UNITED STATES STOVE COMPANY

Tradition, Quality, & Value since 1869

Statement of Paul Williams, Vice President of Business Intelligence, United States Stove Company
before the
Senate Committee on Environment & Public Works
Subcommittee on Clean Air and Nuclear Safety
November 14, 2017

Thank you Chairwoman Capito, Ranking Member Whitehouse, and members of the Subcommittee for holding this hearing today on S. 1857.

My name is Paul Williams and I am the Vice President of Business Intelligence at United States (U.S.) Stove Company. Our company is a fourth generation, family-owned small business that manufactures heating appliances with headquarters in rural middle Tennessee, where we are the third-largest employer in the area, and manufacturing in Bridgeport, Alabama, where we are the second-largest employer. We provide jobs for over 150 people. We offer a full range of affordable heating products, covering a broad variety of product types including wood and coal stoves, wood and pellet stoves, wood furnaces, coal furnaces and boilers, wood- and pellet-burning outdoor cooking appliances, and various gas and oil-fueled products.

As a cornerstone of the industry, started in 1869, we became the largest woodstove manufacturer in the world after the U.S. Civil War. Our growth continued with acquisitions until the early part of the 1900s when World War I and the Great Depression produced a difficult economy. U.S. Stove Company rebounded after these tough times and again experienced growth through the popular mail-order catalog business of Sears, Roebuck & Company. The rollercoaster ride continued through World War II and the oil embargo in the early 1970s. Being in business continually since 1869, it is our many years of experience that affords us a unique insight of our industry, our customers, and our own company.

All of our wood- and pellet-fueled residential heating appliances are affected by the EPA's emissions standards, known as New Source Performance Standards (NSPS) for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces. Today I am speaking on behalf of all manufacturers and retailers – most of whom are small businesses – who manufacture or sell one or more of the three categories of appliances impacted by these standards: (1) wood and pellet stoves, (2) forced-air furnaces ("wood furnaces"), and (3) hydronic heaters. The first set of NSPS standards ("Step 1") began to come into effect May 15, 2015, while Step 2 will come into effect May 15, 2020. It is important to understand that products not meeting the

Step 2 standard cannot be manufactured or sold after May 2020. That means that the significantly cleaner Step 1 products we just finished developing will not be available to consumers at that time.

I want to strongly emphasize that we support federal standards for wood heating appliances. Our veteran management team, with more than 150 years of combined industry experience, contributed in developing the first NSPS in the 1980s and worked closely with the EPA and other stakeholders in developing today's standards. We have a firm grasp on the importance of environmental responsibility in new product development and associated costs, achievable timetables and getting products to market, along with many variables that affect the retail landscape. However, today's standards must be implemented within a reasonable timeframe in which we can develop cost-effective means of achieving emissions limits. We want to partner with EPA to produce regulations that improve air quality while at the same time preventing an economic disaster for our industry.

Without extra time to meet Step 2, the wood heater market will be adversely affected by reduced consumer choice and major price increases, impacting the end consumers' ability to purchase cleaner products to replace older, non EPA-certified appliances. Reduced sales will ripple through the industry hurting retailers and manufacturing jobs. For U.S. Stove, we'd have more time to ***try to*** properly design and test woodburning products that are safe and reliable for consumers while effectively meeting the required emissions limits. Keep in mind that people trust us and our products enough to have a live fire in their home. We take that responsibility seriously. We test our products for safety and durability, not just for emissions. We need more time to accomplish the task at hand.

TIMING AND SEASONAL IMPACTS

After 148 years, U.S. Stove Company is still a leading supplier of renewable energy-fueled alternative heating systems to the big retail chains and independently-owned farm implement and hardware stores. Our substantial penetration in these segments gives us a major market share and keen understanding of product demand, changes, and profitability with these price-sensitive retail partners. Our typical customers live in rural communities and are low-to-middle income families looking for affordable sources of heat. We pride ourselves in providing a diverse variety of affordable heating options for consumers, and throughout the different divisions in our company we sell products designed to be the most affordable and some of the most reliable alternative options in the market.

Since woodburning products are used seasonally, there are seasonal windows of opportunity for selling them that can make or break a company. As a manufacturer, we are currently in the final, third phase of seasonal product demand, between September and December, the main selling season. On average, sales volume diminishes by the end of February. Retailers will attempt to balance inventory in preparation for spring seasonal supplies such as lawnmowers, grass seed, and grills.

With most of the companies in our industry being small businesses, their inventory is their banking collateral, which affords them their cash flow. The harmonious seasonal relationship between the manufacturer, retailer, and customer is a tricky one and presents multiple challenges.

Small retailers and consumers are being affected, today.
Take the example of one of our accounts in West Virginia, Persinger Supply in Prichard, WV. We have worked with Dusty Vanzandt there for two decades. The Step 1 wood furnaces standards (which went into effect in 2016 for small furnaces and 2017 for larger furnaces) have already affected his sales, mostly because the units are more expensive and there is less consumer choice. In 2015, he sold 42 furnaces. Last year in 2016, that number dropped to 11. So far this year, he has sold 8 furnaces. We attribute this reduced demand solely to price increases. The wood furnace market is still adjusting to this NSPS Step 1 regulation. Before this rule, the cost of a wood furnace was $1,000. Now, an EPA-certified furnace costs $2,000 at retail. As mentioned earlier, price-sensitive retailers and consumers cannot stomach 100 percent price increases very well. This will hopefully settle over time, but without more time to try to meet Step 2 this part of the wood heater industry will no longer exist. We have concerns about the effect of price increases in other product categories as well.

