 2 controlled emissions for almost all other categories. This seriously undermines EPA’s entire rationale for the standards.
  - The administrative record for the 2015 rule and for options that would either retain pellet fuel standards in the same or revised form is seriously deficient and relies on insufficient and anecdotal information which, in some cases, does even not support EPA’s conclusions.
- While PFI appreciates EPA’s decision to review pellet fuel standards, we believe that only one outcome of the rulemaking is permissible: elimination of the 2015 standards. EPA does not have the authority, a reasoned basis or a sufficient administrative record to retain the 2015 standards or amend parts of the 2015 regulations.
  - As they have in the past, pellet fuels will continue to offer a viable, clean-burning alternative to using cord wood for home heating, benefitting both homeowners and others who depend on wood heat as well as the surrounding, local community. Rescinding EPA’s intrusive standards will help to restore incentives for innovation that were substantially diminished, if not thoroughly eliminated, by EPA’s 2015 rule.

## II. Introduction and Background to Comments

The Pellet Fuels Institute (“PFI”) is an independent, 501(c)(6) trade association incorporated in Minnesota of over 80 member companies, including pellet fuel manufacturers, pellet equipment manufacturers and industry suppliers. Originally incorporated in 1985, PFI is open to any organization that has an interest in the densified biomass industry. Over its 30 history, PFI has served as a forum for sharing expertise regarding residential and commercial densified biomass fuel technology and continues to be actively engaged in educating consumers about the convenience and practicality of using wood pellet fuel and clean burning pellet appliances.

With particular relevance to the Environmental Protection Agency’s (“EPA’s”) proposed rule regarding standards of performance for new residential wood heaters, new residential hydronic heaters and forced-air furnaces<sup>1</sup> PFI has previously established and maintained (with periodic updates) densified biomass fuel standards. These standards are publicly available and were developed after extensive review and evaluation of industry best practices, biomass materials available in the U.S. and the appliances that will utilize this fuel. The standards employ a third-party certification process and use rigorous testing and inspection protocols. As a result, PFI standards have historically “set the bar” for the densified biomass fuel industry.

PFI has a long-standing, direct interest in EPA’s regulation of pellet fuel, first established in the context of EPA’s 2015 final rule promulgating wood heater standards.<sup>2</sup> These standards regulated at least 34 different parameters concerning the composition and characteristics of pellet fuel, through provisions contained in 40 C.F.R. §§60.533(e)-(f), 60.5474(e)-(f). Pursuant to the standards and requirements established under these sections, pellet fuel “must meet [these] minimum requirements.”<sup>3</sup> In addition, EPA requires that “operators of wood heaters that are certified to burn pellet fuels must only burn” such pellets.<sup>4</sup> Thus, EPA’s 2015 final rule regulates products produced by PFI members<sup>5</sup> and defines the legally permissible market for pellet fuels in new certified heaters and other pellet-fueled appliances.

Almost five years ago, PFI expressed serious concerns with EPA’s proposed rule that would regulate pellet fuel for the first time.<sup>6</sup> As proposed in 2014 and as finalized in 2015, PFI argued that EPA’s pellet fuel requirements were in excess of its authority under CAA §111. EPA neither responded to these comments nor altered the trajectory of its proposed regulation in 2015. In fact, EPA added several additional pellet fuel requirements beyond those it had originally proposed.<sup>7</sup> EPA did not explain how it determined that BSER for wood heaters included specific standards for fuel providers nor how a CAA §111 rule may regulate the behavior of an individual who is an owner of the wood stove, or even a non-owner, casual user of a wood stove, much less

---

<sup>1</sup> 83 Fed. Reg. 61,574 (November 30, 2018) hereinafter referenced as “proposed rule.”

<sup>2</sup> 80 Fed. Reg. 13,672 (March 16, 2015).

<sup>3</sup> *Id.*

<sup>4</sup> *Id.*

<sup>5</sup> EPA has recognized that the 2015 NSPS “regulates whole house wood pellet boilers including both the device *and the wood pellet fuel.*” 2015 Response to Comments at 285 (emphasis added).

<sup>6</sup> 79 Fed. Reg. 6,330 (Feb. 3, 2014).

<sup>7</sup> Compare proposed 40 C.F.R. §§60.532(e)-(f) and 60.5474(e)-(f) with final rule provisions for these same sections. In both sections, paragraphs (7) and (8) were added to subsection (e) in the final rule without prior proposal and paragraphs (12), (13) and (14) were added to subsection (f) in the final rule without prior proposal.

any alternatives to this regulatory regime. EPA also did not explain how it could use its authority in CAA §111(a)(2) to regulate products (*i.e.*, pellet fuel) where such products have not been previously listed for regulation, or subject to an endangerment determination.

Thus, EPA's standards for pellet fuel were previously in excess of EPA's statutory authority in CAA §111 – and remain so today. Then, as now, the standards are unsupported in the administrative record for either the 2015 rulemaking or this proposed rule. EPA did not conduct an analysis of the best system for emission reduction (“BSER”) related to pellet fuel either as part of its 2015 rule or as part of its current proposal to retain or modify current pellet fuel standards. Thus, aside from a lack of legal authority, EPA's rulemaking procedure is (and remains) contrary to law, at variance with EPA's past interpretations and implementation of CAA §111 and arbitrary and capricious. Our more detailed comments below expand on these serious concerns and dictate that EPA take action to reverse its legal and procedural mistakes.

### **III. EPA Failed to Address Comments Filed by the Pellet Fuel Institute in 2014 and the Proposed Rule Does Not Cure Previous Legal and Procedural Defects**

In PFI's comments on EPA's 2014 proposed rule, PFI explained that CAA §111 does not provide EPA with authority to establish pellet fuel standards. PFI also explained that whether EPA was exerting authority under CAA §111(a), (b) or (h), the Agency must take into account several statutory considerations, including cost and energy requirements, which it ignored when promulgating final standards. Despite the central nature of these comments to EPA's rule, EPA never provided a substantive response to PFI's comments. Specifically, while mentioning PFI's objections to the Agency's exertion of statutory authority in its Response to Comments (“RTC”) document,<sup>8</sup> EPA provided a two paragraph response which neither mentioned the legal basis for its standards, nor responded to explicit comments that EPA had failed to determine that pellet fuel requirements were BSER or consider the explicit statutory criteria to promulgate a “standard of performance” pursuant to CAA §111(a).<sup>9</sup>

The current proposed rule does nothing to cure this defect. In its proposed rule, EPA has not explained how retaining current pellet fuel regulations is consistent with its authority to establish CAA §111 standards, nor has EPA put forward any additional information concerning how it determined the BSER to support the original 2015 standards. While EPA takes comments on an alternative, less prescriptive set of pellet fuel standards, the Agency does not provide an analysis of how such standards either comply with CAA § 111 or constitute BSER. Until such fundamental defects are cured – and PFI would submit that they cannot – EPA lacks authority to finalize either Option 1 (retain standards) or Option 3 (revise standards) as presented in the proposed rule.<sup>10</sup>

EPA's lack of original supporting analysis for the 2014 proposed rule or the 2015 final rule affecting pellet fuel is vividly demonstrated by its decision, in 2016, to supplement the original administrative record for that rulemaking. Specifically, in pending litigation on the 2015 standards, EPA moved to remand the record with respect to litigation on the 2015 final rule

---

<sup>8</sup> RTC at 119.

