

Subject 2034

April 6, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Single and Multiple Station Carbon Monoxide Alarms, UL 2034, are being proposed:

1. Option for Carbon Monoxide Alarms with Digital Displays to Display Real-time Levels Below 30 PPM

2. Effect of Shipping and Storage

STP BALLOTS AND ALL COMMENTS DUE: May 7, 2018

For your convenience in review, proposed additions to existing requirements are shown underlined and proposed deletions are shown ~~lined-out~~.

1. Option for Carbon Monoxide Alarms with Digital Displays to Display Real-time Levels Below 30 PPM

RATIONALE

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CSA 6.19 2017 edition now allows for low level display below 30 ppm. The request for this option came from Health Canada and is an effort to provide additional information to at risk individuals who may not be able to tolerate levels as high as 30 PPM.

Providing real time low level information to at risk population can alert them of an impending condition that may affect their susceptibility to levels of CO levels below the current display limits (30 ppm) allowed by UL 2034 standard. The past CSA 6.19 standard and the current UL 2034 do not allow alarms with digital displays to display levels below 30 PPM. These CO alarms are allowed to have a peak hold feature that allows the user to manually recall and display the highest level detected since the peak hold feature was last cleared. Allowing a real time display would allow one to instantly see CO levels below 30 PPM.

At risk individuals who can be impacted by long term low level exposure would have the ability to view the current real time CO level without having to physically perform a manual recall of the peak CO level. CSA 6.19-17 has added options to continuously display levels below 30 PPM. Allowing the alarm to display real time levels below 30 PPM would make it easier for at risk individuals to monitor CO which could impact their health. Low level CO information is already available on digital display alarms which have peak level recall feature so this change would not alter the information already available to the end user, only make it easier for the end user to view this information. This change would also better align the display options outlined in UL 2034 with those in the latest edition of the CSA 6.19 standard. Revising UL 2034 would allow manufacturers the ability to design a common product that could obtain both UL 2034 and CSA 6.19 approvals and also provide optional display information for CO alarms listed to the UL 2034 standard.

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PROPOSAL

1.3 Carbon monoxide alarms covered by this standard are not intended to alarm when exposed to long-term, low-level carbon monoxide exposures or slightly higher short-term transient carbon monoxide exposures, possibly caused by air pollution and/or properly installed/maintained fuel-fired appliances and fireplaces. See Table 41.1, Part B, False alarm resistance specifications. Devices with digital displays (or that have the capability of providing a remote indication provided at an external device, such as a remote receiver or a mobile device, i.e. smart phone) may have a feature that displays non-alarm CO levels below 30 PPM. This information may be useful for At-risk individuals.

5.7.1 CO ALARM WITH LOW LEVEL INDICATION – an alarm device that has a numeric display that includes CO levels below 30 ppm.

5.25 WARNING SIGNAL – Except for alarm and trouble signals and end of life, no other audible and visual signals shall be used (i.e. warning signals that indicate the presence of CO less than 30 ppm). CO levels above 30 ppm may be displayed on all devices. Levels below 30 ppm shall be displayed under normal use only on CO alarms labeled as having the ability of provide a low-level CO indication.

87.1 An alarm shall be permanently marked on a Class IIIC marking material with the following information unless specifically indicated that it appears on the installation wiring diagram. The marking shall be in a contrasting color, finish, or equivalent. Unless the letter height is specified, all markings shall be at least 3/64 inch (1.2 mm) high.

- a) Name or identifying symbol and address of the manufacturer or private labeler.
- b) Model number and date of manufacture. The date of manufacture shall be non-coded and in the format YEAR (in 4 digits), MONTH (in letters), and DAY (in 2 digits) located on the outside surface of the CO alarm.
- c) Electrical rating, in volts, amperes, or watts, and frequency.

Exception: Not required for battery operated alarms.

- d) Correct mounting position if a unit is intended to be mounted in a definite position. Carbon monoxide alarms that comply with 66.5.2 shall include marking information that clearly indicates that the product is only intended for installation on the ceiling, or on the wall no more than 12 inches from the ceiling. As an alternative, the correct mounting position shall appear in the installation instructions.
- e) Identification of the product (carbon monoxide alarm shall be marked in contrasting color from the background on the face of the unit), lights, switches, and meters, regarding their function unless their function is obvious. The following message shall be located adjacent to the visual indicator for alarm: "Move to fresh air."
- f) Maximum rating of fuse in each fuseholder.
- g) Identification of spare lamps and batteries by part number, manufacturer's model number or equivalent, located adjacent to the component.
- h) Reference to an installation diagram or owner's manual, or both.