Although the effective date of Step 2 is May 15, 2020, in reality we need to have products ready for Step 2 by October 2018. Here is why: In October 2018, larger retailers will review available product lines of all companies and evaluate which products they'll sell in the 2019-2020 heating season. May 2019 falls at the time when retailers submit their purchase orders to manufacturers for products they will sell in the 2019-2020 heating season. Retailers are not going to purchase products that they won't be able to sell after the next heating season.

This means we need to know exactly which products we'll be presenting and manufacturing months before meeting with retailers in fall 2018. If we don't have a product certified and ready to be presented at that point, we miss out on an entire year of business for a product line. This reduces product choice for the consumer and limits opportunities for small business retailers. Figure 1 illustrates the business cycle we face with a large retailer. EPA certification of a product must happen ***before*** it can go through any of the below steps.

Figure 1. Business Cycle for Manufacturers of Residential Wood Heaters: Timeline for a Large Retailer (i.e. Lowes, Home Depot)

2018	2018-2019	2019			2019-2020
September - October	***November - January***	***February - April***	***May***	***June - July***	***September - March***
Manufacturer meets with retailer(s) to review process and appliances	Manufacturer purchases steel and other materials in advance of production	Manufacturer starts production to fulfill estimated purchase orders (PO)	Retailer submits PO to manufacturer	Appliances are shipped to distribution facilities to be sent to retailers	Peak selling time

In the face of this extended business cycle, we need to have our EPA certificates in hand no later than early fall 2018 – less than a year from now. As a practical reality, we cannot offer for sale or produce any products that aren't Step 2-compliant by that point. After the retailer reviews appliances and prices, we purchase the steel and other materials in advance of production. We start production for fulfilling purchase orders between February and April of 2019. Throughout the summer, we ship appliances to distribution facilities to be sent to retailers in time for the fall selling season.

Retailers are already basing business decisions on 2020.
One manufacturer has told us that during their most recent October line review meeting with a large retailer, the nation-wide retailer stated that they wouldn't be purchasing any products in the future that didn't meet the 2020 standard. This decision was made in fear of being stranded with products in stores that couldn't be sold after May 15, 2020, even though we are well over two years away from that effective date.

EMISSIONS AND SAFETY TESTING STANDARDS THAT WE FACE

Extending the Step 2 effective date by three years would allow the heating industry to feasibly amortize our time-based resources and the available company finances for design, development, and testing of new products over a more achievable period of time to try to be able to offer compliant products ready for the marketplace.

Our company has been heavily affected by the NSPS as we manufacture products for the U.S. market that are in four of five affected product categories (wood and pellet stoves, single burn rate woodstoves, and wood furnaces). One of these products, wood furnaces, was previously unregulated prior to the NSPS rule. Under the NSPS rule, standards for furnaces had different effective dates, with regulations for small furnaces coming into effect in May 2016 and for large furnaces in May 2017. It takes a large capital investment and anywhere from nine to 15 months to bring a single product from concept to a finished item ready for market. Plus the time it takes to receive a certificate from EPA. Up to this point, meeting these deadlines has consumed ALL the available time-based resources our company has at its disposal as well as all available working capital for new product research, development, and testing. Now we

have to start this process all over again since our products in the furnace category don't yet meet the 2020 standards.

Without more time to test products, which would be provided by S. 1857, U.S. Stove Company will very likely only be able to offer a very limited product line by the 2020 compliance deadline. With limited products to offer for sale, our company will lose key accounts and customers, which would ultimately compromise the viability of our company and the people we employ moving forward. We currently offer 46 wood burning appliance models. Looking ahead to 2020, we expect to have all pellet stoves (13) pass, but they will have to be re-tested at around $20,000 per model. We will likely have less than five woodstove models (down from 28) to sell in 2020 and **no furnaces** that will meet the 2020 standards. That is nearly a two thirds reduction in the appliance models we offer today. Here we will experience significant cost between $250,000 to $500,000 per model for research and development and testing expenses to try to meet 2020 requirements.

The testing process and test lab is very similar to making a trip to the DMV. You wait in line at the DMV for a few hours with all of your necessary paperwork in-hand. You get to the front of the line, but you are told that you are missing one form. You then have to get out of line, find and fill out that one form, and then get back in line and start all over again. When we have to start over testing, we still have to re-apply with the lab for lab space. There are other manufacturers who have signed up months in advance, as we do, for test lab space. With only five test labs in North America accredited by EPA to test wood heaters, a test lab logjam will worsen as we get closer to the 2020 effective date. Some manufacturers, even if they feel their product is ready for final testing, often need to wait months for their appointment with a testing lab.

