

The regulations and general advice of the National Electrical Safety Board regarding checks of electrical installations and electrical equipment by the holder

decided on 21 April 2022.

The National Electrical Safety Board issues the following regulations pursuant to Section 33 of the Electrical Safety Ordinance (2017:218)¹.

Scope

1 § These regulations contain provisions on the checks and measures to be carried out by the holder of an electrical installation in order to ensure that the installation provides adequate protection against personal injury and damage to property caused by electricity.

The regulations also apply to electrical equipment intended to be connected to an electrical installation.

2 § The regulations apply to electrical installations and electrical equipment as referred to in Section 3 of the Electrical Safety Act.

The regulations cover electrical installations that have been put into service. Provisions regarding when an electrical installation is considered to be in service are contained in Chapter 2, Section 2 of the ELSÄK-FS 2022:1.

Abbreviations

3 § For the purposes of these regulations, the following abbreviations are used.

the Electrical Safety Act the Electrical Safety Act (2016:732), or a statute that has replaced it.

ELSÄK-FS 2022:1 the regulations and general advice of the National Electrical Safety Board (2022:1) regarding the installation of power installations, or a statute that has replaced it, and

ELSÄK-FS 2022:2 the regulations and general advice of the National Electrical Safety Board (2022:2) regarding the signage of electrical installations, or a statute that has replaced it.

¹ Last amended by 2021:700.

General provisions on continuous checks

4 § The provisions regarding requirements for continuous checks of electrical installations and electrical equipment are found in Sections 6 and 19 of the Electrical Safety Act.

Provisions on the requirements for checks and maintenance of electrical installation signage are found in ELSÄK-FS 2022:2.

5 § With continuous checks, the holder shall ensure that the electrical installation and electrical equipment comply with the applicable regulations.

The scope and frequency of the checks shall be appropriate to the type, age, surrounding environment and use of the installation and equipment.

Procedures for continuous checks

6 § The holder shall establish procedures for the continuous checks. The procedures shall be based on a risk assessment taking into account the type of the electrical installation and electrical equipment, its age, surrounding environment and use. The procedures shall be documented.

The requirement for documented procedures does not apply to installations which, by their nature, are normally intended for private use. If the installation is also used for commercial purposes, the main use is decisive for whether the procedures should be documented.

General advice

The procedures should make the following clear:

- the scope and frequency of checks,
- the methods to be used for the various checks, such as visual check, insulation testing or thermography,
- how the results of the checks are documented,
- how deficiencies detected by the checks are to be dealt with; and
- who is responsible for carrying out the checks and what type of competence is required for the various checks.

Intervals for checking certain types of installations

7 § The following electrical installations shall be inspected no less than once per year:

- high-voltage overhead lines,
- high-voltage switchgear in the open air, and
- contact-line installations intended for the operation of railways, tramways, underground railways or electric roads.

8 § Low-voltage overhead lines shall be inspected at least once every eight years.

9 § The contact resistance of earthing systems for protective and system earthing shall be checked at least every eight years.

For earth electrodes in stations with a nominal voltage exceeding 100 kilovolts and with line-to-earth short-circuit currents exceeding 500 A, the contact resistance shall be checked at least once every 12 years if ground wire network is made of copper.

Contact-resistance check measurements shall also be carried out after any change to an electrical installation which may adversely affect the contact resistance. Check measurements shall also be carried out in the event of lasting changes in soil conditions.

10 § Check measurements pursuant to Section 9 may be omitted or replaced by other check methods in the following cases:

- when it is ensured in a high-voltage installation, included in a continuous underground cable network with a nominal voltage of 25 kilovolt or less, that the voltage setting of the earthed parts does not exceed the values specified in Chapter 5, Section 3 of ELSÄK-FS 2022:1, or
- when it is ensured in high-voltage installations with a nominal voltage of more than 25 kilovolts that the earth-surface voltages present are equalised.

General advice

Ground potentials can be considered to be equalised if the earth-surface voltages present do not exceed the maximum permissible touch voltages. Advice on maximum permissible touch voltages is given in the Swedish standard SS-EN 50522, or a standard that has replaced it.

Documentation of certain checks

11 § The results of the checks referred to in Sections 7 through 9 and the measures taken as a result of the checks shall be documented.

If check measurements are omitted pursuant to Article 10, the check method chosen or the assessments on which the omission is based shall be documented.

Post-check measures

12 § If an electrical installation or electrical equipment is found to have faults or defects which may constitute an immediate danger, the faults and defects shall be rectified immediately or the installation or the faulty parts shall be taken out of service and protected against accidental use. Other defects and deficiencies shall be rectified as soon as possible, taking into account the risk of damage.

Co-located overhead lines

13 § If overhead lines belonging to different holders are installed together, the holders shall clarify how inspection, maintenance and other measures relevant to electrical safety are to be carried out. Agreements to this effect shall be documented.

Informing electrical installation workers

14 § Provisions on the responsibility of the holder to ensure the competence of persons carrying out work on or in connection with electrical installations and electrical equipment are contained in Sections 6 and 19 of the Electrical Safety Act.

15 § The holder shall provide to the person working at or on the electrical installation the documentation, instructions and directions drawn up in accordance with Chapter 3, Sections 6 through 7 ELSÄK-FS 2022:1, or its provisional regulations.

16 § Provisions on employer responsibility for producing work instructions are found in Section 7 of the Swedish Work Environment Authority's provisions on Systematic Work Environment Management (2001:1) and general advice on the application of the regulations, or the statute that has replaced these.

Exemptions from the regulations

17 § The National Electrical Safety Board may grant exemptions from these regulations.

Entry into force

These regulations will enter into force on 1 December 2022, when the regulations and general advice of the National Electrical Safety Board (2008:3) regarding checks on electrical installations and electrical equipment by the holder shall expire.

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For legal text - please use the link below.

Section of legislation: Electrical installations

Number: ELSÄK-FS 2022:3

Title: The regulations and general advice of the National Electrical Safety Board regarding checks of electrical installations and electrical equipment by the holder

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Link to regulations: <https://www.elsakerhetsverket.se/om-oss/lag-och-ratt/foreskrifter/elsak-fs-2022-3/>