

Appliance Standards Awareness Project
Natural Resources Defense Council
Alliance to Save Energy
American Council for an Energy-Efficient Economy
Consumer Federation of America
National Consumer Law Center
Northeast Energy Efficiency Partnerships

July 1, 2015

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

RE: Docket Number EERE–2012–BT–STD– 0047/RIN 1904–AC88: Notice of Proposed Rulemaking for Energy Conservation Standards for Residential Boilers

Dear Ms. Edwards:

This letter constitutes the comments of the Appliance Standards Awareness Project (ASAP), Natural Resources Defense Council (NRDC), Alliance to Save Energy (ASE), American Council for an Energy-Efficient Economy (ACEEE), Consumer Federation of America (CFA), National Consumer Law Center (NCLC), and Northeast Energy Efficiency Partnerships (NEEP) on the notice of proposed rulemaking (NOPR) for energy conservation standards for residential boilers. 80 Fed. Reg. 17222 (March 31, 2015). We appreciate the opportunity to provide input to the Department.

Based on DOE’s analysis for the NOPR, we support the proposed standard levels for residential boilers.¹ DOE estimates that the proposed standards would save 0.26 quads of energy over 30 years of sales and save consumers \$0.6-1.7 billion in net present value savings.² DOE found that for hot water boilers, which make up the vast majority of the market, there are more than 90 gas-fired models and more than 140 oil-fired models that are rated at the proposed standard levels (85% and 86% AFUE, respectively).³ We note that the ENERGY STAR specification for gas-fired boilers prior to October 2014 was 85% AFUE, and the current specification for oil-fired boilers is 87% AFUE.⁴

¹ We note that the economics of condensing levels for residential boilers are not as strong as they are for residential furnaces, where we strongly support condensing levels.

² 80 Fed. Reg. 17225-26. Sum of savings from proposed AFUE standards and proposed standby and off mode standards.

³ Technical Support Document. p. 3-13. Figure 3.2.4.

⁴ Technical Support Document. p. 3-10.

We encourage DOE to continue to evaluate condensing levels for hot water boilers and to incorporate emerging technology such as DuraVent in the analysis. The NOPR notes that DOE strongly considered TSL 4,⁵ which includes condensing levels for both gas-fired and oil-fired hot water boilers. DOE estimates that the national energy savings at TSL 4 would be more than five times greater than the savings at the proposed standard levels (TSL 3).⁶ Incorporation of lower-cost venting solutions for condensing boilers in the analysis may improve the economics of condensing levels for hot water boilers. In the analysis for the residential furnaces NOPR, DOE considered an installation scenario using a venting solution offered by DuraVent.⁷ However, DOE did not incorporate the DuraVent technology in the analysis for the residential boilers NOPR. We understand that as with condensing furnaces, the DuraVent technology can help address difficult installation situations with condensing boilers by allowing for venting both a new condensing boiler and an existing atmospheric water heater through the existing chimney.⁸ We encourage DOE to incorporate the DuraVent technology in the analysis, and more broadly to consider innovative installation technology that would likely emerge with increasing experience and learning.

We encourage DOE in the future to consider additional opportunities to reduce standby and off-mode energy consumption. DOE should examine whether it is technologically feasible to achieve much lower levels of standby and off-mode energy consumption, e.g., by using a control relay to completely disconnect any permanent magnet motor and other controls when not in use. To address concerns regarding potential product life impacts, DOE should assess whether this could be done in a smart manner to minimize the number of power cycles, for example by only disconnecting when the boiler has been inactive for more than 24 hours. This approach would achieve the desired results during long periods of inactivity, such as during the summer, without cycling on and off during periods of regular activity.

Thank you for considering these comments.

Sincerely,



Joanna Mauer
Technical Advocacy Manager
Appliance Standards Awareness Project



Robin Roy, Ph.D.
Director, Building Energy Efficiency and
Clean Energy Strategy
Natural Resources Defense Council

⁵ 80 Fed. Reg. 17291.

⁶ 80 Fed. Reg. 17281. Table V.28.

⁷ Residential Furnaces Technical Support Document. Appendix 8L. Document ID: EERE-2014-BT-STD-0031-0027.

⁸ http://duravent.com/docs/product/L358_W.pdf.



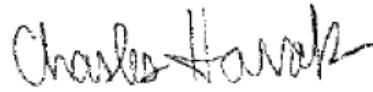
Kateri Callahan
President
Alliance to Save Energy



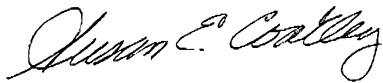
Harvey Sachs
Senior Fellow
American Council for an Energy-Efficient
Economy



Mel Hall-Crawford
Energy Projects Director
Consumer Federation of America



Charles Harak, Esq.
National Consumer Law Center
(On behalf of its low-income clients)



Susan E. Coakley
Executive Director
Northeast Energy Efficiency Partnerships