

July 7, 2014

Ms. Abigail Daken  
US EPA  
ENERGY STAR

Re: 2015 Proposed System Status and Messaging Requirements for ducted and ductless CAC/ASHP, Furnaces, and GHPs

Ingersoll Rand Residential HVAC, manufacturer of Trane, American Standard, and Ameristar residential heating and air conditioning products, appreciates the opportunity to offer the following comments on the EPA's 2015 Proposed System Status and Messaging Requirements for ducted and ductless CAC/ASHP, Furnaces, and GHPs.

Ingersoll Rand believes that the requirements for Automatic Setup, Resident Alerts in Plain Text, and Fault History for Service Personnel add value for the homeowner and are achievable for 2015 sales. At the same time, we believe that the current state of technology readiness for sensing Static Pressure as a dirty filter alert, and using signals for Charge Level indication are not yet ready to be added to residential HVAC equipment and should be deferred to a future revision.

It is true that the motors used in high efficiency blowers can sense a change in operating conditions. However, a dependable dirty filter alert system will need to be able to distinguish between changes in duct registers, the use of filters with different pressure drops, and a dirty filter to prevent false alarms. Since there is wide range of operating conditions, duct system designs, and filter types in use, proof of a reliable system requires significant field testing. Until then, a comfort control that measures run time and alerts the homeowner appropriately is a dependable approach.

Similarly, a refrigerant charge monitor system will require significant development and field testing to be dependable and without false alarms. The difference here is that most systems do not have the sensors that are needed to monitor charge level. As with the dirty filter alert, a charge monitor system cannot be developed and added to air conditioners and heat pumps for the 2015 calendar year. This feature should be deferred to a future revision.

Finally, we believe that any future specification incorporating elements of the June 9th Memo needs to be very explicit about what is needed for a product to demonstrate compliance. By way of example, CA Title 24-2013 contained FDD requirements for RTUs with economizers. The requirements, as finalized, seemed manageable, but the process of determining how to demonstrate compliance proved exceedingly difficult; so much so that ultimately the deadline for compliance was extended. EPA should be guided by this history when incorporating similar requirements into any future specification for residential CAC and ASHP.

If you have questions, please feel free to contact me.

Respectfully,

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