

[Organization logo]

[Organization name]

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STANDARD OPERATING PROCEDURE FOR ELECTRICAL HAZARDS

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Commented [45A2]: Adapt to the existing practice in organization.

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Change history

Date	Version	Created by	Description of change
	0.1	45001Academy	Basic document outline

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1. Purpose, scope and users

The purpose of this document is to define measures of protection from identified electrical hazards.

This document applies to all work activities in [organization name] where electrical hazards emerge.

Users of this document are all employees of [organization name] in work places with identified electrical hazards.

2. Reference documents

- ISO 45001:2018 standard, clause 8.1
- OH&S Manual
- OH&S Policy
- OH&S Objectives
- Procedure for Addressing Risks and Opportunities and OH&S Hazards
- Procedure for Operational Control
- Procedures for Preparedness and Emergency Response
- List of Legal and Other Requirements

3. Electrical hazards identification

The [Job title] responsible for risk assessment is obliged to identify electrical hazards in all work places where those types of hazards emerge.

Typical electrical hazards include, but are not limited to:

- The hazard of direct contact with parts of electrical installations and equipment under voltage
- The hazard of indirect contact with parts of electrical installations and equipment under voltage
- The hazard of electric shock caused by electrical equipment and installations containing live parts or an energy store
- The hazard of electric arc flash and explosion of atmospheric air
- The hazard of thermal effects of electrical energy

4. Safety measures at work against hazards that occur using electrical energy

These measures are designed to protect the user from hazards that arise from electrical equipment.

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Commented [45A5]: Sources of these hazards can be:

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Commented [45A6]: Indirect connection with parts under

Commented [45A7]: This occurs in technological processes where there is a contact and separation of two dissimilar materials,

Commented [45A8]: Compliance with the technical standards of IEC60364, or its equivalent, ensures that the installation meets the highest standard.

[organization name]

When prescribing measures of protection, [job title] must:

- Specify state of applied measures of protection
- Define measures to be achieved

Commented [45A9]: Person responsible for OH&S.

4.1. Assessment of the state of applied measures of protection

While assessing the level of applied measures of protection, [job title] must take into consideration

necessary to consider the condition of and to collect data about:

- protection from electric shock (protection from direct and indirect contact);
- structure and condition of systems for protection as well as devices for monitoring
- structure and condition of working equipment
- structure of equipment and measures of protection with external influences
- identification of sources and protective systems
- structure of safety devices, safety with warning and interlocking
- identification of electrical faults, tests, controls, safety controls and other measures
- structure of working areas and sites
- structure and condition of work by operators and maintenance
- state of protection and safety and working conditions connected to electrical work of electrical systems, as well as access to the field to the building of electrical systems

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4.2. Measures for risk reducing

These measures are directed at two aspects:

- Structure and safe state of electrical systems, equipment and devices
- Behavior of workers during use and repair

4.2.1. Structure and safe state of electrical systems, equipment and devices

[Job title] is responsible for ensuring that structure and safe condition of electrical systems, equipment and devices are achieved by:

- Design and construction in accordance with national legislation and conditions in which they are used (including any qualified persons or design electrical systems and equipment)
- Using electrical devices, supplied with safety, low voltage or other forms of power protection, and without fault
- Using additional devices to increase safety level, for example - a circuit breaker when the current exceeds a predetermined threshold
- Testing the use and the correct electrical conditions and equipment
- Before work, conduct necessary control, measurements, and investigations in accordance with legislation
- During use, as well as through periodic examination, keep the same safety level for installations and equipment (examination frequency, as well as specificity related to the

environment determined by national legislation; records, results and conclusions must be kept);

- Train workers to recognize violation of safety requirements that can cause danger, and immediately react in the proper manner.

4.2.2. Measures relating to the behavior of employees during the use and maintenance of electrical systems and devices

Employees must use electrical devices, machines, and hand tools in accordance with the following rules:

- Begin work only if employees are well versed in work instructions (of the manufacturer);
- Before using electrical machines, tools, or hand tools, read the work instructions;
- Switch on and off electrical machines and tools using the switch;
- In the event of a sudden power failure, remove the plug from the outlet;
- Work activities with heavy machinery in the vicinity of overhead power lines can be performed only if the safety requirements are met. The same applies to work activities in scaffolding, especially in working at height, etc.;
- When working in the vicinity of underground cables for power supply, etc. should first check the location of cables. Never carry excavation machines near cables;
- In case of failure or possible failure of electrical equipment (unusual noise, arcing, smell), report the malfunction;
- When moving a machine, machine must be unplugged from the outlet (electrical panels);
- When repairing the lighting, turn off the power supply;
- Never use inappropriate work being defective cables. Never use inappropriate material for handles;
- Never use electrical equipment with wet hands or feet, or in the splash zone of spraying water, unless it is specifically designed for such conditions;
- Stop any further work in case of rain, snow, or lightning and using electrical equipment from the work;
- Use personal protective means including, but not limited to, protective goggles, helmets, gloves, and shoes with rubber soles);
- Use collective protective equipment (rubber flooring and rugs).

Employees must report to [job title] if they notice the following:

- If the sockets and switches are defective, or missing elements and/or if there are signs of overload (overheating);
- If cables and wires contain visible damaged insulation;
- If the housing is defective and damaged or components of housing of electrical systems, devices and hand tools housing are missing;
- If lighting cables are missing or glow like and broken cables decrease electrical efficiency;
- If power cables are not permanently attached to the portable electrical systems and equipment.

[organization name]

4.3. Measures in case of an incident

- Separate the cables from the object under voltage. Document the location of the electrical faulting object.
- Inform the first aid if needed, initiate resuscitation and initiate transport.
- Call an ambulance or make a transport to the nearest clinic. During the transport process, medical first aid can be stopped.
- Record name of the accident.

In case of an incident, [job title] performs incident investigation and records findings in the Incident Investigation report.

5. Managing records kept on the basis of this document

Record name	Code	Storage		Responsibility
		Retention time	Location	
Incident Investigation Report	PR.10.1	2 years	[office of Management Representative]	[job title]

Commented [45A11]: If the record is in electronic form, write the name of the folder on Management Representative's computer.

Only [job title] can grant other employees the right to access records.