

Subject 1642 (2054)

November 1, 2006

SUMMARY OF TOPICS

The following items are submitted for comment:

1. Options for Support of Formal Harmonization

2. Interest in Participation on a Technical Harmonization Committee to Assist in Drafting the Harmonized Text

COMMENTS DUE: November 22, 2006

1. Options for Support of Formal Harmonization

RATIONALE

Background

During the 1642 STP meeting held on June 21, 2006, a discussion took place regarding the possibility of harmonization of battery standard requirements. The discussion item was submitted by STP member Ramesh Shah of Moltech. There was general support at the meeting to explore the concept of standards harmonization.

During the meeting, Mr. Shah posted a comparison of ANSI, IEC, and UL lithium ion battery pack requirements. This comparison document required some technical updates to reflect the most recent requirements. Subsequent to the meeting, the initial comparison document was updated, and two separate comparison documents have additionally been developed: one covering primary lithium ion cell requirements, and one covering secondary rechargeable cells and packs.

Three separate comparison documents are therefore being shared with the STP and battery standards subscribers for reference. These documents will be included as attachments to the CSDS work area. To access the documents, click on the "Documentation" link under the "Actions" menu on the left side of the Work Area Home Page. This will open a separate window with links to the three supporting documents, noted below:

Attachment A: Comparison of requirements for lithium ion battery packs (Developed by Ramesh Shah, Moltech)

Attachment B: Comparison of requirements for primary lithium ion cell requirements (Developed by Laurie Florence, UL)

Attachment C: Comparison of requirements for secondary rechargeable cells and packs. (Developed by LaWanda Quarles, Motorola)

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Additionally, it was explained at the STP meeting that harmonization needs to be industry-driven, and that harmonization is generally lead by a sponsoring trade association. Subsequent to the 1642 STP meeting, UL received the following requests for harmonization:

•Letter dated August 14, 2006, from NEMA, requesting that UL consider harmonizing UL 1642 with IEC 60086-4 (Safety of Lithium Batteries), IEC 62133 (Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and batteries made for them, for use in portable applications), and ANSI C18.3 Part 2 (Safety of primary lithium batteries).

•Letter dated August 16, 2006, from Battery Association of Japan, requesting that UL consider harmonizing UL 1642 and UL 2054 with IEC 62133 (Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and batteries made for them, for use in portable applications), and IEC 60086-4 (Safety of Lithium Batteries).

Information On Harmonization

UL's philosophy towards harmonization is that the harmonization should be industry-driven, usually with a sponsoring trade association at the wheel. This means that for each new harmonization effort, UL encourages the industry to form a harmonization committee that will be tasked with developing the draft standard. This approach allows each industry to establish its own pace for harmonization. If an industry wants an aggressive schedule, then the committee members should position themselves to establish and meet their goals. The industry members and trade association need to establish a committee chair and secretariat, as these positions are not filled by UL staff members.

Though UL does not provide the chair or secretariat to the harmonization committee, once a decision has been made to pursue harmonization UL does typically provide a technical representative to the committee. This individual will be an active participant on the committee, completing a fair portion of the work and attending meetings, when possible.

UL will also provide assistance to the harmonization committee when the group reaches a harmonization barrier. UL standards staff members are available to answer questions and provide assistance via telephone and e-mails, and are also available to attend meetings and provide guidance when those meetings are held at the local UL office.

A harmonization project can take several years to complete, and requires coordination and consideration of multiple existing standards. It may be more beneficial to hold off on harmonization work until after the existing task group work is completed.

Questionnaire On Harmonization

When UL harmonizes requirements with an IEC standard, the harmonization effort usually takes the form of a formal adoption of the IEC standard, with identified national differences. An example of such a harmonization effort is UL 60950-1, which includes the IEC text of IEC 60950-1, and also includes the requirements necessary for the US applications.

Based on (1) the discussion at the June STP meeting, and (2) the harmonization requests submitted to UL, it is not clear to UL if the traditional IEC harmonization is the intent. An alternative approach may be a less formal harmonization by looking at the individual technical requirements and attempting to bring them closer together.

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UL seeks input and clarification on this point, and invites STP members and standards subscribers to provide their comments.

A key part of UL's evaluation process when determining whether or not to proceed with harmonization is the level of support voiced by the STP and industry. UL would like to determine the current level of industry support before proceeding with the effort. The particular scopes of the standards activities, and the amount of industry support (including the identification of potential technical harmonization committee members, chair, and secretary) are key. Therefore, UL requests that the STP members and standards subscribers indicate which option(s) you support with respect to harmonization of battery requirements. The options are listed below as paragraphs A - G.

To indicate the option you support, please post a comment in CSDS for that option, and include text that supports your position. To post a comment for a particular paragraph (A - G), click on the "Add/Filter Comments" link under the "Actions" menu on the left side of the Work Area Home Page. This will take you to the Document Forum screen. Then click on the option you support, and then click on the "Add New" link at the top of the page to open the Comment Form and provide your reasons for supporting this option.

Please post your comments in the CSDS Work Area by November 22, 2006.

Note: This Questionnaire is intended to provide UL with general information regarding interest in harmonization. Its results are information only and are not binding.

