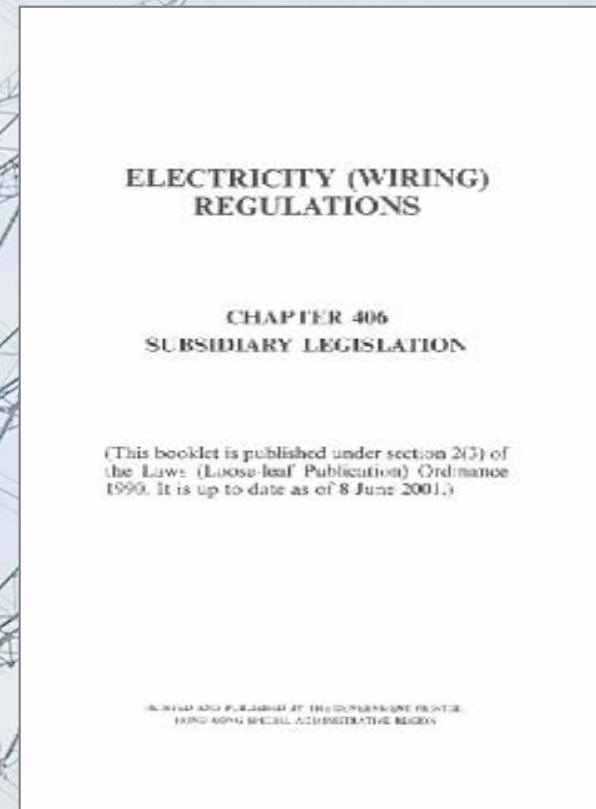
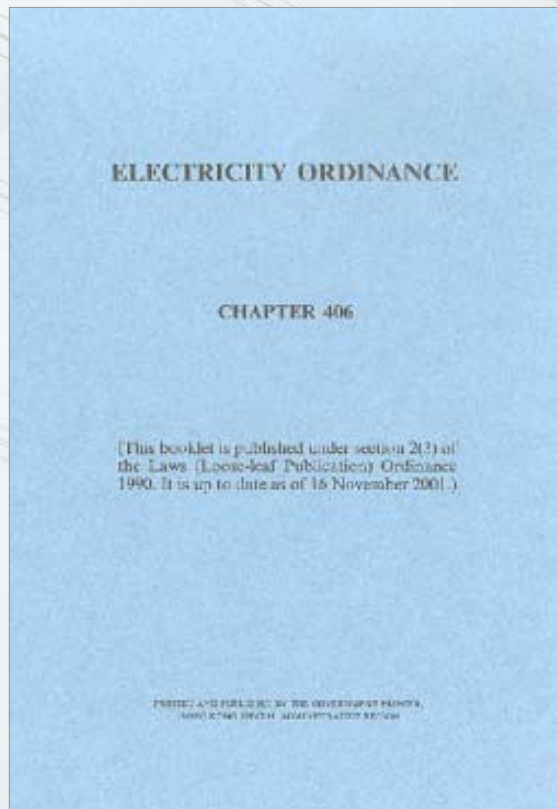


2005 Asia-Pacific Conference on Risk Management and Safety

Electricity Legislation in Hong Kong

Safeguarding the General Public in the Use of Electricity

The Electricity Ordinance (Cap. 406) – the regulatory framework aiming at protecting the general public in the use of electricity



Electricity Ordinance (Cap. 406)

- Electricity (Wiring) Regulations**
- Electricity (Registration) Regulations**
- Electrical Products (Safety) Regulation**
- Electricity Supply Lines (Protection) Regulation**
- and other subsidiary regulations**

