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Guidance Type: Test Procedures

Category: Residential Products

Product: Refrigerators, refrigerator-freezers, and freezers

Guidance Version: FINAL

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Q: When testing using section 3.3 of the appendix A test procedure for refrigerators and refrigerator-freezers, which allows the use of three tests to determine the energy use of a basic model through “triangulation,” does the test require the use of the coldest, median, and warmest settings required by section 3.2, or may the tester use any three settings that meet the requirements of appendix M, section M3, paragraphs (a) through (c) of the AS/NZS 4474.1:2007 test method?

A: Section 3.3 of appendix A to subpart B of 10 CFR part 430 (Appendix A) provides that a three-setting “triangulation” test may be performed as an alternative to the coldest, median, and warmest temperature, two-setting test in section 3.2 of Appendix A. Section 3.3 provides that the section 3.2 test is not required as long as the settings used for the triangulation test meet the requirements identified in AS/NZS 4474.1:2007 (incorporated by reference; see §430.3) appendix M, section M3, paragraphs (a) through (c) and as illustrated in Figure M1. The section 3.3 test may be conducted using *any three settings* that satisfy these requirements. As noted in section 3.3, the target temperature shall be the standardized temperatures defined in section 3.2 of Appendix A (i.e., 0 °F freezer compartment temperature and 39 °F fresh food compartment temperature), but the other requirements of section 3.2 do not apply.

DOE also notes that the test data underlying the rated value of energy use, which manufacturers are required by 10 CFR 429.71 to maintain for each basic model of a covered product, must, for any basic model tested using the triangulation test in section 3.3, identify the settings used for the test and contain sufficient information to demonstrate that the requirements pertaining to the use of those settings were met (i.e., a minimum of three energy consumption measurements were performed at three setting combinations of the two controls being adjusted, the selected test points used to triangulate and enclose the intersection of the standardized temperatures for those two compartments, and the temperature in each compartment is within 4 K of the standardized temperature for all three settings).

Comments: DOE sought comments from the public on this guidance, which are available for viewing in docket EERE-2014-BT-GUID-0028 at www.regulations.gov. DOE received a single comment, from the Association of Home Appliance Manufacturers (AHAM), which expressed agreement with the guidance and requested that DOE issue final guidance consistent with the draft version.