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Via E-mail

Mr. Harrinder Singh
California Energy Commission
Docket No. 13-AAER-1
Docket Unit
1516 Ninth Street, Mail Station 4
Sacramento, CA 95814-5504

docket@energy.state.ca.us

Re: Docket No. 13-AAER-1 – *Proposed Amendments to Appliance Efficiency Regulations*

Dear Mr. Singh:

The Association of Home Appliance Manufacturers (AHAM) would like to comment on the *Proposed Amendments to Appliance Efficiency Regulations* (Docket 13-AAER-1). These comments are in addition to the previous comments we have submitted regarding the transition to the new federal standard for refrigerator/freezers and clothes washers. AHAM represents manufacturers of major, portable and floor care home appliances, and suppliers to the industry. AHAM's membership includes over 150 companies throughout the world. In the U.S., AHAM members employ tens of thousands of people and produce more than 95% of the household appliances shipped for sale. The factory shipment value of these products is more than \$30 billion annually. The home appliance industry, through its products and innovation, is essential to U.S. consumer lifestyle, health, safety and convenience. Through its technology, employees and productivity, the industry contributes significantly to U.S. jobs and economic security. Home appliances also are a success story in terms of energy efficiency and environmental protection. New appliances often represent the most effective choice a consumer can make to reduce home energy use and costs.

We have reviewed the changes the California Energy Commission (CEC) is proposing to its Appliance Efficiency regulations, and provide the following comments.

A. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Adjusted Total Volume

CEC is proposing to change the definition of "adjusted total volume." This definition should be consistent with the DOE definition and clarified that Appendix A1 is not allowed on or after September 15, 2014.

DOE Definition
Appendix A1

- 1.1 “Adjusted total volume” means the sum of (i) the fresh food compartment volume as defined in HRF-1-1979 in cubic feet, and (ii) the product of an adjustment factor and the net freezer compartment volume as defined in HRF-1-1979, in cubic feet.

Appendix A (on or after September 15, 2014)

- 1.1 “Adjusted total volume” means the sum of:
- (i) The fresh food compartment volume as defined in HRF-1-2008 (incorporated by reference; see §430.3) in cubic feet, and
 - (ii) The product of an adjustment factor and the net freezer compartment volume as defined in HRF-1-2008 in cubic feet

B. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Anti-Sweat Heater

CEC should reference DOE’s current definition which includes anti-seat heaters.

DOE Definition (10 CFR 430 Subpart B Appendix A, 1.3)

“Anti-sweat heater” means a device incorporated into the design of a refrigerator or refrigerator-freezer to prevent the accumulation of moisture on the exterior or interior surfaces of the cabinet.”

C. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Compact Freezer, Refrigerator, Refrigerator-Freezer

CEC is proposing to change the definition of “compact freezer,” “compact refrigerator,” and “compact refrigerator-freezer” by eliminating the 36 inches or less in height requirement. To be consistent with DOE, this change should only occur for products manufactured on or after September 15, 2014 and remain in the regulations for products manufactured before September 15, 2014.

AHAM proposes the following revision:

“Compact freezer” means a freezer that has total volume less than 7.75 ft³:

- (1) rated volume, as determined using 10 ~~CFR~~C.F.R., Part 430, Appendix B1 of Subpart B (2008) and that is manufactured before September 15, 2014, and that is 36 inches or less in height;
- (2) as determined using 10 C.F.R., part 430, Appendix B of Subpart B and that is manufactured on or after September 15, 2014.

“Compact refrigerator” means a refrigerator that has total volume less than 7.75 ft³:

- (1) rated volume, as determined using 10 ~~CFR~~C.F.R., Part 430, Appendix A1 of Subpart B (2008) and that is manufactured before September 15, 2014, and that is 36 inches or less in height;
- (2) as determined using 10 C.F.R., part 430, Appendix A of Subpart B and that is manufactured on or after September 15, 2014.