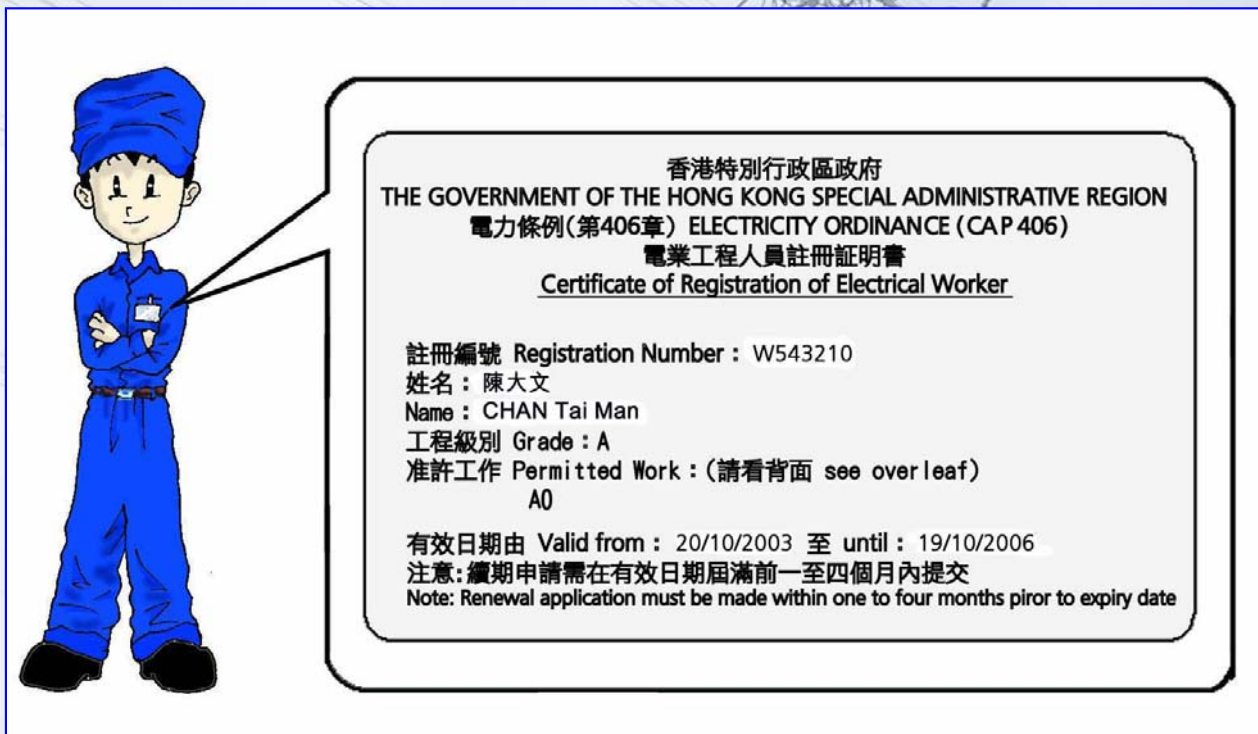
Electricity (Wiring) Regulations

- **Stipulate the safety requirements for design, installation, testing and certification of fixed electrical installations**



Electricity (Registration) Regulations

- Specify the registration details for electrical contractors and workers
- Specify the qualifications and experience of registered electrical contractors and workers



Electrical Products (Safety) Regulation

- Ensures safety of electrical products supplied in Hong Kong



Electricity Supply Lines (Protection) Regulation

- Regulates construction activities to prevent damaging underground power cables and overhead lines



