

E18 Recording of the Type, Location and Maintenance Cycle of Batteries

(July
2003)
(Rev.1
Dec
2014)
(Rev.2
June
2025)

1. Where batteries are fitted for use for essential (UI SC134) and emergency services a schedule of such batteries is to be compiled and maintained. The schedule, which is to be reviewed by the Society during plan approval or the newbuilding survey, is to include at least the following information regarding the battery(ies):

- Type and manufacturer's type designation.
- Voltage and ampere-hour rating.
- Location.
- Equipment and/or system(s) served.
- Maintenance/replacement cycle dates.
- Date(s) of last maintenance and/or replacement.
- For replacement batteries in storage, the date of manufacture and shelf life.¹

2. Procedures are to be put in place to ensure that where batteries are replaced that they are of an equivalent performance type.

3. Where vented² type batteries ~~replace and/or~~ valve-regulated sealed³ types batteries are installed, it is to be ensured that there is adequate ventilation⁴. ~~and that~~ For vented type batteries, the Society's requirements relevant to the location and installation of vented types ~~batteries~~ are complied with.

4. Details of the schedule and of the procedures are to be included in the ship's safety management system and be integrated into the ship's operational maintenance routine as appropriate⁵ to be verified by the Society's surveyor.

Note:

1. Rev.1 of this UR is to be uniformly implemented by IACS Societies from 1 January 2016.
2. Rev.2 of this UR is to be uniformly implemented by IACS Societies for ships contracted for construction on or after 1 July 2026.
3. The "contracted for construction" date means the date on which the contract to build the vessel is signed between the prospective owner and the shipbuilder. For further details regarding the date of "contract for construction", refer to IACS Procedural Requirement (PR) No. 29.

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(cont)

1 Shelf life is the duration of storage under specified conditions at the end of which a battery retains the ability to give a specified performance.

2 A vented type battery is one in which the cells have a cover provided with an opening through which products of electrolysis and evaporation are allowed to escape freely from the cells to atmosphere.

3 A valve-regulated sealed type battery is one in which cells are closed but have an arrangement (valve) which allows the escape of gas if the internal pressure exceeds a predetermined value.

4 The ventilation arrangements for installation of ~~vented type~~ batteries which have charging power higher than 2kW are to be such that the quantity of air expelled is at least equal to:

1) Vented type batteries

$$Q = 110In$$

where

n = number of cells in series

I = maximum current delivered by the charging equipment during gas formation, but not less than 25 per cent of the maximum obtainable charging current in amperes

Q = quantity of air expelled in litres/hr.

2) Valve-regulated sealed type batteries

The ventilation rate for compartments containing valve-regulated sealed type batteries may be reduced to 25 per cent of that given above.

Alternatively, other industrial standards may be utilized to calculate ventilation rate, for example, section 7.2 and 7.3 of IEC 62485-2:2010, or section CC.2 of Annex CC to IEC 62040-1:2017, as appropriate.

5 See section 10 of the IMO ISM Code.

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