

Confidential Business Information
OAQPS Document Control Officer (C404-02)
OAQPS, U.S. Environmental Protection Agency,
Research Triangle Park, North Carolina 27711
Attention Docket ID No. EPA-HQ-OAR-2018-0195

Subject:

COMMENTS OF JOTUL NORTH AMERICA ON EPA'S PROPOSED RULE;

"STANDARDS OF PERFORMANCE FOR NEW RESIDENTIAL WOOD HEATERS, NEW RESIDENTIAL HYDRONIC HEATERS AND FORCED-AIR FURNACES"

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

To Whom It May Concern:

Jotul North America, located in Portland, Maine (100+ employees building ■■■ stoves/day) pre-sells ■■■% of our business in first 6 months of any given year through our Early Buy Program. This allows dealers to forecast a portion of their business and to receive inventory to prepare for the busy season. Jotul dealers and distributors are incentivized via cash discounts and/or extended terms to take inventory ahead of the busy season (Sept-Dec). This also allows Jotul to level load production and build to order 10 out of 12 months for a given year with July and August building to a forecast as order inflow slows down.

With this Early Buy Program, we also balance our shipments with March and April sometimes being nearly as busy as September and October. Early Buy programs are a standard practice in our industry. It helps the industry minimize the seasonality of our business, particularly with our wood stoves and inserts.

Jotul distributes to specialty hearth dealers either directly or through exclusive two-step distribution. ■■■% of our business is dealer direct and ■■■% is two-step distribution. ■■■% of our turnover is in Canada. The other ■■■% in US.

With no sell-through extension (beyond May 15, 2020) for wood stoves and inserts, this creates a significant decline in our Early Buy Program's wood order flow making our production much more speculative (building to a forecast instead of to actual Early Buy orders).

CBI: 1/10/2019

Our dealers and distributors will be reluctant to speculate and to bring in wood inventory other than what is sold. We are forecasting up to a █% decline in our wood stove and insert Early Buy order flow for 2019. The below forecast projects an overall █% decline in our 2019 wood sales.

Year	Wood	Wood % (of overall unit business)
2015	█	█
2016	█	█
2017	█	█
2018	█	█
2019*	█	█

*Projection

The dollar impact of this wood decline of approximately █ units (@ \$ █ avg. invoice to dealer) equals \$ █ mil in lost wood sales revenue. This revenue loss not only impacts our profits but it also impacts our ability to build to order and therefore our business becomes more seasonal. We would be **forced to reduce our current full-time workforce** in the busy season when we are set up as a Lean Production System level-loading year-round which requires stable employment levels for a given number of assembly stations. Less profits means more pressure on lowering Capital Expenses used for re-engineering our 14 wood models to EPA 2020 standards.

With the 2020 deadline, our line of 14 wood models will be pared to █ models so we also have a
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huge exposure to scrapping massive amounts of obsolete cast iron shipped from our parent company from Norway with 12-week lead times. Jotul is exposed more than most manufacturers on this matter of scrapping raw material in the millions of dollars. We hold \$ [REDACTED] mil of raw cast iron and going from 14 models to 5 wood models creates an obsolete inventory exposure of **at least** \$ [REDACTED].

From a manufacturer's perspective, a May 2020 compliance deadline does not mean we will have until May 2020 to develop compliant products. We effectively needed to have May 2020-compliant products ready to sell in 2018 because some retailers and distributors have been telling us that is all they will buy from 2018 onwards.

The following is a rough range of investment for new product development that we have experienced to date for the several products we will have ready soon for EPA 2020. These costs include design engineering, prototypes, in house development testing, foundry and any other tooling, and agency certifications for EPA and safety.

Jøtul North America has developed new technology for 2020 which is of novel design with patent pending status. The R&D work began in June of 2015, immediately after the new NSPS became effective, and has taken over 3 years to come to complete overall design, in house testing and conduct third party agency EPA and safety certification testing. Over the course of developing we accrued \$ [REDACTED] for initial experimental design and prototyping to a point that it looked that the concept was viable to go into full project mode. After entering full project mode we anticipated at least another \$ [REDACTED] to finish the project for commercialization. Another significant consideration for this project is that we renovated an existing stove and we were able to salvage 80% or better of the original iron casting and associated foundry tooling. Had this been an entirely new design with all new cast iron parts, the new foundry tooling cost could have been upwards of an additional perhaps \$ [REDACTED].

Of this significant investment of time and money the result is a new product for 2020 that will be certified at significantly less < [REDACTED] g/hr, with exceptionally high efficiency and surprising low first hour emissions. However, the result being a significant increase in retail cost, in the vicinity of [REDACTED]. This means less sales and people will be buying spare parts for non-compliant stoves for a long time moving forward.

The next projects we have in line are also redesigns and innovation to existing products. In that case we are looking at a range of \$ [REDACTED] - \$ [REDACTED] for completion. Again, these projects are salvaging existing tooling. Otherwise the project costs would rise exponentially. Projects following these “redesign projects” are anticipated to involve more foundry tooling cost and subsequently much larger sums of capital investment.

Jøtul is primarily a cast iron stove manufacturer. With that there is very significant associated foundry tooling cost, a cost that is not a dominant factor for steel stove manufacturers. Regarding tooling cost, the bigger the model the more the tooling cost. Each foundry tool costs around \$ [REDACTED]. For example, with one of Jøtul’ largest stoves such as the F 500, parts such as the top, front, back and sides and bottom are large enough to each require an individual foundry tool. So with that, just to achieve the basic exterior shell without all the interior components requires a tooling investment of nearly \$ [REDACTED].

The revenue generated by product sales is essential for new product development. Unlike many industries, the hearth products industry has very little to no availability of research grant money or similar funds to further research & development efforts. The industry is extremely reliant on strong revenue and solid cash flow to finance research & development to meet new regulatory challenges.

Additionally, the new patent pending design will be significantly more expensive than its original predecessor. Wood stove users are very price sensitive as they typically use woodstoves to save on heating cost. So, the question then becomes, can the new model be relied upon to generate the same level of revenue of the model it will replace. If no, it will be a net loss in revenue following a very significant capital investment. That outcome is obviously not favorable to a profitable business model.

Sincerely,

Bret M. Watson
President/CEO – Jøtul North America

