

# SC79 Certified Safe Type Electrical Equipment for Ships Carrying Dangerous Goods

(1993)  
(Rev.1  
May 2004)  
(Rev.2  
Sept  
2005)  
(Rev.3  
Aug 2006)  
(Rev.4  
Oct 2015)

(Chapter II-2, Regulation 19.3.2)

SOLAS Reg. II-2/19.3.2 reads:

## 3.2 Sources of ignition

Electrical equipment and wiring shall not be fitted in enclosed cargo spaces or vehicle spaces unless it is essential for operational purposes in the opinion of the Administration. However, if electrical equipment is fitted in such spaces, it shall be of a certified safe type\* for use in the dangerous environments to which it may be exposed unless it is possible to completely isolate the electrical system (e.g. by removal of links in the system, other than fuses). Cable penetrations of the decks and bulkheads shall be sealed against the passage of gas or vapour. Through runs of cables and cables within the cargo spaces shall be protected against damage from impact. Any other equipment which may constitute a source of ignition of flammable vapour shall not be permitted.

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\* Refer to the recommendations of the International Electrotechnical Commission, in particular, publication IEC 60092 on Electrical installations in ships.

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### Note:

1. Refer to IMO MSC/Circ.1120, Unified Interpretations of SOLAS CH.II-2, The FSS Code, The FTP Code and related Fire Test Procedures, page 16.
2. Rev.1 of UI SC79 is to be uniformly implemented by IACS Members and Associates from 1 January 2005.
3. Rev.2 of UI SC79 is to be uniformly implemented by IACS Members and Associates from 1 April 2006.
4. Rev.3 of UI SC79 is editorially amended to refer to MSC.1/Circ.1203.
5. Rev.4 of UI SC79 is to be uniformly implemented by IACS Societies from 1 January 2017.

**SC79**

(cont)

**Interpretation**

1. Reference is to be made to IEC 60092-506 standard, Special features - Ships carrying specific dangerous goods and materials hazardous only in bulk.
2. For pipes having open ends (e.g. ventilation and bilge pipes, etc.) in a hazardous area, the pipe itself is to be classified as hazardous area. See IEC 60092-506 table B1, item B.
3. When carrying flammable liquids having flashpoints less than 23°C as Class 3, 6.1 or 8 in cargo spaces, the bilge pipes with flanges, valves, pumps, etc. constitute a source of release and the enclosing spaces (e.g. pipe tunnels, bilge pump rooms, etc.) are to be classified as an extended hazardous area (comparable with Zone 2) unless these spaces are continuously mechanically ventilated with a capacity for at least six air changes per hour. Except where the space is protected with redundant mechanical ventilation capable of starting automatically, equipment not certified for Zone 2 are to be automatically disconnected following loss of ventilation while essential systems such as bilge and ballast systems are to be certified for Zone 2.

Where redundant mechanical ventilation is employed, equipment and essential systems not certified for Zone 2 shall be interlocked so as to prevent inadvertent operation if the ventilation is not operational. Audible and visible alarms shall be provided at a manned station if failure occurs.

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