

3 November 2004

Ms. Rachel Schmeltz
U.S. Environmental Protection Agency
1200 Pennsylvania Ave., NW
Washington, DC 20460
Sent via Email: Schmeltz.rachel@epa.gov

Re: Options for a new Energy Star™ specification for residential air-source heat pumps and central air conditioners (presented at the 2004 National Energy Star™ HVAC Partner Meeting, Chicago)

Dear Ms. Schmeltz

Thank you for the opportunity to participate at the 5-6 October 2004 Energy Star™ Stakeholders meeting and to submit these comments regarding the Energy Star™ specification options. Recognizing that the scope of the proposal is still tentative – and even that the specification itself is vague in many areas – ACCA’s comments on the proposed options specifications are as follows:

General

ACCA supports the continuation of an Energy Star specification for residential air-conditioners and heat pumps. In this manner, contractors are supported in their efforts to promote energy efficient equipment and installations. Additionally, consumers are encouraged to recognize that there are indeed appropriate higher efficient equipment that should be considered for their applications. Withdrawal of Energy Star from the residential market may signal that the NAECA minimum equipment is all that is required.

Item I: Equipment Criteria

ACCA recognizes that Energy Star equipment ... essentially by definition ... needs to have higher efficiency than what will be minimum law in 2006 once the Federal NAECA standards have been adopted. As such, a 14-SEER requirement is appropriate. However, to specify a minimum level (i.e., 14-SEER) and also the specific approaches for achieving the nameplate efficiencies (i.e., TXV’s, EXV’s, components/controls from a single manufacturer, etc.) would appear to overly constrain the market. The end-goal should be specified, but a proscriptive approach that defines how the new efficiencies are to be obtained shouldn’t also be pursued.

Item II: Installation Criteria

Item 1: Obviously, ACCA concurs that recognized industry procedures should be observed by contractors in their practices. ACCA Manual J® (*Residential Load Calculations*), Manual D® (*Residential Duct Design*), and Manual S® (*Residential Equipment Selection*) have each been recognized by ANSI, through a public comment process, as the U.S. standards for residential HVAC design.

Item 2: ACCA also promotes the proper charging of refrigerant. Ideally, refrigerant charges should be within 5% of the equipment manufacturer's specifications. The airflow of 400 CFM/ton appears to be aiming for the wrong metric. The cause of improper airflow is generally related to excessive pressure drop in the supply and/or return ducts leading to the blower motor drawing more energy. The better metric is to ensure that the total external static requirement of the ducts, and added accessories (registers, grilles, dampers, extra filters, etc.), do not exceed the equipment's published ESP capability. [Note: 400 CFM/ton represents a nominal mid-range of most equipment CFM performance. However, 400 CFM/ton is no more optimum for the application than 350 CFM/ton or 450 CFM/ton. In high humidity areas, a lower air-speed permits a colder coil and enables better latent removal capability. In dry climates, higher air-speeds improves sensible cooling performance.]

Item 3: No comments at this time.

Item 4: No comments at this time.

Item 5: No comments at this time.

Item III: Options for Field Verification of Proper Installation

For an Energy Star program to be effective, it must have consistent rules and requirements across the nation. It is recommended that an industry stakeholders group (i.e., OEMs, distributors, contractors, user groups, groups that offer incentives, etc.) be convened to develop a consistent set of attributes that define a *quality contractor* and a *quality installation*. Metrics for each of these would be collectively accepted by the industry. These attributes and metrics would become the basis for ascertaining the Energy Star performance levels of quality contractors and installations.

A subsequent step would be for the stakeholder group to reach agreement on need, type, and level of contractor and field installation verification; the rules for contractor verification; and the procedures to be observed by accrediting bodies. EPA, under the Energy Star umbrella, could administer the program that recognizes third-party accrediting bodies. Those third-party accrediting bodies – associations, utilities, etc. – that observe the accrediting body requirements and periodic re-qualification would then be authorized by EPA to act as contractor accreditors and to administer the program to contractors.

Item IV: Options for Labeling Qualified Systems

ACCA concurs with labels being supplied to eligible contractors that agree to follow the specified installation procedures.

Item V: Phase in of New Specification

It is recognized that the timing for the initiation of such a contractor accreditation program needs to be after industry stakeholders reach consensus on a number of key issues. An installation component should not be hurried and prematurely phased in.

Please feel free to contact me if there are any questions.

Regards,

/ glenn /

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