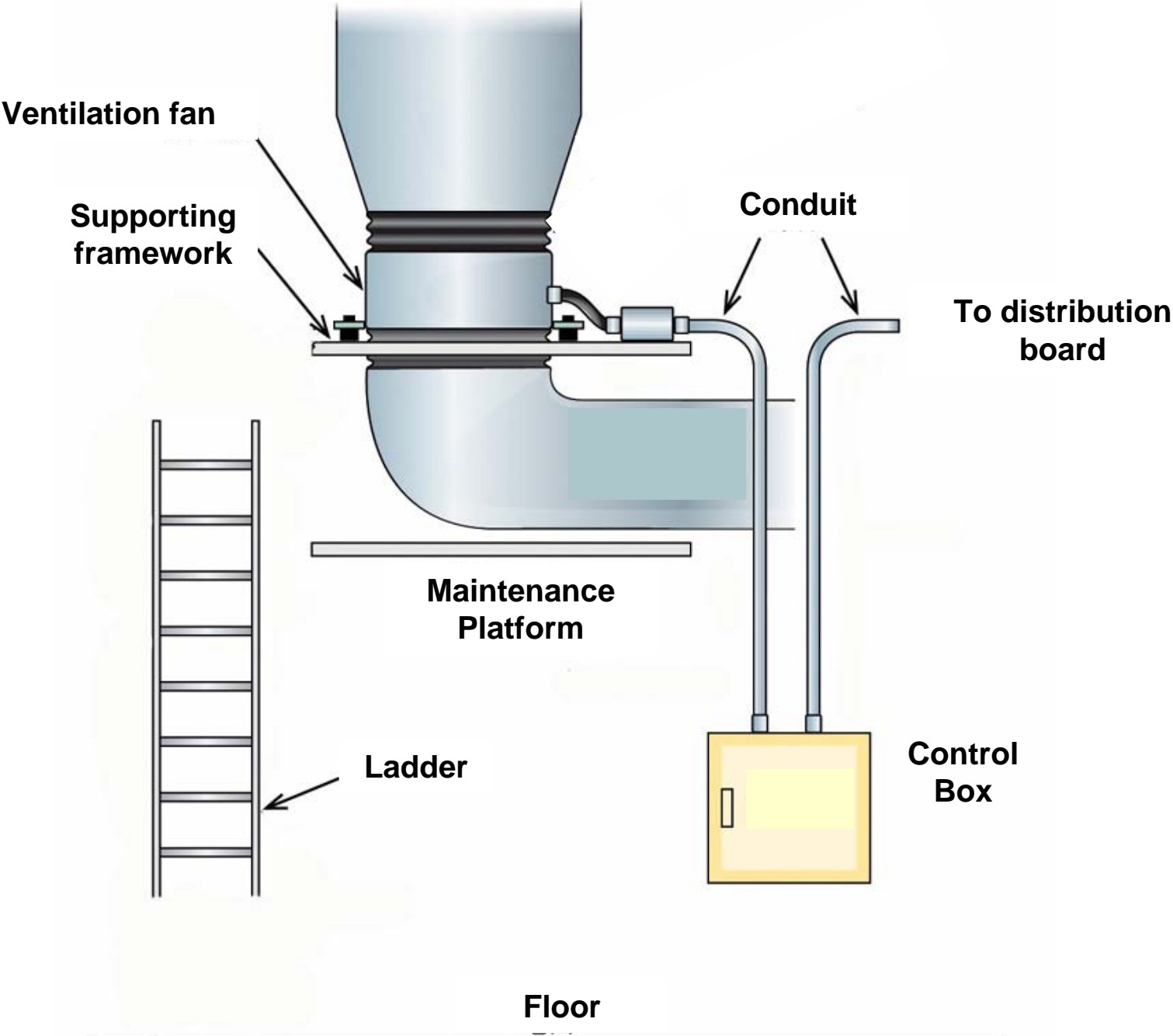
Major Electrical Incidents

- **No one wants but incidents do happen from time to time**
- **EMSD conducts investigation to unveil the causes**
- **Prevent recurrence of similar incidents**

Electrical Incident

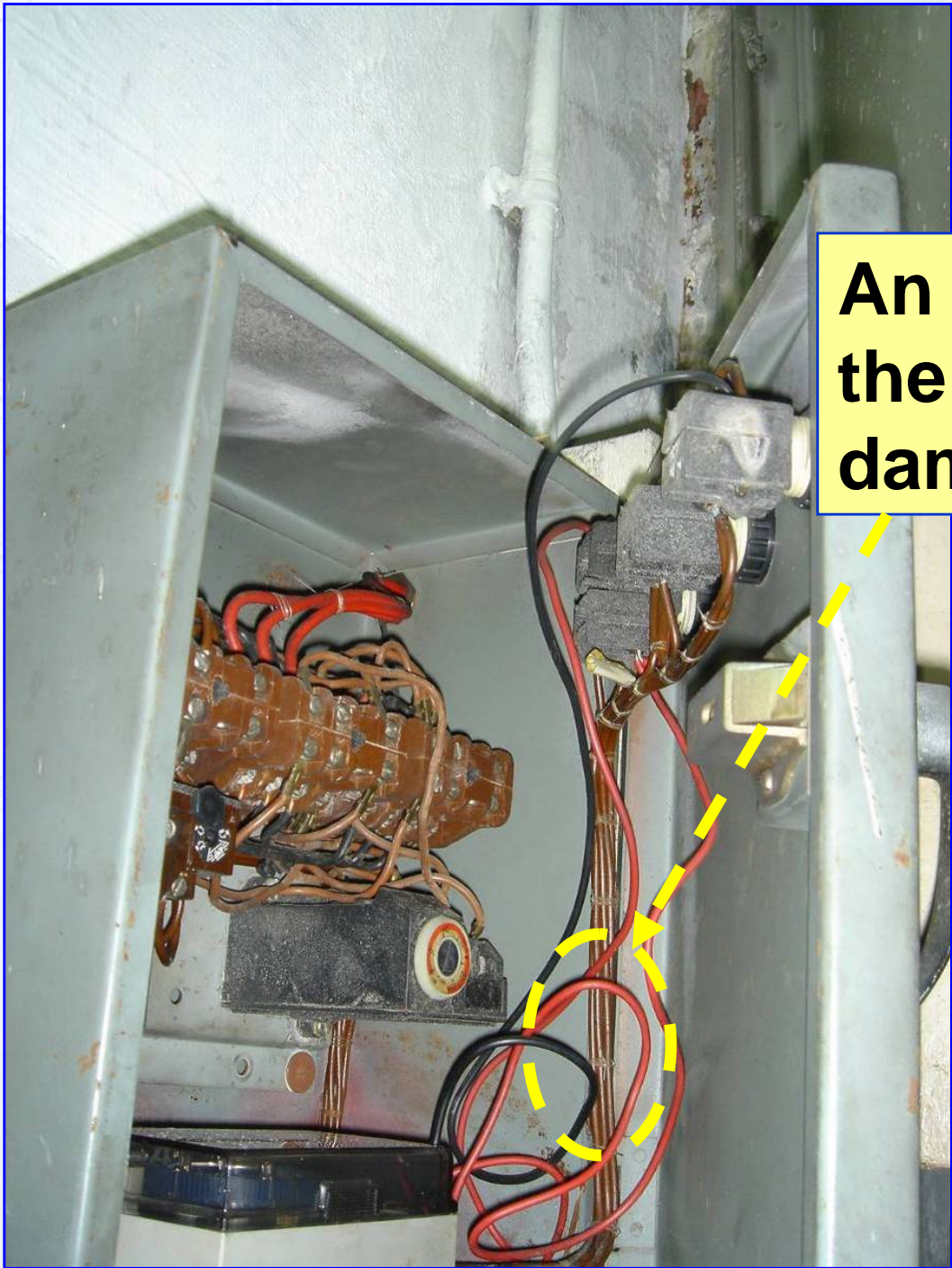
Case 1

- Ventilation shaft inside car park
- A boy electrocuted when climbing up a metallic cat ladder inside the ventilation shaft



