



**Comments of United States Stove Company on the U.S. Environmental Protection Agency's (EPA) proposed rule; "Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces"**

**Non-CBI(Confidential Business Information) Version**

**Docket ID No. EPA-HQ-OAR-2018-0195**

**RIN 2060-AU00**

**83 Fed. Reg. 61,574 (November 30, 2018)**

**January 10, 2019**

### Introduction

United States Stove Company (USSC) appreciates the opportunity to comment on the U.S. Environmental Protection Agency's (EPA) proposal to revise its 2015 rule, "Standards of Performance for New Residential Wood Heaters, New Residential Hydronic Heaters and Forced-Air Furnaces." We have been in the solid fuel heating industry since 1869, making our company the oldest manufacturer of wood heating appliances in North America. We are a privately held small business with currently less than [redacted-CBI information] employees and we have manufacturing facilities in Tennessee, Alabama and Canada. USSC currently offers products in the US marketplace in all but one of the categories of affected facilities. To elaborate on this, we offer for sale wood heaters, single burn rate wood heaters, wood pellet heaters as well as wood and wood pellet fired forced-air furnaces. The 2015 NSPS for residential wood heaters has vastly impacted our company, and the second particulate matter (PM) emissions limit step (Step 2-effective May 15, 2020) of that poses a bleak outlook without some sort of change within the regulation. From the end of 2014 (pre 2015 NSPS) to today we have... [redacted-CBI information]

USSC fully supports the EPA's proposal for a two-year sell-through period of Step 1 products (compliant to May 15, 2015 PM emissions limits) at retail for 40 C.F.R. Part 60 Subpart QQQQ products, so long as they are manufactured before May 15, 2020. We also feel that it is paramount to provide the same sell-through at retail for all 40 C.F.R. Part 60 Subpart AAA products. We also feel, based on feedback from our retail partners, that a full 2 years of retail sell-through is sufficient to properly transition retailers through virtually all of their Step 1 inventory so they are not stranded with unsalable inventory, all of which are already clean burning.

### EPA Has Established Precedent for Retail Sell-Through in Previous Wood Heater Rulemakings

The EPA has established precedent in the 1988 standards for new residential wood heaters, by providing two years of retail sell-through. In the case of the 1988 EPA rule, the goal of the sell-through at retail provision was to help transition from previously unregulated products, to PM emissions compliant products. This meant taking very high PM emitting products (60-70 g/hr) and transitioning into relatively low PM emitting products (7.5 g/hr). Again, the 2015 EPA rule followed prior precedent by providing retail sell-through of products to December 31, 2015 so long as they were manufactured before May 15, 2015. The justification for a shorter retail sell-through in this case compared with the 1988 rule, was that most of the products in the marketplace already met the 2015 PM emissions limits. Historically, the EPA has recognized the importance of retail sell-through as a regulatory tool to maintain vitality within the industry.

However, when looking at the transition from Step 1 products to Step 2 (compliant to May 15, 2020 PM emissions limits) it appears it was simply omitted. Clearly the EPA recognizes that this is an issue, as there is this proposal to revise Subpart QQQQ to include retail sell-through, and they are seeking comment on including retail sell-through for Subpart AAA. Today we are requesting 2 year sell-through of clean products (4.5 g/hr for woodstoves and 0.93 lb/mmbtu for forced-air furnaces) to properly transition to slightly cleaner products in a relative sense as required by Step 2 emissions limits.

Although the limit for Step 1 Subpart AAA woodstoves is 4.5 g/hr, our line of woodstoves averages 3.1 g/hr, 32% below the limit of Step 1. Our Step 1 pellet stoves average 1.55 g/hr., 66% below the Step 1 limit. Our Step 1 Subpart QQQQ forced-air furnaces average 0.44 lb/mmbtu's, 53% below the Step 1 limit of 0.93 lb/mmbtu's. We highlight these numbers, because you will hear from other sources that giving sell-through will significantly impact the airshed. We believe these numbers disprove that argument. Furthermore it has proven throughout the industry that wood moisture, the use of real cordwood instead of cribs, the product installation and by in large the use practices by the homeowner have a huge impact in overall emissions of a product. With those factors weighing, the difference to an air shed between having a product that is 4.5 g/hr versus having a product that 2.0 g/hr is negligible.

#### The Cost of Meeting the 2015 NSPS for Residential Wood Heaters

As previously mentioned above, USSC has products in nearly all the affected categories of the 2015 NSPS. This has required us to redesign, and/or test every model line to even attempt to achieve the requirements of Step 2. At USSC we analogize the 2015 rule for residential wood heaters to the feat of climbing Mt. Everest, you have to strategically take one step at a time. Beginning in 2014 our company commenced testing on previously uncertified wood pellet stoves to be prepared for the 2015 PM emissions requirements. We maintained our whole wood pellet line. Next, our company worked on certification for the single burn rate wood heater sector of our business. Prior to the 2015 rule, single burn rate products were an unaffected facility. We introduced 4 new 2015 compliant single burn rate wood heater models to the marketplace. It was then on to forced-air furnaces. After 2 years of product testing, we have 8 base models on the EPA certified wood furnace list. Those were the steps to maintain our core business as a direct result of the Step 1 PM emissions requirements. We have worked very hard to maintain our key revenue streams in order to financially support product development leading up to 2020, but the huge feat of transitioning our product lines to meet 2020 PM emissions standards was next, and after all the prior testing we were already in Q1 of 2018. Now testing products for 2020, we have to start out by retesting all of our existing wood pellet stoves to the new 2015 method, even though their pre-2015 test method emissions limits fall below the new 2.0 g/hr limit. We have tested or are in the process of testing, all but 3

