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Testimony of Frank Moore, President & Owner, Hardy Manufacturing Co., Inc.
before the
House Committee on Energy & Commerce
Subcommittee on the Environment
In Support of H.R. 453 (the Relief from New Source Performance Standards Act)
September 13, 2017

Chairman Shimkus, Ranking Member Tonko, Members of the Subcommittee:

Good morning. On behalf of Hardy Manufacturing and the entire stove and heater (hearth) industry, I would like to thank the Chair and members of the Subcommittee for holding this hearing today on the Relief from New Source Performance Standards Act (H.R. 453).

My name is Frank Moore and I am the President and Owner of Hardy Manufacturing Co. We are a small family-owned business. My father-in-law developed and patented the Outdoor Hydronic Heater in the late 70's.[1] This product was developed because of the very unstable price of fuel oil and propane for farmers and rural dwelling industrial workers who had their own firewood to heat their homes and were trying to make ends meet in a difficult economic time. Those needs continue today.

[1] A hydronic heater (also known as a wood boiler) heats an entire home. The product typically looks like a small shed when installed outside. It is fueled by wood or pellets to heat water. The water is then pumped through the home through warming baseboards, radiators, and/or radiant tubing in floors or ceilings of the home or any related buildings such as barns and greenhouses.

I'd first like to make clear that we don't oppose federal standards for wood-burning appliances. In fact, we asked EPA to set national standards so the industry would have uniformity and predictability, which translates to lower costs for consumers due to increased manufacturing efficiencies. Having a federal standard is vital for the success and future of our industry. Today I am testifying on behalf of all manufacturers and retailers, most of whom are small businesses, who manufacture or sell one of the three categories of appliances impacted by the EPA's emissions standards for new residential wood heaters: (1) hydronic heaters, (2) wood and pellet stoves, and (3) wood furnaces.

As a small business we provide jobs for about 50 people with payrolls exceeding $2 million. We also have over 400 dealers nationally that depend on the sales and service of this product. Over the past few years our sales and payroll has been cut in half partly because of the economy but mainly of fear that this type of heating appliance is too expensive and could be banned from use to heat families' homes. We have been at the forefront in developing a clean-burning Outdoor Wood-burning Heater for the past 10 years. We have built a test laboratory in-house and invested over $1 million in research and development on developing a clean-burning Outdoor Hydronic Heater. We have been driven by three requirements: (1) it must pass the EPA's test; (2) it must be durable and easy to operate; and (3) it must be affordable for families who are being pinched by the economy.

REQUIREMENTS OF TODAY'S STANDARDS

When the EPA finalized its New Source Performance Standards (NSPS) for New Residential Wood Heaters; New Residential Hydronic Heaters and Forced-Air Furnaces in February 2015, the wood heater industry was encouraged to see that reasonable standards had been set for Step 1 of the rule, which took effect May 15, 2015. Step 1 updated the already-established requirements for woodstoves, tightening the emissions limit to 4.5 grams of particulate matter per hour (g/hr). Prior to the 2015 NSPS, woodstoves had a limit of 7.5 g/hr. Pellet stoves are now required to be tested and certified by EPA while prior to 2015 they were not mandated to be tested.

Hydronic heaters and wood furnaces didn't have any federal requirements in place before 2015. Hydronic heater manufacturers, including Hardy Manufacturing, worked for years with EPA to develop a voluntary program that hydronic heaters could be tested to and be considered "EPA-qualified." The standards for hydronic heaters in Step 1 of the final NSPS included the requirements of that voluntary program. Hydronic heaters reduced emissions by 90 percent with Step 1 of the NSPS, going from completely unregulated to having a federal rule establishing an emissions limit of 0.32 pounds per million British Thermal Units (lb/mmBtu) weighted average.[2] Wood furnaces faced an even greater challenge, since the product category didn't have a voluntary program before the final EPA rule. Today, all new residential stoves and central heaters are subject to EPA's Step 1 standards.

[2] A weighted average is an average of all the test runs completed during testing. The average for Step 1 must be at or below 0.32 lb/mmBtu.

However, Step 2 of the rule, set to take effect May 15, 2020, dramatically departs from the data-driven nature behind development of Step 1. For hydronic heaters, which have already reduced emissions by 90 percent, EPA wants us to squeeze out additional emissions reductions, forcing this industry to reduce emissions by 98 percent in just five short years between Step 1 and Step 2 coming into effect. Step 2 would set an emissions limit of 0.10 lb/mmBtu for each of four individual burn rates (i.e. a particular test run) when testing with crib wood or 0.15 lb/mmBtu if tested with cord wood.[3] This is much different from what's required in Step 1 with very little time for transition between these two sets of standards in the rule.

