United States
Consumer Product Safety Commission

September 24, 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 for the addition of the Cover Misalignment Test in UL 136 *Standard for Safety for Pressure Cookers*.

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

The following are CPSC staff's comments regarding the proposed changes:

Section 8A Cover Misalignment Test

- Item 8A.1: CPSC staff recommends changing the following language for clarity:

  8A.1 Pressure cookers shall be constructed so that the ~~pressure in the container is not excessive~~ cooker cannot pressurize when the cover is not fully locked ~~closed~~ and/or is not locked correctly, or the gasket is ~~not closed or is~~ incorrectly fitted ~~under unlocked position~~.

  Additionally, further discussions are required on what constitutes "not fully locked" and "not locked correctly," so that those terms can be clearly defined in the standard.

- Item 8A.2: Currently, when pressure is measured in UL 136, Sections 7.3, 8.2.2, and 11.2, two samples are tested, and for pressure cooker models that only differ in body height, the largest size cooker is tested. However, there is no documented basis for supporting that testing one sample and any size cooker (when body height is the only difference) will provide the same level of safety. Additionally, testing one sample and any size cooker could potentially result in a less stringent standard, as testing the largest size cooker will result in the most stringent testing. Therefore, CPSC staff recommends adopting the same requirements as UL 136, Sections 7.3, 8.2.2, and 11.2, as follows:

[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.

8A.2 Two samples ~~One sample~~ of each size and type of cooker is to be subjected to this test. The pressure cooker sample**s** to be tested ~~is~~ are to be equipped with a calibrated pressure-indicating device as described in 7.4.

Exception: When a series of pressure cookers is to be investigated in which the body height is the only difference, two ~~one~~ representative sample**s** of ~~any~~ the largest size cooker shall be tested.

- Items 8A.3: As a grammatical modification, CPSC staff recommends the following:

  8A.3 The pressure cooker ~~is~~ shall be operated under the conditions in 7.5, except with the cover or gasket fitted in the most unfavorable positions, including cover adjusted to a position before cover is locked, or cover misalignment, that may allow the pressure cooker to build up pressure ~~in cover unlocked condition~~.

  CPSC staff recommends further discussions on what constitutes "most unfavorable positions," "cover is locked," and "cover misalignment."

- Item 8A.4: To provide procedure clarity, CPSC staff recommends breaking 8A.4 into two sections (i.e. 8A.4 and 8A.5), specifying how long the pressure cooker should be heated prior to measuring the pressure in the container, and specifying what constitutes a failure.

  In 8A.4, CPSC staff recommends heating the pressure cooker for at least 30 minutes, subject to change based on further testing and discussion. The addition of the pressure not increasing over 5 minutes is verbatim from UL 136, Section 7.6. There should also be a tolerance added to the pressure measurement. CPSC staff recommends that the pressure in the container shall not exceed 0.5 psig (± 0.1 psig) (or lower).

  8A.4 The pressure cooker shall be heated for at least 30 minutes until no further increase in the maximum pressure has occurred over a 5-minute period. During this heating period, ~~T~~the pressure in the container shall not have exceeded ~~zero (0) psig~~ 0.5 psig (± 0.1 psig).

  8A.5 An intentional or unintentional opening ~~Opening~~ of the cover during this test shall not result in a hazardous displacement of the cover or an escape of steam or liquid; either of these would be considered a failure.

  In 8A.5, further discussion is required for what constitutes "hazardous displacement of the cover" and the acceptable amount of "escape of steam or liquid".

- New Item 8A.6: To ensure repeatability in the results, CPSC staff recommends adding an additional section that the test be conducted for at least 1000 cycles on each sample. The

number of cycles is subject to change based on further testing and discussion. After each cycle, the cover should be readjusted:

> 8A.6 This test shall be conducted on the same samples for 1000 cycles. After each cycle the cover shall be re-adjusted.

- New Item 8A.7: To ensure consistency in results between samples, CPSC staff recommends adding following the language from UL 136, Sections 7.7 and 8.2.5:

> 8A.7 The cover misalignment pressure shall be the highest of those pressures occurring in the test of at least two samples. If the maximum pressures vary from one sample to another by more than 10 percent, the total number of samples tested shall be increased to six. The maximum cover misalignment pressure shall be the highest observed.

- New Item 8A.8: To verify the locking mechanisms are still operable, CPSC staff recommends the Cover Opening Test, UL 136, Section 9.0, be conducted at the conclusion of the testing:

> 8A.8 After the cycling, the samples shall comply with the requirements in the Cover Opening, Section 9.0.

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

Sincerely,

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