<sup>9</sup> *Id.* at 120-121.

<sup>10</sup> 83 Fed. Reg. at 61,580-1, specifically V(1) and V(3).

(which included standards for all types of wood heaters as well as pellet fuel requirements) solely on one issue. That issue was to “further explain its rationale behind the pellet fuel requirements in the Final Rule.”<sup>11</sup> In other words, well over a year after EPA finalized pellet fuel standards, it determined that it should attempt to “further explain” why it promulgated such standards in the first instance despite the CAA’s clear requirement any proposed rule contain a statement of basis including “the factual data on which the proposed rule is based” as well as “major legal interpretations” that support the rulemaking.<sup>12</sup>

EPA’s 2016 further “explanation” of its 2015 pellet fuel standards was insufficient then to justify the final requirements and is insufficient *now* to support either retaining the current standards or revising such standards. Within the current proposed rule, EPA simply asserts that the requirements are “intended to maintain a level of quality consistent with the requirements of a pellet heater certification test” may be promulgated under the authority of CAA §111.<sup>13</sup> But any regulatory “intent” is wholly subjective and does not fulfill EPA’s legal duty to determine BSER only after a full examination of mandatory statutory criteria. Moreover, EPA has not, to date, either adequately responded to comments PFI filed in 2014 nor developed a new record sufficient to retain existing standards.

This leaves the Agency one choice: Option 1, the elimination of pellet fuel requirements in 40 C.F.R. §60.532(e)(1)-(8) and §60.5474(e)(1)-(8). EPA must repeal these provisions which establish explicit size and content requirements for pellet fuel and the mandate, in the two subparagraphs (e)(8), that pellets “contain none of the prohibited fuels in paragraph (f) of this section.”<sup>14</sup>

#### **IV. EPA’s Supplemental Response to the Pellet Fuel Institute’s Comments Does Not “Cure” EPA’s Lack of Legal Authority**

##### **A EPA Admits that Pellet Fuel Standards are not Authorized by Clean Air Act § 111**

EPA refers to the preamble of the proposed and final rules and EPA’s Response to Comments document as “containing the reasoning” supporting the NSPS and the Supplemental Response as providing “additional clarification.”<sup>15</sup> But none of these documents explain how EPA has authority to regulate pellet fuel characteristics pursuant to CAA §111(b), nor how EPA determined BSER for the regulated source category as including the specification of multiple parameters and characteristics pellet fuel and the regulation of the behavior of private citizens who may not even own a pellet stove. EPA must do so in order to promulgate a lawful standard.

---

<sup>11</sup> Motion to Remand the Record, *Hearth, Patio & Barbecue Association v. EPA*, Nos. 15-1056 (D.C. Circuit), September 13, 2016. Attachment A to these comments.

<sup>12</sup> CAA §307(d)(3).

<sup>13</sup> 83 Fed. Reg. at 61,580.

<sup>14</sup> EPA references 40 C.F.R. §60.532(e) and §60.5474(e) which is naturally read to include all subsections under these sections and EPA indicates that Option 2 is to eliminate these requirements “entirely.” 83 Fed. Reg. at 61,581.

<sup>15</sup> EPA Response to Remand of the Record for Residential Wood Heaters New Source Performance Standards, November 21, 2016 (hereinafter referenced as “EPA Remand of Record”) at 2.

As referenced above, EPA also did not respond to comments filed in 2014 that the Agency lacked authority under CAA section 111(a) or (b) for its final 2015 standards. But EPA effectively admitted after the fact that it does not have such authority. EPA's Remand of the Record explicitly states that pellet fuel standards are **not authorized** under a CAA §111 standard of performance. Specifically, EPA stated that:

PFI's comment that EPA has not demonstrated that the pellet fuel requirements are part of BSER fails to understand the role of pellet fuel requirements in the rule. *They are not part of the systems of emission reduction that pellet heater manufacturers apply to control emissions . . .* The pellet fuel requirements are a means to ensure that conditions during the certification testing and homeowner operation are comparable.<sup>16</sup>

EPA lacks statutory authority to regulate pellet fuel and the pellet fuel industry on the basis of an amorphous claim that this is just a “means to ensure” that testing and operation of a source is comparable. Pursuant to CAA §111, EPA *must* determine that the BSER for the source category being regulated – wood heaters and other wood-fueled appliances.<sup>17</sup> EPA does not obtain authority under CAA §111 to additionally regulate entities that are not part of the source category being regulated. And EPA's statement that pellet fuel regulations are not part of BSER explicitly verifies that EPA acted without authority in 2015 to regulate pellet fuels and that Options 1 and 3 in this proposed rule are also beyond EPA's authority to promulgate as a final rule.

But rather than discuss the legal basis for regulating pellet fuels when given the opportunity to do so in this proposed rule, EPA repeatedly attempts to justify its new and novel regulation of a previously unregulated commercial product<sup>18</sup> on the basis that its regulations “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.”<sup>19</sup> But the “intent” of a rule is not to be confused with legal authority to promulgate a rule. EPA may intend to do many things, but it may only promulgate rules to regulate the private sector if Congress had granted the Agency legal authority to do so.

As EPA recently explained, CAA §111 “authorizes and directs the EPA to prescribe NSPS applicable to certain new stationary sources (including newly constructed, modified, and reconstructed sources). As a preliminary step to regulation, the EPA lists categories of stationary sources that the Administrator, in his or her judgment, finds “cause, or contribute significantly to, air pollution which may reasonably be anticipated to endanger public health or welfare.”<sup>20</sup> But with regard to the wood heater NSPS, EPA has neither defined pellet stoves utilizing pellet fuel as a wood heater, explicitly listed pellet stoves using pellet fuel as a source category or completed an endangerment finding that considers pellet fuel, which it newly regulated in

---

<sup>16</sup> EPA's Remand of Record at 6 (emphasis added).

<sup>17</sup> Specifically, residential wood heaters (adjustable and single burn rate wood heaters, pellet stoves) and residential hydronic heaters, forced-air furnaces or other central heaters)

<sup>18</sup> Pellet fuel was not previously regulated under CAA 111 in the one previous rulemaking for wood heaters promulgated in 1988.

<sup>19</sup> 83 Fed. Reg. at 61,580.

<sup>20</sup> 83 Fed. Reg. at 65,432.

