## Purpose:

Electrical installation, operation, maintenance, and troubleshooting must be performed in a safe manner to avoid dangers.

## Scope:

* Electrical installation,
* Operation,
* Maintenance,
* Trouble shooting.

## Responsibility:

* Site Supervisor,
* Works In-Charge,
* Engineers, and
* Associates.

## Covered Area:

All work sites on which electrical work are carried out are included in the scope of this inspection.

## Electrical Hazards:

* Electricity,
* Frayed cables,
* Damaged Tools/Equipment,
* Dust,
* Noise,
* Hot Environment.

## Risk:

* Electrocution,
* Shock,
* Fire,
* Injury and
* Ill Health

## PPE Required:

* Helmet,
* Electrical Safety Shoes,
* Electrical Hand Gloves,
* Eye Wear,
* Nose Mask and
* others as per work requirement.

## Guidelines of Operation:

Electrical work should be carried out in accordance with the established procedure points.

## Implement the Guidelines:

* If do not have a valid work permit, do not attempt to work on an electrical system.
* Always be sure that the electrical supply has been POSITIVELY ISOLATED before starting any work.
* Always make sure the work being done on the electrical system is carried out by experienced and skilled personnel.
* When performing electrical work, should always make sure there is sufficient area to work inside.
* When working with electricity, should only ever utilize tools and equipment that are up to date, undamaged, and insulated.
* When working with electricity, should wear safety shoes with rubber soles and a helmet at all times.
* While working on electrical equipment, remove all personal belongings such as wristwatches, rings, and chains, and use only the insulated tools that are absolutely necessary.
* When working on electrical equipment, it is essential that follow to the work permit system at all times.
* When working in a high-temperature environment, should always wear rubber hand gloves and a helmet, as required by the safety requirements.
* Check to see if there are rubber mats available in front of the electrical panels.
* When working on electrical equipment, should only use properly insulated tools like fuse pullers, spanners, and screwdrivers, among other instruments.
* When working at a height, a safety belt that has the appropriate holding should be used.
* Whenever working in underground cable trenches, need to make sure that adequate lighting and ventilation are available.
* During the course of routine preventative maintenance, an electrician is required to inspect the wiring and joints for any signs of damage and make the necessary repairs.
* While the circuit is active, users are not allowed to connect or disconnect any wires, sockets, or connections.
* In order to prevent an electrical short circuit & a fire, all of the equipment must be properly maintained in order to ensure proper maintenance of the electrical wiring and devices.
* In order to prevent unsafe wiring practices, it is imperative that any modifications or additions be carried out exclusively by trained individuals.
* Check to make sure that the electrical equipment has the correct earthing.
* The site allocated for the disposal of garbage and broken parts must be used for this purpose.

## Mitigation and Correction points:

* In the case of an electrical shock or accident, have access to a first aid package, and if necessary, provide additional medical treatment at the right hospital.
* Immediately report the occurrence to the relevant persons using the approved forms, and do it as soon as possible.
* The 'CO2' type of fire extinguisher should be used to put out the flames.
* In the event of an emergency, the emergency preparedness plan should be followed.
* In case that there are open cables, damaged wires, or an abnormal issue with the electrical system, prompt action must be taken to reduce or prevent the effect.
* In the case notice sparking or a short circuit, turn off the equipment's power source straight away.

## Documentation

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