After completing and passing emissions testing at the lab, we then have to wait months for EPA to review our test report and certify our product as EPA-certified. For wood furnaces, after receiving an EPA certificate for emissions, we still need to test the units for safety and durability. This process can also take months. If any changes need to be made after safety and durability testing, that unit has to again be re-tested for emissions at a lab and again certified by EPA since changes were made. As you can see, this process takes time, sometimes over a year, before a new or modified product can even make it to market to the consumer.

We are very concerned about EPA's ability to certify products by 2018. In addition, we face a log jam getting products tested by the five test labs approved by EPA to test wood heaters. In one year, one lab processed 14 wood heaters. Another processed only six appliances and half were sent back for more work. Once the lab approves it, the EPA has to review the test results, often taking 3-4 months for this industry. As the deadline gets closer, hundreds of appliances will need EPA testing and certification in a very short timeframe. There is not enough capacity to get through the process in time.

With the current backlog of test reports to be reviewed at EPA's Office of Enforcement and Compliance Assurance (OECA) (currently in excess of three months per model in our experience), the government's ability to issue a certificate for our appliances alone would create such a backlog it would decimate the industry. Even if investment capital and time allotted for design, development, and testing were not an issue, U.S. Stove Company (and all the other products manufactured by the wood heater industry) would not be certified in time.

This issue of testing and certification delays continues today for us and other wood heater manufacturers. We predicted much of this would happen in our 2014 comments to EPA on the proposed NSPS, which can be found as an attachment to this statement. Much of what we warned EPA about in 2014 is described in this statement as these issues did occur as foreseen by industry.

IMPACTS ON AIR QUALITY

Delaying Step 2 by three years (from May 15, 2020 to May 15, 2023) will not have a significant impact on air quality. Two of the regulated product categories (furnaces and hydronic heaters) were not regulated before the rule came into effect in May 2015. Those products have made significant emissions reductions since 2015. For instance, EPA estimated that the Step 1 standard for hydronic heaters represented over a 90% reduction in emissions. All products covered by the NSPS will remain regulated under Step 1 if Congress were to grant an extension of Step 2. In order to achieve meaningful reductions in emissions, we have to motivate end-users to replace the older pre-NSPS heaters (the vast majority of heaters in use today) with new ones. To do that, the new units need to be affordable and available.

> **Changeout programs produce results.**
> As an example, one changeout program in Libby, Montana replaced the entire town's 1,130 older woodstoves and replaced them with newer, EPA-certified stoves. Research done by the University of Montana showed that indoor air quality improved by 70 percent in the winter after the changeout program compared to the year before the program. Outdoor air quality was found to have improved by 30 percent.[1]

The true emission reductions come from changeout programs: replacing older, non EPA-certified wood heaters with today's new, EPA-certified appliances. However, if the price of appliances increases, two things will happen. First, there is an incentive for consumers to repair their higher emitting, uncontrolled appliances rather than replace them with EPA-certified appliances. Second, there will be less opportunity to change out as many units as possible. If furnace or hydronic heater manufacturers are regulated out of existence, there won't be any suitable option for a consumer looking for

[1] Hearth, Patio & Barbecue Association. (2008*). Preliminary Report: Clearing the Smoke: The Woodstove Changeout in Libby, Montana*. Retrieved from https://www.hpba.org/Portals/26/Documents/Government%20Affairs/Libby_Report-Final.pdf?ver=2017-06-13-082448-233

a 1-to-1 replacement for their wood heater. Why strive for perfection at the cost of eliminating part of an industry? And the irony is that in a rush to improve air quality in a hurry-up process, we are creating incentives to hold onto older, much dirtier products for longer and slow down air quality improvements.

CONCLUSION

Without this extension of Step 2, I fear that my company, the hearth industry, and consumers (your constituents) would needlessly suffer as a result. Our industry wants federal standards, but they must be cost-effective and achievable. With more time, provided by S. 1857, we can continue with R&D and testing as we work to try to meet Step 2 of this regulation. The existing deadline is infeasible. I thank the subcommittee for the opportunity to provide feedback on the current and future impacts of the EPA's emissions standards for wood heaters.

ATTACHMENT

U.S. STOVE COMPANY WRITTEN COMMENTS SUBMITTED TO EPA ON PROPOSED RULE: NEW SOURCE PERFORMANCE STANDARDS FOR NEW RESIDENTIAL WOOD HEATERS, NEW RESIDENTIAL HYDRONIC HEATERS AND FORCED-AIR FURNACES

(APRIL 30, 2014)

United States Stove Company
Written Comments
On
Environmental Protection Agency
Proposed New and Revised New Source Performance Standards
For New Residential Wood Heaters, New Residential Hydronic Heaters and
Forced Air Furnaces and New Residential Masonry Fireplaces
April 30, 2014

I. Executive Summary

United States Stove Company (USSC) submits these written comments to highlight areas of agreement, concerns, interest and our recommendations regarding the Environmental Protection Agency's (EPA) new and revised New Source Performance Standards (NSPS) for hearth appliances under Section III of the Clean Air Act, published in the Federal Register on February 3, 2014.

While we are in agreement with the EPA that review of particulate standards for our appliances is warranted, we have concerns about:

1) the use of defined and proven testing protocols to realistic emission requirements;

2) the proposed compliance transition period and limitations to sell product at retail;

3) the economic impact of the proposed rule on our industry, manufacturers, retailers and consumers; and

4) real-world issues, consequences and unintended adverse outcomes if the proposed rule is implemented as currently written.