2015.<sup>21</sup> Rather, EPA indicates that pellet stoves were subject to an “unintentional loophole” in the 1988 NSPS for wood heaters that this was corrected in the 2015 rule when they were “explicitly regulated.”<sup>22</sup>

The CAA defines a “new source” as “any stationary source, the construction or modification of which is commenced after the publication or regulations (or, if earlier, [proposed regulations]) prescribing a standard of performance . . . which will be applicable to such source.”<sup>23</sup> But EPA’s 2015 regulations and Options 1 and 3 as proposed in this rule, do not solely regulate a stationary source. They effectively regulate pellet fuel manufacturers who may only produce a pellet fuel for use in new pellet fuel heaters if the fuel meets EPA’s specific requirements for such fuel. And EPA’s 2015 regulations and Options 1 and 3 also regulate homeowners or other operators (including non-owners and casual operators) of pellet fuel stoves who may be completely unaware of fueling requirements. The NSPS does not solely apply to pellet stoves or pellet stove manufacturers. Instead, “new pellet heater/stove owners *and operators* will be required to use only the grades of pellet fuel . . . that are included in the owner’s manual based on the heater/stove certification tests.”<sup>24</sup>

Under CAA §111(a)(1), EPA has explained that it “must set [NSPS] at the level that reflects the ‘best system of emission reduction . . . adequately demonstrated’ taking into account technical feasibility, costs and non-air quality health and environmental impacts and energy requirements. . . . The text and legislative history of CAA §111, EPA’s previous regulatory interpretations of that provision and relevant court decisions, identify factors for the EPA to consider in making a BSER determination.”<sup>25</sup> And EPA has further explained the process that it must follow: first, EPA identifies the “system of emission reduction” that has been adequately demonstrated for a particular source category and second, “EPA determines the ‘best’ of these systems after evaluating the extent of the emissions reductions, costs, any non-air health and environmental impacts, and energy requirements.”<sup>26</sup>

Yet EPA has done of this required CAA §111 analysis for pellet fuels— as it readily admits — since it does not consider pellet fuel requirements to be part of a system of emission reduction. And there is nothing in the record for the 2015 rulemaking or this proposed rule that shows EPA has evaluated the “best” system after considering the mandatory statutory factors that it must consider prior to determining BSER. EPA evaluated no other option than placing extremely prescriptive requirements into the Code of Federal Regulations (“C.F.R.”) where they become enforceable as CAA standards, subjecting violators to the possibility of CAA per day/per violation fines.<sup>27</sup>

---

<sup>21</sup> 40 C.F.R. §60.530 indicates that “all other residential wood heaters as defined in §60.531 . . . are affected wood heaters.” 40 C.F.R. §60.531 defines a “pellet stove” as a “device capable of and intended for residential space heating or space heating and domestic water heating” and then includes more specific examples of such “devices.”

<sup>22</sup> EPA Remand of Record at 7

<sup>23</sup> CAA §111(a)(2).

<sup>24</sup> EPA Remand of Record at 4 attempts to side-step this issue by claiming that each homeowner does not have to meet emission limits. But this is a distinction without a difference since EPA applies affirmative obligations to comply with the NSPS other than certification testing.

<sup>25</sup> *Id.* at 65,432-3.

<sup>26</sup> *Id.* at 65,433.

<sup>27</sup> CAA §113(a)(3).

EPA additionally represents that its determination of BSER “is based on an evaluation of what has been achieved by the various models of wood heaters, and concluding that the lowest emitting heaters are using the best system of emission reduction (that is, whatever combination of the wide variety of combustion techniques that they are using).”<sup>28</sup> If so, this is another blatant admission by the Agency that no BSER analysis was conducted with respect to its separate, non-source regulation of pellet fuel and operators of pellet stoves. EPA presented no information with respect to why these lowest levels of emission were achieved and the extent to which the lower emission of the regulated pollutant – *i.e.*, particulate matter – was attributable to the fuel utilized, versus some other factor(s).

## **B. EPA Standards Violate CAA §111(b)(5) and Preclude Innovation**

EPA is explicitly prohibited from requiring “*any* new or modified source to install and operate *any* particular technological system of continuous emission reduction to comply with *any* new source standard of performance.”<sup>29</sup> By requiring that operators of wood heaters “may only burn pellets that have been specified in the owner’s manual” and by specifying that pellet fuel “must meet . . . minimum requirements [as specified in 60.532(e)-(f) and 60.5474(e)-(f)]”<sup>30</sup> EPA has impermissibly specified such a prohibited technological system.

EPA’s NSPS leaves owners and operators no choice in how to comply with its standard. It is illegal to put any pellet fuel into a new stove that does not meet explicit standards, presumably even if such fuel would obtain *better* emission performance. In EPA’s view, case law also “makes it clear that the EPA is to consider the effect of its selection of BSER on technological innovation or development, but that EPA also has the authority to weigh this as against [the other BSER factors].”<sup>31</sup>

Thus, EPA’s 2015 regulation and Options 1 and 3 fail on two counts. The standards leave the operator of a pellet wood stove no choice with respect to what technological system must be utilized, *i.e.*, a certified stove using pellet fuel meeting EPA’s explicit and exacting standards. And EPA failed to address the real-world consequences of its decision to dictate product development decisions for the pellet fuel industry. Going forward, pellet fuel manufacturers cannot develop legal standards for pellet fuel stoves unless EPA first approves of those standards and thereafter engages in a lengthy process to revise federal regulatory requirements. As PFI has repeatedly pointed out to the Agency, regulations that can only be changed by more regulations remove any incentive for the industry to invest in the development of new/better standards.

Likewise, pellet stove manufacturers cannot develop new stoves or heaters that use a different size or type of pellet. The use of such stoves or heaters without using EPA’s prescribed pellet is prohibited. This certainly acts as a major disincentive to new technology. And it is not a

---

<sup>28</sup> EPA Remand of Record at 3, citing proposed rule preamble.

<sup>29</sup> CAA §111(b)(5) (emphasis added). In the context of new source review, courts have interpreted “any” to effectively mean what it says. *New York v. EPA*, 443 F.3d 880 (D.C.Cir. 2006).

<sup>30</sup> 40 C.F.R. §§60.532(e), 60.5474(e).

<sup>31</sup> 83 Fed. Reg. 65,448.

sufficient response to claim that pellet stove manufacturers might be able to gain EPA's approval to change pellet fuel standards at some point in the future. The restraint and the violation of CAA §111(b)(5) would exist at all times prior to a final rule, which could be many years in the future.

### **C. EPA Failed to Apply its “Four Part Analysis” in 2015 or in this Proposed Rule**

During its 2014-2015 rulemaking process, EPA did not analyze BSER for pellet fuel under the “four part” analysis used in other NSPS rulemakings, most recently in the NSPS for fossil-fuel power plants. EPA has also not applied such an analysis with respect to its proposal to retain current standards (Option 1) or amended standards (Option 3). Nor does EPA cite any case law supporting its methodology for promulgating pellet fuel standards in 2015 or with regard to the current rulemaking, except for one decision which is inapplicable, as discussed below in Section IV.E.

The four-part analysis that EPA has used in prior CAA §111 rulemakings and most recently referenced in its newly proposed CAA §111(b) standards for new, modified, and reconstructed electric utility generating units consists of: (1) identifying system[s] of emission reduction that have been adequately demonstrated; (2) determining which of these systems is best; (3) taking into account the cost of achieving the required emission reductions; and (4) considering “any non-air quality health and environmental impact” in determining BSER,” including cross-media environmental impacts.<sup>32</sup>

Neither the 2015 rule, nor this proposed rule or supporting analysis (*e.g.*, EPA's Response to Remand) contains a structured analysis of pellet fuel regulations that uses EPA's prior methodology in promulgating CAA §111 rules, based on mandatory statutory requirements. EPA offers no explanation for this departure, but instead repeatedly ignores the impact of pellet fuel requirements on multiple entities: pellet fuel manufacturers, owners of pellet fuel stoves and operators of pellet fuel stoves. A regulatory agency may depart from its prior interpretations, but it must have a reasoned basis for doing so.<sup>33</sup> In 2015 and in this proposed rule, EPA offers none.

