Safety Alert

Dangerous existing electrical wiring on Construction and Demolition sites

Government of South Australia
Department for Infrastructure and Transport

Electrical wiring in existing buildings have been recently found in a dangerous state on some DIT sites because of construction and demolition activity.

Owners or operators of electrical installations are legally required to take reasonable steps to ensure the installation of all existing and new wiring equipment remains safe and compliant. In the case of a construction project, the General Building Contractor in control of the site is deemed to be the "operator", so must monitor the evolving conditions on site, particularly those that change the state of existing cables.

A typical example is when cables are laid across the ceiling lining of an existing building - a common occurrence in older buildings. This practice is not necessarily unsafe or non-compliant, but when the ceiling lining is demolished for renovations, the cables will be hanging freely, open to damage and a danger to workers.

Live existing cables hanging loose in a dangerous state near props and ladders after demolition.

A 'bird's nest' of existing live cables after a ceiling demolition.

Managing the risk

Codes of Practice:

- SA Building and Construction Industry Guideline for Safe Electrical Practices on Construction and Demolition Sites.
- SafeWorkSA Demolition Work Code of Practice.

Standards: AS/NZS 3012 is the applicable Australian Standard for electrical installations on construction and demolition sites. This standard specifies all existing wiring must be regarded as live unless proven otherwise by a competent person.

Marking: Existing live wiring must be separated and readily distinguishable from construction wiring. This means that yellow "CONSTRUCTION WIRING" marking shall not be used for existing or permanent wiring. Live existing or permanent wiring shall be marked "LIVE WIRING" and although a particular colour is not specified, the recommended industry standard colour is red. It's important to note the marking of cables is only an indicator and secondary means of protection, it doesn't negate the requirement for adequate support and mechanical protection.

Inductions and pre-starts: All workers should be aware of the hazards and wire marking systems before they start work.

Regular site safety inspections, monitoring: Site Supervisors and Safety Officers should conduct regular site inspections to ensure safety management plans, SWMS and site rules are upheld.

Certificates of Compliance: Detailed CoC's may be utilised by Builders to determine any new or existing wiring is safe, compliant, and suitable when being used in construction or demolition activities.