

# SAFETY SERVICES

## Safety Services – AS/NZS 3000:2007 clause 7.2.7 wiring systems

Installing a wiring system for safety services is a specialist task that should only be undertaken by electricians who have received additional training and are competent in this task.

When supplying electricity to a building's safety services, electricians must follow AS/NZS 3000 (The Wiring Rules), which 'calls up' AS/NZS 3013 for the WS classification of Safety Services Wiring Systems.

The requirement to comply with AS/NZS 3013 first appeared in the 1991 edition of the Wiring Rules. It is under clause 7.2.7 in the 2007 edition.

Supplying electrical services requires a holistic approach and should not be done in isolation. Electricians are therefore advised to work closely with the builder, building certifier and building fire engineer to ensure they are supplying the needs of the building in its compliance with safety services.

## Safety services dossier

Electricians are required to attach a safety services dossier to the Certificate of Electrical Safety they submit to Access Canberra electrical inspections team, on completion of the work.

It is recommended electricians develop a 'dossier of compliance' in the early stages of a building project where safety services exist. The dossier will help the electrician gain a full understanding of the installation and include the method of compliance. Early development ensures good product selection and good consultation is achieved with the other building services.

The safety services dossier should include:

- certificates of compliance for all elements of the safety services wiring system, including:
  - the cable
  - the cable tray or cable support system
  - the anchors
  - the cable ties
  - any other element of the support system
- plans for the cable route to:
  - ensure other services do not interfere with this cabling system
  - help the electrician consider building elements to assist in classification
- engineering drawings for the tray system that include each element's maximum rated loading and the actual load for:
  - weight loading of the tray
  - support anchors loading
  - tray support spacing
  - building structure load limits for supporting tray systems, in the vertical and horizontal.
- evidence that the building structure can support the safety services wiring installation and is fire rated to the same or higher level than the wiring system:

- consider additional supports in risers
- ensure that plant room roofs are able to provide support.

At the completion of the installation, the electrical inspectors will request the following evidence be included in the dossier to demonstrate that the safety services wiring system has been installed correctly:

- letter of compliance from building mechanical/electrical engineer
- letter of compliance from WS system supplier
- letter of compliance from electrical contractor
- installation instructions from suppliers
- documented evidence of compliance with manufactures instructions
  - photos of installation
  - as installed plans

Electricians need to look at the whole system to ensure the design will meet the needs of the building and building elements will not adversely affect the safety services wiring system. For example, where sprinkler systems impact on the safety services wiring system, the certificate of compliance should state its suitability for installation in this environment.

The design of a safety services wiring system in the early construction phase assists the electrician use of building elements to meet compliance, for example, fire rated bulk-heads and risers, buried underground, etc

### Documents for submission

At the completion of the electrical installation, the electrician issues a Certificate of Electrical Safety (CES) to the electrical inspection section of Access Canberra. The dossier is to be attached with the CES. The dossier can be supplied in a hard cover folder, but our preference is for a CD/DVD or USB storage drive containing all documents in PDF format.

### Note

Support systems other than tray may exist. Although this notice has used tray as an example, the electrician is not limited to this product. As long as the wiring system is certified as compliant and meets the requirements of AS/ NZS 3013, it may be used. If you are not confident that a product or solution is compliant, please seek our assistance.

Where alternative solutions are required due to the nature of the project, seek approval from the Access Canberra manager of electrical inspectors before you start.

### Warning

Some equipment on the market has compliance certificates that meet the 1995 release of AS/NZS 3013, but do not comply with the 2005 release of AS/NZS 3013. Electricians must meet the current release of the standard at all times.