- Control box installed near the entrance outside the shaft

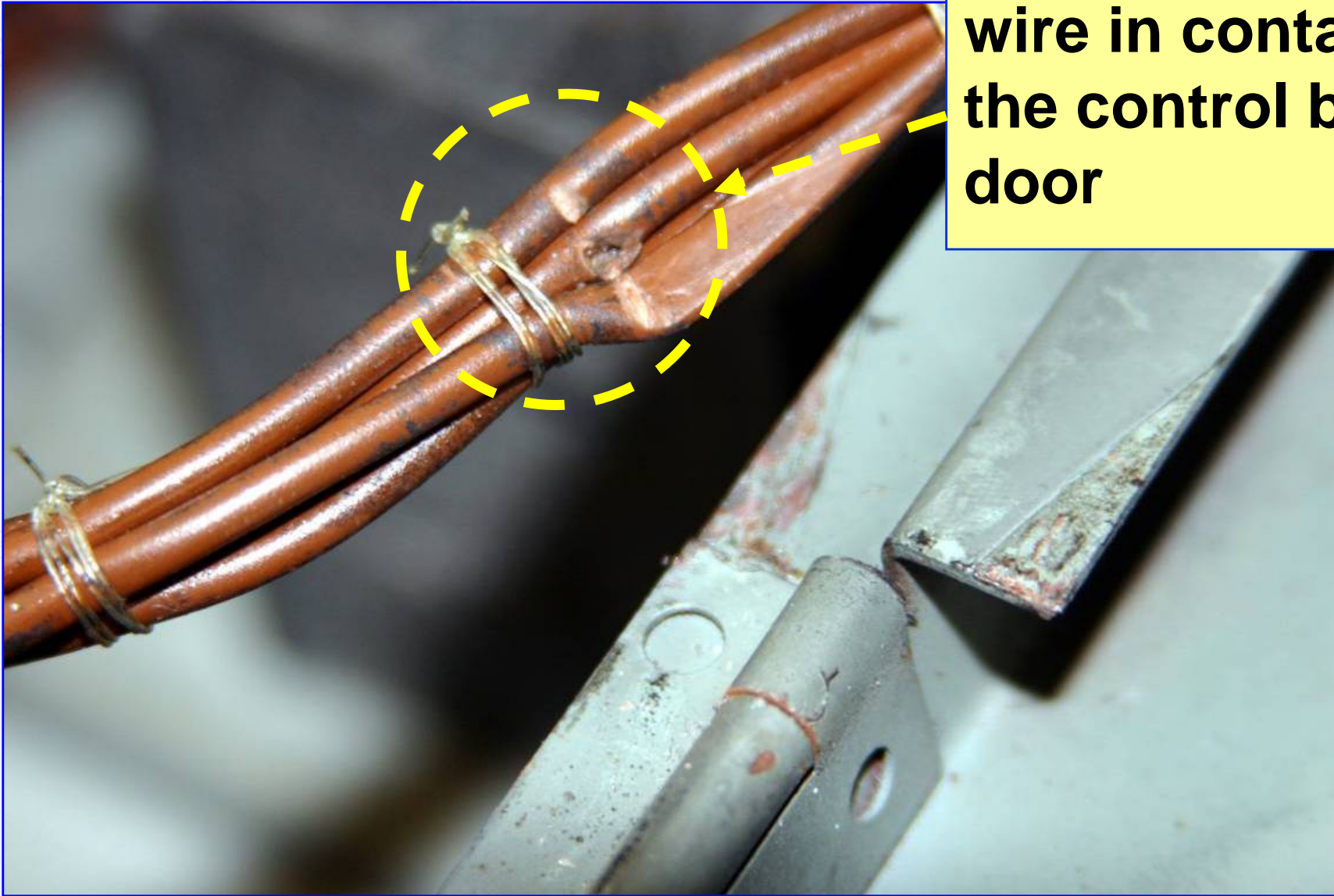




An electric wire inside the control box was damaged



Conductor of damaged wire in contact with the control box and its door





**The rusty metal
conduit used as circuit
protective conductor**

Metal cat ladder not electrically connected to supporting framework



Ventilation fan

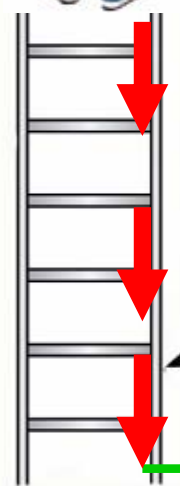
