

ELECTRICAL SAFETY HAZARDS

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We can not smell, hear, or see electricity, we must have the right systems in place to manage this hazardous energy that is critical to the well being of students, teachers and in the whole school premise.

There are two major hazards of electricity:

- Electric Shock; and
- Arc Flash.

Electrical safety is important to prevent because of its hazards such as arc flash and shock that can result in death if exposed to them. The control measures that prevent these hazards require careful management, detail attention and technical competence of an individual.

Injuries that result from electric shock are following:

- Cardiac arrest due to the electrical have an effect on our heart;
- Muscle, nerve, and tissue can destruct from a current passing through the body;
- A Thermal burns contact forms an electrical source; and
- Falling or injury after contact with electricity.

Injuries that can cause from Arc Flash are as follows:

- Burns from the high temperatures produced by the arc;

- Blindness from the ultra-violet light produced by the arc; and
- Hearing loss caused by the pressure wave from the arc blast.

Comply with Electrical Safety Legislation

Legislation in place that aims to regulate hazards. The three main ones are:

- Health and Safety at Work - It is the primary piece of legislation covering occupational health and safety in Great Britain. It sets out the general duties which: employers have towards teachers and members of the public and employees have to themselves and to each other certain self-employed have towards themselves and others.
- The Electricity at Work Regulations - It expand on the rules regarding electrical safety in the Health and Safety at Work Act 1974. Teachers are given duties and responsibility to make sure that all work activity that uses or may be affected by electricity is done safely, and risks are assessed and minimized as possible.
- Management of Health & Safety at Work Regulations 1999 - The teachers are required to undertake an assessment of the risks to the health and safety of their students and other people who may be affected by their work.

Managing Electrical Risk is Very Important

It is important to have an Electrical Safety Management System in school. It depend upon the size of the school organization, the following should have something like this in school:

1. Electrical Safety Rules - it includes training, compliance, and auditing.

2. Electrical Safety Instructions typically these may cover subjects such as: Arc Flash, Live Working, Design Standards, Earthing Systems, Tools and Test Equipment, and Hazardous Areas.
3. Electrical Permit System – typically: Low Voltage Permit to Work, Isolation Certificate, Limitation of Access, Sanction for Test, High Voltage Permit to Work, and Sanction for Live Work.
4. Electrical Authorization System – it has different levels of authorization for electrical personnel that limits what work they can do. The different levels of authorization such as: Senior Authorized Person, and Competent Person.

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