

# Safety and health alert

## 07/94 Working in ceiling spaces of old houses

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### Incident

In March 1994, two incidents occurred where persons were working in the ceiling space of old houses. One person was electrocuted and the other received an electric shock. In both incidents the parties came into contact with open rubber insulated wiring with the insulation in poor condition.

**INCIDENT A:** A person was electrocuted while working in the ceiling space of his house. It would appear that he climbed into the ceiling space to drill a hole in the top wooden beam of a wall. While in the ceiling space he came into contact with the rubber insulated wiring. The insulation however was quite deteriorated. He touched the active conductor with his left hand and completed the electrical circuit by either touching the earthed metal cased drill or the earthed metal roof with his body or other hand.

**INCIDENT B:** A plumber received an electric shock whilst attempting to rejoin two section of copper pipe in the ceiling space. It would appear that while manoeuvring a piece of copper piping in the ceiling space it came into contact with the exposed live conductor of the rubber insulated wiring which had deteriorated insulation. He completed the electrical circuit by having both sections of copper pipe in his hands.

SECWA advises that houses built before 1960 were usually wired with rubber insulated cables, supported by porcelain insulators fixed to timber joints. High summer temperatures accelerates the deterioration of the rubber insulation making it brittle. The insulation can then break off, especially if disturbed, and so expose potentially dangerous electrical conducting wires.

### Factors

### Recommendations

When entering ceiling spaces of pre 1960 buildings:

1. Turn off the main switch to isolate the electrical supply and lock out or tag the main switch [a locking out and tagging brochure is available from the Department].
2. Advise owners of pre 1960 buildings premises to have the condition of the wiring checked by a licensed electrical contractor.
3. Every care should be taken not to disturb or touch any electrical wiring or equipment.
4. If in doubt about the safety of the electrical installation contact SECWA for advice.



WorkSafe Western Australia acknowledges the assistance provided by the Office of Energy in the preparation of this information.

### **Further Information**

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

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