pellet models for the new Step 2 standards. Our woodstoves, single burn rate woodstoves, and furnaces are all in the process of redesign and R&D testing now for 2020 certification. Without revenue from the final year and a half before the Step 2 emissions limits come into effect, it makes it very difficult to test and certify our entire product line. Just as important as revenue is time. With backlogs at EPA certified test laboratories continuing to get worse, time is also just as critical for certifying all residential wood heaters to the Step 2 standards. It typically take 12-18 months to develop a new wood burning products from start to finish. [redacted-CBI information] To put these numbers into perspective, we currently have 16 active woodstove certificates on the EPA list meeting Step 1 that we sell today in the marketplace. These are 16 certificates, we have multiple sub-models on these certificates. These are models we have the potential of losing needed revenue in the upcoming heating season due to lack of sell-through. We are working with forced-air furnaces to try to meet the 2020 standard. [redacted-CBI information]

Specifically looking at Forced-Air Furnaces, the current NSPS required us to take a non-affected facility and engineer multiple models first to the Step 1 requirements. For US Stove, that translates to 8 certificates. EPA has estimated the development costs, which in our experience is low at \$162,000. By using that number, our 8 certificates would translate to \$1,296,000. From our experience, a new EPA certified product ultimately costs our company [redacted-CBI information], test and get ready for the marketplace. Using an average of \$350,000 per item that cost is more like [redacted-CBI information] worth of development cost. We have not achieved a Step 2 compliant furnace despite our best efforts. We have put significant investment into research and development, so we are not sure what the final development cost will be, but we know it will be significantly more than the [redacted-CBI information] that we have become accustomed to, if we are able to meet the Step 2 limit.

#### How the Retail Landscape for USSC is Affected

The EPA's current proposal states that "a substantial number of retailers are already reducing or ending their purchases of Step 1-certified wood heating devices from the manufacturers because they are concerned that they will not be able to sell these devices before the May 2020 Step 2 compliance date and will be left with unsalable inventory".(83 Fed. Reg. at 61.578). Our company has direct experience with this for both our Subpart QQQQ products as well as our Subpart AAA. Reorders are not occurring at the end of the 2018-2019 heating season, and many of our major retail partners are saying that they will not take product for the 2019-2020 unless it is 2020 certified, for fear of being stranded with uncompliant product as of May 15, 2020. It is important to note that our major retailers do not differentiate between Subpart QQQQ and Subpart AAA products. To them these types of product are all wood heating and are treated as one category. Of course, end consumers (homeowners) *do* differentiate between the various

types of stoves and furnaces and our experience has been that homeowners want a specific type of product (for instance, a non-catalytic wood stove instead of a pellet stove or a wood or pellet stove that goes into a living room instead of a furnace that goes in a basement) that falls within a specific price range.

USSC sells a majority of its products through mass merchant retailers. This includes Tractor Supply Company, Home Depot, Lowes, Menards and even Amazon. These companies display our wood heating products only during the first half of the heating season (with the exception of Amazon being an ecommerce retailer). It might be beneficial to note, these mass merchants begin to review their whole heating programs (product offerings) for the next season in October and November. The programs are being set (meaning finalized) in January with product orders beginning to be placed to us in March for the following heating season. This timeline clearly demonstrates why your final decision on this proposal is so critically needed now.

Stores are typically set with wood heating product displays shortly prior to Labor Day, and after the New Year they begin to transition and replace heating product with spring lawn and garden items. Effectively 4 months on the showroom floor as a selling season. Like many other seasonal products, these retailers take advantage of the time of year consumers will be buying these kinds of products. Weather is a pivotal factor on the success or failure of the selling season. It is common for mass merchant retailers to carry-over somewhere between 25-35% of their annual purchases to the next year. This number translates to between [redacted-CBI information] of USSC inventory that is typically carried over by the retailers. These merchants, often publicly traded, won't afford to be saddled with inventory they cannot sell the following year because of the May 2020 deadline. In order to maintain business relationships, USSC will either have to buy product back or pay for markdowns (payments or credits to retailers to be able to discount products as sale items at retail) of retail prices.

We are seeing three major things happen with these retailers today.

