

# SPILL CONTAINMENT REQUIREMENTS



## Spill Containment Requirements

for Stationary Lead-Acid Battery Systems

Fire codes may require standby battery systems to utilize an approved method and materials for control and neutralization of unintentional spills. The main codes in the United States relating to battery systems are the Uniform Fire Code (UFC), the International Fire Code (IFC) and the National Fire Protection Association (NFPA). OSHA and the EPA may also have related requirements.



The codes and regulations (outlined below) are intended to prevent fires and protect the safety of personnel, equipment and the environment. Codes vary by state (see page 2) and are dependent on model code adoption. Municipalities may also make amendments to state and model codes.

Code	Description/ Battery Type	Quantity	Summary
Uniform Fire Code UFC 2000 Article 64	Flooded Lead-Acid & VRLA	50 gallons or 20 gallons in a single battery	Each rack of batteries or group of racks shall be provided with a liquid tight 4-inch spill control barrier which extends at least 1 inch beyond the battery rack in all directions.
International Fire Code IFC 2003 & 2006	Flooded Lead-Acid	50 gallons	Approved method and materials for the control and neutralization of a spill
	VRLA	50 gallons	Capable of controlling and neutralizing a spill from the largest battery to a pH between 7 and 9
National Fire Protection Association NFPA 1 - 2006	Stationary Lead-Acid Batteries	55 gallons in a single battery	Provided with spill control
		100 gallons in a room with sprinklers	Approved method to neutralize spilled electrolyte to a pH between 7 and 9
OSHA 29 CFR	Flooded	—	Spill control, neutralization, eyewash and acid-resistant aisles
EPA 40 CFR	Protection of Environment	1,000 pounds (100 gallons)	Hazardous Material Inventory and Reporting, Spill Control, Spill Reporting and Disposal
NFPA 76 Telecommunication 2005	Stationary Lead-Acid Batteries	—	Comply with NFPA 1
BOCA National Building Code 1999	Stationary Batteries	500 gallons corrosive	Controls shall be designed to prevent materials from entering or leaving process
			Capable of retaining 110% from the largest battery
BOCA National Fire Prevention Code 1999	Storage and use of solid and liquid corrosive materials	1,000 gallons	Provided with a means to control spillage and contain or drain off spillage drain. Spill control - recessed minimum 4 inches or liquid tight. Four inch raised sill to prevent flow of liquid to adjoining areas

Note: Check with authorities for all other applicable codes, amendments and regulations. Authorities include EPA, OSHA, Hazmat inspectors, facility owners, insurance inspectors, fire marshals, etc.



# SPILL CONTAINMENT REQUIREMENTS *(continued)*



STATE	CODE	FLOODED BATTERY SYSTEMS		VRLA BATTERY SYSTEMS		EPA	OSHA
		SPILL CONTROL	NEUTRALIZATION	SPILL CONTROL	NEUTRALIZATION		
Alabama	IFC	✓	✓	Note 1	✓	✓	✓
Alaska	IFC	✓	✓	Note 1	✓	✓	Note 3
Arizona	IFC	✓	✓	Note 1	✓	✓	Note 3
Arkansas	IFC	✓	✓	Note 1	✓	✓	✓
California	IFC	✓	✓	Note 1	✓	✓	Note 3
Colorado	NFPA	✓	✓	Note 1	✓	✓	✓
Connecticut	IFC	✓	✓	Note 1	✓	✓	Note 3
Delaware	NFPA	✓	✓	✓	✓	✓	✓
Florida	NFPA	✓	✓	Note 1	✓	✓	✓
Georgia	IFC	✓	✓	Note 1	✓	✓	✓
Hawaii	NFPA	✓	✓	✓	✓	✓	Note 3
Idaho	IFC	✓	✓	Note 1	✓	✓	✓
Illinois	NFPA	✓	✓	✓	✓	✓	✓
Indiana	IFC	✓	✓	Note 1	✓	✓	Note 3
Iowa	IFC	✓	✓	Note 1	✓	✓	Note 3
Kansas	IFC	✓	✓	Note 1	✓	✓	✓
Kentucky	IFC	✓	✓	Note 1	✓	✓	Note 3
Louisiana	NFPA	✓	✓	Note 1	✓	✓	✓
Maine	NFPA	✓	✓	✓	✓	✓	✓
Maryland	NFPA	✓	✓	Note 1	✓	✓	Note 3
Massachusetts	NFPA	✓	✓	Note 1	✓	✓	✓
Michigan	NFPA	✓	✓	✓	✓	✓	Note 3
Minnesota	IFC	✓	✓	Note 1	✓	✓	Note 3
Mississippi	-	Note 2	Note 2	Note 2	Note 2	✓	✓
Missouri	-	Note 2	Note 2	Note 2	Note 2	✓	✓
Montana	NFPA	✓	✓	Note 1	✓	✓	✓
Nebraska	NFPA	✓	✓	Note 1	✓	✓	✓
Nevada	IFC	✓	✓	Note 1	✓	✓	Note 3
New Hampshire	NFPA	✓	✓	Note 1	✓	✓	✓
New Jersey	NFPA	✓	✓	Note 1	✓	✓	Note 3
New Mexico	IFC	✓	✓	Note 1	✓	✓	Note 3
New York	IFC	✓	✓	Note 1	✓	✓	Note 3
North Carolina	IFC	✓	✓	Note 1	✓	✓	Note 3
North Dakota	NFPA	✓	✓	Note 1	✓	✓	✓
Ohio	IFC	✓	✓	Note 1	✓	✓	✓
Oklahoma	IFC	✓	✓	Note 1	✓	✓	✓
Oregon	IFC	✓	✓	Note 1	✓	✓	Note 3
Pennsylvania	IFC	✓	✓	Note 1	✓	✓	✓
Rhode Island	NFPA	✓	✓	Note 1	✓	✓	✓
South Carolina	IFC	✓	✓	Note 1	✓	✓	Note 3
South Dakota	NFPA	✓	✓	Note 1	✓	✓	✓
Tennessee	IFC	✓	✓	Note 1	✓	✓	Note 3
Texas	NFPA	✓	✓	Note 1	✓	✓	✓
Utah	IFC	✓	✓	Note 1	✓	✓	Note 3
Vermont	NFPA	✓	✓	Note 1	✓	✓	Note 3
Virginia	IFC	✓	✓	Note 1	✓	✓	Note 3
Washington	IFC	✓	✓	Note 1	✓	✓	Note 3
West Virginia	NFPA	✓	✓	Note 1	✓	✓	✓
Wisconsin	NFPA	✓	✓	Note 1	✓	✓	✓
Wyoming	IFC	✓	✓	Note 1	✓	✓	Note 3

**Notes:**

1. Check with local authorities for amendments.
2. No state codes; check with local authorities.
3. Has EPA-approved State Plan.

The information provided is based on Bulldog Battery's interpretations of the codes. This information should be used for GUIDANCE PURPOSES ONLY and Bulldog Battery cannot be held responsible if the information is incorrect or if other parties interpret the information differently.

