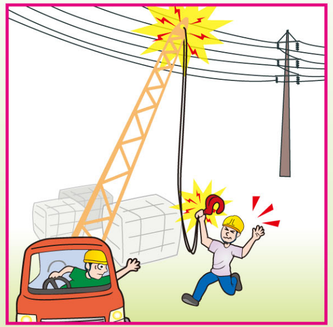


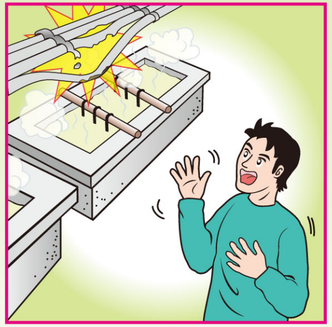
Be mindful of high voltage overhead cables

To avoid accidents, pay particular attention while working in switch rooms

Avoid leaving flammable substances near switches

Keep spotlights regularly maintained for work safety

Negligence causes accidents, always be cautious and mindful



Corrosive chemicals can damage insulated electric wires

Enquiries

If you wish to enquire about this leaflet or require advice on occupational safety and health matters, please contact the Occupational Safety and Health Branch of the Labour Department through:

Telephone : 2559 2297 (auto-recording service available outside office hours)
Fax : 2915 1410
E-mail : enquiry@labour.gov.hk

Information on the services offered by the Labour Department and on major labour legislation is also available on our website at http://www.labour.gov.hk.

For details on the services offered by the Occupational Safety and Health Council, please call 2739 9000.

Complaints

If you have any complaints about unsafe workplaces and work practice, please call the Labour Department's occupational safety and health complaint hotline at 2542 2172. All complaints will be treated in the strictest confidence.

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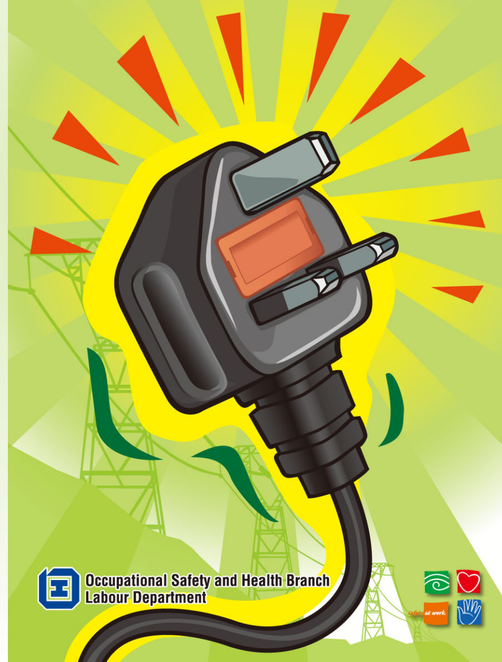
BASIC ELECTRICAL SAFETY MEASURES IN THE WORKPLACE



Occupational Safety and Health Branch
Labour Department

Introduction

Injuries or deaths arising from the use of electricity or electrical appliances at work are not uncommon. To prevent such accidents, employers and employees must pay attention to safety in using electricity.

Electrocution / electric shock in factories and on construction sites can be generally classified into four types.

- The first type is contact with overhead power lines. Overhead power lines are usually not insulated. If lifting appliances (such as crane jibs) are in close proximity to the power lines or come into contact with them accidentally, a flashover would occur which poses a risk of electrocution or severe electric shock to the worker.
- The second type is explosion resulting in burn injuries or electric shock to the worker when he accidentally strikes an underground cable or electric wiring embedded inside the wall with a hand / power tool.
- The third type is electrocution or electric shock to the worker when he uses a faulty portable electric tool or when the metal parts of the tool accidentally become live.
- The fourth type is electrocution or electric shock to the worker when he works on an electrical installation without properly isolating the electricity supply source.

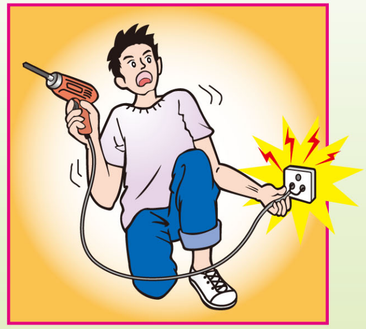
Generally, electrical appliances which comply with safety standards will not cause danger. However, electrical appliances may be faulty due to lack of maintenance or aging after prolonged use. Even new electrical appliances may have problems if they are not used properly.

This leaflet lists some common causes of fatal accidents and safety measures in the use of electricity or electrical appliances with a view to promoting workers' safety awareness in using electricity and enhancing the standard of safety at work.

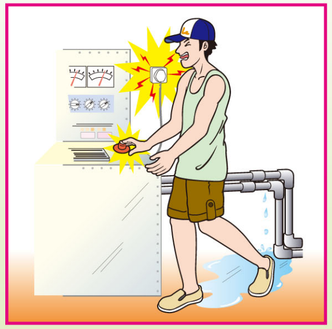
General safety measures

1. Check all protective devices of the electrical installations (such as fuses and circuit breakers) to ensure that they are functioning properly.
2. Check electrical appliances before use. Repair or replace damaged / faulty parts immediately.
3. If portable electrical appliances are not double-insulated, they should be earthed. Plugs and sockets complying with safety standards should be used in conjunction with residual current device (RCD) for earth leakage protection.
4. Workers should not use electrical appliances if their clothes or hands are wet.
5. Avoid using electrical equipment in congested and wet workplace. Use suitable personal protective equipment such as insulating gloves and mat if necessary.
6. If protective device of the electrical equipment (such as fuse or circuit breaker) had operated and interrupted the electric current, the cause of fault should be identified and rectified before putting it back into service.
7. Installation of electrical appliances, connection of electric wires and repair and maintenance of electrical appliances must be conducted by qualified and recognised electricians. Remember to isolate the electricity supply before work.
8. Before working in the vicinity of overhead power lines, consult the power company on the safety precautionary measures, such as the minimum safe working distance, the setting up of barriers, access route, goalposts, fencings and display of warning signs.
9. Prior to excavation in the vicinity of underground cables, detect the alignment and depth of the cables. Adopt safe excavation practices to prevent damaging the cables.
10. Before working in electricity substation or switch room, isolate the supply to the electrical equipment and circuits to be worked on. The associated circuit breakers or switches should be locked up with warning signs posted outside the switchboard panels to indicate that work is in progress. The keys should be kept by authorised persons or supervisors.

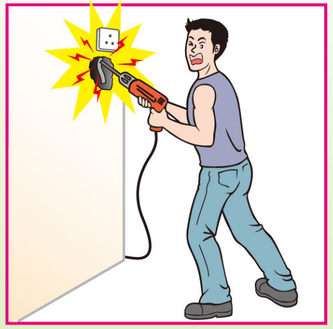
Bear in mind your responsibilities



For your own safety and that of others, use plugs instead of inserting electric wires directly into sockets



Always maintain apparatus and equipment in good condition, be careful when the floor is wet



Safety is of paramount importance when operating electric drills

Using an electric circular saw with earth fault on a wet floor may cause death

Pay particular attention to trailing electric wires and avoid using ladder when engaging in electric welding

To ensure safety, always keep spotlights properly maintained