USSC wants to partner with the EPA to produce regulations which improve air quality while at the same time preventing an economic disaster for our industry. In short, we agree with the EPA's goal, but we disagree with the flawed process it proposes to use to accomplish it. We strongly disagree with Step 2 limits in all product categories, for reasons that the Hearth Patio and Barbecue Association (HPBA) has enumerated in its detailed comments. We know that if these limits are imposed, this industry will be devastated to the point that it will no longer exist in any meaningful capacity.

Many manufacturers, including USSC, produce several categories of products that are facing regulation, most for the first time in history, which greatly exacerbates problems on all fronts. Not only are we faced with a "crash course" to bring our products into compliance with the proposed NSPS's, we are also faced with daunting challenges in deciding how we address retail markets[1], the immense financial

[1] *See* Corrected Transcript April 1, 2014 (A80197F) for Public Hearing: Proposed Revisions to the Standards of Performance for New Residential Wood Heaters, February 26, 2014 page 10 lines 1-8: At the public hearing in Boston, MA on February 26, 2014, Greg Green of the EPA stated that it is not the Agency's intent for the proposed NSPS to affect wood heater inventory for stores and any heater currently in home use. We are sure Mr. Green was being sincere and straightforward in his statement. As noted above, the impact of the rule, as currently proposed, is contrary EPA's stated intent.

burden of short term compliance and most importantly, our own ability to make a profit while doing so. Given adequate time and reasonable emission goals, the industry will develop compliant products as the market demands, but the key to doing so is having a reasonable pragmatic time frame within which to do so. In order for us to help the EPA improve the emission performance of wood burning products, common sense demands that sufficient time must be allowed for manufacturers to design, test and perfect compliant products for the market.

As a responsible, family-owned small business with a long history of excellence in seasonal appliance development and manufacturing, a founding member of the HPBA and an active participant in the development of the first NSPS for our industry, it is our strong desire and commitment to partner with the EPA, HPBA and other interested parties to achieve responsible standards that are essential to properly addressing the economic concerns, energy needs and air quality issues that are now at the forefront of national and state agendas. These are complicated issues demanding reasonable, common sense compromise between the regulating body and our industry. Failure to do so will be catastrophic to many worthy small businesses, including USSC.

II. Our History and Unique Perspective

We are a fourth generation family owned small business which is the oldest manufacturer of affordable renewable energy powered heating appliances in the United States. Headquartered in the small town of South Pittsburg, TN, we now operate four facilities in four states: Tennessee, Alabama, Michigan, and Oregon. We offer a full range of affordable heating products, covering a broad range of appliance types, **all** of which are affected by EPA's proposed NSPS.

As a cornerstone of the industry, our early years produced great success as we became the largest wood stove manufacturer in the world after the Civil War. Our growth continued with acquisitions until the early part of the 1900's when World War I and the Great Depression produced a difficult economy. USSC rebounded through these tough times and again experienced growth through the popular mail-order catalog business of Sears, Roebuck & Company. The rollercoaster ride continued through World War II and the oil embargo in the early 70's. Being in business continually since 1869, we have endured many personal and economic hardships. Forged during wars and the Great Depression to an oil shortage and market collapses, it is our many years of experience that affords us the unique insight on our industry, our customer and our own company.

Our veteran management team, with over 150 years of combined industry experience, was instrumental in developing the first NSPS and has worked closely with participants to respond responsibly to the proposed NSPS. These industry professionals have a firm grasp on the importance of environmental responsibility in new product development and associated costs, achievable timetables and getting items to market, along with the many variables that affect the retail landscape. Their input is the basis for these comments.

III. Our Commercial Partners and Seasonal Markets

After 145 years, USSC is still a leading supplier of renewable energy fueled alternative heating appliances to the big retail chains and independently owned farm implement and hardware stores. Our substantial penetration in these segments gives us a major market share and keen understanding of product

demand, turns and profitability with these price sensitive retail partners. We pride ourselves in providing a full range of affordable heating options for the consumer, and throughout the different divisions in our company we sell products designed to be the most affordable and some of the most reliable alternative options in the market. Due to our distinct niche in the marketplace, we bear the main burden of providing affordable wood-fueled heating to American families. Our scope goes far beyond our abilities to just provide affordable heating, as we also provide a full range of products that serve the builder/contractor and specialty hearth markets through our Breckwell, Vogelzang, Ashley and HomComfort brands.

Since wood burning products are used seasonally, there are seasonal windows of opportunity for selling them that can make or break a company. At retail, the bulk of the heating appliance selling season runs from around Labor Day to December. Depending on winter weather conditions or special sales promotion events, Q1 sales figures can vary greatly (up to 300% swings observed over the past 5 years). On average, sales volume diminishes by the end of February. Retailers will attempt to balance inventory in preparation for spring seasonal supplies. Lawnmowers, grills and pools are the next challenge for the seasonal buyer. With most of the small businesses in manufacturing for this market, their inventory is their banking collateral, and it affords them their cash flow. The harmonious seasonal relationship between the manufacturer, retailer and customer is a tricky one and presents multiple challenges.

