

**U.S. Consumer Product Safety Commission
LOG OF MEETING**

SUBJECT: Association of Home Appliance Manufacturers (AHAM) Safety Standards Activities Update

DATE OF MEETING: October 24, 2018

LOG ENTRY SOURCE: Andrew Trotta, Directorate for Engineering Sciences (ES)

DATE OF LOG ENTRY: November 5, 2018

LOCATION: U.S. Consumer Product Safety Commission National Product Testing and Evaluation Center, Rockville, MD

CPSC ATTENDEE(S):

Scott Ayers, ES
Jacqueline Campbell, ES
Zachary Foster, ES
Jay Kadiwala, ES
Arthur Lee, ES
Anna Luo, ES
Joel Recht, ES
Kristen Talcott, ES
Andrew Trotta, ES

NON-CPSC ATTENDEE(S):

Randy Cooper, AHAM
Masud Chowdhury, AHAM
John Park, AHAM
Jennifer Cleary, AHAM, by phone

SUMMARY OF MEETING:

AHAM staff met with CPSC staff to present the status of their efforts on proposals that they have submitted to Underwriters Laboratories (UL) and other standards developing organizations to improve the safety of large and small appliances. AHAM initiated these effort in earnest starting in 2013 and have been updating CPSC staff periodically on the progress of their work.

Mr. Cooper presented the status of AHAM's efforts and strategy on the Internet of Things (IoT) and on the voluntary standards of various products that they have been and are pursuing. Specific topics included motor-operated food-preparing machines, coffee makers, room heaters, robotic vacuum cleaners, ranges/cooktops (including cooking fire mitigation), clothes dryers, clothes washer stability, microwave ovens, flammable refrigerants and arc-fault circuit interrupters/ground-fault circuit interrupters. Their presentation is attached. At AHAM's request, ES staff provided a brief update on

activities following the September 27, 2018 meeting on organohalogen flame retardants (OFR) in electronics enclosures. Staff indicated that the OFR project is in the beginning stages of scoping. AHAM also requested CPSC staff attend a portion of the AHAM Floor Care Division Leadership meeting on November 8, 2018 to present information on CPSC staff efforts on IoT, lithium-ion batteries and other relevant staff activities.

AHAM Safety Standards Activities Update

Randy Cooper– Oct 2018 update

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AHAM

ASSOCIATION OF HOME
APPLIANCE MANUFACTURERS

Leadership • Knowledge • Innovation

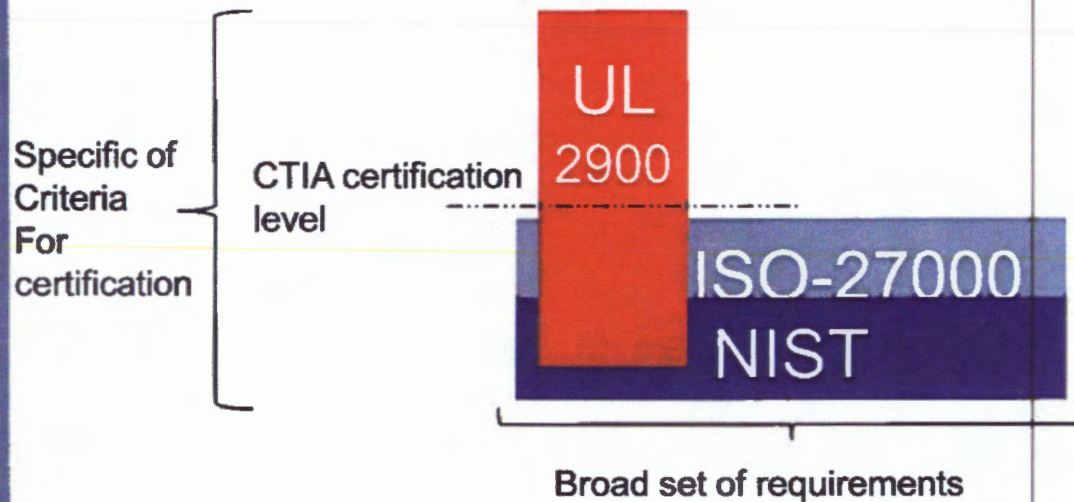
Pillars in AHAM's IoT Strategy

- **Safety – Defined as Functional Safety – What are appliances allowed to do?**
- **Security – Anti-Hacking – What precautions does a company take to prevent their product from being hacked?**
- **Privacy – Protect Consumer's Information – Consumer has free choice of what they do with their information.**