Supporting framework

Conduit

High earth fault impedance



Maintenance Platform



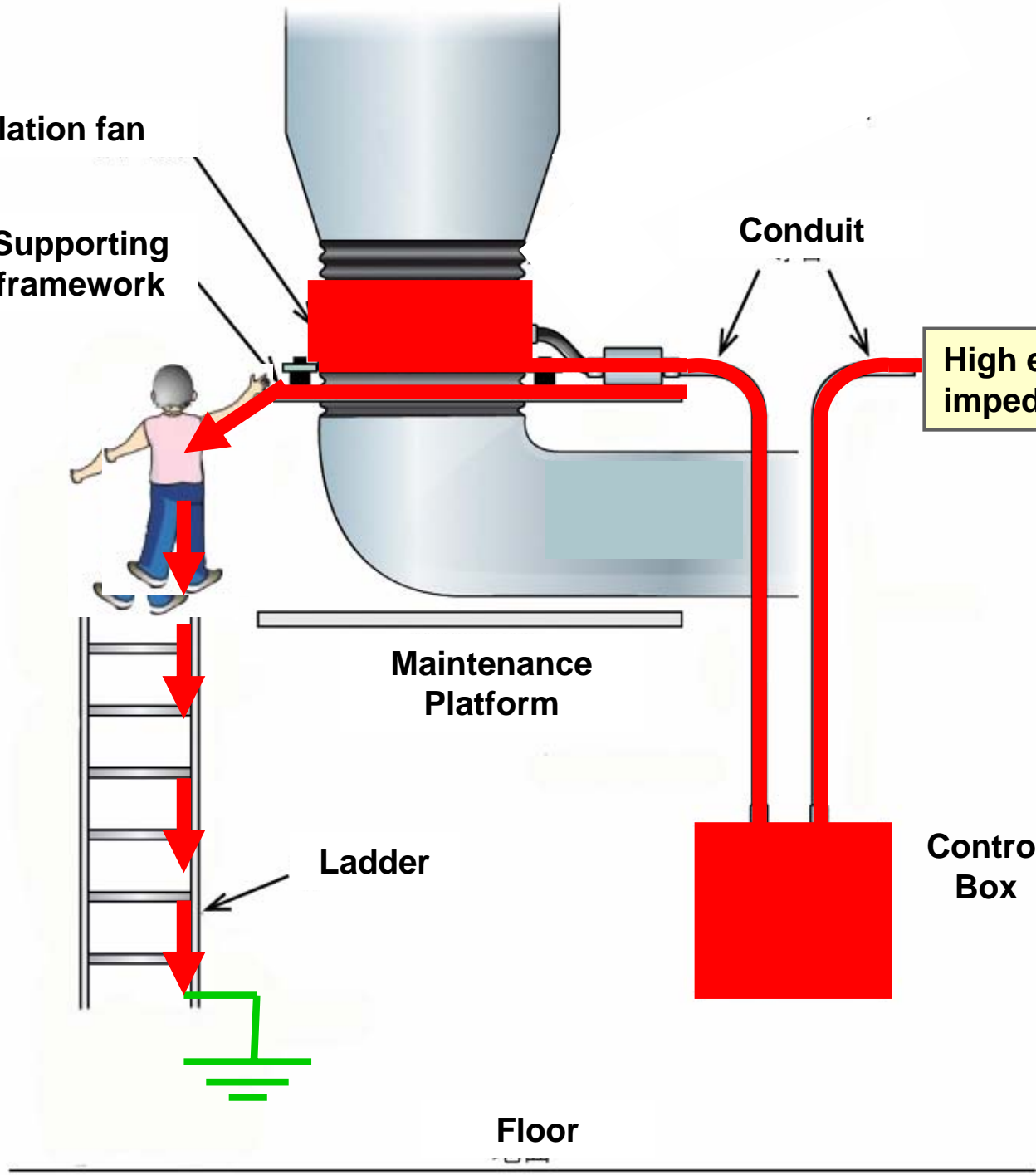
Ladder



Control Box



Floor



Recommendations

- **Arrange periodic test for electrical installations**
- **Lock the door of the ventilation fan plant room and display a warning notice**
- **Relevant parties should consider to open school facilities during non-school hours**

