Manufactured Housing Institute

July 10, 2015

Ms. Brenda Edwards
U.S. Department of Energy
Building Technologies Program, Mailstop EE-5B
1000 Independence Avenue SW
Washington, DC 20585-0121

RE: Energy Conservation Standards for Residential Furnaces;
Docket Number EERE-2014-BT-STD-0031

On behalf of the Manufactured Housing Institute (MHI), the national trade association representing manufacturers, retailers, lenders, suppliers, land lease community owners and 48 State Manufactured Housing Associations, we appreciate the opportunity to provide comments on the Department of Energy's (DOE) notice of proposed rulemaking (NOPR) regarding amended efficiency standards for residential non-weatherized and mobile home gas furnaces issued in the March 12, 2015 *Federal Register*. 80 Fed. Reg. 13,120.

Recognizing that residential buildings have the greatest potential for significant energy savings, MHI supports efforts to improve energy efficiency in residential buildings. However, we are concerned that the proposed rule to establish a nationwide 92% AFUE energy standard (replacing the current 80% AFUE standard) will significantly increase costs for natural gas consumers, and force many to switch to less efficient alternatives. Such an outcome would undermine the energy efficiency goals that DOE intends to meet as required by the Energy Policy and Conservation Act.

For the replacement market, furnace products rated at 92% AFUE require a dedicated venting system to meet positive vent pressures. This dedicated system is particularly problematic in the replacement market because it alters the performance characteristics of commonly vented applications such as found with a gas furnace or a gas water heater. For manufactured housing, the problem is exacerbated, because of the separate product class furnaces that are produced solely for the manufactured (mobile) home market. If this higher standard is adopted, consumers will be required to take additional steps to comply with proper venting requirements in existing homes. In many instances, it would be impractical, if not impossible to install a condensing furnace because of the home's structural framework. In such cases, homeowners would be forced to switch to other, less efficient forms of heating. The American Gas Association conducted a nationwide survey of electric and gas furnace contractors showing that 20% of homes that heat today with noncondensing natural gas furnaces would not be able to install a condensing furnace because of the home's framework or other issues.

Simply establishing a nationwide standard that is applicable to every installation is not reasonable. There are situations where homeowners may not be able to install a condensing furnace in their home or may not be able to afford the additional cost associated with installation of this type of furnace.

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The proposed rule will be particularly burdensome to many of the 22 million Americans, residing in just over 8.7 million manufactured homes. Although manufactured housing is sold to buyers at all income levels, it primarily serves low and moderate income families. The median annual income for residents f manufactured homes is $28, 400—half that of traditional "site built" owners. DOE's own analysis indicates that low-income households are disproportionally likely to pay higher costs under the proposed rule. Low income homeowners have limited access to credit to finance a new furnace, creating additional hardships.

Many low income homeowners do not have the luxury of worrying about lowering operating costs over an extended period of time. Rather, their primary concern is whether they can afford the new appliance at all, even without the cost hurdle of installing new venting and other retrofits. MHI disagrees with DOE's assertion that there will be virtually no switching to other types of fuel in the manufactured home market. For these residents, the higher costs for a condensing gas furnace could likely force them to switch to a less efficient electric furnace, resulting in higher monthly utility bills.

Also, the majority of manufactured homes are located in the South and Southwest, where condensing furnaces make little economic sense. According to DOE's own data, the proposed 92% AFUE standard would result in 31% of consumers in the south seeking to replace an existing non condensing furnace to experience a net- cost (versus a net- benefit) over the life of the furnace. The costs become more burdensome if vents, ducts, and other modifications are made to ensure maximum efficiency. It would be likely that homeowners with little or no discretionary income would replace the furnace, but not improve or repair ductwork, venting, etc., further negating any energy savings from the more efficient furnace.

The proposed rule will have a negative cost impact on new manufactured home construction because all existing "down-flow" furnace design packages will need to be revised. Of greater concern for new construction, will be the added cost burden of meeting new standards for furnace fans which will become effective in 2019. The majority of new manufactured homes installed with gas furnaces utilize a fan with a "PSC motor" which will likely not meet the new furnace fan requirements. Installing a fan with an upgraded "brushless DC motor" will be an added cost, on top of the additional cost burden requiring a condensing furnace.

Furthermore, DOE is in the process of establishing new energy efficiency standards for manufactured homes which will add significant costs to the price of a new manufactured home. The cumulative costs for new appliance standards as well as overall building efficiency standards will add significant costs to the price of a new manufactured home. Manufactured homebuyers are particularly sensitive to price increases because of their limited incomes and very limited access to credit. As an example, the National Association of Homebuilders estimates that, in 2014, the average priced single section home, including lot development, was $53,230. Increasing the price by $1,000 will disqualify 347,901 households that would unable to afford the home. The proposed energy efficiency standards for manufactured housing developed by the DOE's ASRAC (Appliance Standards Rulemaking Advisory Committee) Working Group on Manufactured Housing, will likely increase the cost a new single section manufactured home by an average of $1,734. Adding an additional cost for a condensing furnace and an upgraded furnace fan, could mean that more than one million households would be unable to afford this average priced single section home.

Finally, MHI believes that taking a piecemeal approach to improving energy efficiency in appliances, without considering the entire building envelope, is counterproductive. It has been demonstrated that taking a more holistic approach to energy efficiency in buildings is more cost effective, and saves more energy in the long run.

In summary, MHI urges DOE to reconsider its proposed "across the board" nationwide standard for new residential furnaces. The current standards should be maintained, until more technical solutions are developed to address concerns regarding retrofitting and to avoid the real possibility of switching to less efficient, more expensive forms of energy.

Sincerely,

Lois A. Starkey, Vice President
Regulatory Affairs