MEETING LOG
DIRECTORATE FOR ENGINEERING SCIENCES

SUBJECT: Meeting of the UL 2034 Ad Hoc Working Group

PLACE: CPSC Headquarters, Bethesda, MD

MEETING DATE: October 25, 2000

LOG ENTRY SOURCE: Donald W. Switzer DWS

ENTRY DATE: November 16, 2000

COMMISSION ATTENDEES:

See attached attendance sheet

NON-COMMISSION ATTENDEES:

See attached attendance sheet

MEETING SUMMARY

The UL 2034 Ad Hoc Working Group was formed to address outstanding issues on the performance requirements for CO detectors in UL 2034. The minutes of the meting are attached and accurately reflect the discussion in the meeting.

2034 Meetings
10/25/00

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UL2034 AD HOC GROUP MEETING REPORT

DATE OF MEETING:	WEDNESDAY, OCTOBER 25, 2000
LOCATION:	CPSC ROOM 714 4330 E.W. HIGHWAY BETHESDA, MD
MEMBERS:	TARO AMAMOTO (FIGARO USA) PAUL CLIFFORD (MOSAIC INDUSTRIES) MARK OBOG (UL) PAUL PATTY (UL) LARRY RATZLAFF (KIDDE SAFETY) JAE RYU (QUANTUM GROUP) DONALD SWITZER (CPSC) KAZUMI UNNO (FIGARO USA) MALCOLM WOODCOCK (CAPTEUR SENSORS)

The following is a brief summary of the items discussed at the October 25, 2000 ad hoc group meeting held at the CPSC in Bethesda MD.

1. UL plans to adopt the following proposals from the Subject 2034 bulletin dated March 15, 2000.
   a) Selectivity Test: Ethylene has been withdrawn from the proposal.
   b) Effects of Shipping and Storage Test.
   c) Reliability Requirements: Measurement of In-Service Reliability.

2. UL will consider proposing a Response to Mixtures of CO and Combustion Products test for UL2034 if it can be shown that this mixture significantly affects the sensitivity of CO alarms. The proposal could be harmonized with the September 2000 CSA 6.19, clause 7.7.2 proposal.

   UL ACTION ITEM: Prepare a proposal and test method for a response to mixtures of CO and combustion products test.

3. UL solicited input for consideration of a requirement for an accelerated lifetime exposure test to gases and vapors representative of the chemical families of gases known to be present in a residential environment. The group discussed recommendation 5 in attachment 1 of the August 25, 1999 TAP meeting minutes issued in the Subject 2034, November 10, 1999 bulletin. It was decided that more data regarding the effect of these gasses and vapors on CO sensors needs to be studied before this test could be proposed. The following questions need to be answered for each of the test gasses in recommendation 5. 1) What are the effects of these gasses on the sensors? 2) Are the effects the same or different for the various sensor types? 3) Should all gasses be proposed? 4) What concentration and exposure time should be used for each gas? 5) Can some of the gases be combined in a single exposure?

   AD HOC GROUP ACTION ITEM: Sensor and alarm manufacturers are requested to provide UL with any test data they have relating to the above questions for the sensors they manufacture or employ in their alarms. This information will be used by UL to assist in developing a proposal for an accelerated lifetime test. A deadline of January 31, 2001 was set for receipt of this information.

4. The group discussed the value of the UL Recognized Component (FTAM) program for sensors. Currently, sensors submitted under this program are subjected to a minimum test program of a15 ppm, 1-year stability test and are required to comply with UL's follow-up service program. Additional tests can be conducted at the manufacturer's request to provide additional information for the end user. The conditions of use in the Recognition report describe the limitations and conditions for end product use.

If the manufacturer wishes to use a sensor that is not a UL Recognized Component, the alarm manufacturer establishes the same test program and follow-up program for the sensor as an unlisted component.

The use of a R/C (FTAM) sensor allows an alarm manufacturer to use a sensor without having to repeat the 15 ppm, 1-year stability test. However, all tests in UL2034 are conducted on the alarm/ sensor combination.

The group discussed adding a test program to UL2034 for CO sensors. UL indicated that the test program would be neutral to sensor technology. The suggestion was made to conduct a combined selectivity and lifetime exposure test on the sensor with the possibility of waiving these tests when the sensor is submitted in combination with an alarm. Other tests may qualify for this scenario. All this is based on the sensor/ associated circuitry used during sensor testing being equivalent to that used in the alarm design.

UL ACTION ITEM: Develop a proposal for sensor testing for UL2034.

4. The subject of CO quantity displays on CO alarms was discussed. UL2034 does not allow any indication below 30 ppm and requires that the display be accurate within the tolerance specified in the owner's manual. It was noted that at the August 29, 1999 TAP meeting, ± 25 percent accuracy was previously discussed. A recent CSA 6.19 proposal suggests an accuracy of ± 30 percent. Members of the NEMA CO Group presented an October 5, 2000 preliminary draft concerning this subject for discussion.

   The following questions were raised. A) What tolerance should be specified? B) Should a graduated tolerance table be used? C) What temperature and humidity range should the display accuracy be evaluated to?

   NEMA CARBON MONOXIDE GROUP ACTION ITEM: Prepare a standard for the accuracy of a CO quantity display. A deadline of 6 months was established to prepare the proposal.