1. Retailers are telling us they will not buy any product, both Subpart QQQQ and Subpart AAA items, that is not 2020 certified for the 2019-2020 heating season. These retailers have told us they would continue to buy Step 1 product if retail sell-through was granted. Several retailers in this case have ceased any reorders for the 2018-2019 selling season and have already been requesting markdown money from our company now to offer sale prices on the existing Step 1 inventory, so that they can be sure that they will run out of it before the 2019-2020 selling season. [redacted-CBI information]
2. Retailers will be drastically scaling back their orders so not to be saddled with 25-35% leftover inventory rolling into May 2020. These retailers have also told us they would

continue to buy Step 1 product in normally projected volumes if retail sell-through was granted.

3. Retailers are planning on purchasing normal amounts of Step 1 inventory in the hopes of a strong 2019-2020 selling season, but they will ultimately rely on USSC with markdown money and buybacks if their sales are not as expected. This is because these retailers simply do not have any choice for the markets that they specialize in (i.e. an example being extremely low cost heating products), given the available step 2 products of today.

So in looking at this picture as a whole with retailers, we project that the [redacted-CBI information] of carryover inventory dollars is at minimum lost (through lost sales, buybacks, and product markdowns) in the 2019-2020 selling season without retail sell-through for all residential wood heaters. We also know that there stands the potential to be much more loss. With USSC being a small business we simply cannot afford to sustain these losses, and still be testing and certifying a complete product line for 2020.

Just to establish some perspective we have put together a snapshot in the chart below of our overall sales at retail for wood stoves and forced-air furnaces before the 2015 rule (2014), the 2018 selling season, and our projections for 2019 based on current conversations with our retail partners. Retailers concern without having sell-through is directly correlated to a downturn in revenue for US Stove; revenue we need to continue the capital expenditures directed to design, development, and certification of Step 2 compliant products.

[redacted-CBI information]

Chart 1: USSC Annual Sales Broken Down by Product Category

*(Note: 2014 represent pre-2015 rule product sales and 2019 is a projection without retail sell through)*

### Benefits of the 2-year Sell-Through Provision

By granting the proposed sell-through for both QQQQ and AAA products, retailers will have the confidence to place orders for the Step 1 products knowing they have the time to move these items through their inventory stream. In addition, consumers will continue to have a wide choice of options for these products to fit their individual requirements of heating.

As you are aware, there is only 1 forced-air furnace certified to the Step 2 standard. It should also be pointed out, this this product only met the Step 2 standard by testing to an EPA approved alternative test method, not the complete CSA test method that is designated in the 2015 Rule.

This one product retails for \$5,295(as found on an internet search). This retail price is well beyond what we have found the average consumer is willing to pay for this type of product. They will simply turn to other central heating technologies that are more cost effective, and invest their available funds in more efficient electric, gas, geothermal, or alternate non-wood burning technology. We experienced that with 2 models we brought out into the marketplace in 2014 that were able to meet Step 1 PM emissions. These two models were a higher end version of a furnace relative to the balance of our forced-air furnace line of products. At the time they were more efficient and clean burning relative to the balance of our forced-air furnace line. We experienced that these 2 products simply would not sell just because of their price point in the marketplace, and that price was less than half of the current \$5,295 retail of the only Step 2 furnace. We have determined and experienced if a forced-air furnace is priced at retail beyond \$1,500, the consumer looks for alternative models or appliances with different heating sources (i.e. electric, gas, geothermal, and etc) for their central heating requirements. It is important to note we are the largest producer of wood burning forced-air furnaces in the industry, so this experience is well warranted.

Therefore, by granting the sell-through, consumers will continue to have a choice of forced-air furnaces, while new more cost-effective technologies can continue to be developed. Without the sell-through, the vast majority of this category of products will be eliminated in the marketplace simply by the cost of the product itself.

### Conclusion

Because these products are seasonal, we strongly support a 2 year sell-through period. Our retailers need the confidence to know they won't be burdened with unsellable Step 1 products in both Subpart QQQQ and Subpart AAA categories. Yes, there are Step 2 compliant products available in today's marketplace, but that number is relatively small for market diversity across all price ranges especially with woodstoves and forced air-furnaces. This limits consumer choice and market variety of proven appliances. The number of these products is totally independent of the need for sell-through for all residential wood heaters. Retailers can't afford to be left with unsellable products, and manufacturers can't afford to buy back these products, or the loss in sales in such a critical time of introducing new products to the marketplace.

There are still millions of old unregulated wood stoves in American homes. These products are still contributing large amounts of PM emissions into air sheds, and the only real way to improve that is to replace them with cleaner burning products. This sell-through would continue to allow consumers to purchase affordable, clean burning replacements for those old unregulated products. In addition, manufacturers are able to have the full 5 years between 2015 and 2020 to develop Step 2 compliant products and have sufficient revenue from steady retail sales to do so. Without sell-through for all wood heaters, it could actually become

counterproductive in replacing these old dirty unregulated woodstoves, simply through increased product cost and limited consumer choice in the marketplace.

We strongly support the 2 year sell-through provision being proposed for both Subpart QQQQ and Subpart AAA. We also ask you to do this as expeditiously as possible, because our retailers are making their final decisions for what they will buy for the 2019-2020 heating season now. We know that this is a win-win for all businesses involved in this industry, and it ultimately has a minimal impact on the environment as the products in this sell-through provision are already clean burning.