



## Department of Energy

Washington, DC 20585

August 18, 2011

Ms. Leslie Jones  
ENERGY STAR Program  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW  
Room 62023  
Washington, DC 20460

Dear Ms. Jones:

On July 6, 2011, the United States Department of Energy (DOE) notified Friedrich Air Conditioning Company (Friedrich) that DOE had completed testing of the Friedrich room air conditioner model YM18M34-A under the ENERGY STAR Verification Testing Pilot Program and confirmed that the model did not meet the ENERGY STAR energy efficiency requirement of 10.7 EER. DOE gave Friedrich until July 26, 2011, to provide conclusive manufacturing or design evidence or quality assurance information on why DOE testing showed that this product did not meet the ENERGY STAR Program's energy efficiency requirement.

In a letter to DOE, Friedrich stated that DOE should have applied the capacity correction factor for barometric pressure reflected in Section 6.1.3 of ANSI/ASHRAI Standard 16-1983 (RA 2009) (Standard 16).<sup>1</sup> In Friedrich's view, if DOE had applied this correction to the unit it initially tested, the unit would have satisfied the ENERGY STAR Program's requirements and further testing by DOE would have been unwarranted.

Although not a part of the valid test procedure at the time of the test, DOE recalculated the test results from the initial unit using Standard 16's capacity correction factor. The recalculated EER value still does not satisfy the ENERGY STAR Program's specifications. DOE tested four additional units using the DOE test procedure effective February 7, 2011, which includes Standard 16. The results from testing all five units confirm that room air conditioner model YM18M34-A does not satisfy the ENERGY STAR Program's energy-efficiency specifications.

Friedrich also asserted that it had received a large number of heat exchanger coils from its supplier that were contaminated with a thick oil layer and that these coils were installed in the units of model YM18M34-A tested by DOE. Friedrich attributed a drop in performance of the units to this oil layer. Friedrich contended that this issue is

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<sup>1</sup> As of February 7, 2011, DOE has amended its regulations to incorporate Standard 16 as the standard test procedure for room air conditioner energy efficiency certification testing. 76 FR 972, 975 (Jan. 6, 2011). The prior test procedure, which was valid when DOE tested the initial unit, did not incorporate this capacity correction factor.



temporary, as the oil film will evaporate or rinse off as the unit is operated over a period of time, returning the unit performance to design conditions.

Neither the manufacturer instructions nor the DOE test procedure specify removing oil from the heat exchanger coils or running the unit for a certain amount of time prior to testing. In DOE's view, performing either or both steps prior to testing the units is not appropriate—testing the units in an 'as received' condition results in an efficiency rating similar to what a consumer would experience. Further, Friedrich provides no estimate as to how long a unit needs to run before, as it claims, the oil would evaporate or rinse off. We note that DOE instructed the test lab to run the units for 24 hours prior to testing, and the tested units still failed to meet ENERGY STAR requirements.

For these reasons, DOE has determined that Friedrich room air conditioner model YM18M34-A does not meet the ENERGY STAR requirements. Accordingly, DOE is referring this matter to EPA, the brand manager for ENERGY STAR, for appropriate action. Please feel free to contact Laura Barhydt, Assistant General Counsel for Enforcement, at 202-287-5772 should you require any further information.

Sincerely,



Timothy G. Lynch  
Deputy General Counsel for  
Litigation and Enforcement

cc: Mr. W. Patrick Kendrick, Friedrich Air Conditioning Co.  
Mr. John Hodges, Esq., Counsel for Friedrich