We have spent years and millions of dollars industry-wide to develop sellable products based on test protocols that use weighted averages as the requirement for compliance. Even if a product can meet the Step 2 requirements, I believe it would not be consumer friendly, durable or affordable. To my knowledge there is not enough data to support that change.

WE ARE FACING A FUTURE LOGJAM IN TEST LABS

Assuming we have developed the technology, the entire industry – hundreds of products – must have products tested by one of five EPA-approved testing labs. With hundreds of appliances needing to be tested between now and 2020, there simply isn't enough capacity and time to provide equal opportunity and access to test labs to get all these products approved in time. For example, one large testing lab told us it has

[3] Unlike the requirements of Step 2, Step 2 requires hydronic heater manufacturers to meet a lower emissions limit (0.10 lb/mmBtu or 0.15 lb/mmBtu) during each individual test run, not the average of those test runs. Crib wood is dry pine, essentially a set of two-by-fours. Cord wood is regular firewood.

processed a total of 14 wood heaters in 12 months and one was sent back to the manufacturer for more work. Another lab, in the same time period, processed six appliances and 50 percent had to be sent back to the manufacturer to be redesigned. These numbers don't represent test labs at capacity as many manufacturers are still in the R&D stage.

Following valid testing by an EPA approved lab, manufacturers must then obtain a certificate of conformity from a third-party certifier. At the end of it all, EPA must review the entire certification package, which can take longer a considerable amount of time if there are any questions. All certification applications must go through EPA! Since most of the new cleanup technologies have to be invented and then developed to meet the Step 2 standards, there will be huge surge in testing needs as we get closer to the deadline with not enough capacity to get them approved in time. An additional three years allows the pressure to be lifted from the test labs and manufacturers to enable a steady stream of fully-developed products to be tested and reviewed by EPA.

If anyone has driven to a football game on a big game day, like the Egg Bowl where Mississippi State plays Ole Miss, everyone is going to the same place around the same time. You can't control what time the game starts or when the parking lots open in the morning around the stadium. You have no choice but to face traffic and delays on that route to the stadium. The one way into the stadium area acts as a funnel and can add a significant amount of time to reaching your destination and enjoying the game. You can make plans in advance, but you're still going to have to wait in line. Like the main road that leads to the football stadium, the test labs have a certain amount of space. If you try to push that space beyond its limits, everyone experiences a

slowdown due to the pressure to make it through to your destination, the big game, or EPA certification.

With May 15, 2020 quickly approaching, there will be more and more pressure put on test labs. In order to have products on retailers' shelves by May 2020 that meet Step 2, manufacturers must have products certified by EPA by the summer of 2018. Any manufacturer that begins testing after that point faces a high risk of not having products ready to pitch to retailers for the 2019-2020 heating season. If everything goes well in testing, the testing process takes about a week. But the time it takes for EPA to complete its review is uncertain, as EPA may have questions about the report or the manufacturer may have to go back to R&D before testing is even completed. Without a variety of clean and efficient products for consumers to choose from, the future of this industry and air quality will face many more challenges.

SMALL BUSINESSES SUFFER THE MOST

Manufacturers such as myself have made significant investments in R&D just to meet Step 1 of this rule. The majority of our industry, with one or two exceptions, is comprised entirely of small businesses. Our industry trade association, the Hearth, Patio & Barbecue Association (HPBA), found that R&D costs between $200,000 and $500,000, for each model, and can take more than a year to complete a prototype product. In addition to R&D costs, the average cost for lab space and time in a test lab costs about $20,000 or more, depending on how well the testing goes. These costs are then passed on to the consumer in the final retail price per unit. The R&D and testing that has to be done for today's more complicated engineering needs has increased the

price of products in a market that is highly price-sensitive, but some stability in the regulatory arena will allow those prices to lower as manufacturers recoup the costs expended in developing a final product.

The burden of spreading out these costs is much higher for small manufacturers. A larger manufacturer that sells 10,000 units a year can spread out the cost, for example, of $320,000 for development of one model by adding an extra $32 per unit to recoup the cost within a year. For a larger manufacturer that has to re-test up 30 models before 2020, they will have a total cost of $9.6 million. A small manufacturer that sells perhaps 1,500 units a year with that same per unit expense will have fewer units to spread that $320,000 cost and will have to add $213 to the price of each unit.

Small businesses will be hit hardest.

