United States
Consumer Product Safety Commission

August 27, 2024

Michael Niedermayer
UL Standards & Engagement
1603 Orrington Ave.
Evanston, Illinois 60201

Dear Mr. Niedermayer,

U.S. Consumer Product Safety Commission (CPSC) staff[1] appreciates the opportunity to comment on UL's proposed changes on the following topics:

1. Electric Pressure Cookers
2. Revision in UL 1026 Supplement SA
3. Update to the Title for UL 4200A

CPSC staff will submit the comments in this letter through the UL Collaborative Standards Development System (CSDS).

1. ELECTRIC PRESSURE COOKERS

Currently, there are two types of pressure cookers: (1) those that are externally heated via stove-top burners, covered by UL 136 *Standard for Safety for Pressure Cookers*, and (2) those that are internally electrically heated and currently being proposed in UL 1026 *Standard for Safety for Electric Household Cooking and Food Serving Appliances*.

In the current proposals being made for UL 1026, no rationale has been provided for why internally electrically heated pressure cookers would have any different performance requirements (apart from electrical requirements) than those for externally heated pressure cookers in UL 136. CPSC staff's assessment is that there is no differentiation in the mechanical hazards posed by internally and externally heated pressure cookers.

To provide a clear purpose for inclusion of both types of appliances, CPSC staff requests that UL 1026 incorporates all UL 136 performance and safety related requirements (Sections 7 – 11).

[1] The comments in this letter are those of the CPSC staff and have not been reviewed or approved by, and may not reflect the views of, the CPSC Commission.

This will allow for all the performance and safety related requirements for both internally and externally heated pressures cooker standards to be consistent. Regardless of how pressure cookers are heated, none of these safety performance proposals should be any different and/or less stringent than the current requirements in UL 136.

In addition, the following are CPSC staff's comments regarding the proposed changes to UL 1026:

Section 32.17.1

- CPSC staff recommends accounting for liquid emitted in all directions, as any amount of pressurized liquid emitted is potentially hazardous to the consumer.

Section 63

- The current title in UL 1026, section 63 is "Small Metal Object Heating Test." CPSC staff recommends changing the title to "Heating, Pressure Relief Operation, Cover Opening, & Locking Mechanism Testing," or equivalent, to reflect the proposals added in 63A – 63E.

Section 63A.1.4

- CPSC staff recommends the following language changes to establish a clearer order of operations:

> ~~The relief means, if user adjustable, is to be adjusted to its maximum setting.~~ Fill ~~T~~the pressure cooker ~~is~~ to ~~be~~ half filled with water. ~~and h~~Heat~~ed~~ with the cover in place and in the fully closed position. If the relief means is user adjustable, adjust to its maximum setting.

Section 63A.2.1

- In UL 1026, Section 32.16, the pressure relief device is tested to 100,000 cycles of operation. In section 63A.2.1, no testing-backed documentation has been provided to affirm if testing to 50,000 cycles will provide the same level of safety as 100,000 cycles. Therefore, CPSC staff recommends adopting the same requirement of 100,000 cycles.

Section 63B.2.4

- CPSC staff recommends the following language changes to establish a clearer order of operations:

> ~~The relief valve, if user adjustable, is to be adjusted to its maximum setting.~~ Fill ~~T~~the pressure cooker ~~is~~ to ~~be~~ half filled with water. ~~and h~~Heat~~ed~~ with the cover in place and in the fully closed position. If the relief valve is user adjustable, adjust to its maximum setting.

Section 63C Cover Opening Test

For the cover opening test, there is a difference in the force applied in UL 1026 and in UL 136:

> **Proposed UL 1026, 63C Cover Opening Test**
>
> 63C.3 . . . The most unfavorable point, such as outermost point, of the lid or its handle can be gripped firmly to unseal, is to be attached by a suitable means (such as a spring scale, calibrated weights) to **150 N (33.7 lb).** The arrangement shall provide the application of a line of force of **150 N (33.7 lb),** maintained at 90 degrees to the handle point of attachment. . . .
>
> **Current UL 136, Section 9 Cover Opening Test**
>
> 9.3 . . . The outermost point of any cover or cover handle is to be attached by a suitable means (such as a spring scale, calibrated weights) to **100 pounds (45.4 kg)**. The arrangement shall provide the application of a line of force of **100 pounds (445 N)**, maintained at 90 degrees to the handle point of attachment. . .

With regards to where and how the test forces are to be applied to the covers/lids, UL 1026 and UL 136 are similar. However, the proposed pressure cooker cover opening test force of UL 1026 (33.7 lb) is 2/3rd less that the current cover opening test force in UL 136 (100 lb).

CPSC staff recommends that both test forces should be the same, at 100 pounds (or higher), as both internally and externally heated pressure cookers with lids have the same hazardous potential to be opened while under pressure. Since the cover opening test is a safety performance requirement intended to ensure that the consumers should not be able to open the pressure cooker lid while under pressure, the heating method is irrelevant. In CPSC staff's assessment, lowering this cover opening test force by any amount will

decrease the safety of pressure cookers.

Section 67.31

- Exception: CPSC staff finds the wording “or visual indicator confirming the lid is in the fully closed position” in the exception (marking fully closed position of the lid) unclear. CPSC staff recommends adding language that the visual indicator must be a “readily visible” visual indicator, or a visual indicator “that is readily visible to a consumer who is interacting with the control panel” (or equivalent).

