

National Electrical Safety Board's regulations and general advice in English – 2008:3

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Section of legislation: Electrical installations

Number: ELSÄK-FS 2008:3

Amendments per 2017-07-01: Amended by ELSÄK-FS 2010:3

Title: The National Electrical Safety Board's regulations and general advice on owners' surveillance of electrical installations and electrical devices

Legal titel: Elsäkerhetsverkets föreskrifter och allmänna råd (2008:3) om innehavarens kontroll av elektriska starkströmsanläggningar och elektriska anordningar

Link to regulations: <http://www.elsakerhetsverket.se/om-oss/lag-och-ratt/gallande-regler/Elsakerhetsverkets-foreskrifter-listade-i-nummerordning/elsak-fs-20083/>

1 § These regulations concern the surveillance to be performed by the owner of an electrical installation which has been put into service in order to ensure that the installation provides adequate safety from injury or damage caused by electricity. An installation is considered to be put into service when it is energised with a voltage, current or frequency that may be hazardous for people or property. This also applies if the installation is energised temporarily, e.g. for trial operation.

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

In the regulations, the term ‘installation’ is used as a collective name for electrical installations and electrical equipment intended to be connected to an electrical installation.

The regulations do not apply to electrical installations in aircraft or in vessels including leisure craft.

2 § 4 § of the Swedish Heavy Current Ordinance (2009:22) states that the owner of an installation shall perform continuous surveillance concerning the safety of the installation. For the installations described in 5 and 6 §§, this surveillance shall form part of dedicated surveillance at defined intervals.

The surveillance shall be determined on the basis of the type, age, surrounding area and use of the installation.

3 § By means of the surveillance described in 2 §, the owner of the installation shall satisfy himself that the installation complies with the relevant rules.

Where overhead lines belonging to multiple owners are installed together, the owners shall clarify how maintenance activities and other activities with a bearing on electrical safety are to be carried out. Agreements to this effect shall be documented.

4 § The owner of the installation shall make available all necessary information about his installation and its operation to contractors working on the installation.

General advice

The information should take account of the complexity and size of the installation, the components included, etc. Documents to be included

with the information are diagrams, tables, position drawings and instructions, etc.

5 § Dedicated surveillance shall be performed for the following installations at these intervals:

- overhead lines for high voltage no more than one year,
- outdoor switchgear for high voltage no more than one year,
- overhead lines for low voltage no more than eight years
- contact line installations with overhead
line, rail joints and rail connections, earth
connections, conductor rail installations
and return current mechanisms

no more than one year.

High voltage in the first paragraph is defined as a nominal voltage over 1000 V AC or over 1500 V DC.

For the following installations, separate surveillance shall be performed at intervals determined by the owner of the installation:

- installations placed under heavy strain,
- installations in well-frequented spaces,
- installations representing high value, and
- installations where flammable or explosive goods are handled.

The result of surveillance, the determined interval and the activities to be carried out during surveillance shall be documented. The most recent version of the documentation shall be kept available to present to the National Electrical Safety Board on request.

6 § The contact resistance of earthing points for protective earth or system earth shall be measured for verification at least every eight years. In the case of earthing points in substations with a nominal voltage above 100 kV, this verification measurement shall take place at least every 12 years if the ground wire network is made of copper. Furthermore, the verification measurement shall take place after any alteration is made to an installation which may negatively affect the contact resistance. The result of the verification measurement shall be documented.

The verification measurement described on the first paragraph may be omitted and replaced with other verification measures in the following circumstances:

- in high voltage installations with a nominal voltage up to 25 kV where steps are taken to ensure that the energising of earthed parts does not exceed the values in Chapter 5 6 § of the National Electrical Safety Board's regulations and general advice on the execution of electrical installations (ELSÄK-FS 2008:1), or
- in high voltage installations with a nominal voltage above 25 kV where it is guaranteed that any earth potential is equalised.

The selected verification method or the reasons why the measurement was omitted shall be documented.

General advice

In determining whether earth potential can be considered to have been equalised, guidance can be found in the general advice for Chapter 5 7 and 8 §§ of the National Electrical Safety Board's regulations and general advice on the execution of electrical installations (ELSÄK-FS 2008:1).

7 § The surveillance in 5 and 6 §§ shall be performed by a person with professional experience who is familiar with the installations in question and with the regulations applicable to the installations.

8 § If an installation is found to have faults or deficiencies which may present an immediate risk, the faults or deficiencies shall be rectified without delay or the system or the faulty parts shall be taken out of service and secured against unintentional use. Less serious faults and deficiencies shall be rectified without unnecessary delay in order to prevent the risk of damage.

9 § 5 § of the Swedish Heavy Current Ordinance (2009:22) contains provisions concerning the owner's responsibility for any work performed on or adjacent to the installation. Provisions on authorisation requirements for electrical installation work are contained in the Swedish Ordinance on Electricians (1990:806) and in the National Electrical Safety Board's regulations on authorisation for electricians (ELSÄK-FS 2007:2).

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

Entry into force and transitional arrangements

ELSÄK-FS 2008:3

These regulations enter into force on 1 October 2008.

ELSÄK-FS 2010:3

These regulations and general advice enter into force on the date of the statute as indicated by the date of printing in the Code of Statutes of the National Electrical Safety Board.