



March 23, 2012

Abigail Daken  
Environmental Protection Agency  
1200 Pennsylvania Ave. NW  
Washington, DC 20460

Re: ENERGY STAR<sup>®</sup> Version 2.0 Water Heater Specification, Draft 3

Dear Ms. Daken:

On behalf of Bradford White Corporation (BWC), I would like to express our appreciation for the opportunity to comment on the ENERGY STAR Version 2.0 Water Heater Specification, Draft 3. Please find our comments below.

We recommend revising the definition for "Hybrid type units." The definition should inclusive of gas water heaters with the following requirements:

- Input >75,000 Btu/hr;
- Storage volume > 2 gallons and <20 gallons.

For the Additional Requirements under Section 3 Qualification Criteria, the first item should be revised to read as follows:

"The unit shall include a visible or audible alert to notify if the compressor shuts off or if there is a blockage in the condensate drain. An alert is not required for a drain blockage if the water heater provides a redundant drain. The alert will also activate no more than 48 hours after users lock out compressor operation voluntarily, as when the unit is set into a resistance only mode."

By including the ability to sense a blockage in the condensate drain, considerable cost will be added to the water heater control. Adding a redundant drain would provide a back-up to the primary drain at a very low cost as an alternative to sensing a blockage in the primary drain.

In the "Gas Hybrid Units" section under "Product Performance Requirements for Gas Water Heaters," the proposed ENERGY STAR requirements do not make sense. They incorrectly differentiate between water heaters that are NAECA covered and use an EF versus those that are EPACT covered and use thermal efficiency. In addition, the note below this section incorrectly describes what gas storage water heaters are covered under NAECA.

**Built to be the Best™**



BWC recommends the ENERGY STAR requirements should be the following for hybrid water heaters, as defined above:

- Thermal efficiency (TE)  $\geq$  90%;
- Standby loss  $\leq$  (2374 Btu/hr \* (TE - 0.74));
- Warranty – 6-years on tank and parts; and
- Safety – ANSI Z21.10.3/CSA 4.3.

BWC strongly urges the ENERGY STAR program to adopt a five (5) percent tolerance on all Energy Factor (EF) results, no matter the number of representative test samples. The experimental error associated with the water heater EF test protocol is in excess of 5% and is well documented. Further, since test water heaters are procured from sources outside the manufacturers' control, it is all too common for the water heaters to be mishandled prior to testing. Extreme temperature fluctuations in distributor shipment and storage, dents, damage, etc. all adversely affect test results and lead to erroneous testing.

BWC would like to reference our comments in our letter dated 15 June 2011, regarding commercial water heaters. Currently, the ENERGY STAR water heater program does not include commercial water heaters, which are typically one of the top three energy consumers at their installation site. In addition, all other major appliances in restaurants can be ENERGY STAR compliant, yet water heaters are excluded. BWC requests that commercial water heaters are included in this Version 2.0 Water Heater Specification.

Bradford White Corporation thanks you for this opportunity to comment on the Draft 3 ENERGY STAR Version 2.0 Water Heater Specification. AHRI has our full support in submitting their separate comments.

Respectfully Submitted,

Bradford White Corporation

Michael W. Gordon  
Senior Vice President, Engineering

**Built to be the Best™**