At the manufacturing level, we see seasonal product demand in three phases. The **first phase** is actually the last (December-March). How effective were the marketing efforts and how well did we do in the season? How is the inventory pipeline? These questions are often impacted by events or uncontrollable variables. With heating appliances, was there a winter? Was there a driving force, beyond marketing efforts, that impacted sales? In recent years fuel supply shortages, fluctuations in weather patterns and economic conditions affect inventories both positively and negatively. Once the inventory situation is evaluated, we enter the **second market phase** (April-September). This is the stocking stage and produces an initial surge of product entering the market place. Balanced with what is left in the pipeline and marketing expectations, long lead time items are critical challenges during this seasonal phase and the next. Product that is a little late is often too late. The **third seasonal phase** (September.-December) is in-season demand and fulfillment. It is considered the reaction phase. How is demand reacting to the marketing efforts and what is the manufacturer's ability to supply the inventory needed? Balancing resources and communications are critical in each phase where mistakes can be magnified leading to disastrous results. When we introduce or launch new products for the year, there is typically a soft cutoff date in the middle of the second phase (April-September) during which if product is not ready to ship, it will not be picked up by our retailers and the capital investment in the product will have to be borne by the manufacturer for another year.

Having a network of financially healthy manufacturers and retailers is **the key** to maintaining a healthy industry and is the **vital link** to offering the consumer new compliant products. The market phases and characteristics described above have a direct impact on determining what a reasonable time frame is for implementation and compliance with any new NSPS affecting our products.

We have organized our comments based on the products we currently sell that are directly affected by the proposed NSPS: wood heaters, wood pellet heaters, forced-air furnaces, and single burn rate wood heaters. Each one of these products presents a unique set of circumstances that warrant explanation. We have contributed to the comment efforts of the HPBA, both financially and substantively, regarding the proposed NSPS so we will not repeat those points. As industry experts we can help EPA achieve its ultimate goal of emission reductions by offering advice on setting realistic and justified emissions limits. We can also advise on providing adequate transition time relief, including grandfathering, so that in a

reasonable time frame we can develop cost effective means of achieving those limits so the market will with not be adversely impacted by major price increases, and the end consumer is able to buy cleaner products to replace their older non-NSPS compliant products.

IV. Financial Impact of Compliance

USSC has 51 skus that were previously exempt under the current Subpart AAA: 15 pellet heaters ($15,000), 19 being single burn rate or utility heaters ($356,250), 17 forced-air furnaces ($356,250). There are an additional 2 adjustable burn rate wood heaters ($356,250) that are not Step 1 compliant. In some product categories the EPA estimate of $356,250[2] for compliant unit development is too low. We will nevertheless use the EPA estimate for single burn rate heater, forced-air furnaces, and adjustable burn rate heaters in our analysis since EPA clearly noted that this was an assumed number for all product categories. Also, in the case of pellet heaters, we believe that they can meet Step 1 of the proposed NSPS in most cases and thus we will assume $15,000 as testing, shipping, and administrative costs associated with becoming EPA certified. Combining the costs in all categories, we estimate that the capital investment due upon promulgation under the proposed compliance timelines to continue business as usual would be in excess of $13.5 million. This level of investment is not financially viable in a short timeframe. As a small business, we do not have the liquid capital and we cannot borrow enough money for research and development to meet those financial demands. The limits and testing methodologies for all categories of our products make proposed Step 2 unachievable. For that reason, we are unable to provide a realistic cost estimate to bring our products into compliance.

V. A Practical Overall of the Proposed NSPS

The Step 2 emissions requirements together with the proposed methodologies are currently impractical and unachievable. Pushing the limits beyond Step 1 is not the "Best System for Emission Reduction" (BSER) mandated in Chapter 111 of the Clean Air Act, because the requirements are not achievable and cost effective for the industry. Ironically, the proposed Step 2 limits will ultimately not achieve the goal of reducing overall emissions from wood burning appliances in any meaningful way, and will surely reduce the overall size of the woodstove marketplace to virtual non-existence. The HPBA has provided ample information demonstrating why Step 2 limits and methodology are not achievable. In order to achieve meaningful reductions in emissions we have to motivate end-users to replace the older pre-NSPS heaters (the vast majority of heaters in use) in the marketplace with new ones. In order to do that, the new units need to be affordable.

All wood burning appliances require time for design, testing, and production processes to ensure they are safe, cost-effective, and compliant products for the marketplace. It is not unusual to take up to 3 years to develop a wood heating product from concept to production. Certification of compliance 60 days after promulgation in the case of pellet heaters, single burn rate heaters, and forced-air furnaces is unrealistic. With the current backlogs in the Office of Enforcement and Compliance Assurance (OECA) (currently in excess of 4 months per model in our experience), the government's ability to produce a certificate for our appliances alone would create such a backlog it would decimate the industry. USSC would have 53 different products under review by OECA around the date of promulgation – even if doing so is financially and possible and on an achievable timeline – which is certainly not the case. OECA has certified less than 1,000 products in the past 25 years - an average of slightly less than 40 products

[2] *See* 79 Fed. Reg. at 6350

annually. Even if investment capital and time allotted for design, development and testing were not an issue, USSC products alone exceed the annual OECA average of certificates issued under the proposed NSPS. We can assume that other manufactures will have a similar certification needs. If OECA cannot perform better than it is operating today, we can safely assume that it cannot meet the needs of this industry up to and after promulgation. The impact of such a bottleneck on our industry is obvious.