Status of IoT Pillars

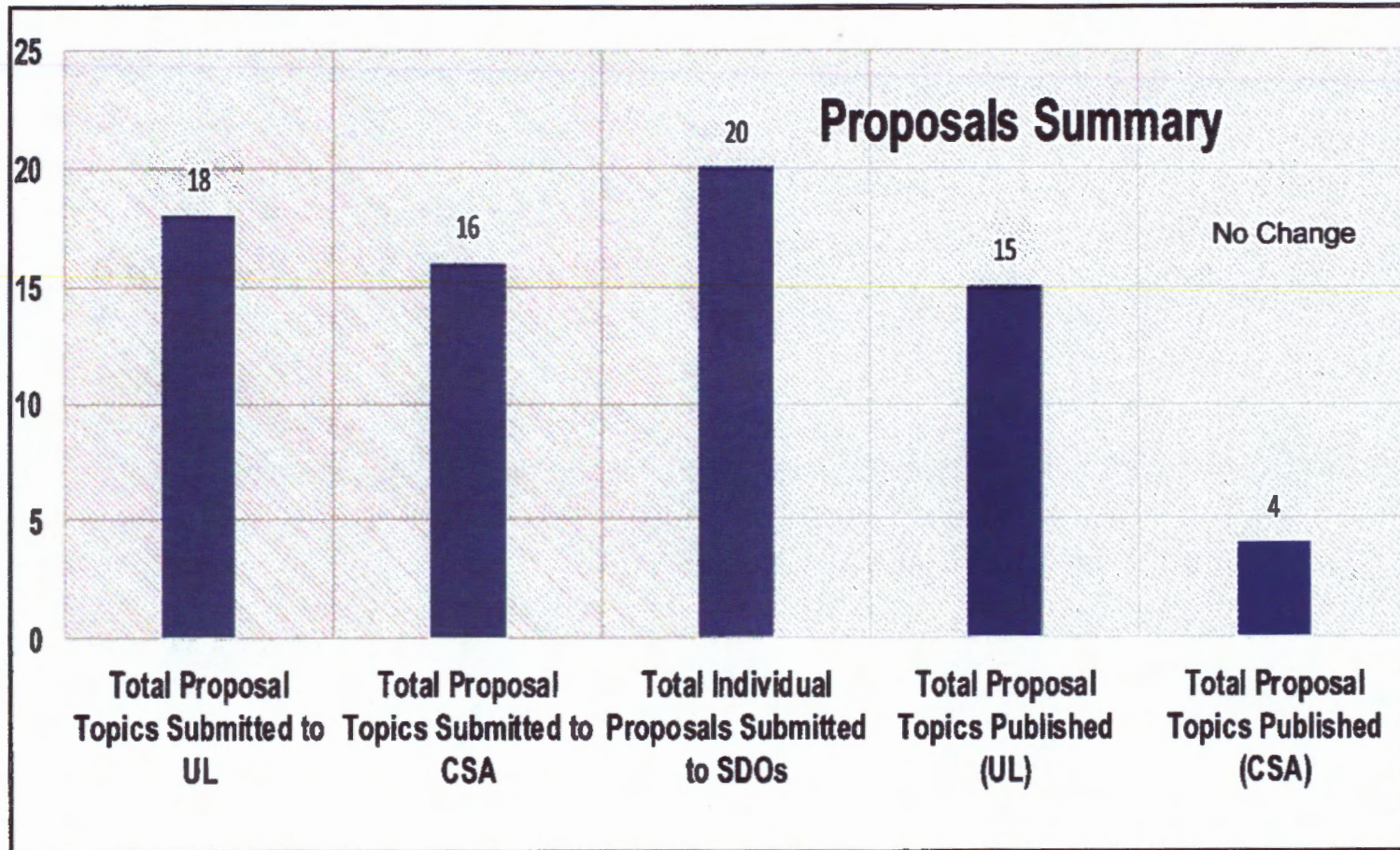
- Safety
 - Follow current path of addressing safety through existing standards and bolstering UL 5500
 - UL plans JTG on Connectivity
- Security
 - States are taking the lead (CA, OR)
 - Standards
 - UL 2900, Home Ecosystem standards
 - CTIA
 - NIST Framework
 - Individual companies are creating standards for proprietary ecosystems