### **D. EPA's Supporting Analysis Suffers from Factual Errors**

EPA attempts to distinguish pellet fuel requirements from other CAA §111 standards by describing the wood heater NSPS as not being a “typical” NSPS. EPA then erroneously claims that the “rule does not require each operator (aka, each homeowner) to meet emission limits.”<sup>34</sup> This is both: (a) inaccurate; and (b) thoroughly inconsistent with EPA's insistence that pellet fuel requirements are essential for compliance.

With regard to the accuracy of the statement, EPA has elsewhere admitted that owners and operators of pellet fuel stoves are required to comply with the standard. While it is true that a homeowner does not need to perform emission tests to certify that the stove purchased meets emission limits for pellet heaters, EPA requires the homeowner or a non-homeowner operator to

---

<sup>32</sup> *Id.*

<sup>33</sup> *Motor Vehicle Mfrs. Ass'n v. State Farm Mutual Auto Ins. Co.*, 463 U.S. 29, 42 (1983).

<sup>34</sup> EPA Remand of Record at 4.

meet emission limits by operating the heater in a manner consistent with the owner’s manual. 40 C.F.R. §§60.532(g); 60.5474(g). Operators of pellet fuel heaters “may only burn pellets that have been graded under a licensing system” and the pellet fuel “must meet minimum requirements” as promulgated by EPA and specified in the owner’s manual. *Id.* §§60.531(e)-(f); 60,5474(e)-(f). Thus, homeowners and other operators *must* meet emission standards which EPA has promulgated and explicitly defined as including the use of specific types of pellet fuel.

In further trying to distinguish the wood heater NSPS from other NSPS, EPA represents that the “requirements on what pellets can be burned are designed to ensure that homeowners burn pellets comparable to what was used in certification tests”<sup>35</sup> EPA then cites a 30-year-old Response to Comments (“RTC”) document (for a rule that did not regulate pellet fuel) as the reason why such requirements and “fuel standardization” is necessary.<sup>36</sup> But apart from a 1988 RTC being irrelevant to why EPA promulgated pellet fuel requirements *in 2015* or with respect to how EPA may do so in *in 2019*, the cited RTC only addresses whether it is necessary to have a standardized test method for certification of stoves. All the quoted passages from the 1988 RTC involve only why it is important to have a *comparable basis for testing stoves* as against one another for certification testing. They only address the comparability of emission *tests*, not the rationale for the promulgation of an NSPS.

In sum, EPA cannot distinguish pellet fuel requirements as being part of an “atypical” NSPS. As a matter of law, there is no such thing as a typical or atypical NSPS. Instead, rules promulgated pursuant to CAA §111 must apply to a source and be based on a determination of BSER. EPA’s attempt to distinguish the 2015 rules applying to pellet fuels as solely related to certification testing and performance is frankly disingenuous. Neither the 2015 final rule, this proposed rule nor the 1988 RTC says anything about whether and how EPA has determined pellet fuel requirements as part of its BSER analysis, much less how it considered the mandatory elements of a BSER determination as applied to operators of pellet fuel stoves. Nor does EPA at any point include a justification for subjecting homeowners to possible CAA liability (a potential \$37,500 fine for each occurrence) based simply on the operation of a pellet stove in a private residence (or examine viable alternatives thereto).

#### **E. EPA Reliance on *Sierra Club v. EPA* is Misplaced**

In an attempt to find legal support for its 2015 final standards and its proposal of Option 1 and 3, EPA includes a reference to *Sierra Club v. EPA*, 353 F. 3d 976 (D.C. Cir. 2004). But this case involved regulations promulgated under CAA §112, not CAA §111, the authority for this rulemaking. Thus, the court in *Sierra Club* was considering standards based on a determination of the “maximum achievable control technology,” not the “best system of emission reduction” as required under CAA §111. While EPA concedes that the wood heater rule differs “in some respects” from other rules, the Agency simply cannot mix and match its statutory authorities and relevant precedent.

In any event, *Sierra Club* involved use of operating parameters *in lieu of requiring active monitoring* in order to ensure compliance. Here, as the administrative record demonstrates, EPA

---

<sup>35</sup> *Id.*

<sup>36</sup> Attachment B to these comments.

did not evaluate any other system of emission reduction other than placing requirements on pellet fuel manufacturers and homeowners. While EPA decided that certification *testing* of all new stoves was impracticable, the requirement for the use of certain pellet fuel is not only a requirement for testing and certification of new stoves, but it is a central part of a CAA §111 emission standard. Fueling pellet fuel stoves only with certain certified pellets applies at all times of operation, including presumably start-up and shutdown of a stove. It is a permanent and ongoing requirement of complying with an NSPS. *Sierra Club* is thus further distinguishable on this basis.

That requirements for pellet fuel are part of an emission standard versus a method of compliance is further demonstrated by EPA's insistence that pellet fuel requirements "are not based on CAA 111(h)."<sup>37</sup> CAA 111(h) allows EPA to promulgate "design, equipment, work practice, or [an] operational standard, or a combination thereof" when it is not feasible to prescribe or enforce an NSPS. By denying that pellet fuel requirements are a CAA §111(h) standard, EPA *must* have determined that pellet fuel requirements are a CAA §111(b) standard. This further reinforces the interpretation that EPA's 2015 standards are not mere "compliance mechanisms" as EPA repeatedly tries to suggest,<sup>38</sup> but rather an element of a CAA §111(b) standard.

#### **F. EPA Cannot Disclaim Responsibility to Conduct BSER Analysis**

EPA erroneously disclaims any need that the Agency consider cost and energy requirements when promulgating an NSPS standard. This is in direct contravention to EPA's analysis in other CAA rulemakings. "Under CAA section 111(a)(1), the EPA is required to take into account 'the cost of achieving' the required emission reductions."<sup>39</sup> "Under CAA section 111(a)(1), the EPA is required to take into account 'energy requirements.'"<sup>40</sup>

EPA claims that "because PFI's comments [to the proposed 2014 rule] did not present any information that the pellet fuel requirements would have cost or energy impacts, and EPA is not aware of any such information, there was no need to take cost and energy impacts from pellet fuel requirements into account in determining what was achievable through BSER."<sup>41</sup> But EPA cannot disclaim mandatory duties on the basis that the Agency was not "aware" of any such information. CAA §111 imposes an affirmative duty on EPA to investigate the extent of any such effects. EPA provides no evidence that it did so.

In the 2014 proposed rule, EPA examined costs only associated with "the effectiveness of the proposed standards when considering the design life span of the appliances in residences."<sup>42</sup> Thus, EPA effectively put on "regulatory blinders" and did not consider the cost impacts of the full range of its determination of BSER. EPA has not corrected this regulatory oversight in the

---

<sup>37</sup> EPA Remand of Record at 6.

