Residential Solutions
6200 Troup Highway
Tyler, TX 75707-1948 USA
T (903) 581-3200 F (903) 581-3482
www.trane.com

April 29, 2010

Ms. Kathleen Vokes
US EPA
ENERGY STAR
1200 Pennsylvania Ave NW
Washington, DC 20460

Re: Energy Star Products Enhanced Testing and Verification: HVAC Products

Ingersoll Rand Residential Solutions, manufacturer of Trane and American Standard residential heating and air conditioning products, appreciates the opportunity to comment on the EPA's proposal for enhanced testing and verification. As a participant in the AHRI air conditioner, heat pump, and furnace certification programs, we recognize the value that a robust qualification and verification process brings to the HVAC industry. As such, we recommend that EPA model its enhanced plans on the AHRI programs. These three AHRI certification programs are approved by the US DOE for verification of compliance to NAECA regulations and have Standards Council of Canada accreditation for verification of compliance to Canadian regulations. Integral to these AHRI programs is independent verification testing of one-third of our basic models yearly through an ISO 17025 accredited third party laboratory. Admission to the program requires qualification testing by the same third party laboratory. Additionally, there are significant penalties for failures and a challenge test process. We believe that these are the attributes that are needed to enhance the Energy Star program for HVAC products.

The residential split system air conditioning and heat pump products are somewhat unique in that the final system is based on a combination of indoor and outdoor products which results in a very large number of combinations. Today, Ingersoll Rand has 96,127 active listings of air conditioner and heat pump in the AHRI directory. Of these, 37,674 are Energy Star systems. Numbers such as these make testing of every system combination impossible. This is the reason that the DOE as created requirements that call for definition of basic models to be tested in the highest sales volume combinations with the other combinations rated through a DOE approved alternate rating method tuned to the results of the tested system. The AHRI verification process then makes sure that one third of our basic models are tested yearly and while doing so can test any of our 96,000+ combinations. It should be apparent that a program with such a large number of systems that uses a combination of testing and an alternate rating method for efficiency ratings cannot use third party laboratory for qualification purposes. We recommend that EPA adopt the DOE approved AHRI certification process for Energy Star qualification and for on-going Energy Star verification testing. Additionally, for qualification of in-house laboratories, we recommend that the requirement for in-house labs is to be either certified under ISO 17025 or to be certified by UL, ITS, or CSA under those organizations' ISO 17025 processes for testing and data submittal.

With respect to the submission of product test data to the EPA for approval prior to labeling and sale as an Energy Star product, Ingersoll Rand has concerns regarding the ability of EPA to provide the 1 to 2 week turn around time that is required by our product development cycle. This is especially true with the large numbers of systems involved. We recommend that EPA work with AHRI on submittal of qualification data, modeling

the relationship that AHRI already has with NRCan of Canada and the California Energy Commission. This will streamline the process for both EPA and the industry.

In summary, Ingersoll Rand agrees that enhancements to the Energy Star program should be implemented to improve the robustness of the qualification and verification processes. The integration of AHRI certification programs for air conditioners, heat pumps, and furnaces into the Energy Star program for these products will provide the desired improvements.

Respectfully,

James T. VerShaw
Chief Engineer