



Spill Cleanup Kits

Doc # CR1004, July 20, 2010 rev1

Codes and Regulatory requirement for Spill Cleanup Kits

Uniform Fire Code (UFC), 1999

ARTICLE 64 Stationary Lead-Acid Battery Systems

6401 Scope. The scope of the article applies to all battery types, including Valve Regulated Lead Acid (VRLA) and gel cell batteries. The definition of "lead-acid battery" includes all "electrochemical cells interconnected to supply a nominal voltage of DC power..." The revision broadens the scope of the article to regulate battery systems over 50 gallons (189.3 L) aggregate capacity reducing the prior 100 gallons (378.5 L) minimum that previously existed. This was done to ensure Article 64, rather than Article 50, applies to these systems per the original intent.

The electrolyte in stationary lead acid battery systems (SLABS) contain sulfuric acid, which is classified as toxic when in concentrations over 12.5 percent (IFCI's Hazardous Materials Classification Guide). Previously, Article 80 is applicable to battery systems with an electrolyte capacity between 50 gallons (189.3L) and 100 gallons (378.5L) in occupancies unprotected by sprinklers. The adoption of Article 64 Supplement 1999 more specifically addresses hazards related to battery systems and is now applicable to all systems over 50 gallons (189.3 L). If individual lead-acid batteries with liquid capacity exceeding 20 gallons, each shall also comply with Article 80.

6404 Installation and Maintenance

6404.5 Neutralization. An approved method to neutralize spilled electrolyte shall be provided. The method shall be capable of neutralizing a spill from the largest lead-acid battery to a pH between 7.0 - 9.0.

International Fire Code 2003

Chapter 6, Building Services and Systems

SECTION 608- STATIONARY LEAD-ACID BATTERY SYSTEMS

608.1 Scope. Stationary lead-acid battery systems using vented (flooded) lead-acid batteries having an electrolyte capacity of more than 50 gallons (189 L) used for facility standby power, emergency power, or uninterrupted power supplies (UPS) shall comply with this section. Valve-regulated lead-acid batteries are not subject to the requirements of this section, but shall comply with Section 609.

608.4 Spill Control and Neutralization. An approved method and materials for the control and neutralization of a spill of electrolyte shall be provided. The method and materials shall be capable of controlling and neutralizing a spill from the largest lead-acid battery to a pH between 7.0 and 9.0.

SECTION 609- VALVE-REGULATED LEAD-ACID (VRLA) BATTERY SYSTEMS

609.1 Scope. Valve-regulated lead-acid (VRLA) battery systems having an electrolyte capacity of more than 50 gallons (189 L) used for facility standby power, emergency power or uninterrupted power supplies (UPS) shall comply with this section.

609.5 Neutralization. An approved manual method and materials for the neutralization of a release of electrolyte shall be provided. The method and materials shall be capable of controlling and neutralizing a release of 3 percent of the capacity of the largest VRLA cell or block in the room to a pH between 7.0 and 9.0.

International Fire Code 2006

Chapter 6, Building Services and Systems

SECTION 608- STATIONARY LEAD-ACID BATTERY SYSTEMS

608.1 Scope. Stationary storage battery systems having an electrolyte capacity of more than 50 gallons (189 L) for flooded lead acid, nickel cadmium (Ni-Cd) and valve-regulated lead acid (VRLA), or 1,000 pounds (454 kg) for lithium-ion, used for facility standby power, emergency power or uninterrupted power supplies, shall comply with this section and Table 608.1.

608.5 Spill control and neutralization. An approved method and materials for the control and neutralization of a spill of electrolyte shall be provided in areas containing lead-acid, nickel-cadmium or other types of batteries with free-flowing liquid electrolyte. For purposes of this paragraph, a "spill" is defined as any unintentional release of electrolyte.

Actual codes and regulations vary by geography. Check with Local Authority Having Jurisdiction for exact requirements. For additional information, go to www.osha.gov, www.nfpa.org or www.iccsafe.org.



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Exception: VRLA, lithium-ion or other types of sealed batteries with immobilized electrolyte shall not require spill control.

608.5.1 Nonrecombinant battery neutralization. For battery systems containing lead-acid, nickel-cadmium or other types of batteries with free-flowing electrolyte, the method and materials shall be capable of neutralizing a spill from the largest lead-acid battery to a pH between 7.0 and 9.0.

608.5.2 Recombinant battery neutralization. For VRLA or other types of sealed batteries with immobilized electrolyte, the method and material shall be capable of neutralizing a spill of 3 percent of the capacity of the largest VRLA cell or block in the room to a pH between 7.0 and 9.0.

Exception: Lithium-ion batteries shall not require neutralization.

NFPA 1- Uniform Fire Code, 2006 Edition

Chapter 52 Stationary Lead–Acid Battery Systems

52.1 General. Stationary lead-acid battery systems having an electrolyte capacity of more than 100 gal (378.5 L) in sprinklered buildings or 50 gal (189.3 L) in unsprinklered buildings used for facility standby power, emergency power, or uninterrupted power supplies shall be in accordance with Chapter 52.

52.3 Safety Features.

52.3.5 Neutralization.

52.3.5.1 An approved method to neutralize spilled electrolyte shall be provided.

52.3.5.2 The method shall be capable of neutralizing a spill from the largest lead–acid battery to a pH between 7.0 and 9.0.

52.3.5.3 (2009 Edition) Lithium-ion and lithium metal polymer batteries shall not require neutralization

OSHA 1926.441(a)(5) & (7)

1910.120(j) Handling drums and containers

1910.120(j)(1)General

1910.120(j)(1)(i) Hazardous substances and contaminated, liquids and other residues shall be handled, transported, labeled, and disposed of in accordance with this paragraph.

1910.120(j)(1)(ii) Drums and containers used during the clean-up shall meet the appropriate DOT, OSHA, and EPA regulations for the wastes that they contain.

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