Cybersecurity Options



- None of the Cybersecurity Standards are equivalent. NIST is a broad framework and UL2900 is a very specific detailed evaluation. CTIA is intended to be a simpler certification.
- DRAFT NISTER 8228 is now out for review

Portable Appliance Proposals Summary



Motor-Operated Household Food Preparing Machines, UL 982

- **AHAM Proposal to UL 982:** The two separate proposal clarifies the Important Safeguard instructions in Clause 72.1. One is regarding adding clear instructions for consumers on how to contact a manufacturer in an event of damaged product or servicing, and the other proposal is regarding adding a statement to not allow children to operate the appliance or use as a toy along with clarifying the warning with regards to the proper use of power cords.
- **Current Status:**
 - Published – November, 2016 (Servicing Proposal)
 - Ballot – Published Oct 25, 2017
- **Effective Date for UL: 11-30-2021**

Electric Coffee Makers & Brewing Machines, UL 1082

- **AHAM Proposal to UL 1082:** The proposal introduces requirements for capsule type coffee makers and adds a number of tests applicable to the risks of Pressurized Brewing such as:
 - Hydrostatic Pressure Tests for Parts Subject to Pressure (Clause 46A)
 - Open Brew Chamber Test (Clause 46B)
 - Brew Chamber Blockage Following Mold Stress Test for Capsule-Type Brewing Appliances (Clause 46C)
 - Operating controls fault test (Clause 47.6.2)
 - Pump fault test (Clause 47.6.3)
 - Valve fault test (Clause 47.6.4)
 - Abnormal operation reused sealed capsule test (Clause 47.7)
- The evaluation criteria as described 47.6.1 states, “An appliance shall not cause an increased risk of fire, electric shock, or personal injury after being subjected to the tests in 47.6.2 - 47.6.4. The appliance shall not cause emission of hazardous jets of fluid and/or media greater than 3 inches (76 mm) from the perimeter of the base of the appliance when subjected to the tests in 47.6.2 - 47.6.4. “
- **Current Status: Published 9/29/2017; Effectivity Date – 11-24-2020**

Room Heaters, UL 1278

➤ **Current Proposals:**

- **Product Enclosures(P146) submitted May 2017**
 - It is proposed to revise the glossary term to reflect that an enclosure may be metallic or nonmetallic, and modify Item b to reflect what is stated in UL 746C, and clarify that no other paths of UL 746C or UL 1278 permit a lesser flame rating than that specified in 7.10. (VO)
- **Labeling (P147) submitted May 2017**
 - For portable heaters that are not meant to be readily accessible by the user, manufacturers may provide non-standard tamper resistant type screws to deter the user from disassembling and allowing access into product. This proposal would provide clarity to allow these types of screws and give manufactures another option for cautionary marking location associated with user accessibility.
- **Current Status: Published in Sept 2017**
- **Effectivity Date – 6-15-2020**

