

## **E-10 STORAGE BATTERIES**

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## E-10 STORAGE BATTERIES

Based on ABYC's assessment of the existing technology, and the problems associated with achieving the goals of this standard, ABYC recommends compliance with this standard for systems and associated equipment manufactured and/or installed after July 31, 2007.

### 10.1 PURPOSE

These standards and recommended practices are guides for the selection, location, installation, and wiring of storage batteries.

**NOTE:** The United States Coast Guard has promulgated mandatory requirements for batteries in [33 CFR, Subpart I, Sections CFR 183.420 \(a\), \(b\), \(c\), \(d\), \(e\), \(f\), and \(g\)](#). Refer to the CFR for complete, current federal requirements.

### 10.2 SCOPE

These standards and recommended practices apply to storage batteries used in direct current (DC) electrical systems on boats that operate at potentials of 50 volts or less.

### 10.3 REFERENCED ORGANIZATIONS

ABYC - American Boat & Yacht Council, Inc., 613 Third Street, Suite 10, Annapolis, MD 21403. Phone: (410) 990-4460. Fax: (410) 990-4466. website: [www.abycinc.org](http://www.abycinc.org).

BCI - Battery Council International, 401 North Michigan Avenue, Chicago, IL 60611. (312) 644-6610 website: [www.batteryCouncil.org](http://www.batteryCouncil.org).

CFR - Code of Federal Regulations and other government publications. Obtain from the Superintendent of Documents, United States Government Information, POB 371 954, Pittsburgh, PA 15250-7954. Phone: (202) 512-1800 or FAX (202) 512-2250. An excerpt from the CFR is also available from ABYC – American Boat & Yacht Council, Inc., 613 Third Street, Suite 10, Annapolis, MD 21403. Phone: (410) 990-4460. Fax: (410) 990-4466.

### 10.4 DEFINITIONS

For the purpose of this standard the following definitions apply.

Battery Bank - two or more batteries connected in series to provide higher voltage, or in parallel to provide increased capacity.

Cold Cranking Amperage (CCA) - the discharged load, in amperes, that a new, fully charged battery at 0°F (-17.8°C) can deliver for 30 seconds, and maintain a voltage of 1.2 volts per cell or higher.

Marine Cranking Amperage - the discharge load, in amperes, that a new, fully charged battery at 32°F (0°C), can deliver for 30 seconds, and maintain a voltage of 1.2 volts per cell or higher.

Battery Reserve Capacity - the number of minutes a new, fully charged battery, at 80°F (26.7°C), can be continuously discharged at 25 amperes, and maintain a voltage of 1.75 volts per cell or higher (10.5 volts for a 12 volt battery or 5.25 volts for a 6 volt battery).

Storage Battery - a group of cells permanently interconnected electrically and contained in a case, hereafter referred to as a battery.

### 10.5 REQUIREMENTS - IN GENERAL

10.5.1 Manufacturers or suppliers of batteries for marine use shall comply with the construction and performance specifications of the Battery Council International (BCI), *Battery Technical Manual*.

10.5.2 Batteries shall be identified with information according to BCI, *Battery Technical Manual*, Section 10.