<sup>38</sup> EPA states that "[t]he pellet fuel requirements are a means to ensure that conditions during the certification testing and homeowner operation are comparable" EPA Remand of Record at 6. EPA further states that requirements are "intended to maintain a level of quality consistent with the requirements of a pellet heater certification test." 83 Fed. Reg. at 61,580.

<sup>39</sup> 83 Fed. Reg. at 65,433.

<sup>40</sup> *Id.*

<sup>41</sup> EPA Remand of Record at 7.

<sup>42</sup> 79 Fed. Reg. at 6,354.

current, proposed rule, which also lacks any inquiry into costs, energy impacts and other mandatory CAA §111(b) elements..

Simply put, EPA cannot transfer an affirmative legal duty placed on the Agency to private sector entities regulated by its standards. EPA can also not claim that the Agency has no legal obligation to examine cost, energy and other mandatory impacts if it simply is unaware of information or chooses not to further investigate the impact of its regulatory determinations. This legal error, in of itself, makes the 2015 standards arbitrary and capricious.

## **V. EPA Lacks Authority to Retain 2015 Pellet Fuel Standards or to Promulgate Amended Standards**

As outlined above, EPA never conducted a BSER analysis for its 2015 standards that followed the “four part test” for BSER, included a review of pellet fuel requirements, or conducted any analysis of the propriety of the obligations imposed on pellet fuel stove owners or operators. Nor did EPA examine any *alternatives* to the promulgation of requirements as now incorporated within 40 C.F.R. §§60.532(e)-(f), 60.5474(e)-(f). Instead, EPA promulgated final pellet fuel requirements in 2015 that were largely unchanged from those contained in the 2014 proposed rule -- except for the addition of *additional* requirements that had never been proposed or even discussed in the 2014 proposed rule.<sup>43</sup>

In the current proposed rule, EPA relies solely on comments filed in connection with the 2014 proposed rule, another document produced after the final rule in 2016 in response to litigation (*i.e.*, the 2016 Remand of the Record) and select documents from 1988 that, on their face, do not analyze the BSER for pellet fuel stoves with reference to pellet fuel composition. Thus, EPA lacks authority to retain the 2015 standards or promulgate the revised standards it has proposed. And even if EPA had such authority, as demonstrated below, EPA’s “new” rationale is insufficient to support either current or revised standards.

### **A. EPA’s Inflexible 2015 Standards and Proposed Revisions to the 2015 Standards Exceed EPA Authority and are Inconsistent with other NSPS**

EPA bluntly states that it promulgated “its own list of standard minimum pellet requirements so that these requirements could not change without EPA action.”<sup>44</sup> In other words, it codified industry standards developed by PFI and other industry organizations so that EPA and EPA alone could control when and how pellet fuel standards are established.

While EPA may be commended for its transparency in revealing its regulatory motive, by locking in specific size, composition and other requirements for pellet fuel, EPA has violated the technology neutral requirement of CAA §111(b)(5). As noted above, this section specifies that if EPA does not set a work practice standard under CAA §111(h) (which EPA explicitly claims it did not in the 2015 final rule) it cannot require “any particular technological system of continuous emission reduction.”

---

<sup>43</sup> See nt. 7, *supra*.

<sup>44</sup> EPA Remand of Record at 8.

A regulatory requirement that requires specific fuel types to be used – which cannot be changed without EPA’s assent and a formal notice and comment regulatory process – is just such a particular system of control. In either the 2015 final rule or Option 1 of Option 3 of the proposed rule, there are no waivers or alternative standards to accommodate a different technological system of control. Precisely-defined pellet fuel must be used by all operators of all new pellet stoves subject to the risk that per day/per violation fines could be assessed if any other system of emission control was used – even if such system met the emission standards that the stove was certified to.

EPA cites no other NSPS new source standard which contains similar requirements. EPA also does not offer prior legal interpretations of CAA §111 or cite past practices to justify its approach to determining BSE with respect to Options 1 or 3 of the proposed rule.

Many other CAA §111 source categories rely on industry standards or those set by testing organizations such as ASTM.<sup>45</sup> In this rulemaking, EPA references industry standards but then determines that they are insufficient, imposing instead a combination of different standards and prohibitions that apply only to pellet fuel. This highly restrictive “one-size-fits-all” approach to pellet fuel standards is in stark contrast to other NSPS which allow for source and fuel flexibility. For example:

- Subpart D for Fossil-Fuel-Fired Steam Generators affects both fossil-fuel and fossil-fuel and wood-residue steam generating units.<sup>46</sup> With regard to fossil-fuel-fired units utilizing coal, an affected source can use any solid fuel “classified as anthracite, bituminous, subbituminous, or lignite.”<sup>47</sup> EPA does not specify how such coal is to be processed prior to being used in a boiler, such as specifications for pulverizing the coal even though such processing could impact emissions. And certain other sources subject to the NSPS, such as units that use natural gas, are exempt from some requirements applicable to other units.<sup>48</sup> Nitrogen oxides standards also vary with respect to the type of fossil fuel used.<sup>49</sup>
- Subpart Da for Industrial-Commercial-Institutional Steam Generating Units applies to units based on heat input capacity. Emission limits for nitrogen oxide are variable, based on different types of natural gas and distillate oil, residual oil or coal used in an affected unit.<sup>50</sup> Emission limits are adjusted when two or more fuels are combined.<sup>51</sup>
- Subpart F for Portland Cement Plants imposes particulate matter standards on the basis of pounds per ton of feed into a kiln.<sup>52</sup> Regulated sources have options to determine clinker production and have protocols for missing data on such production using most recent data.<sup>53</sup>

---

<sup>45</sup> 40 C.F.R. §60.17

<sup>46</sup> *Id.*, §60.40

<sup>47</sup> *Id.*, §60.41

<sup>48</sup> *Id.*, §60.42

<sup>49</sup> *Id.*, §60.44

<sup>50</sup> 40 C.F.R. §60.44Da(b).

<sup>51</sup> *Id.* at §60.44Da(c).

<sup>52</sup> *Id.*, §60.62.

<sup>53</sup> *Id.*, §60.63

- Subpart CCCC addressing incineration units exempts certain incinerators, including air curtain incinerators that burn only wood waste, clean lumber and mixtures of wood waste, clean lumber and/or yard waste. Such incineration units are not subject to emission standards, but must only obtain a Title V permit.<sup>54</sup> Thus, not only are such incinerators not regulated as an affected source, they are allowed to burn material that is prohibited for pellet fuel stoves, *e.g.*, yard waste.<sup>55</sup>

It is abundantly clear from the administrative record that EPA did not consider alternatives to its 2015 standards. And only a single alternative is now offered in Option 3 of this proposed rule (a somewhat less prescriptive version of the 2015 final rule). Thus, the lack of serious consideration of alternatives and regulatory options in the wood heater rule is indicative of a seriously deficient administrative process and a result that does not conform to the statute or past practice.