One small woodstove manufacturer, Kuma Stoves, located in Rathdrum, Idaho, employs 11 people, most of whom are the owner's family. The impact of this rule affects an entire family; this is a “do or die” moment for the future of the company as well as for the family. I understand that Kuma Stoves has no doubts about being able to eventually comply with the Step 2 standard for woodstoves, but they simply need more time. Being one of the smaller companies within the woodstove industry, it will simply take more R&D and lab time given the lack of resources that other larger companies may have. Further, it will take more time to recoup the cost of development, testing, and certification because they will need to spread out the cost of compliance over fewer units sold compared to larger

manufacturers who sell more units and can spread out costs more widely. Like many others in this part of the industry, for Kuma Stoves it isn't a matter of not being able or not wanting to comply, it is a matter of not enough time to comply in time for 2020.

At a time when public officials talk about promoting US small businesses, this rule as currently planned would have the opposite effect. Our industry and EPA alike need the effective date of Step 2 to be pushed back by three years in order to address technical issues with Step 2 and empower manufacturers to create the next generation of clean-burning wood heaters. Most NSPS standards are reviewed no more frequently than every eight years. This revision combines two revisions within one five year time period.

For some manufacturers, especially hydronic heater and wood furnace manufacturers, the move to Step 2 is much too soon for them to be able to recuperate from Step 1 losses. To date, very few wood furnaces and hydronic heaters have shown that they can meet the Step 2 standards. To further add to the mix, EPA is granting manufacturers, on a case-by-case basis, the ability to make changes to the test method to make it easier to pass. However, it is very difficult to determine with public information which products were tested under modified conditions. The playing field isn't balanced and it appears that it is being manipulated by EPA to justify their prior policy decisions. Already, manufacturers are considering how they can survive the storm that is to come with Step 2. Some manufacturers have made significant layoffs in anticipation of Step 2 and the need for any action that helps them survive, if at all. The

majority of factories in this industry are located in rural small- to-medium-sized towns and communities because that is where this industry started.

The 2020 rule is impacting business decisions, today.

Central Boiler, the largest manufacturer of outdoor hydronic heaters in the United States, located in Greenbush, Minnesota, expresses concern with meeting the fast approaching NSPS Step 2 deadline and the absence of a sell-through provision. Dennis Brazier, owner and CEO of Central Boiler states, "With no sell-through provision in the 2020 NSPS requirement, manufacturers would by now essentially need to have products that meet the demanding requirements and we do not. This is critical in order to keep supply in the pipeline, allow dealerships adequate time to completely sell and replace their Step 1 inventory prior to the 2020 deadline. The 2020 NSPS requirement doesn't truly give manufacturers and dealers five years to comply without a sell-through provision, nor does it give manufacturers enough time for adequate product testing and consumer education. It is for these reasons I appeal for a 3-year extension to comply with Step 2 of the NSPS."

The current EPA rules require that ALL wood-burning appliances sold after May 15, 2020 meet step 2 standards. That means that a significant majority of appliances currently or soon-to-be on the market – despite meeting standards promulgated less than three years ago – will be able to be sold even though they were manufactured prior to the May 2020 date. For many of us that means we must invent the technology, test it

and have it certified by EPA by the summer of 2018 in order to have products in stores by the May 2020 deadline. In reality, the heating season of 2019-2020 is the deadline for Step 2. May isn't exactly the time of year when people are thinking about buying a new wood heater. Retailers will only buy products from manufacturers in 2019 (or sooner) that already meet the Step 2 requirements.

Retailers have made these concerns clear in business decisions.

One furnace manufacturer witnessed the near-collapse of the furnace industry in 2016 due to uncertainty in the regulatory world. Combined with new regulations, election-related changes, and an unusually warm winter, it was a horrible year, especially for the wood furnace industry. Retailers are risk averse and didn't want to buy products leading up to 2016 that they might not be able to sell in later heating seasons. Between 2015 and 2016, this manufacturer reported a significant (more than 50 percent) decrease in volume. This year is thankfully looking to be a normal year, thanks to more political certainty, but this story is not unique to the furnace industry and will occur again as uncertainty strikes this industry in the lead-up to 2020.

For hydronic heaters, EPA is currently allowing manufacturers to use a U.S.-based method or a European method which is considered far easier to pass than the U.S. method. For Step 2, by contrast, EPA will not allow products tested with the European method during Step 1 to be manufactured or sold after the Step 2 May 15, 2020 effective date. To the public looking at EPA's list of EPA-certified hydronic

heaters, it looks like there are dozens of appliances that can meet Step 2 because they hit lower numbers using the European method. In reality, all of those products will need to be re-tested with the U.S. method if they want to be on the market after May 2020. The methods are very different. For example, the U.S. method requires that testing begins the moment before the fire is lit, starting with what we call a "cold start." The European method doesn't require a cold start. Testing in our lab showed that units tested and passed using the European method were significantly dirtier when tested using the U.S. method. In fact, one European-tested model that supposedly can achieve the Step 2 limit did not even come close to meeting the requirements when tested using the U.S. method. Certifying units that were tested using the European test method amounts to an unfair advantage and this uneven playing field directly impacts sales of American-made units.