HARMONIZATION OPTIONS

- A. Support for formal harmonization of UL 1642 with IEC 60086-4, Safety of Lithium Batteries.
- B. Support for formal harmonization of UL 1642 with IEC 62133, Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and batteries made for them, for use in portable applications.
- C. Support for formal harmonization of UL 1642 with ANSI C18.3, Part 2. Safety of Primary Lithium Batteries.
- D. Support for formal harmonization of UL 1642 and UL 2054 with IEC 62133, Secondary cells and batteries containing alkaline or other non-acid electrolytes – Safety requirements for portable sealed secondary cells, and batteries made for them, for use in portable applications.
- E. Support for formal harmonization of UL 1642 and UL 2054 with IEC 60086-4, Safety of lithium batteries.
- F. Support for informal harmonization of UL 1642 and UL 2054 with other related battery standards. It is understood that such an approach would not result in a formal co-published or IEC-adopted standard.
- G. I do not support harmonization of any kind for UL 1642 and UL 2054.

2. Interest in Participation on a Technical Harmonization Committee to Assist in Drafting the Harmonized Text

RATIONALE

This topic requests contact information for those interested in participating on a Technical Harmonization Committee (THC) to help draft the harmonized text.

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CONTACT INFORMATION

If you are interested in participating on the THC, please include your Name, Company, Address, Phone, and e-mail address as a comment to this item in CSDS. Once you have clicked on the Topic in the CSDS Work Area, click on the "Add New" link next to the Topic title to open the Comment Form and provide your contact information.

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SUMMARY OF TOPICS

The following topics were discussed at the meeting:

- 1. UL 1642 - Change of Scope for UL 1642/Direction of UL 1642**
- 2. UL 1642 - Revisions to Definitions and Clarification of Terms "User Replaceable" and "Technician Replaceable"**
- 3. UL 1642 - Revisions to Samples, Conditioning, and Performance Outcomes**
- 4. UL 1642 - Construction Requirements**
- 5. UL 1642 - Short-Circuit Test**
- 6. UL 1642 - Abnormal Charging Test**
- 7. UL 1642 - Harmonization Discussion**
- 8. UL 1642 - Production Line Testing**
- 9. UL 2054 - Change of Scope for UL 2054/Direction of UL 2054**

COMMENTS DUE: AUGUST 21, 2006

A meeting of the Standards Technical Panel of UL for Lithium Batteries was held on June 21, 2006 at the Hilton Northbrook in Northbrook, Illinois. The purpose of the meeting was to discuss topics related to UL 1642 and UL 2054.

The purpose of the STP meeting report is to briefly summarize discussions held during the meeting, and to document any resulting outcomes, including planned future action. Although UL is not soliciting input on the report, please refer to the CSDS work area for guidance on posting comments.

CALL TO ORDER, ANNOUNCEMENTS, INTRODUCTION OF MEMBERS, GUESTS, AND OBSERVERS

The STP Chair called the meeting to order and welcomed all in attendance. The STP members, guests, and public participants were asked to introduce themselves. The STP Chair solicited additional agenda items, fielded questions, and reminded participants that the STP meeting is intended to focus on standards – not certification – issues. Also, since this was the first meeting of the 1642 STP, the STP chair briefly discussed the UL STP Process, and indicated that straw polls of the STP members in attendance may be taken during the STP meeting in order to determine direction of the STP. The STP Chair reminded participants that all official balloting will take place via letter ballot.

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ANNOUNCEMENTS AND REPORTS FROM THE STP PROJECT MANAGER

A copy of UL's patent policy was distributed. This policy, which covers the use of a patented invention in a UL Standard, can be found on UL's website at <http://ulstandardsinfolnet.ul.com/stp/patentpolicy.html>.

The current balance of the STP was discussed at the meeting and is shown in the following table:

Interest Category	Number of Members
Producers	8
Users	8
General	7

UL's goal is to have no interest category comprise more than one-third of the STP membership.

UL's goal of implementing new interest categories for STP membership was briefly discussed. Additional information will be provided to the STP members prior to the formal implementation for this STP.

DISCUSSION OF PROPOSALS

1. UL 1642 - Change of Scope for UL 1642/Direction of UL 1642

Discussion

A proposal request was submitted by STP member Laurie Florence of UL.

The proposal suggested a change in scope for UL 1642 to evaluate lithium battery packs to UL 2054. The proposal indicated that the UL 1642 standard currently does not have sufficient requirements to address multi-cell configurations such as battery packs. For example, UL 1642 does not contain comprehensive requirements for abnormal charging and short circuit testing, and it does not contain the abusive overcharge test. UL 2054 was written specifically to address battery packs. The proposal suggested that the scope of UL 1642 be revised to refer to UL 2054 for requirements for lithium battery packs. The proposal also included changes throughout the UL 1642 standard to remove any mention of lithium battery pack requirements.

Discussion at the meeting indicated that the preference is to maintain all lithium battery requirements – for both cells and battery packs – in one location (UL 1642). Therefore, Laurie Florence withdrew the original proposal. Instead, based on the feedback received at the meeting, it was decided to form a Lithium Battery and Battery Pack Requirement Task Group. This task group will review requirements for battery packs in UL 2054, and identify which requirements need to be added to UL 1642 to make that lithium battery standard more complete with respect to lithium battery pack requirements.

The requirements proposed by the Task Group will be reviewed by the STP for comment. It is anticipated that any comments received will be discussed at a future meeting of the STP, and then the proposals will be issued in CSDS for balloting and comment.

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