Sjøfartsdirektoratet
Norwegian Maritime Authority

# Circular - Series V

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- ☐ Others:

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**Supersedes:** Previous Circular series V

**Reference to:** Regulations of 1 January 2005 No. 8 on the working environment, health and safety of persons working on board ship

## Guidelines on requirement for safety training related to the operation and maintenance of electrical installations on board Norwegian ships

The Norwegian Maritime Authority (NMA) has issued this Circular with the purpose of providing guidance on the training requirement for persons working on board Norwegian ships, where they will carry out duties involving the operation and maintenance of maritime electrical installations. The content of the Circular relates to the training requirements set out in the Regulations of 1 January 2005 No. 8 on the working environment, health and safety of persons working on board ship (HSE Regulations) section 2-6 and the Regulations of 1 July 2006 No. 458 on safety related to the maintenance and operation of electrical installations (FSE Regulations) section 7.

Providing training to the persons working on board ships is important to ensure that they carry out their work in a safe and proper manner.

### Background

Pursuant to the Act of 16 February 2007 No. 9 relating to ship safety and security (Ship Safety and Security Act) section 11, "*[a] ship shall be so operated and maintained that it according to its purpose and trade area provides for satisfactory safety concerning life, health, property and the environment*". Furthermore, it is stipulated in the Ship Safety and Security Act section 22 that "*[t]he work on board shall be arranged and carried out so as to safeguard life, health and working environment. In the arrangement of work, due regard shall be paid to the individual person's qualifications to undertake the work in a safe and proper manner.*"

Section 4 of the Regulations of 4 December 2001 No. 1450 on maritime electrical installations (FME Regulations) sets out a requirement that the company must ensure that installations covered by the FME Regulations always meet the safety requirements of the Regulations. Electrical equipment must be used and connected to installations with due care, so that the work does not pose a risk to life, health or property.
The application of the FSE Regulations for the operation and maintenance of maritime electrical installations is described in a note to section 4 of the FME Regulations.

The NMA would like to point out that even if section 5 of the FSE Regulations defines "high voltage" as voltages normally exceeding 1000V AC or 1500V DC, the definition of the STCW Convention will be applied. The STCW Convention Section A-I/1 defines high voltage as an alternating current (AC) or direct current (DC) voltage in excess of 1,000 volts.

Pursuant to section 7 of the FSE Regulations, an overall planning system is required where the personnel:

- have access to the Regulations;
- are made aware of the relevant provisions of the Regulations by means of guidance;
- are given the necessary training, practice and instruction.

The FSE Regulations are framework regulations based on the principle that recognised international standards form the basis of the safety requirements of the Regulations. The Norwegian Directorate for Civil Protection (DSB) considers the latest version of the international standard IEC 60092-509 compliant with with the safety requirements of these Regulations. If the Regulations, guidance and international standard are complied with, this can be seen as evidence that the safety requirements of the Regulations are met.

**Measures**

The HSE Regulations section 2-6 requires that persons working on board shall receive the necessary training to be able to carry out their work in a safe and proper manner. Furthermore, they must receive training before being given access to areas posing a significant or serious risk. The requirements of the HSE Regulations section 2-6 imply that:

- The company must ensure that the individual ship is adequately manned with suitably qualified personnel who are qualified, certified and medically fit in accordance with applicable rules.

- The company must ensure that the necessary training is provided, and that there is a sufficient degree of familiarisation on board.

- The company must ensure that those who work on board and have duties related to the operation or maintenance of the ship's electrical installations are given training, practice and instruction in accordance with the FSE Regulations. Requirements for such training and maintenance of the training are described in the guidance to the FSE Regulations section 7.

The training must be adapted to:

a) the individual's function;
b) the individual's tasks;
c) relevant issues for the individual maritime electrical installation.

Furthermore, the training must include:

a) instructions;
b) procedures;
c) any checklists adapted to the operation of the ship and company.

We refer to the Regulations of 16 December 2026 No. 1770 on safety management for small cargo ships, passenger ships and fishing vessels, etc. section 6 and the Regulations of 5 September 2014 No. 1991 on a safety management system for Norwegian ships and mobile offshore units section 6.

The familiarisation, training and instruction must be repeated annually, or more frequently if circumstances require. The training must include first aid related to electric current accidents. The training intervals should not exceed 12 months. Completed training must be documented in accordance with the HSE Regulations section 2-6.

If you have any questions or need clarifications as regards the content of the FSE Regulations, please contact the Norwegian Directorate for Civil Protection (DSB).

Knut Arild Hareide
Director General of Shipping and Navigation

Linda Bruås
Head of Department