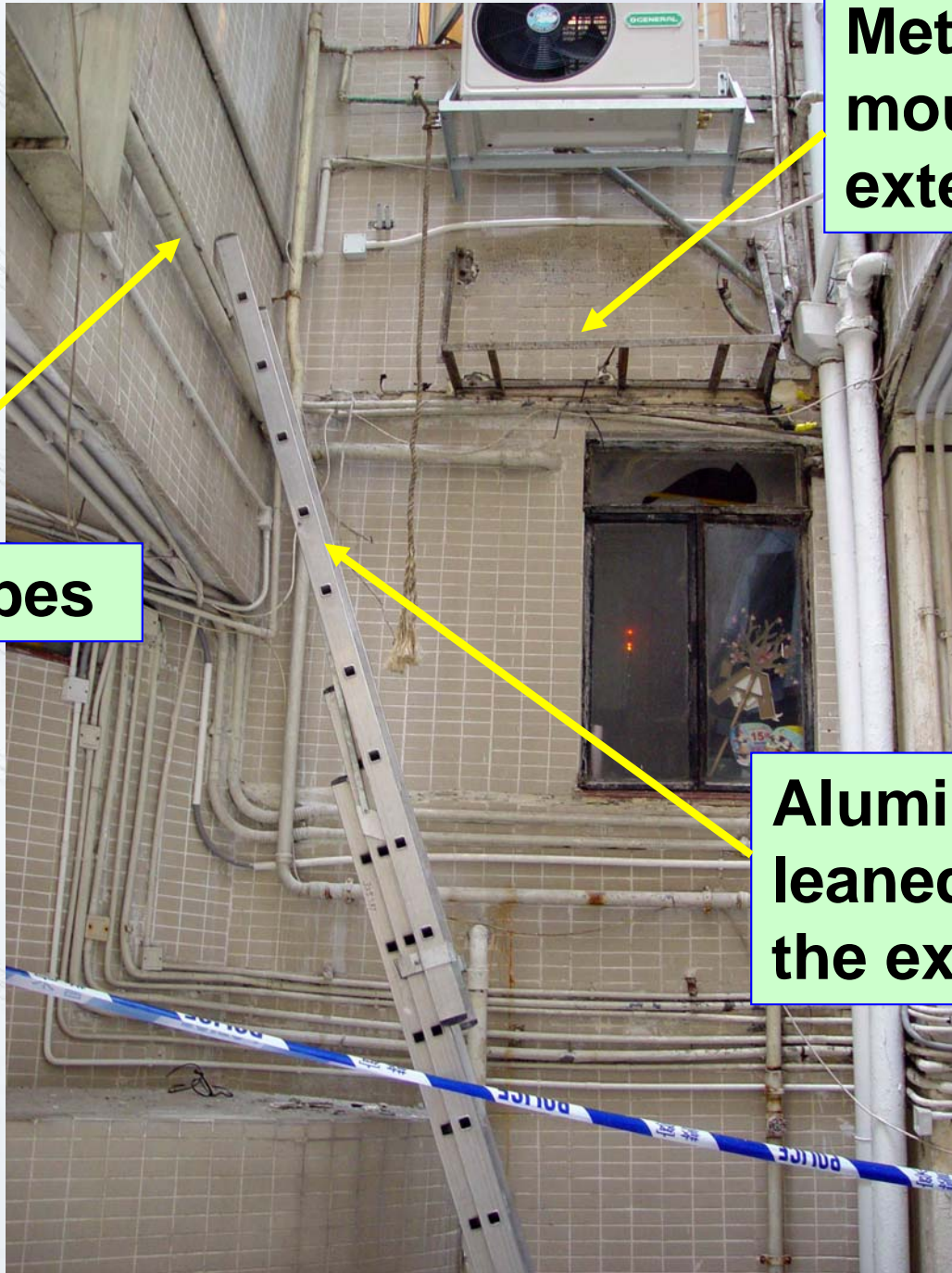
Action to Take

- **Appropriate legal/disciplinary action against the registered electrical contractor and worker**

Electrical Incident

Case 2

- A residential building
- A worker electrocuted when climbing up an aluminum ladder

