

Application of 10 CFR Part 430, Subpart B, Appendix A-1

After reviewing manufacturer information regarding the testing of certain models of refrigerator-freezers with bottom-mounted freezers and through-the-door ice and water service, the Department of Energy ("DOE" or "the Department") has become aware that some manufacturers may not have accounted for certain energy usage required by the current DOE test procedure for refrigerator-freezers found at 10 CFR Part 430, Subpart B, Appendix A-1 ("Appendix A-1"). Accordingly, DOE is providing the following statement to remind manufacturers of their obligations under that procedure.

Appendix A-1 sets forth the Uniform Test Method for Measuring the Energy Consumption of Electric Refrigerators and Electric Refrigerator-Freezers. Section 2.2 of Appendix A-1 requires that the operational conditions detailed in sections 7.2 through 7.4.3.3 of the Association of Home Appliance Manufacturers Standard HRF-1-1979 ("HRF-1") be satisfied during testing. HRF-1 specifies that "the cabinet [refrigerator-freezer] with its refrigerating mechanism is to be assembled and set up as nearly as practicable in accordance with the printed instructions supplied with the cabinet." HRF-1-1979, sec. 7.4.2.

HRF-1 further specifies that "automatic ice makers are to be inoperative during the test" (i.e. "ice maker exclusion") and that "other temperature controllable compartments . . . are considered special compartments and are [to be] tested with controls set to provide the coldest temperature." *Id.* It defines an "automatic ice maker" as "[a] device, connected to a water supply, which automatically produces, harvests, and stores ice in a storage bin, with means to automatically interrupt the harvesting operation when the bin is filled to a predetermined amount." *Id.* at sec. 3.5. Special compartments are compartments "designed for maintaining special environmental conditions for a particular type of product or purpose." *Id.* at sec. 3.18. An ice storage bin, defined as "a container in which ice can be stored," is one such type of special compartment. *Id.* at sec. 3.18.5.

A refrigerator-freezer equipped with an automatic ice maker must be tested in a manner that satisfies the above conditions. DOE recently emphasized this fact in a recent ENERGY STAR-related agreement with one manufacturer and stressed, among other things, that an ice storage bin must be maintained at a temperature to prevent the ice from melting during testing. The Department notes that energy consuming components that interact with the ice making system but are not involved in the production, harvesting, or storage of ice -- examples of which include, but are not necessarily limited to, heaters that prevent condensation or that help to properly dispense ice from the ice storage bin -- are not considered part of the automatic ice maker. Accordingly, the energy consumed by these components is included in calculating a product's reported total energy usage.