All of these challenges force industry concentration and mergers, of bigger companies buying up smaller companies, or smaller companies simply going out of business. This is already happening today.

WHAT DOES THIS MEAN FOR CONSUMERS?

Many things in life are not impossible. Meeting Step 2 is not impossible, as EPA will tell you. However, being forced to meet this part of the rule in such a tight timeframe will increase the cost of appliances that do make it through testing. You can either take the time to efficiently develop a very clean burning product at a low cost or you can expedite the process and end up with a product that passes the Step 2 test

(perhaps just one lucky test series) but it doesn't work as well as it could for the consumer and the price point will start out high.

Clean, effective, and affordable products need time for development.

One woodstove manufacturer, located in Morrisville, Vermont, makes very attractive, unique, and clean woodstoves made out of soapstone and cast iron. All 13 of their current EPA approved models are cleaner than EPA's current emissions limit of 4.5 g/hr. In order to redesign or create new models that might meet Step 2, changes that would need to be made, in such a short time frame, would dramatically increase the price of the product by $800 to $1,000. It is likely that consumers wouldn't pay this premium. With more time, manufacturers could find a more elegant and effective solution to decrease emissions even further than we already have.

Like manufacturers, retailers are making business decisions right now based on the Step 2 2020 requirements. It can sometimes take up to five years for a retailer to sell a hearth product from the time they purchase it from a manufacturer. With that in mind, many retailers aren't purchasing products from manufacturers that don't already meet the 2020 requirements. Even though it is still 2017, in practice the effective date is already having an impact. Manufacturers could be performing R&D on bringing down prices of existing products and making them more appealing to consumers looking for alternative and affordable ways to provide heat for their family, but instead many

manufacturers are focused on getting at least one of their products into compliance with the 2020 requirements.

CLEAN AIR IMPACTS

The requirements of Step 2 will make products even more expensive and less affordable for consumers, hindering the real goal here: to help air quality. Although products that pass Step 2 will have lower tested emissions rates, more people will hold onto older stoves and repair them rather than replace them with newer EPA-certified appliances. Across the U.S., woodstove changeout programs have removed thousands of older non EPA-certified appliances and replaced them with newer, more efficient and cleaner burning EPA-certified stoves. This is where the largest emissions reductions are gained, not from regulations.

Stove changeout programs work.

In one town, Libby, Montana, the entire town had all non EPA-certified stoves removed and replaced with EPA-certified stoves. The local air quality agency measured particulate matter levels indoors and outdoors before and after the changeout. A year later, measurements during winter months showed an average of a 72 percent improvement in indoor air quality and a 28 percent improvement in outdoor air quality.[4]

But, if the price of products increases, fewer appliances will be able to be changed out and less emissions reductions will be realized.

[4] Hearth, Patio & Barbecue Association. (2008). *Preliminary Report: Clearing the Smoke: The Woodstove Changeout in Libby, Montana.* Retrieved from https://www.hpba.org/Initiatives/Woodstove-Changeouts/Success-Stories/Libby-Montana-Changeout

Before the NSPS was updated in 2015, woodstoves were already regulated by the first NSPS, which was last amended in 1990. The current NSPS regulated pellet stoves, hydronic heaters, and wood furnaces for the first time. By EPA's own estimate, the Step 1 hydronic heater standard represents a 90 percent reduction in emissions compared to uncontrolled appliances. All products covered by this rule will remain regulated by Step 1 regardless of when Step 2 comes into effect. Delaying Step 2 by three years will have a very minor impact on the environment.

CONCLUSION

By not delaying the Step 2 effective date, more harm would be done due to the reasons discussed above. More time will allow my company and the rest of the industry to develop less expensive alternatives that will encourage consumers to replace their older appliances with today's (and tomorrow's) latest technologies.

My company has worked in good faith with EPA and the state air agencies to develop reasonable standards for outdoor hydronic heaters. Our industry wants federal standards, but they need to be achievable and not put the majority of an industry out of business. I urge you to pass H.R. 453 and give more time to an industry that has made millions of dollars in investments to develop affordable and independent heating options for our customers, your constituents. This is a commonsense request that isn't asking for a mountain to be moved, only the effective date of a not-yet-in-effect rule that wasn't given enough time to come to fruition. Our company will continue experiencing a

downward spiral if we don’t get this extension. Thank you for your time and listening to me today. I am now happy to answer any questions you may have.