



TECHNICAL CIRCULAR No. 711 of 7th December 2021

To	All Surveyors/Auditors. All flags
Title	Emergency Fire Pump Power Supply
Reference	Chap. II-2 / Reg. 3.30 of SOLAS

Emergency Fire Pump Power Supply

Case: Engine room fire cut the electrical power supply to the emergency fire pump and water ceased to flow from the fire hoses. Power supply cable routed through engine room. Not fire resistant.

Electrical Cables for the Emergency Fire Pump

The electrical cables to the emergency fire pump are not to pass through the machinery spaces containing the main fire pumps and their sources of power and prime movers. They are to be a resistant type, in accordance with 4-3-3/5.17.2(a), where they pass through other high fire risk areas.

Reason: Added for clarification as per IMO MSC Circular 1120 and IACS UR E15

UNIFIED INTERPRETATIONS OF SOLAS CHAPTER II-2, THE FSS CODE,
THE FTP CODE AND RELATED FIRE TEST PROCEDURES

C 10.2.2.3.2.2 Electrical cables for the emergency fire pump. The electrical cables to the emergency fire pump are not to pass through the machinery spaces containing the main fire pumps and their source(s) of power and prime mover(s). They are to be of a fire-resistant type, in accordance with IACS unified Requirement E 15 Electrical Services Required to be Operable Under Fire Conditions and Fire-Resistant Cables, paragraph 1, where they pass through other high fire risk areas.

1. Electrical services required to be operable under fire conditions are as follows:

- Control and power systems to power-operated fire doors and status indication for all fire doors
- Control and power systems to power-operated watertight doors and their status indication
- Emergency fire pump
- Emergency lighting
- Fire and general alarms

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- Fire detection systems
- Fire-extinguishing systems and fire-extinguishing media release alarms
- Low location lighting
- Public address systems
- Remote emergencies stop/shutdown arrangements for systems which may support the propagation of fire and/or explosion

2. Where cables for services specified in 1. including their power supplies pass through high fire risk areas, and in addition for passenger ships, main vertical fire zones, other than those which they serve, they are to be so arranged that a fire in any of these areas or zones does not affect the operation of the service in any other area or zone. This may be achieved by either of the following measures:

- a) Cables being of a fire-resistant type complying with IEC 60331-1 for cables of greater than 20 mm overall diameter, otherwise IEC 60331-21 or IEC 60331-2 for cables with an overall diameter not exceeding 20 mm, are installed, and run continuous to keep the fire integrity within the high fire risk area.
- b) At least two-loops/radial distributions run as widely apart as is practicable and so arranged that in the event of damage by fire at least one of the loops/radial distributions remains operational. Systems that are self-monitoring, fail safe or duplicated with cable runs as widely separated as is practicable may be exempted.

3. The electrical cables to the emergency fire pump are not to pass through the machinery spaces containing the main fire pumps and their source(s) of power and prime mover(s).

They are to be of a fire-resistant type, in accordance with 2 (a), where they pass through other high fire risk areas.

Notes:

- a) For the purpose of E15 application, the definition for "high fire risk areas" is the following:

1. Machinery spaces as defined by Chap. II-2 / Reg. 3.30 of SOLAS, except spaces having little or no fire risk as defined by paragraphs (10) of Chap. II-2 / Reg.9.2.2.3.2.2 of SOLAS.
2. Spaces containing fuel treatment equipment and other highly flammable substances
3. Galley and Pantries containing cooking appliances

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4. Laundry containing drying equipment
 5. Spaces as defined by paragraphs (8), (12), and (14) of Chap. II-2 / Reg. 9.2.2.3.2.2 of SOLAS for ships carrying more than 36 passengers
- b) Fire resistant type cables should be easily distinguishable.
- c) For special cables, requirements in the following standards may be used:
- IEC60331-23: Procedures and requirements – Electric data cables
- IEC60331-25: Procedures and requirements – Optical fiber cables retardant cable Connection box

REFERENCES:

- SOLAS Chap. II-2 / Reg. 3.30

ATTACHMENTS: No

Kindest Regards,
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