



September 21, 2015

Ms. Abigail Daken
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U.S. Environmental Protection Agency
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1200 Pennsylvania Avenue, N.W.
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Ms. Daken,

Thank you for the opportunity to comment on the Draft 1, Version 1.0 ENERGY STAR Program Requirements Product Specification for Commercial Boilers. The specification, cover memo and webinar have all been helpful communication tools.

We question the value of the application of ENERGY STAR to non-consumer products and the resulting energy savings projected by your department's analysis. Currently, energy efficiency rebates are offered based on the efficiencies posted on VICP product directories serve as a significant incentive for the sale of high efficiency boilers. Also, the Consortium for Energy Efficiency (CEE) has published an excellent guide to encourage informed system design that optimizes efficiency and economics. While the ENERGY STAR brand is widely known and potent, we do not believe the impact will translate to Commercial Boilers unless additional financial incentives are attached. We recommend that commercial boilers not be added to the ENERGY STAR program.

If commercial boilers are included in the ENERGY STAR program, we recommend the following revisions to the Draft 1, Version 1.0 ENERGY STAR Program Requirements Product Specification for Commercial Boilers:

Excluded Products:

Remove the exclusion for boilers greater than 2.5MBtu/h. Many commercial boiler product families cross the 2.5MBtu/h boundary and excluding a portion of the family for a non-energy conservation reason will create confusion. As long as the large commercial boiler performance is verified by a VICP there is no reason ENERGY STAR should exclude their participation based on input rating.

Energy Efficiency Requirements:

If the exclusion for large commercial boilers is removed, the efficiency metric for boilers over 2.5MBtu/h should be combustion efficiency to maintain alignment with the metrics used by the DOE. We recommend that the same numerical minimum efficiency limit be applied to both the thermal and combustion efficiency required. If this recommendation is accepted, the definition of combustion efficiency should be copied from 10 CFR Part 431.82 and added to the definitions section of the requirements. We would not object to the exclusion of field erected or non-packaged boilers.

Align the requirements more closely to the residential boiler program and set a minimum efficiency of 90% and Use the ENERGY STAR Most Efficient program to further differentiate top tier products with 95% or better efficiency. This option will promote the use of condensing boilers and promote low temperature system design while still differentiating the best in class products.

Turndown Ratio:

Turndown ratio is an effective method for reduction of off cycle losses. While many commercial boiler applications involve multiple boilers which creates some load matching, modulating boilers still reduce off cycles. Additionally, many boiler designs operate more efficiently when operating at a reduced firing rate, further enhancing the energy savings opportunity. Since the vast majority of condensing boilers offer modulation with a 5:1 turndown, this limitation is not a significant barrier to participation in the program.

Respectfully submitted,



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