

Subject 121203

March 30, 2018

SUMMARY OF TOPICS

The following changes in requirements to the Standard for Safety Portable Electronic Products Suitable for Use in Class I, Division 2, Class I, Zone 2, Class II, Division 2, Class III, Division 1, Class II, Division 2 and Zone 22 Hazardous (Classified) Location, UL 121203, are being proposed:

1. Proposed Second Edition of the Standard for Safety for Portable Electronic Products Suitable for Use in Class I, Division 2, Class I, Zone 2, Class II, Division 2, Class III, Division 1, Class II, Division 2 and Zone 22 Hazardous (Classified) Location, UL 121203.

STP BALLOTS AND ALL COMMENTS DUE: MAY 14, 2018

For your convenience in review, the following proposed Second Edition is shown as a clean document. To see a redline version with lined-out and underlined, please refer to the "Supporting Documentation" located on the right-hand side of this CSDS Work Area under the "Quick View" tab. ***DISCLAIMER: This redline version is not an official document and has been prepared for user convenience. The clean document noted below is to be considered the official document.***

1. Proposed Second Edition of the Standard for Safety for Portable Electronic Products Suitable for Use in Class I Division 2, Class I, Zone 2, Class II, Division 2, Class III, Division 1, Class II, Division 2 and Zone 22 Hazardous (Classified) Location, UL 121203.

RATIONALE

Proposal submitted by: Tonya Woods, TG79-15 Committee Chair on behalf of the TG79-15 Committee Members:

Edition 1 of 121203 is outdated. Edition 2 has been developed to reflect changes in technology.

It is the proposal submitter's opinion that this proposal affects the following topics/sections of the Standard:

- instructions requirement.



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PROPOSAL

1 Scope

1.1 This standard is to provide guidance for the use of portable electronic products in Class I, Division 2, Class I, Zone 2, Class II, Division 2, Class III, Division 1, Class III, Division 2, and Zone 22 certain hazardous (classified) locations.

1.2 This standard does not apply to products that are powered by premises wiring or connected to a communication line during use in the hazardous (classified) location.

1.3 This standard does not apply to portable electronic products that are listed for hazardous (classified) locations. Examples of available listed products include pagers, flashlights, and some test instruments.

NOTE In the United States, an OSHA interpretation of 29CFR1910.399 requires that a listed product be used if it is available. When listed equipment is not available, the CFR allows for testing and inspection by local authorities. This document is intended to provide guidance for local authorities for such testing and inspection.

1.4 This standard does not address other considerations involving the use of portable electronic products which may result in these products being considered unsafe due to creation of a distraction from important work tasks or radio frequency interference with measurement and control equipment.

NOTE Portable and battery powered equipment may be unavailable as listed or labeled for use in hazardous (classified) locations due to a limited market. As a result, additional considerations are applied to take advantage of this technology in a hazardous (classified) location in a safe and workable manner.

2 Units of Measurement

2.1 Values stated without parentheses are the requirement. Values in parentheses are explanatory or approximate information.

3 Undated References

3.1 Any undated reference to a code or standard appearing in the requirements of this standard shall be interpreted as referring to the latest edition of that code or standard.

ANSI/ISA 60079-0 (12.00.01), *Electrical Apparatus for Use in Class I, Zones 0, 1 & 2 Hazardous (Classified) Locations: General Requirements*

ANSI/ISA-TR12.24.01 (IEC 60079-10 Mod), *Recommended Practice for Classification of Locations for Electrical Installations Classified as Class I, Zone 0, Zone 1, or Zone 2*

ANSI/ISA-12.13.01 (IEC 61779-1 to 5 Mod), *Performance Requirements for Combustible Gas Detectors*

ANSI/ISA-RP12.13.02 (IEC 61779-6 Mod), *Recommended Practice for the Installation, Operation, and Maintenance of Combustible Gas Detection Instruments*

ANSI/FM 6325/ISA-12.13.04, *Performance Requirements for Open Path Combustible Gas Detectors*

ANSI/ISA-84.00.01 (IEC 61511-1 Mod), *Functional Safety: Safety Instrumented Systems for the Process Industry Sector – Part 1: Framework, Definitions, System, Hardware and Software Requirements*

API RP14F, *Design and Installation of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Division 1 and Division 2 Locations*

API RP14FZ, *Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, Zone 1, and Zone 2*

API RP14C, *Analysis, Design, Installation and Testing of Basic Surface Safety Systems on Offshore Production Platforms*

API RP14F, *Recommended Practice for Design and Installation of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Zone 0, Zone 1, and Zone 2 Locations*

API RP14FZ, *Recommended Practice for Design and Installation of Electrical Systems for Fixed and Floating Offshore Petroleum Facilities for Unclassified and Class I, Zone 0, Zone 1, and Zone 2 Locations*

API RP500, *Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Division I and Division 2*

API RP505, *Recommended Practice for Classification of Locations for Electrical Installations at Petroleum Facilities Classified as Class I, Zone 0, and Zone 2*

IEC 60050(IEV) *International Electrotechnical Vocabulary*

NFPA 70, *National Electrical Code®*

NFPA 30, *Flammable and Combustible Liquids Code*

NFPA 51B, *Standard for Fire Prevention During Welding, Cutting, and Other Hot Work*

OSHA Regulation, *General Requirements, SubPart Q, Welding, Cutting, and Brazing, 29CFR1910.252*

OSHA Regulation, *General Requirements, SubPart S, Electrical 29CFR1910*

UL 121201, *Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations*

UL 60079-0, *Explosive atmospheres - Part 0: Equipment - General Requirements*

4 Glossary

4.1 For the purpose of this standard, the following definitions apply.

4.2 APPROVED – acceptable to the authority having jurisdiction.

4.3 AUTHORITY HAVING JURISDICTION – the organization, office or individual that has the responsibility and authority for approving equipment, installations, or procedures.

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4.4 BATTERY – an assembly of two or more cells electrically connected to each other to increase the voltage or capacity.

4.5 BODY-WORN – normally worn directly on or supported by a person's body.

4.6 BUTTON CELL – small round non-rechargeable cell, where the overall height is less than the diameter.

4.7 CELL – an assembly of electrodes and electrolytes which constitutes the smallest electrical unit of a battery.

4.8 EQUIPMENT, PERSONAL – equipment intended to be worn by and in contact with a person's body during operation.

4.9 EQUIPMENT, PORTABLE – equipment intended to be carried by a person during operation.

Note 1 to entry: Portable equipment carried by a person during operation is sometimes referred to as hand-held equipment.

4.10 EXCESSIVE TEMPERATURE – a temperature in excess of that tolerable to human touch [approximately 60°C (140°F)].

4.11 GAS FREE WORK PERMIT (GFWP) – a permit, resulting from approval by an authorized person under the application of a defined documented management work process, stating that work involving potential ignition sources may be performed in a hazardous (classified) location by ensuring that the atmosphere is free of ignitable concentrations of flammable gases or vapors.

NOTE 1 Refer to NFPA 51B which provides provisions to prevent loss of life and property from fire or explosion as a result of any work involving burning, welding, or similar operations that is capable of initiating fires or explosions.

NOTE 2 Gas free work permit may sometimes be referred to as a "Hot Work Permit."

4.12 LABELED – equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

4.13 LISTED – equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or services meets identified standards or has been tested and found suitable for a specified purpose.

FPN: The means for identifying listed equipment may vary for each organization concerned with product evaluation, some of which do not recognize equipment as listed unless it is also labeled. Use of the system employed by the listing organization allows the authority having jurisdiction to identify a listed product.