“Compact refrigerator-freezer” means a refrigerator-freezer that has total volume less than 7.75 ft³:

- (1) rated volume, as determined using 10 ~~CFR~~C.F.R., Part 430, Appendix A1 of Subpart B (2008) and that is manufactured before September 15, 2014, and that is 36 inches or less in height;
- (2) as determined using 10 C.F.R., part 430, Appendix A of Subpart B and that is manufactured on or after September 15, 2014.

D. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Drawer

The definition of “drawer” is unique to CEC. It is not a recognized DOE product class and, therefore, this definition should be eliminated. CEC should use DOE’s naming conventions as the CEC names are not considered in determining compliance.

E. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Freezer Volume

CEC is proposing to change the definition of “freezer volume.” This definition should be consistent with the DOE definition and clarified that Appendix B1 is not allowed on or after September 15, 2014.

Appendix B1

1.1 “Adjusted total volume” means the product of, (1) the freezer volume as defined in HRF-1-1979 in cubic feet, times (2) an adjustment factor.

Appendix B (on or after September 15, 2014)

1.1 “Adjusted total volume” means the product of the freezer volume as defined in HRF-1-2008 (incorporated by reference; see §430.3) in cubic feet multiplied by an adjustment factor.

F. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Internal Freezer Refrigerator

The definition of “internal freezer refrigerator” is unique to CEC. It is not a recognized DOE product class and, therefore, this definition should be eliminated. CEC should use DOE’s naming conventions as the CEC names are not considered in determining compliance.

G. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Kitchen Units

The definition of “kitchen unit” is unique to CEC. It is not a recognized DOE product class and, therefore, this definition should be eliminated. CEC should use DOE’s naming conventions as the CEC names are not considered in determining compliance.

H. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Refrigerator Volume

CEC is proposing to change the definition of “refrigerator volume.” This definition should be consistent with the DOE definition and clarified that Appendix A1 is not allowed on or after September 15, 2014.

DOE Definition

Appendix A1

1.1 “Adjusted total volume” means the sum of (i) the fresh food compartment volume as defined in HRF-1-1979 in cubic feet, and (ii) the product of an adjustment factor and the net freezer compartment volume as defined in HRF-1-1979, in cubic feet.

Appendix A (on or after September 15, 2014)

1.1 “Adjusted total volume” means the sum of:

- (i) The fresh food compartment volume as defined in HRF-1-2008 (incorporated by reference; see §430.3) in cubic feet, and
- (ii) The product of an adjustment factor and the net freezer compartment volume as defined in HRF-1-2008 in cubic feet

I. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Refrigerator Compartment

CEC's definition of "refrigerator compartment" does not include the DOE requirement that the unit must be able to operate at ≤ 39 °F. Other places in the CEC document do reference the 39 °F requirement.

J. Section 1602. Definitions; (b) Refrigerators, Refrigerator-Freezers, and Freezers; Definition of Undercounter Cabinet

The definition of "undercounter cabinet" is unique to CEC. It is not a recognized DOE product class and, therefore, this definition should be eliminated. CEC should use DOE's naming conventions as the CEC names are not considered in determining compliance.

K. Section 1602. Definitions; (o) Dishwashers

CEC is proposing to change the regulation for dishwashers. When referencing the current federal regulation, the reference should be to Appendix C1, not Appendix C. Appendix C1 has been mandatory since May 2013. This appears in the definition section and the test method section. The wording of the definition should be identical to DOE Appendix C1 because Appendix C1 did effect the definition. For example, Appendix C1 definitions for "compact dishwasher" and "standard dishwasher" also require use of the test load specified in section 2.7, energy factor is no longer used, and "cycle" is different. Also, the reference to ANSI/AHAM DW-1 should be changed to ANSI/AHAM DW-1-2010.

L. Section 1602; Incorporation by Reference

CEC is proposing to change the documents that are incorporated by reference. Under the AHAM part, HRF-1-2008 should be added and the dishwasher standard should be updated to DW-1-2010.