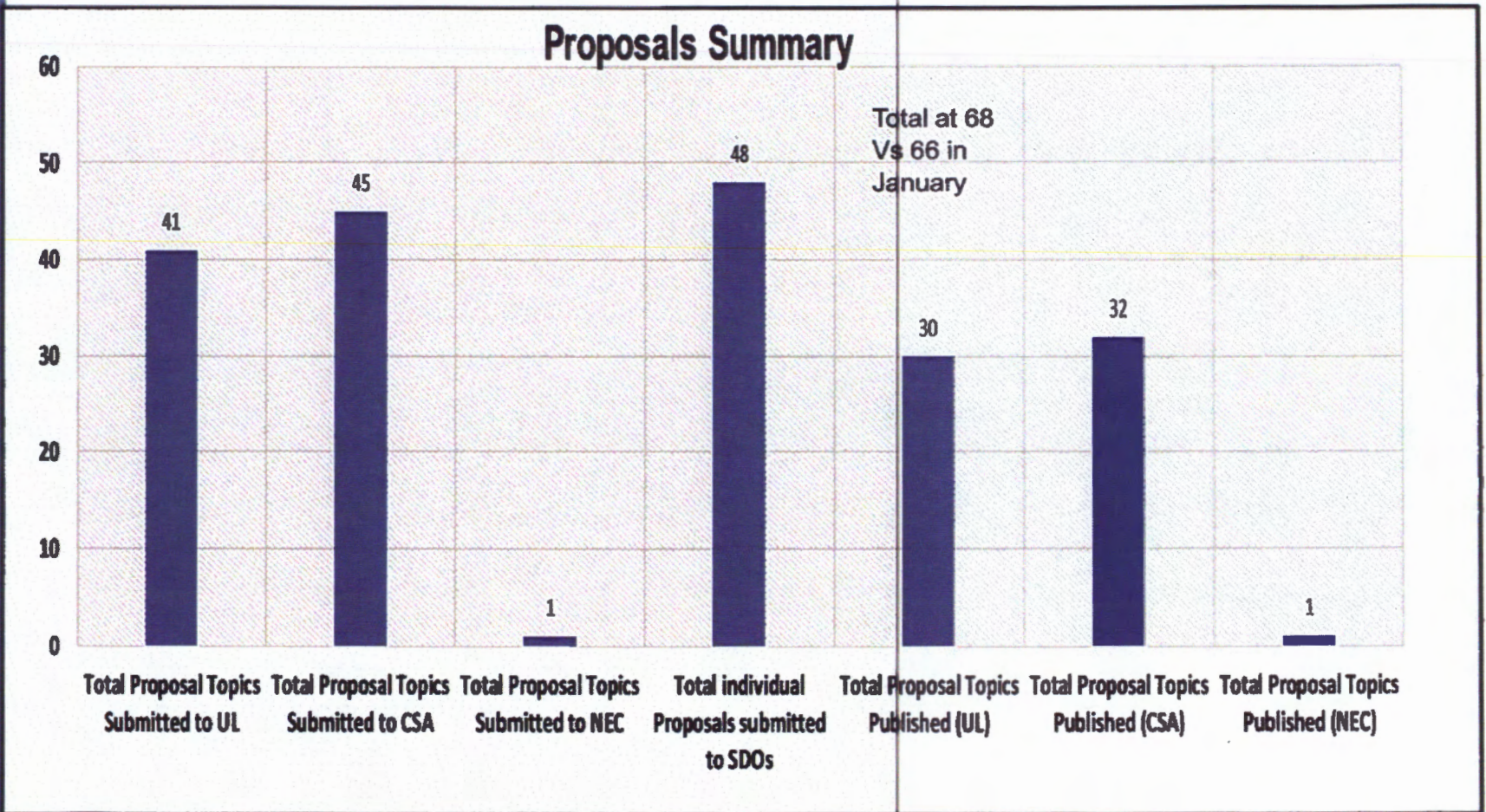
Upcoming Work in Heaters

Li-Ion Batteries (Cordless/Robotic Vacuums)

- AHAM Task Force is focusing on UL1017 & UL 2595 for end-product requirements related to Cordless and Robotic Vacuum Cleaners
- There is work ongoing on UL2595 & UL1017 related to moisture ingress that will improve end-product requirements
- UL2595 is aiming to harmonize many of the requirements to that of IEC.