Other NSPS, such as those cited above, allow for explicit exemptions, adjust required emission rates based on fuel type(s), exempt sources within a category and explicitly allow for the use of fuels that are prohibited for pellet fuel stoves. This is not to argue that all such flexibilities are required for the NSPS affected by this proposed rule. But it does undermine EPA's assertion that precise correlation between test conditions and subsequent operation of an affected source is a necessary component of this NSPS.

### **B. The Administrative Record for the 2015 Rule and this Proposed Rule Does Not Support Options 1 or 3.**

EPA's supporting rationale for Options 1 or 3 is either dated or irrelevant to its determination that pellet fuel requirements and liability for pellet stove operators are part of BSER for affected sources. For example, EPA's Remand of the Record memorandum cites several articles that predate this rulemaking by eight years. At best, these articles provide anecdotal information concerning the desirability of good quality pellets. But they do not support a determination that cementing pellet fuel requirements into place in the C.F.R. until such time as EPA deems changes should be made -- or perhaps until such time as the Agency has sufficient manpower to investigate and make changes to pellet fuel standards -- is the BSER for pellet fuel stoves.

To be clear, PFI does not disagree with the need for pellet fuel quality; it has been the leading organization both promoting and developing such standards. And, as EPA cites, PFI also attempted to work with the Agency as it developed its current standards. But there is fundamental and intractable difference between industry standards and government regulation. On one hand, industry standards promote best practices and retain an incentive for the private sector to innovate and improve upon current standards and testing protocols when needed, drawing on deep expertise concerning the product they are producing. On the other hand, placing specific standards into the C.F.R. effectively puts a government agency in charge of what has been, to date, the responsibility of private industry. And placing an agency in charge of private sector standards contains no guarantee that the agency will be able to acquire or maintain

---

<sup>54</sup> *Id.*, §60.2245-2260.

<sup>55</sup> *Id.*, §§60.532(f)(2); 60.5474(f)(2)

sufficient technical expertise in order to promulgate new standards or have any incentive to allow for innovation.

### **C. EPA Lacks Information that Supports 34 Separate Standards for Pellet Fuel**

EPA has made no effort in this rulemaking to update information that either supports retention of the existing standards or promulgation of the revised standards in the proposed rule. The administrative record heavily relies on a 2016 memorandum developed, after the fact, to support litigation regarding its 2015 standards. And this memorandum itself cites and relies on information which is outdated, irrelevant or misinterpreted.

In this regard, EPA has abundantly made clear that the 2015 rule regulated pellet stoves and pellet fuel for the first time.<sup>56</sup> While initially working with PFI, EPA then makes clear that it “decided to promulgate its own list of standard minimum pellet requirements so that these requirements could not change without EPA action.”<sup>57</sup> EPA sent out CAA §114 information collection request letters<sup>58</sup> to pellet stove manufacturers but not to pellet fuel producers.

A large part of the information that EPA relied on for the 2015 pellet fuel standards is also either not in the public record due to CBI claims or it is heavily redacted. For example, EPA cites and relies on 2010 information from unidentified “Pellet Stove Manufacturers.”<sup>59</sup> But even here the question EPA asked of manufacturers was not *whether* pellet fuel should be regulated but whether there were characteristics that were critical for pellet fuels to be used in products they manufactured.<sup>60</sup> No questions – as far as can be determined – were asked as to whether pellet stoves might be better designed to use different types of pellet fuel, to be more resistant to corrosion or other adverse effects of some fuel types, or whether the stove manufacturers favored federal regulation of their customers. And while the stove manufacturers apparently supported some standards for fuel dimension, ash content, and fines, and other parameters some of the comments submitted to EPA were stated in highly qualitative terms such as “keep as low as possible” rather than advocating specific, static limits. Thus, these comments do not support the specific list of standards promulgated by EPA in 2015 and which the Agency has proposed to be kept in regulation in Option 1 of this proposed rule.

Ironically, EPA also cites comments from two organizations (Maine Pellet Fuels Association and Vermont Golden Harvest Biofuels) as supporting EPA’s action to promulgate immutable regulations for pellet fuel. But the Maine Pellet Fuels Association comments<sup>61</sup> did no such thing. This organization supported using testing in Maine versus testing for certification using PFI or other equivalent organization standards. Poignantly, and yet omitted by EPA when referencing their comments, the Maine association also stated that “[p]ellet quality is not at issue, at least

---

<sup>56</sup> Citing a 2010 meeting between PFI and EPA staff, EPA indicated that “EPA informed PFI that pellet stoves would not be exempt from the new NSPS, as they were through the 1988 rule’s unintentional loophole, and instead would be explicitly regulated.” EPA Remand of Record at 7.

<sup>57</sup> *Id.* at 8.

<sup>58</sup> *Id.*

<sup>59</sup> EPA-HQ-OAR-2009-0734-0330, attachment C to these comments.

<sup>60</sup> *Id.*, Question G.

<sup>61</sup> EPA-HQ-OAR-2009-0734-1571, attachment D to these comments.

certainly not in Northern New England, with regard to air quality.”<sup>62</sup> The bottom line of the Maine association comments was that the association did not “want to be required by EPA to participate in PFI’s unworkable certification program” and not that the association supported EPA’s promulgation of detailed standards. Likewise, EPA cites the Vermont Golden Harvest Biofuels comment as supporting EPA regulation when: (a) the actual comments are not available in the docket;<sup>63</sup> and (b) it is represented that their comment opposed delegating *legislative* power to a private entity, not that it supported transferring full regulatory power to EPA.<sup>64</sup>

EPA further attempts to buttress the rationale for its 2015 standards and its proposal to retain or modify such standards in 2019 by citing *2010 publications* that are also unavailable in the public record due to copyright issues. This publicly unavailable information includes:

- March 2010 *Hearth & Home* article<sup>65</sup> where contents of the article are not available in the docket yet EPA extensively quotes from the article to support its standards.<sup>66</sup>
- Two April 2010 *Home & Hearth* articles<sup>67</sup> similarly unavailable in the public docket, yet quoted from by EPA.
- A September 2011 *Hearth & Home* article<sup>68</sup> also unavailable in the public docket, but reportedly recounting a meeting between EPA and industry representatives.

Other information that is available in the docket hardly supports EPA’s pellet fuel requirements as promulgated in 2015. For example, EPA cites a letter from a pellet fuel manufacturer that cites support for government involvement to “move the standards process forward.”<sup>69</sup> But this letter was sent four years *before* EPA proposed standards so it cannot be viewed as supporting EPA’s 2015 final rule. Moreover, the letter indicates that EPA’s position at the time was that “if the industry does not come up with standards then the EPA will.”<sup>70</sup> In point in fact, industry including PFI did come up with standards making the second half of the equation inoperative.

At bottom, much of the information EPA relies on was not submitted in response to the 2014 proposed rule, is anecdotal and does not examine what alternatives may be available to federal regulation of the pellet fuel sector.

---

<sup>62</sup> *Id.*

<sup>63</sup> EPA-HQ-OAR-2009-0734-1639. Content of the comment was restricted since it included copyrighted data, but no version of the comment was available even in redacted form.