Section 71.15 Electric Pressure Cookers

- Item 1: As a grammatical modification, CPSC recommends the following:

  > This appliance cooks food items under pressure. Improper use may result in scalding injury. Make certain that the unit is properly closed before operating. See Operating Instructions.

- Item 2: The instruction says not to fill the unit over the “maximum fill line at 2/3 full.” However, the maximum fill line is not required to label the 2/3 full position and allows additional maximum fill lines for other, non-pressurized cooking functions (See 67.32.). CPSC staff suggests changing the instruction to say not to fill the unit over the “maximum fill pressure cooking line (2/3 full)” to clarify that it should be filled to the maximum pressure-cooking line that is marked on the vessel.

- Item 2: When describing foods that expand during cooking, the proposal refers to the “recommended level at ½ full.” CPSC assesses that it is unclear if ½ full is the recommended level or if it is acceptable to go over this level for certain expanding foods or under certain circumstances. CPSC staff recommends the following:

  > Do not fill the unit over maximum fill line at 2/3 full. When cooking foods that expand during cooking such as rice or dried vegetables, do not fill the unit beyond ~~the recommended level at~~ 1/2 full. Over-filling may cause a risk of clogging the vent pipe and developing excess pressure. See Food Preparation Instructions.

- Item 3: CPSC staff recommends reversing the sequence of the user instructions, as follows:

  "Do not cook [list of foods] in this pressure cooker. Foods like these can foam, froth, and sputter, and can clog the pressure release device (steam vent)."

- Item 5: CPSC staff recommends adding verbiage that the manufacture shall specify and/or show drawings/pictures of how the consumer can determine if all internal pressure has been released (such as the floating locking valve dropping, messages being displayed on the screen, beeping, etc.).

- Item 5: CPSC staff finds the proposal "Do not open the pressure cooker until the unit has cooled…." unclear. The exterior of most electric pressure cookers does not get hot while cooking food and therefore the external temperature seems irrelevant. CPSC staff recommends:

  Do not open the pressure cooker until ~~the unit has cooled and~~ all internal pressure has been released. If the lid is difficult to remove, this indicates that the cooker is still pressurized - do not force it open. Any pressure in the cooker can be hazardous. See Operating Instructions.

- Item 7: CPSC staff finds that it is unclear whether the proposal is indicating that under that circumstance (1) the consumer should replace only the seal ring (and nothing else, as the manufacturer is recommending), or (2) the consumer should only replace the seal ring with another one that is specifically recommended by the manufacturer. CPSC staff recommends:

  To prevent risk of explosion and injury, replace ~~only~~ the seal ring as recommended by the manufacturer. See Operating Instructions." See 70.2 for identification of replacement parts in the instructions of appliance.

- CPSC staff recommends additional options for manufacturers to provide instructions and warnings in the instructional literature. It is not clear if these are listed at the beginning, such as in a safety section. CPSC staff assesses that operating procedures should include some of these as well, since that is what consumers are likely to read while learning how to use the product.

2. REVISION IN UL 1026 SUPPLEMENT SA (SMART ENABLED HOUSEHOLD ELECTRIC COOKING APPLIANCES)

Clause SA2.6.3

- CPSC staff recommends that the control to enable smart functions shall be independent of a power on switch, such as in UL 1278 (*Movable and Wall-or Ceiling-Hung Electric Room Heaters*) SE2.4. This will avoid a user inadvertently enabling smart function when pressing the on button.

Clause SA2.6.4

- CPSC staff recommends the smart enable indicator have specific requirements for visibility, such as in UL 1278, SE2.6, so that visibility is better defined

3. UPDATE TO THE TITLE UL 4200A

CPSC staff considers the proposed update to the title of UL 4200A acceptable. However, CPSC staff has identified two additional changes to Clause 33.7 as indicated by the strikeout for deletions and underlining for suggested additions.

Section 33.7

- Section 33.7 specifies that it only applies to battery compartments for replaceable coin cell batteries of lithium technology. The new version of UL 4200A and 16 CFR part 1263 applies to consumer products containing button batteries or coin cell batteries that are both permanent and replaceable. To ensure the standard is consistent with UL 4200A and 16 CFR part 1263, CPSC staff proposes to revise 33.7 as follows:

  > 33.7 The battery compartment of an appliance or any accessory, such as a wireless control, incorporating one or more ~~replaceable~~ button batteries or coin cell batteries ~~of lithium technologies~~ shall comply with the Standard for Products Incorporating Button Batteries or Coin Cell Batteries ~~of Lithium Technologies~~, UL 4200A, if the appliance or any accessory is intended for use with one or more single cell batteries having a diameter of 32 mm (1.25 in) maximum with a diameter greater than its height.

- There's an exception to section 33.7 for appliances intended only to be mounted above a countertop. Household appliances are in scope of UL 4200A and 16 CFR part 1263, *Safety Standard for Button Cell or Coin Batteries and Consumer Products Containing Such Batteries,* regardless of where they are mounted. To ensure the standard is consistent with UL 4200A

and 16 CFR part 1263, CPSC staff proposes removing the exception.

CPSC staff looks forward to collaborating with the UL staff and its members towards improving the safety of these consumer products. If you have any questions, please contact the following CPSC staff.

Sincerely,

Rebekah Kempske
Mechanical Engineer
Directorate for Laboratory Sciences
rkempske@cpsc.gov

Scott Snyder
Duncan "Scott" Snyder
Mechanical Engineer
Directorate for Laboratory Sciences
dsnyder@cpsc.gov

CC: Jacqueline Campbell, CPSC Voluntary Standards Coordinator, jcampbell@cpsc.gov