

Safety and health alert

09/95 Worker electrocuted drilling into wall

Incident

On January 27 1995, an operator was electrocuted while installing a security system, when he accidentally drilled into an electric lighting cable concealed in a brick wall.

The drill bit penetrated the live cable, and the metallic parts of the double insulated drill held by the operator became live, giving him a fatal electric shock.

Factors

- Holding the metallic parts of the double insulated drill and not the insulated handles.
- Not checking the wall for concealed electric cables.
- Wearing clothing (short pants and track shoes) not suitable for electrical work.
- Drilling the wall directly above a light switch.
- Using a ladder not suitable for electrical work.

Note 1: Residual Current Devices (Safety Switches) would not protect the operator in this type of incident unless installed specifically for the lighting circuit. Generally RCDs are used only in power circuits.

Note 2: Double insulated drills protect the operator from electric shock due to faults inside the drill or in the drill's power supply. Double insulation does not protect operators from external electric current directed through the outer casing of the drill.

Recommendations

1. Employers shall provide information, instruction, training and supervision of employees so that they are not exposed to hazards.
2. Check for concealed cables when drilling into walls. Avoid drilling above and below light switches and power points.
3. Avoid touching the drill's metal parts while drilling.
4. Ensure the drill is well maintained.
5. Operators should ensure they are not earthed while drilling.

Further Information

Further information can be obtained from the WorkSafe internet site www.worksafe.wa.gov.au, or by contacting customer service on 1300 307 877 or email: safety@docep.wa.gov.au.

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