Finally, investment capital is important for operation. If any business does not have adequate cash flow, it will not survive. If products do not have time to sell out in the supply chains after promulgation, an undue burden will immediately be placed on retailers, distributors and ultimately the manufacturers. Reasonable time for retail sales is paramount to the financial health and viability of our industry.

VI. Adjustable Burn Rate Wood Heaters

USSC endorses HPBA's comments on adjustable burn rate wood heaters and the proposed test methods associated with them. We endorse and accept the proposed Step 1 limit of 4.5 g/hr. We believe this emission standard, along with including products that are currently exempted under the Subpart AAA, will achieve the EPA's goal of improving overall air quality on a national scale without damaging the industry to the point where the replacement of older non-compliant products in the industry will not occur.

VII. Wood Pellet Heaters

USSC also endorses HPBA's comments concerning wood pellet stoves and the proposed test methods associated with them. We endorse and accept the proposed Step 1 limit of 4.5 g/hr and the use of ASTM E2779-10(Standard Method for Determining Particulate Matter Emissions from Pellet Heaters) in its entirety. Since wood pellet stoves were a previously unaffected appliance under the current NSPS, and since most manufacturers of wood pellet stoves will be impacted by the proposal in multiple product categories, and since the almost certain potential for "logjams" in the testing labs, we recommend the following transition relief for wood pellet stoves which would be concurrent with the previous NSPS:

- Compliance extension of at least 1 year after promulgation of the proposed rule; and
- Authorization for retail sell through of at least 2 years after the compliance date of the proposed rule.

VIII. Forced-Air Furnaces

USSC endorses the HPBA's comments regarding forced air furnaces. We would like to expand on several points made in HPBA's comments.

EPA proposes to regulate forced-air furnaces under Subpart QQQQ (Standards of Performance for New Residential Hydronic Heaters and Forced Air Furnaces) along with hydronic heaters under the category of central heaters. The two technologies are vastly different. As defined in the proposed NSPS a residential forced-air furnace is "a fuel burning device designed to burn wood or wood pellet fuel that warms spaces other than the space where the furnace is located, by distribution of air heated by the furnace through ducts"[3] and a residential hydronic heater is "a fuel burning device designed to burn

[3] *See* 79 Fed. Reg. at 6384

wood or wood pellet fuel for the purpose of heating building space and/or water through the distribution typically through pipes, of a fluid heated in the device, typically water or a water and antifreeze mixture."[4] According to these definitions, forced-air furnaces utilize a heat distribution media of air while hydronic heaters use a heat distribution media of water. Water is roughly 1000 times more dense than air and has over 4 times the specific heat vs. air. In simple terms that means that water is a much better storage media for heat. Due to its greater heat storage capacity, water allows hydronic heaters to operate at their optimum burn rates or "sweet spot" to achieve relatively clean burns without overheating, even when the thermostat is not demanding heat. By comparison, forced-air furnaces have virtually no heat storage capabilities with their distribution media and are not able to consistently operate in their "sweet spot" due to many safety concerns and common use habits by the end users. We also would like to emphasize that there has been no EPA or state voluntary program for warm air furnaces as there has been for hydronic heaters.

There are significant differences in size and weight of these two appliances. Hydronic heaters are typically designed to be installed outdoors, so the manufacturer is not constrained by size or weight limits to their product for modifications. On the other hand, forced-air furnaces are made to be installed indoors in a basement or utility room. Because of this, manufacturers are restricted to size and weight of the appliance for installation. With this premise, it is important to realize the manufacturer is restricted by size and weight for add-on technologies to improve emissions. This presents a significant design and engineering challenge.

In it comments, HPBA makes a distinction between small and large furnaces with a differentiation point at 65,000 BTU/hr of ducted output, and acknowledges that there are several (approximately 4) furnaces that are currently compliant with B415.1-10 when tested through an accredited lab. All of these products would be classified as a smaller furnace by this definition. It is important to note that smaller furnaces are primarily designed for supplemental heating of homes, while larger furnaces are designed to be whole home heaters. There are no known large furnaces by definition that have been tested and certified to the limits of B415.1-10.

To the best of our knowledge, all of the furnaces that are currently listed to B415.1-10 (the same standard and limits listed in the proposed NSPS) are manufactured in Canada, so they are immediately able to comply with subpart QQQQ from a design and testing standpoint. No major American forced-air furnace manufacturer currently produces a furnace that meets the requirements of B415.1-10, while Canadian manufacturers of forced-air furnaces have already made the investment into their products to meet step 1 emissions requirements of the proposed rule in order to sell into their markets. As clearly stated in the docket from public comment, through the economics of NAFTA, in its present form the proposed NSPS directly promotes Canadian based manufacturing at the expense of American manufacturers all of which are American small business that support American jobs and families.