Robotic Floor Care Proposals

Major Appliance Proposals Summary



Electric Ranges, UL 858

➤ Recent Proposals

➤ Smart Enabled controls

- This proposal allows a user to enable remote operation at the range once, allowing the product to be remote-started repeatedly.

➤ **Current Status: Ballot passed – published 11-2-2017; effectivity Mar 2020**

➤ Oven Racks:

- This proposal provides a procedure to evaluate the capability of oven racks to support reasonably foreseeable loads. The test evaluates a loaded rack through the range of its travel. It requires testing the rack before and after the thermal stress of a self-clean cycle (or 3 hours of 475 F bake on non-self-clean models). It also evaluates the rack both at room temperature and while the oven is hot.

➤ **Current Status: Ballot passed – published 11-2-2017; effectivity Mar 2020**

➤ Update To Surface Temperatures

- Align with CSA and IEC surface temperatures and assessment methods.

Current Status – passed ballot on 12-12; published 6-4-2018; proposed effectivity Sep 2020

Cooking, UL 858 & ANSI Z21.1

- **AHAM Proposal to UL 858:** Previously, AHAM submitted a proposal to mitigate cooktop fires due to unattended cooking. For electric coil elements, that test goes into effect in June 2018. In 2017, AHAM submitted revision to that test to change from aluminum pans to cast iron skillet to create a more conservative test.
- **Current Status:** The proposal passed balloting and published in Sept 2017.
- **No change in effectivity date – June 2018**

- **AHAM Electric Proposals to ANSI Z21.1 to address cooktop controls.**
 - Wet Cleaning Test
 - Redundant Line Breaks
 - NiCr wire test
 - Gas Range Electronic controls (UL60730 logic)
- **Current Status:** The proposals passed balloting and should publish in Nov. 2018 (AHAM pushed to hit this date otherwise they would have published 6 months later).
- **Effectivity date – TBD**