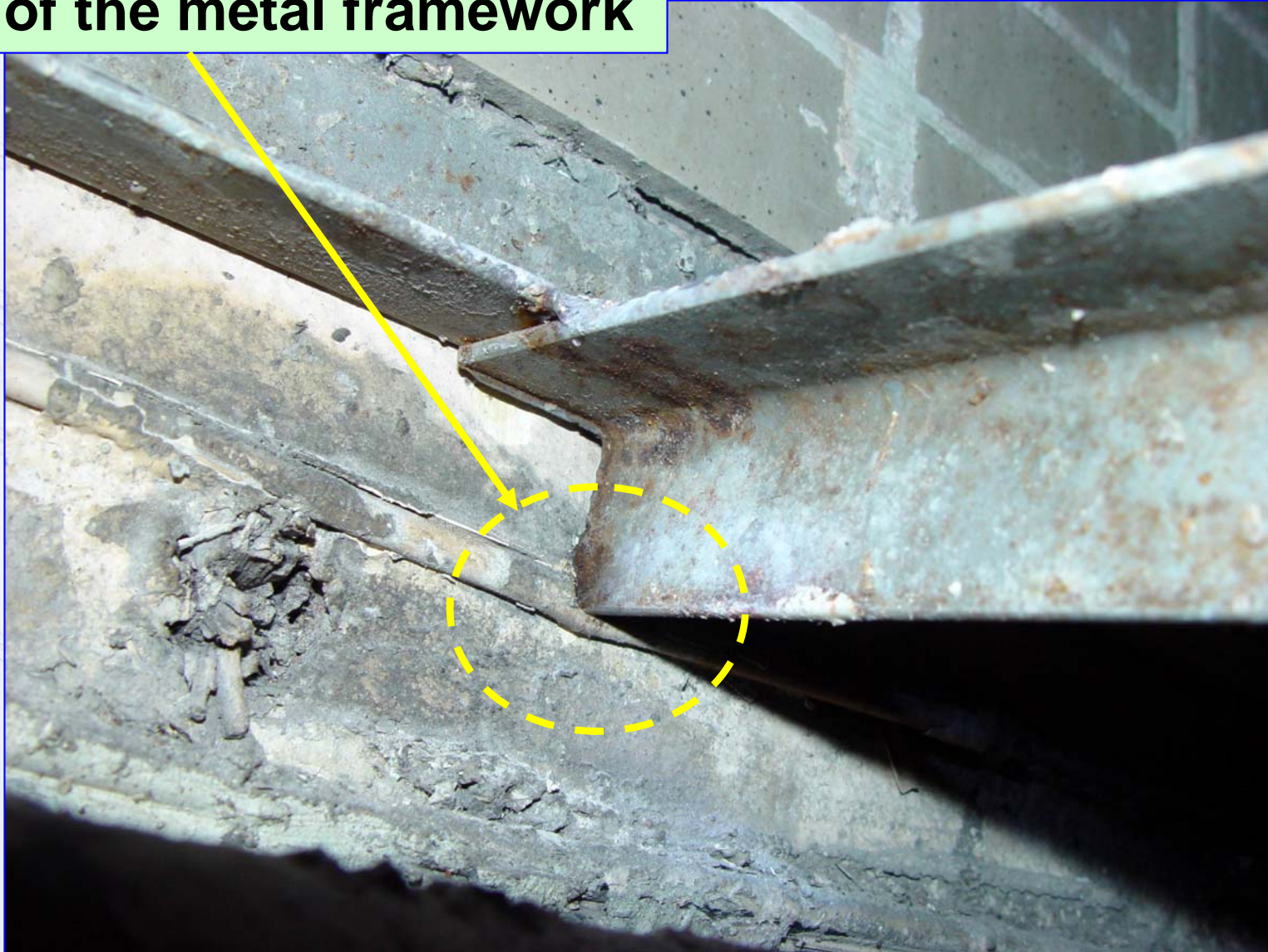


Metal framework mounted on the external wall

Metal water pipes

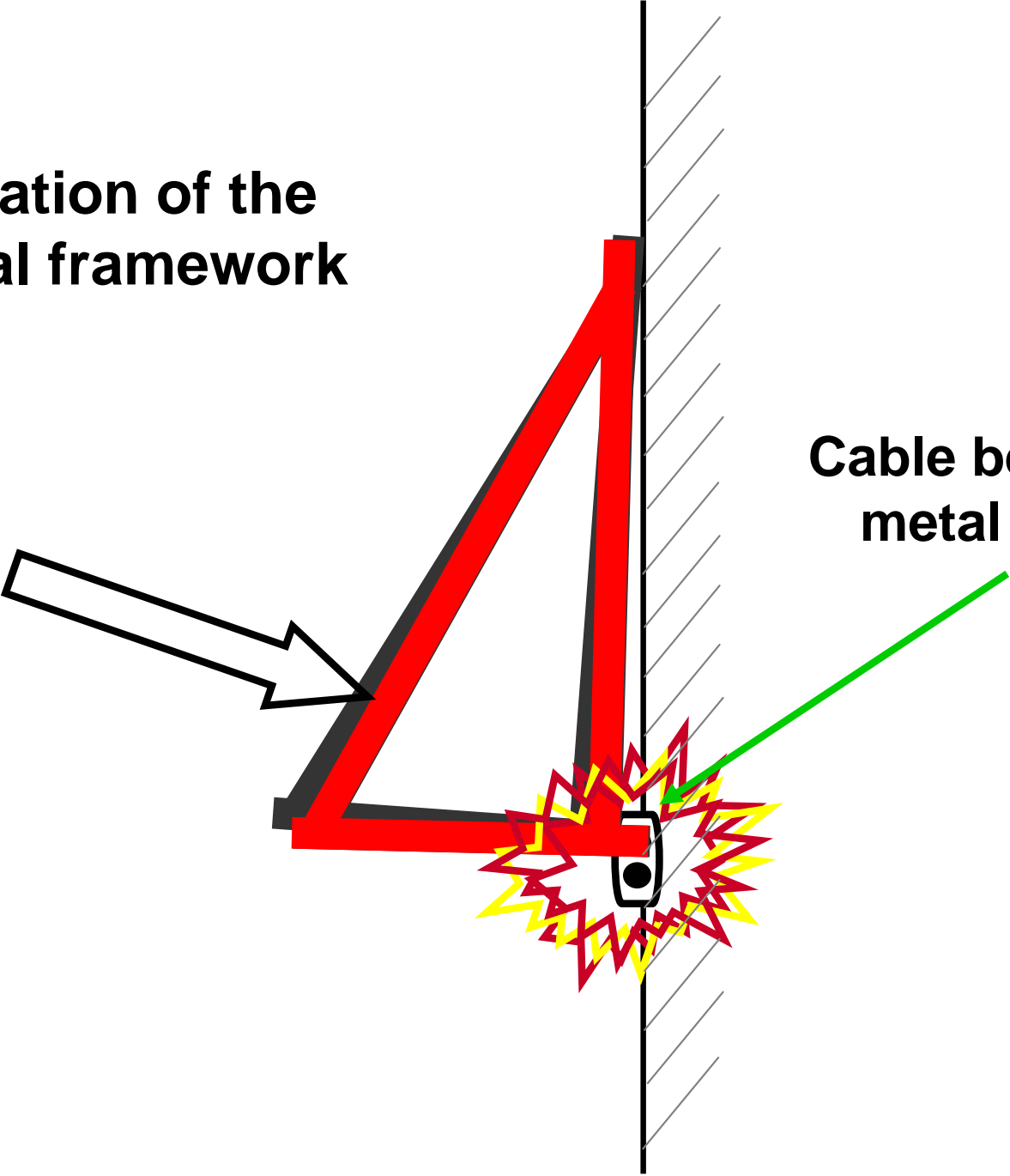
Aluminium ladder leaned against to the external wall

