

## US Consumer Product Safety Commission Log of Meeting

Subject: UL 60335-2-89 Working Group on Flammable Refrigerants in Refrigeration Systems

Date: July 22 and 23, 2019

Location: Toronto, ON (and teleconference)

Prepared By: Scott Ayers ([sayers@cpsc.gov](mailto:sayers@cpsc.gov), 301-987-2030), July 24, 2019

CPSC Attendees: Scott Ayers (via teleconference)

Non-CPSC Attendees: Contact Lauren MacGowens of AHRI ( [REDACTED] ) for a list of attendees

### Summary of Meeting:

Contact Lauren MacGowens of AHRI ( [REDACTED] ) for more details of this meeting.

This meeting was convened to develop a proposal to update UL 60335-2-89 1<sup>st</sup> ed., which covers safety of refrigeration appliances for household and commercial use. The Air-Conditioning, Heating, and Refrigeration Institute (AHRI) will take the lead in submitting a proposal to UL through the Collaborative Standards Development System (CSDS). Once UL receives this proposal, UL will put out a call for additional proposals, and CANENA will organize a working group to address all proposals. UL and CSA will participate in the CANENA process to harmonize on a single standard for both Canada and the US.

The group considered several existing standards:

- IEC 60335-2-89 (Household and Similar Electrical Appliances - Safety - Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor) which was recently updated. The US delegation voted No on this standard because of concerns that included the increased A3 refrigerant charge limit and ice makers.
- UL 60335-2-89 1<sup>st</sup> ed. (Household and Similar Electrical Appliances - Safety - Part 2-89: Particular Requirements for Commercial Refrigerating Appliances with an Incorporated or Remote Refrigerant Unit or Compressor) which will serve as the base document for the proposal.
- UL 60335-2-40 3<sup>rd</sup> ed. (Household And Similar Electrical Appliances - Safety - Part 2-40: Particular Requirements for Electrical Heat Pumps, Air-Conditioners and Dehumidifiers) which UL and CSA are currently recirculating for approval before publication.
- UL 1995 (Heating and Cooling Equipment) which will be withdrawn and replaced by UL 60335-2-40 3<sup>rd</sup> ed. and 60335-2-89 2<sup>nd</sup> ed. for the applicable products.
- ASHRAE 15 (Safety Standard for Refrigeration Systems) which covers the usage of HVAC and refrigeration equipment.

The group intends to align as much of the recent flammable refrigerant updates to 60335-2-40 into the 60335-2-89 proposal.

The group spent the first part of the meeting learning about each of the existing standards. The group discussed each standard and the possible effect on a proposal.

The group brainstormed products to be included within the scope of the proposal. The proposal will expand the scope beyond what is currently included in UL 60335-2-89. The scope change will need to be approved by CSA, but it is not expected to impact the overall schedule of a CANENA group.

The group then developed three concept proposals. First, a proposal for updates for A2L refrigerants based mainly on the work from the 60335-2-40 3<sup>rd</sup> ed. update. Then, a proposal for updates for A2 and A3 refrigerants based partly on the 60335-2-40 3<sup>rd</sup> ed. update, UL 1995, IEC 60335-2-89 and general group input. And a proposal for electrical and mechanical updates based on the work of an internal AHRI working group. A fourth proposal on including some requirements for B2L refrigerants (ammonia) systems was discussed, but not moved forward.

AHRI staff will formalize the three concept proposals and then work with UL staff to enter the proposals into the CSDS system within the next 7 to 10 days. It is expected that a CANENA working group will start forming in August. The next meeting date is unknown and will depend on the UL CSDS process and the CANENA process.