Cooking, UL 858 & ANSI Z21.1

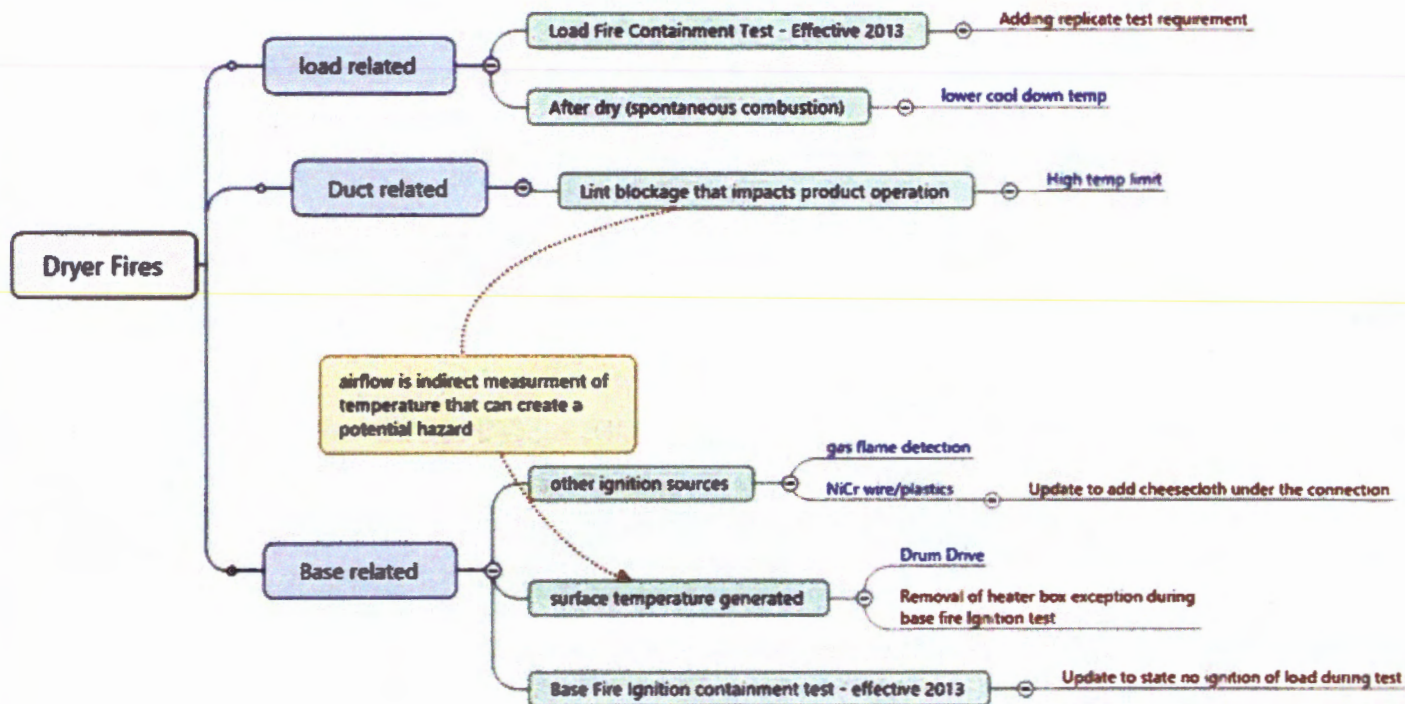
➤ Continued areas of Focus

- AHAM working group is continuing to evaluate requirements for Induction cooktops. The challenge has been getting a stable SS pan. We are currently investigating machine a pan.
- AHAM continues monitoring NFPA & National Institute of Standards and Technology efforts exploring automatic shut off technology in gas ranges
- Easy to turn Cooktop knobs – AHAM has reviewed the allegations in SaferProducts.gov and have not found a significant issue. Open to more discussion on this.

Dryers– UL2158

- 4 new proposals in the THC and soon the CSA TSC (gas)
 - Update to Nichrome wire test
 - this proposal adds “lint” to the nichrome wire ignition test. The “lint” is in the form of cheesecloth that is placed in proximity to the connection under test to understand how that would affect potential flame propagation.
 - Update to Dryer Base Fire Containment Test
 - proposal looks at the prevention of a load fire by trying to prevent the potential propagation of a base fire to the load. Even though it would be contained per Drum fire containment present in UL 2158 and CSA C22.2 # 112, this proposal is looking for prevention of the fire so it does not escalate into a larger fire. The risk of a larger fire is due to the fuel that comes from the clothes load.
 - Removed heater box exception
 - Update to Load fire Test
 - Added replicate

Dryer – 10 year look back



➤ Containment effective March 15, 2013

➤ Changes effective March 8, 2019

➤ In process for gas and electric standards
Effective likely after 2020

Washer Stability – UL2157

- AHAM is working to develop a forced failure test to assure containment in the event of an instantaneous out of balance at a high spin speed.
- Significant internal work has been done to develop and evaluate a proposal> members have run over 900 test runs with different test methods
- TF is currently working on repeatability and reproducibility of test methods in creating an event for different configurations/constructions



Microwave Ovens, UL 923

- **Current Proposals to UL STP working group:**
 - **New proposal**
 - To open the microwave oven door, two distinct actions will be required.
 - Warning label requirement

- **Current Status: Passed initial ballot, comment responses returned on 10-22-2018, recirculation Nov 2018**

Alternate Refrigerants

- AHAM updating our published Guidelines for servicing of residential refrigerators, RACs, PACs, and dehumidifiers with flammable refrigerants.
- AHAM is involved in the activities of CANENA WG10 that is working on the 3rd edition of UL/CSA 60335-2-40.

AFCI/GFCI

➤ AFCI

- No activities besides the review of the UL proposal to evaluate energy level and allow a longer trip length is in process.

➤ GFCI

- UL will move the curve from the annex to the body of the standard. A new STP will established.

Back-up