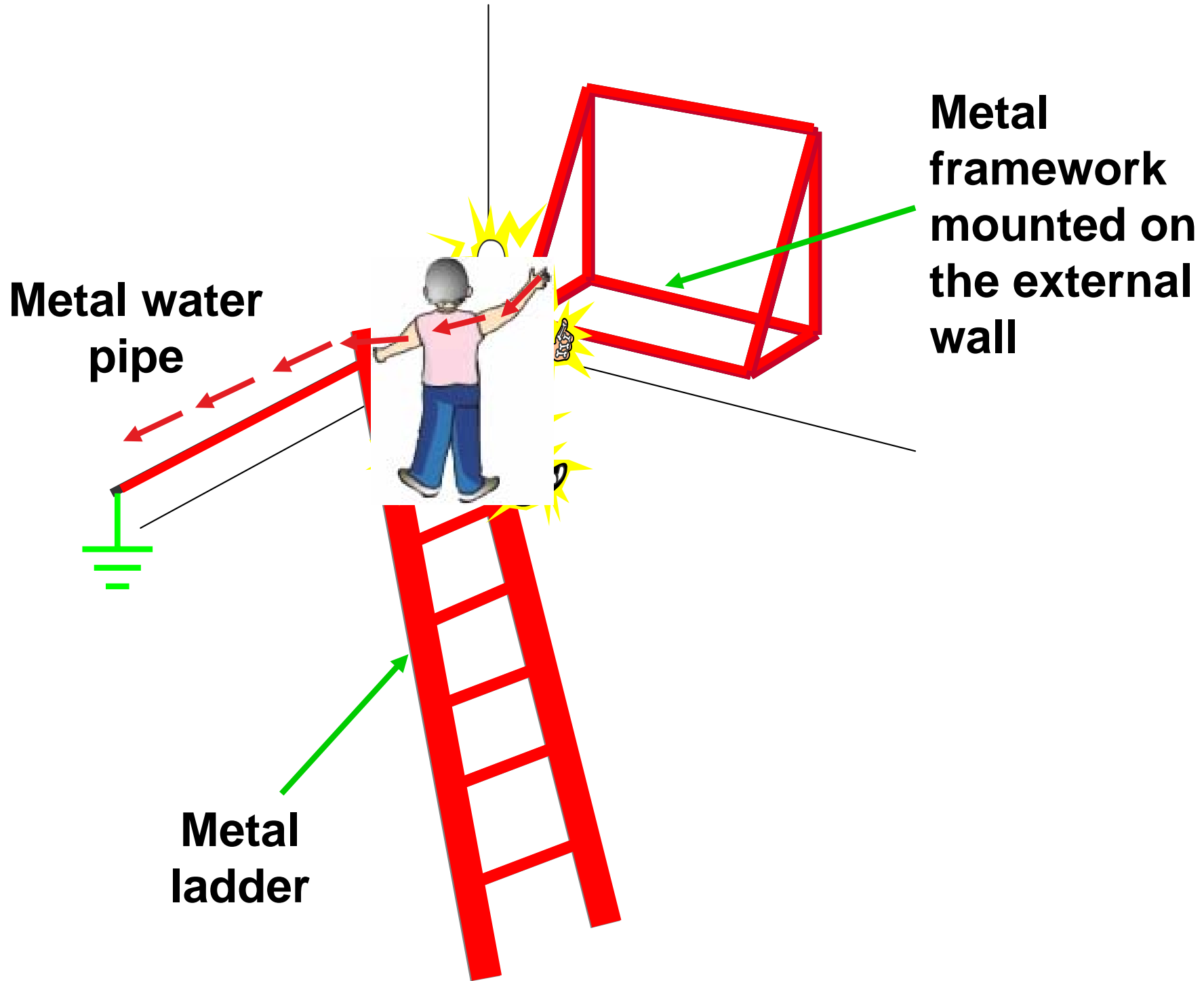
2-core PVC/PVC cable cut by edge of the metal framework



Elevation of the metal framework

Cable beneath of the metal framework





Metal water pipe

Metal framework mounted on the external wall

Metal ladder

Recommendations

- **Isolate and remove unused electrical cables**
- **Electrical cables installed outdoor should be mechanically protected**
- **Communal electrical installation should be properly inspected periodically**

Action to Take

- **Prosecute the contractor**

INCIDENT PREVENTION

- **Public education on electrical safety**
- **Enforcement Action – Prosecution/Disciplinary action**



WAY FORWARD

- **Continue to promote electrical safety (e.g. TV promotion videos, posters, newsletters, campaigns, seminars, etc.)**
- **Collaborate with the trade**
- **Keep abreast of the latest safety standards**

Thank You