<sup>64</sup> Note: since the association’s attachment to their comments was not included in the docket, it is impossible for PFI to verify what the comments supported in terms of EPA’s proposed regulation. Attachment E to these comments.

<sup>65</sup> EPA-HQ-OAR-0734-0092.

<sup>66</sup> EPA Remand of Record at 9-10.

<sup>67</sup> EPA-HQ-OAR-2009-0734-0290; EPA-HQ-OAR-2009-0734-0290.

<sup>68</sup> EPA-HQ-OAR-2009-0734-0297.

<sup>69</sup> EPA-HQ-OAR-2009-0734-0090.

<sup>70</sup> *Id.*

## VI. EPA Arbitrarily and Capriciously Regulates Pellet Fuel as Opposed to other Wood Fuel

### A. EPA Imposes Vastly Different Regulatory Regimes for Pellet Fuel versus Wood Chip or Cord Wood Stoves

EPA's claims that allowing any variation in pellet fuel would "unravel the basic structure of this rule, in that the operation of the heater by the homeowner would not be comparable to how the stove was operated during certification testing."<sup>71</sup> As an initial matter, most NSPS require initial certification testing and actual operating conditions will invariably differ from the conditions present during certification testing. For example, the ambient temperatures at a coal-fired power plant will vary greatly over a year as well as the specific content of coal that is burned at the facility.<sup>72</sup> The same is true for many other NSPS. Thus, EPA's assertion does not provide any additional legal support for its standard; if EPA's statement were valid, most all other NSPS that the Agency has promulgated over the last 40 years would be subject to similar "unraveling."

Second, EPA's justification of pellet fuel comments is both perplexing and directly opposite its treatment of other sources regulated under the 2015 NSPS. Specifically:

- Pellet fuel appliances represent a minority of all wood stoves regulated by the NSPS. Shipments of pellet stoves in 2013 were 54,055 units as compared with 206,409 for cordwood stoves and 784,633 for gas stoves, including 322,600 gas log stoves.<sup>73</sup> This means that pellet stoves represented about 5% of home heating stove shipments in 2013 and roughly a third of wood-fueled stoves.<sup>74</sup>
- EPA's 2015 regulations, however, allow for certification testing for cord wood stoves using "crib wood" which *no one* uses in actual operation of appliances regulated under subpart AAA and hydronic heaters under subpart QQQ. As EPA explains "crib wood is a specified configuration and quality of dimensional lumber and spacers that improves the repeatability of the test method."<sup>75</sup> It is entirely distinct and different from "cord wood" that is what a typical homeowner would use when operating a stove. But in the final 2015 rule, EPA allowed for continued crib wood testing based on the concern that many manufactures do not have experience with cord wood testing.<sup>76</sup> Use of cord wood testing is *voluntary*.
- Therefore it is wholly inconsistent and arbitrary and capricious for EPA to claim – with respect to pellet fuel – that allowing even a miniscule variance between testing and actual operation of a stove would "unravel the basic structure of the rule" while accepting – for

---

<sup>71</sup> EPA Remand of Record at 19.

<sup>72</sup> Coal-fired power plants may purchase coal from different mines, based on supply and price considerations. But coal is not uniform and its chemical content may vary.

<sup>73</sup> U.S. Hearth Appliance Shipments 2013 at 6, Attachment C to NESCAUM May 4, 2014 comments, Attachment F of these comments.

<sup>74</sup> *Id.* at 7.

<sup>75</sup> 80 Fed. Reg. at 13,677. Attachment G includes a representation of crib and cord wood testing methodology from EPA website.

<sup>76</sup> *Id.* at 13,678.

the majority of stoves subject to the 2015 NSPS – that large variances in size, density and other parameters of the fuel used in the “real world” versus the testing lab does not undermine the NSPS.

- As promulgated in 2015 and as proposed under Options 1 and 3, it would be *legal* for someone to gather irregular size wood of different types and quality and fuel a cord wood heater as long as it was done “consistent with the owner’s manual”<sup>77</sup> But it is *illegal* for anyone to fuel a pellet fuel heater with pellets that have not been: (a) graded under a licensing agreement with an approved organization;<sup>78</sup> (b) that meet specific size and content parameters,<sup>79</sup> and that do not contain *any* amount of prohibited fuels within the pellet.<sup>80</sup>

With respect to chip wood, EPA imposes vastly less onerous regulatory requirements. Chip wood is subject to six different standards. 40 C.F.R. §§60.532(d); 60.5474(d). Moreover, for chip wood, EPA does not include a prohibition on containing “none” of the prohibited fuels in §60.532(f) and 60.5474(f) as it does for pellet fuel. *Id.* §§60,532(e)(8), 60.5474(e)(8).

Rather than explore if there were other regulatory options for pellet fuel in this rulemaking to address variability in real world stove operation, EPA instead balked. There is nothing in the record that shows EPA explored any alternative other than its preferred result of excessive regulation. Thus, simply on the basis of differential treatment as between sources regulated in the same NSPS source category, the 2015 pellet fuel requirements should be repealed.

## **B. EPA’s Standards for Pellet Fuel Are Disproportionate and Unjustified**

As demonstrated above, EPA imposes vastly more regulations on pellet fuel than other fuel types utilized to address the NSPS. EPA takes this regulatory approach despite the fact that pellet stoves are the best performing stoves from an emissions standpoint, according to EPA’s own estimates. As shown below, fine particulate matter (“PM2.5”) emissions for pellet-fueled wood stoves show that such stoves are the cleanest burning wood heater appliance, often by several orders of magnitude.<sup>81</sup> For example, compare the 0.0021 tons/appliance/year emission level for PM2.5 for a pellet-fired woodstove versus the same emissions from a free standing woodstove catalytic (0.0101 tons/appliance/year) or outdoor hydronic heaters (0.1383 tons/appliance/year).

Overall, based on information in EPA’s 2015 Regulatory Impact Analysis (“RIA”) pellet stoves are anywhere from 2 to 65 times cleaner than other wood stoves/furnaces for PM 2.5 pollutant. Baseline emissions for pellet fuel wood stoves were also much lower than all other categories

---

<sup>77</sup> 40 C.F.R. § 60.532(g). Significantly, EPA does not dictate the contents of owner’s manual, but rather leaves this responsibility with the stove manufacturer despite the claimed connection between certification testing and real world stove operation that EPA considers critical to pellet stove ad fuel requirements.

<sup>78</sup> *Id.*, §532(e)

<sup>79</sup> *Id.*, §532(e)(1)-(7)

<sup>80</sup> *Id.*, §532(e)(8), (f).

<sup>81</sup> Regulatory Impact Analysis (“RIA”) for Proposed Residential Wood Heaters NSPS Revision, Final Report, January 2014 at 4-3.

that EPA examined.<sup>82</sup> Compare the emissions (tons) estimate for pellet-fired wood stoves with all other stove categories that EPA examined in the 2014-2015 rulemaking (Table 4-2, below).