M. Section 1604. Test Methods for Specific Appliances; (d) Dehumidifiers

CEC is proposing to add Appendix X1. AHAM agrees with the intent of that change (though we note that we have commented on changes to clarify the test procedure). Importantly, however, DOE recently finalized a change to re-designate Appendix X1 as Appendix X. (*See* 79 Fed. Reg. 7366 (Feb. 7, 2014)). Our understanding of DOE's rule is that manufacturers must use the active mode portions of Appendix X1 (re-designated as Appendix X) as of March 10, 2014, to certify compliance with the Federal standard. Accordingly, CEC need not change its reference to Appendix X, except to state that only the active mode portions of that procedure are required.

N. Section 1604. Test Methods for Specific Appliances; (o) Dishwashers

CEC is proposing to change the regulation for dishwashers. When referencing the current federal regulation, the reference should be to Appendix C1, not Appendix C. Appendix C1 has been

mandatory since May 2013. This appears in the definition section and the test method section. Also, the reference to ANSI/AHAM DW-1 should be changed to ANSI/AHAM DW-1-2010.

O. Section 1604. Test Methods for Specific Appliances; (p) Clothes Washers

CEC is proposing to change the test method to reference Appendix J1. Appendix J1 is effective until March 15, 2015. On or after March 7, 2015, Appendix J2 will be effective. CEC should modify the regulations to ensure the regulations are consistent with DOE.

P. Section 1604. Test Methods for Specific Appliances; (q) Clothes Dryers

CEC is not proposing to change the test method to reference from Appendix D. Appendix D is effective until January 1, 2015. On or after January 15, 2015, Appendix D1 will be effective. CEC should modify the regulations to ensure the regulations are consistent with DOE.

Q. Section 1604. Table A1

Table A1 only allows Appendices A or B after September 15, 2014 (no provision for early compliance which AHAM has commented on previously). Also, the wine chiller test procedures references Appendix A1 and should also reference Appendix A. CEC has stated that thermoelectric models are covered by the CEC standard; however, the DOE test procedure that it references cannot test thermoelectric products (DOE standard refers to compressor cycling. Thermoelectric models do not have a compressor). If CEC wishes to cover thermoelectric wine chillers, then CEC needs to develop its own test procedure.

R. Section 1605. Table A3

On Table A3, July 1, 2001 column, the date needs to be corrected. The 2001 DOE standard went into effect on January 1, 2001. For adjusted volume, there are two footnotes below the table. There are no references to the footnotes in the table. Footnote 1 omits the adjustment factor for the freezer volume of an All-Refrigerator (it is 1.00). Does CEC have a definition for a “Refrigerator” that is not an “All-Refrigerator”?

S. CEC Non-Commercial Refrigerator Template

CEC should make the following changes to the non-commercial refrigerator template:

- eliminate ‘RefrigStyle’ and ‘RefrigAccess’ Columns from template. These are unique to CEC submittals and are not considered in determining compliance. These can be replaced with the appropriate DOE Product Class.
- modify ‘TotalVolume’ to only one decimal place to harmonize with the DOE and FTC rounding schemes for Total Volume.
- eliminate ‘HeightInches’, ‘WidthInches’, and ‘DepthInches’ columns from template. These are unique to CEC submittals and with the exception of height (for compacts) are not considered in determining compliance. Also, there is no standard definition regarding which dimension should be used. For example, many refrigerator manufacturers have specification sheets which include
 - Height to top of case,
 - Height to hinge,
 - Depth to case,

- Depth to handle.
- eliminate ‘AECLowKWHyr’ and ‘AECHighKWHyr’ columns from template. The ‘AnnualEnergyUseKWHyr’ is the manufacturer’s claim for energy consumption. It may or may not be the actual test value as the DOE allows manufacturers to rate conservatively (i.e., rate at a value higher than the tested value as long as it meets the DOE standard). For a rating as above, there may be no value for the anti-sweat heater switch in the on and off conditions.

AHAM appreciates the opportunity to comment on the proposed amendments to the Appliance Efficiency Regulations and would be glad to further discuss these matters with the Commission. We expect to submit additional comments on the remaining issues in the proposal.

Sincerely,



Kevin Messner
Vice President, State Government Affairs