

## POLICY FOR ELECTRICITY

**Potential risks:** Electric shock, electrocution, fibrillation, asphyxiation, electric arc, burns.

An electric shock can zap, paralyze muscles, burn severely or cause death. Good work practices can significantly contribute to the safety of personnel assigned to tasks near power lines. However, particular hazards and production time constraints make it difficult to perform these various jobs safely. As an employer, we have a responsibility to keep workers safe on all our construction sites.

These requirements are applicable to temporary installations and are intended to protect users against electric shock and the risk of electrocution and electrification.

**Note:** Temporary wiring facilities for buildings or structures under construction or demolition, as well as any other temporary facilities are subject to these requirements.

### Objective

This policy establishes the rules that will apply when carrying out work involving electricity, to prevent an event attributable to the release of electrical energy.

### Scope



This policy applies to involved parties under the authority of, and conducting any associated work for, the benefit of EBC or its subsidiaries.

At all times, this policy and procedure should be diligently applied with professionalism and respect for others. In case of doubt or conflict in its application, managers have the responsibility to contact EBC Human Resources management for guidance in its implementation.

### Distribution


This policy must be provided to all persons, working both on and off project sites, during their orientation session.

### LEGEND

-  The behavior or activity required by the organization.
-  Important non-compliance for the organization

### Works near overhead or underground power lines

#### Planning

-  Before the start of the work the employer must go to the site to perform a visual inspection of the site and determine the presence of power lines. He must find out the voltage by calling the electricity supplier.



- Where power lines are present, these must be clearly indicated on a plan. A specific work method, including the layout of mobile equipment, its power supply and the affixing of grounding, where appropriate, etc. must be put in place.
- ⊘ No person is permitted to perform work if a piece of machinery, load, scaffolding, or person is likely to approach a power line within the specified minimum approach distance.
- If the work is to be done at a distance less than that expected, the employer must obtain an agreement from the electricity supplier and follow the local regulations with regards to the actions required. The safe method of use will be established with the electricity supplier, such as the power off method, isolation or the temporary removal of power lines.

## Organization

- Deployable production equipment must be equipped with a range limitation system and have identifications, as provided, if they could potentially enter the risk approach area.
- An employer who works with mobile equipment must ensure that it is available and used in accordance with the established work method.

## Control

- The employer must make sure to identify his or her work area in accordance with current regulations.
- ⊘ The operator must ensure the configuration and activation of its approach limitation system and the prior identification of underground installations before starting work.

## Work Involving Electricity

- ⊘ No work on energized equipment is allowed at EBC.
- Notwithstanding the above, an activity requiring work on partly energized equipment "troubleshooting" can be done by using a preliminary work method (ref.: lockout/tagout policy).
- All power tools must be double insulated or grounded (three-pronged plug).
- Defective power tools and extension cords must be immediately removed from service.
- ⊘ Only a qualified person (electrician) can perform the maintenance, modification or connection of electrical equipment or installations requiring electricity (trailers, containers, switches, distribution panel, etc...).



- Ground-fault circuit interrupter (GFCI) is mandatory when used to power buildings and other structures under construction or demolition.
- Electrical cables 600 V and over must be:
  - Covered when there is expected circulation of mobile construction equipment.
  - Appropriately and visibly identified, regardless of location (air, landfill or surface).
    - Identification must take the weather conditions into account.
  - Mechanically protected when there is expected pedestrian traffic.
- Written planning is mandatory for any temporary displacement or changes in electricity (work method, ASET, PSA etc.).

## Grounding

In the presence of an inefficient, incorrectly installed or absent grounding, anyone who touches it then turns into a conductor capable of carrying the current to the ground and runs the risk of getting electrocuted. Electricity will pass through the body to reach the ground instead of using the grounding.

- Grounding for all generators must be connected and installed in accordance with the Canadian Electrical Code.
- All electricity generators must be connected either by:
  - One or more grounding plates in direct contact with the ground at least 600 mm below ground level or,
  - Two rods completely buried at 3 meters distance from each other or,
  - Being embedded in the bottom 50mm of a concrete footing in direct contact with the ground, at a depth of at least 600mm below the finished ground level.

If the rules of the main contractor or of the safety code or any legislation are different from those described above, the most stringent will apply.

## Roles and Responsibilities

**For the employee, worker, subcontractor, etc.:**

Everyone has the obligation to respect and enforce this policy and procedure.

### The Manager

The manager ensures compliance of this policy for the staff under their responsibility and ensures that the policy is known by involved parties. In case of conflict, they shall communicate with the human resources department.



## Human Resources Management

Human Resources management is responsible for ensuring the updates and distribution of the current policy. They must also oversee administration and determine disciplinary measures deemed appropriate for enforcement.

## Disciplinary Measures

The person who does not respect the policy mentioned above will receive:

1. A verbal warning stating the correction(s) to be made, documented in the form of a correction or reprimand notice.
2. In the case of a repeated offence, a written warning is again written in the form of a correction or reprimand notice and is given to the person and to their superior.
3. Subsequently, if there is a recurrence, a write-up along with stricter disciplinary action resulting in an expulsion from the workplace for 1-2 workdays will be given.
4. In case of any further recurrence, a third written warning will be provided that can result in dismissal or expulsion from the project or a definite period of time.
5. Special Case:  
When a person breaches a description for an **Important organization non-compliance**

In this specific case, the first notice will correspond directly to step number 3 of disciplinary measures and the person will be expelled for a duration of 2 workdays.

## Definitions

**Vehicle:** Any means of transport that moves by a driving force.

**Production equipment:** Any equipment used during project production, such as: heavy truck, shovel, crane, scorer, loader, etc. excluding light vehicles such as pick-up trucks, mules (side by side), etc.

**Electricity Supplier:** A company that produces, transports and distributes electricity.

**Grounding:** Permanent and uninterrupted connection to the earth of sufficient current to carry any default current likely to flow through it, and impedance sufficiently low to limit the voltage rise with respect to earth, so that the device's circuit protection functions freely.

**Reference:** Canadian Electrical Code 2018, 24<sup>th</sup> Edition - Safety Standard for Electrical Installations

## Reference Documents

- Library of working methods

## Associated Training



- Safe electrical practices
- Lockout
- Working near power lines

