



BATTERY STORAGE

Battery Types

Recombinant Batteries_ These batteries are designed so that if punctured or damaged, they would not spill because the electrolyte is immobilized in an absorptive glass mat or by a gelling agent. Recombinant batteries do not routinely emit hydrogen gas to the atmospheres. Recombinant batteries vent hydrogen only when the internal pressure exceeds the ambient pressure; therefore, hydrogen release is still an issue and ventilation is still required.

Nonrecombinant (flooded) stationary storage Batteries_ These batteries are more likely to have a spill and routinely emit hydrogen to the atmosphere and thus are not as highly subject to pressure buildup as are the recombinant type.

When storing batteries that are over 1000 lbs. of recombinant or over 50 gallons of nonrecombinant cumulative; the following requirements shall be put in place:

BATTERY REQUIREMENTS

REQUIREMENT	NONRECOMBINANT BATTERIES		RECOMBINANT BATTERIES	
	Flooded Lead Acid Batteries	Flooded Nickel-Cadmium (Ni-Cd) Batteries	Valve Regulated Lead Acid (VRLA) Batteries	Lithium-Ion Batteries
Safety caps	Venting caps (608.2.1)	Venting caps (608.2.1)	Self-resealing flame-arresting caps (608.2.2)	No caps
Thermal runaway management	Not required	Not required	Required (608.3)	Not required
Spill control	Required (608.5)	Required (608.5)	Not required	Not required
Neutralization	Required (608.5.1)	Required (608.5.1)	Required (608.5.2)	Not required
Ventilation	Required (608.6.1; 608.6.2)	Required (608.6.1; 608.6.2)	Required (608.6.1; 608.6.2)	Not required
Signage	Required (608.7)	Required (608.7)	Required (608.7)	Required (608.7)
Seismic protection	Required (608.8)	Required (608.8)	Required (608.8)	Required (608.8)
Smoke detection	Required (608.9)	Required (608.9)	Required (608.9)	Required (608.9)

For assistance in complying with the above requirements, please call the Fire Marshal's Office at 916- 734-3036

In the event of a battery liquid spill, please follow the guidelines in UCDH P&P 1725, *Response to Hazardous Materials Spills*. If the spill creates an emergency condition, dial 911.