USSC is the largest forced air furnace manufacturer in the US. Supporting evidence to that claim will be submitted under CBI, if requested by EPA. We emphasize that we do not currently have a furnace that meets the requirements and limits of B415-1-10. The proposed NSPS states that "Given that the largest U.S. forced-air furnace manufacturer already has a catalytic model meeting 0.06 lb/MMBtu, we think the 6 years of lead time is sufficient time in which to conduct R&D to produce comparably lower emitting model lines." This statement is incorrect. USSC did not make it and no evidence of a cordwood burning forced-air furnace has been produced on a device currently meeting 0.06 lb/MMBtu.

[4] *See* 79 Fed. Reg. at 6384

In light of the clear favoritism of Canadian based manufacturers and the lack of any voluntary program (which has lasted approximately 8 years for the other heater type under Subpart QQQQ) for this device, we request the following transition relief broken down between smaller and larger forced air furnaces.

For smaller furnaces:

- Compliance extension of at least 1 year after promulgation of the proposed NSPS; and
- Permitted retail sell through at least 3 years after promulgation of the proposed NSPS.

These aspects of the transition relief we request are consistent with phase 2 allowances under current subpart AAA. The previous NSPS for Wood Heaters was regulating previously unaffected facilities and provide 2 years to comply and two years following that compliance date to sell through product at retail.

Since there are no large furnaces on the market today that are certified to B415.1-10 and thus no BSER to establish limits on said furnaces we request the following in transition relief.

For large furnaces:

- Compliance extension of at least 3 year after promulgation of the proposed NSPS; and
- Permitted retail sell through at least 5 years after promulgation of the proposed NSPS.

USSC fully supports the HPBA's comments on grandfathering provisions for warm air furnaces. It is of the utmost importance that if a product is compliant with the proposed emissions requirements before the effective date of this proposed NSPS, and certified though an EPA accredited third party laboratory, it should be granted a certificate of compliance of no less than 5 years from the date of certification.

It is very important to note that modifications to the existing non-affected facilities are required to comply with the proposed NSPS. If modifications are made to an existing safety listed appliance, verification that an appliance is safe for the end user through a manufacturer's life testing protocols and retesting to safety standard will be required. In short, modifications to the emissions reduction technology of an appliance require re-testing to safety standards for safety assurance. This requirement further exacerbates the burden on the manufacturer of bringing a product to market under the proposed time line.

On p. 6344 of Volume 79 of the Federal Register (the proposed NSPS), the preamble includes in Table 5 the Proposed Approach Subpart QQQQ PM Emissions Standards limits for Forced Air Furnaces for Step 1 at 0.93 lb/MMBtu and Step 2 at 0.06 lb/MMBtu and Table 6 for the Alternate Approach for Forced Air Furnaces for Step 1 at 0.93 lb/MMBtu and Step 2 at 0.15 lb/MMBtu and Step 3 at 0.06 lb/MMBtu. But, when referencing the rule, section 60.5474 (4) (b) (3) states "2015 forced-air furnaces particulate matter emission limit: 0.93 lb/million Btu (0.40 g/megajoule) heat output and 7.5 g/hr (0.017 lb/hr) as determined by the test methods and procedures in 60.5476."

These statements are contradictory and contrary to the information presented in the Preamble. We request the 7.5 g/hr requirement be struck from the document as this must be a typographical error, since both reporting numbers cannot be correlated. This is also not consistent with the reporting limit as stated in CSA B415.1-10. The EPA as stated that CSA B415.1-10 will be the proposed test method in this under Subpart QQQQ.

IX. Single Burn Rate Heaters

Single burn rate heaters are defined in the proposed NSPS as a heater that does not have an adjustable damper. However the exemption for single burn rate heaters, often termed utility heaters, has been defined in the past as an appliance that cannot be dampened down below a burn rate of 5kg/hr when tested in accordance with Method 28A. Because of that burn rate, it was exempt from the current subpart AAA requirements. These types of heaters typically do not have sophisticated emissions controls and are designed specifically to meet a heating need at a sensitive price point. These devices are the most affordable forms of wood heating in the marketplace, and as the EPA has noted represent a significant segment of the wood heating marketplace.

Since HPBA is not providing extensive comment on single burn rate wood heaters, we would like to address some of the points on which the EPA had requested specific comment. Single burn rate wood heaters have been grouped into the room heater category under Subpart AAA. For room heaters, EPA is proposing that the effective date for compliance is upon promulgation of the rule and a six month sell-through for retail. They requested specific comment on a 1 year compliance extension[5].

We believe that a compliance extension of over one year is paramount for this type of heater, along with extra time for retail sell-through, for the following reasons:

1. Until the rule making is final, a manufacturer does not know conclusively what test method to apply to a product. Since a Single Burn Rate appliance was classified as a non-affected facility, a manufacturer cannot realistically be expected to produce compliant products upon promulgation.
2. As stated in the proposed NSPS, the Single Burn Rate appliances have previously been defined as a non-affected facility. Manufacturers of these appliances need time to design, test and produce products to the proposed NSPS which will be addressed later in this document.
3. With the first NSPS, the EPA allowed two years for compliance for adjustable burn rate wood heaters and an additional 2 years for retail sell through. USSC is requesting this same time line for the category of appliances. The two years for compliance will allow for R & D testing and then time for compliance testing in a lab. The two years of sell-through following the compliance date will allow retailers to clear out their inventory. It is important to note that if the compliance deadline is May 2015, retailers will not be selling heating products until October at the earliest. The proposed sell-through will not allow retailers time to release their current product.