**Table 4-2. PM<sub>2.5</sub> Tons per Appliance Estimate (Baseline)**

Emission Inventory Category	Pollutant	Baseline Emission factor (lb/ton)	Emissions (tons)	Tons per appliance/yr
Woodstove: fireplace inserts; EPA certified; non-catalytic	Primary PM <sub>2.5</sub>	8.76	5,371	0.0041
Woodstove: fireplace inserts; EPA certified; catalytic	Primary PM <sub>2.5</sub>	9.72	2,023	0.0047
Woodstove: freestanding, EPA certified, non-catalytic	Primary PM <sub>2.5</sub>	8.76	6,745	0.0077
Woodstove: freestanding, EPA certified, catalytic	Primary PM <sub>2.5</sub>	9.72	3,769	0.0101
Woodstove: pellet-fired, general	Primary PM <sub>2.5</sub>	3.06	1,798	0.0021
Hydronic heater: outdoor/indoor	Primary PM <sub>2.5</sub>	27.6	50,427	0.1383
Woodstove: freestanding, non-EPA certified <sup>a</sup>	Primary PM <sub>2.5</sub>	30.6	71,424	0.0324
Furnace: indoor, cordwood	Primary PM <sub>2.5</sub>	27.6	2,471	0.0582
	Primary PM <sub>2.5</sub>	30.6		

<sup>a</sup> Non-EPA certified wood stove emission factor and tons/appliance were used to represent single burn rate stoves.

It is therefore hard to rationalize imposing the most inflexible regulation on pellet stoves/fuel than other wood burning appliances within the regulated source category that have much higher emissions on per stove basis. EPA’s 2015 rule, the 2015 RIA and this proposed rule offer no analysis on what should be a central point of the rulemaking.

EPA’s cost analysis also offers nothing to support its regulatory approach. Pellet stoves represent the only category of regulated appliances with the possibility of *zero or near-zero net benefits*. EPA has projected that pellet stoves will incur \$1.52 million in additional regulatory costs (which do not include any costs related to fuel) and that such this expense may not be offset by projected monetized benefits of \$2 to \$5 million. In addition, the projected monetized net benefits of regulating pellet fuel stoves, even if net positive are miniscule when compared with other source categories. At most, EPA projected \$3 million in net benefits for pellet stoves as compared with up to \$3.7 billion in net benefits for forced-air furnaces.<sup>83</sup>

<sup>82</sup> Tables 4-2 and 4-3.

<sup>83</sup> 80 Fed. Reg. at 13,674.

TABLE 1—SUMMARY OF COMPLIANCE COSTS, MONETIZED BENEFITS, AND MONETIZED NET BENEFITS (2013 DOLLARS) BY TYPE OF HEATER IN THE 2015–2020 TIME FRAME FOR THE FINAL RULE

Type of heater	Total annualized costs (\$ millions)	Monetized benefits (\$ millions) <sup>a b</sup>	Monetized net benefits (\$ millions)
Wood stoves .....	\$3.02	\$14 to \$31	\$11 to \$28
Single burn rate stoves .....	0.87	280 to 630	280 to 630
Pellet stoves .....	1.52	2 to 5	0 to 3
Forced-air furnaces .....	15.36	1,700 to 3,700	1,700 to 3,700
Hydronic heating systems .....	24.88	1,400 to 3,200	1,400 to 3,200

<sup>a</sup>All estimates are for the time frame from 2015 to 2020 inclusive. These results include units anticipated to come online and the lowest cost disposal assumption. Total annualized costs shown in this table are estimated at a 7-percent interest rate to be consistent with guidance from the Office of Management and Budget (OMB). Total annualized costs are also estimated at a 3 percent interest rate for each source category to be consistent with OMB guidance, and these costs are about 13 percent less than the total annualized costs presented in this table. These costs are presented in the RIA and in the cost memoranda for this final rule. The monetized net benefits with total annualized costs at a 3 percent interest rate are minimally different than those calculated with total annualized costs at a 7 percent interest rate.

<sup>b</sup>Total monetized benefits are estimated at a 3-percent discount rate. The total monetized benefits reflect the human health benefits associated with reducing exposure to PM<sub>2.5</sub> through reductions of directly emitted PM<sub>2.5</sub>. It is important to note that the monetized benefits include many but not all health effects associated with PM<sub>2.5</sub> exposure. Benefits are shown as a range from Krewski et al. (2009) to Lepeule et al. (2012). 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 effect estimates by particle type. Because these estimates were generated using benefit-per-ton estimates, we do not break down the total monetized benefits into specific components.

The disparity in regulatory treatment of different stove types in the same NSPS and EPA’s overall approach to regulating pellet fuels is glaring. Yet it is not discussed or addressed by EPA in this rulemaking, given its insistence that it is under no legal obligation to consider costs when promulgating BSEB and that the Agency can remain “unaware” of the same.

### C. EPA Standards Are Unenforceable

EPA has explained that pellet fuel standards not only regulate the type of pellet fuel that can be used in new wood heaters, but that the rule affects “end users” of pellet stoves. The rule “applies to both [manufacturers and distributors] as well as end users . . . It is a violation under the NSPS for the end user to operate the stove improperly – that is, not according to the NSPS and not according to owner’s manuals.”<sup>84</sup>

EPA staff have stated that enforcement of end user violations is “problematic.”<sup>85</sup> Perhaps in recognition of this, EPA staff further theorized that it may need help when it comes to taking enforcement actions against homeowners. As EPA noted “[o]ne suggestion the agency considered was an EPA hotline so that neighbors can report end-use violations and then EPA could follow up.”<sup>86</sup> But EPA staff indicated that since “EPA is a national organization, getting out to every local area will stretch EPA resource pretty thin”<sup>87</sup>

While EPA has expressed “hope” that states, locals and tribes might assist in enforcement efforts, the Agency has not explained how enforcement actions might proceed in non-delegated states, nor precisely how end user violations – e.g., a homeowner or causal operator’s failure to use certified pellet fuels when fueling a heater in a private residence – would be established by the Agency. Practical questions (as well as privacy concerns) regarding how EPA or any other state or regulatory agency would determine what pellets were used by a homeowner (barring

<sup>84</sup> Memorandum to the docket; notes from Webinar for State, Local and Tribal Agencies on February 18, 2014 – General Overview of the Wood Heater NSPS and Q&A Session. EPA-HQ-OAR-2009-0734.

<sup>85</sup> *Id.*

<sup>86</sup> *Id.*

<sup>87</sup> *Id.*

voluntary admission by the homeowner/operator of this practice) abound. But EPA provides no ready answers in any of the information placed in the docket.

Given that violations of the 2015 standards extend to any “operators” of pellet wood heaters, EPA did not explore how it would support issuing a Notice of Violation to violators who may be casual or intermittent. Similar to EPA’s duty to investigate cost, energy requirements and other factors in promulgating an NSPS, EPA cannot simply ignore such questions during notice and comment rulemaking. If a standard is practicably unenforceable, EPA has a duty to consider alternative, including not taking its “preferred” regulatory approach.

## **VII. Conclusion**

PFI appreciates that EPA has decided to reexamine its 2015 regulations regarding pellet fuel, including their legality. But based on the comments above, the Agency cannot and should not promulgate either Option 1 or 3 that would retain all or part of the existing standards. The only supportable course of action is for EPA to eliminate pellet fuel regulations in their entirety.