

---

# SC186 Acceptable voltage variations in voltage when the emergency loads are supplied from a battery via an electronic converter/inverter

(May 2004)  
(Corr.1  
Jan 2010)

(Reg.II-1/42.3.2.1, 42.4, 43.3.2.1 & 43.4)

## Reg.II-1/42.3.2.1

3.2 *Where the emergency source of electrical power is an accumulator battery, it shall be capable of:*

- .1 *carrying the emergency electrical load without recharging while maintaining the voltage of the battery throughout the discharge period within 12% above or below its nominal voltage;*

## Reg.II-1/42.4

4. *The transitional source of emergency electrical power required by paragraph 3.1.3 shall consist of an accumulator battery suitably located for use in an emergency which shall operate without recharging while maintaining the voltage of the battery throughout the discharge period within 12% above or below its nominal voltage and be of sufficient capacity and so arranged as to supply automatically in the event of failure of either the main or emergency source of electrical power at least the following services, if they depend upon an electrical source for their operation:*

4.1 *For half an hour:*

- .1 *the lighting required by paragraphs 2.1 and 2.2;*
- .2 *all services required by paragraphs 2.3.1, 2.3.3 and 2.3.4 unless such services have an independent supply for the period specified from an accumulator battery suitably located for use in an emergency.*

4.2 *Power to operate the watertight doors, as required by regulation 15.7.3.3, but not necessarily all of them simultaneously, unless an independent temporary source of stored energy is provided. Power to the control, indication and alarm circuits as required by regulation 15.7.2 for half an hour.*

## Reg.II-1/43.3.2.1

3.2 *Where the emergency source of electrical power is an accumulator battery, it shall be capable of:*

- .1 *carrying the emergency electrical load without recharging while maintaining the voltage of the battery throughout the discharge period within 12% above or below its nominal voltage;*

---

Note:

This UI SC186 is to be uniformly implemented by IACS Members and Associates from 1 January 2005.

**SC186** Reg.II-1/43.4

(cont)

4 *The transitional source of emergency electrical power where required by paragraph 3.1.3 shall consist of an accumulator battery suitably located for use in an emergency which shall operate without recharging while maintaining the voltage of the battery throughout the discharge period within 12% above or below its nominal voltage and be of sufficient capacity and shall be so arranged as to supply in the event of failure of either the main or the emergency source of electrical power for half an hour at least the following services if they depend upon an electrical source for their operation:*

- .1 the lighting required by paragraphs 2.1, 2.2 and 2.3.1. For this transitional phase, the required emergency electrical lighting, in respect of the machinery space and accomodaton and service spaces may be provided by permanently fixed, individual, automatically charged, relay operated accumulator lamps; and*
- .2 all services required by paragraphs 2.4.1, 2.4.3 and 2.4.4 unless such services have an independent supply for the period specified from an accumulator battery suitably located for use in an emergency.*

**Interpretation**

Where the emergency and/or transitional emergency loads are supplied from a battery via an electronic converter or inverter the maximum permitted d.c voltage variations are to be taken as those on the load side of the converter or inverter.

Where the d.c. is converted into a.c. the maximum variations are not exceed those given in UR E5.

End of Document
--------------------