We are in agreement with the EPA's proposal[6] of using the appendix of ASTM E2780-10 in its entirety for compliance testing of this appliance category.

In the Preamble, the EPA describes the number of single burn rate stoves sold each year[7]. USSC does not dispute this estimate and we would like to note that we have the largest market share in this product category. This product type represents a major revenue stream for this company and, as previously noted, we want to work with EPA to achieve improved air quality through the reduction of wood burning emissions. We need to settle on a solution that will achieve real emissions reductions and not decimate a product category through an unreasonably short timeline. Give us adequate time to develop effective technology to incorporate into these devices that can meet emission requirements and still be safe and cost effective to the end-user.

[5] *See* 79 Fed. Reg. at 6340
[6] *See* 79 Fed. Reg. at 6342
[7] *See* 79 Fed. Reg. at 6357

We do not agree with the comments made on this page of the preamble that "some models would require modifications……" All models will require modifications to be compliant. These models do not have any technology built into the appliance for emissions reduction. Therefore, considerable time will be required to research, develop and incorporate new technology into each model, and then send the appliance for testing at a lab. To expect a manufacturer to be compliant with this category on the day of promulgation is unreasonable and most likely impossible when you factor in the time at the lab and the amount of time the OECA is taking to review each test report. For the above timing requirements, USSC again requests from EPA that the timing of compliance be extended from the proposed date. We request the timing of the phase in for single burn rate heaters follow the timing of Phase 2 of the original NSPS for wood heaters:

- Compliance extension of at least 2 years after promulgation of the proposed NSPS; and
- Permitted retail sell through at least 4 years after promulgation of the proposed NSPS.

The EPA makes reference[8] to the additional cost to manufacture a lower emitting single burn rate heater. This comment does not clearly define how the $100 dollars was determined. If this comment is referring to the added material costs of manufacturing, then it is fairly accurate. It is, however, important to note that the cost of producing a lower emitting single burn rate heater far exceeds the cost of the materials. We estimate the additional costs associated with bringing single burn rate heaters into compliance would be $250 of manufacturing cost. Please note this cost increase is at the manufacturing cost level, not the retail price level – which would be more.

The EPA requested comments on the Alternative Step 1 approach[9]. As previously discussed, we are very concerned with the amount of time given to bringing this appliance category to the proposed compliance standard. We strongly disagree with the Alternative Approach as this would place additional burden on compliance. We have already explained that the proposed Approach is too aggressive for ALL parties involved. The Alternative Approach is even more aggressive and is completely unacceptable. We request that EPA adhere to the proposed approach and eliminate Step 2 until the next review of the NSPS. There is no BDT to cordwood fuel being used for emissions testing, so, as discussed in the Wood Heater Module presented by HPBA, Step 2 should be reviewed after data is submitted with the next NSPS review.

As noted this category of appliances is also referred to as "utility heaters". These products provide a source of heat for those that would otherwise be unable to afford a heater in their home. As a manufacturer, we are deeply concerned with the additional cost burden this will place on the consumer by not having a "utility heater" category. We understand the importance of improving the air quality. We also understand the importance of providing a "utility" style wood heater for the consumer.

X. Other Pertinent Observations

In the Preamble you request comments[10] on the requirement of the "direct distribution manufacturers and retailers providing moisture meters to the consumer at the time of sale. It also states that "some manufacturers include a moisture meter for their operators".

[8] *See* 79 Fed. Reg. at 6351
[9] *See* 79 Fed. Reg. at 6363
[10] *See* 79 Fed. Reg. at 6364

First of all, to propose that a moisture meter be required to be included with the sale of a wood heater is unreasonable. The retail consumer will not use this piece of equipment. As anyone knows who has ever used one, it is very easy to break a pin on this type of gauge. This poses a risk of harm to the user, plus once broken, it is very unlikely the retail consumer would fix or replace it.

Second, the comment that “some manufacturers include a moisture meter for their operators” is unfounded. We have surveyed the top hearth manufacturers and HPBA and we could not document one manufacturer supplying a moisture meter with their product. The last comment does not make any sense. Who is the operator? Operator of what?

It is important to point out, split cordwood seasons very well one or two years after being cut. The manufacturer’s instructions (as the Preamble points out) clearly guide the consumer on the proper seasoning of fuel for their product for proper operation.

The requirement to have retailers include a moisture meter is an undue cost burden and would not improve the maintenance of the consumer’s fuel or performance.

XI. Conclusion

Meaningful and enduring emission reduction that advances the state of the art, while preserving the time tested benefits of products consumers rely on to provide for their basic needs, can only be achieved through mutually beneficial partnerships between government and industry. The new and revised New Source Performance Standards for wood burning appliances used by consumers contains an admirable, meaningful and cost-effective step forward. Unfortunately, it also proposes one or potentially two additional steps too far. If taken now, these extra steps will lead to the destruction of a successful American industry that has been forged over several generations and will not benefit the American consumer or achieve meaningful reductions of emissions from wood burning appliances in the United States. Please don't let that happen.

Respectfully submitted:

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