

## **Introduction**

This submission has been prepared by the Engineers Australia (EA) Management, Engineers Australia Information, Telecommunication and Electronic Engineering College (ITEE) Board. Members of the ITEE Board and ITEE College have contributed to the content of this document.

EA Management and some ITEE Board members have experience in the registration of engineers and associated legislation as well as International Registration issues and agreements.

The ITEE College and Board members have experience in Telecommunications legislation and standards and some have held senior positions in Telecom companies and Telecom manufacturers. Some have extensive experience in Telecom cabling including investigating serious safety failures.

The draft revisions do not appear to cover the requirements of telecom services that are entering rooms or enclosures of systems or equipment that use or process dangerous or toxic chemicals. [e.g. Chemical laboratories (including schools), some plastics processing plants, integrated circuit manufacturing areas, etc.]

The revision should include acceptable methods for achieving the required gas and liquid isolation without using chemicals that will damage the telecom cables specified in the draft documents. This should include prohibiting the use of cable trays for accessing such areas.

## Comments on Draft S008

### S008 Clause 4.2.38 Registered Structural Engineer Definition

Replace the first paragraph of Clause 4.2.38 with;

An engineer that has formal recognition of the qualification and competency of a structural engineer and is current on an engineer register.

The engineer register may be;

A mandatory jurisdictional registration system for engineers (e.g. RPEQ), or

A National Engineering Register (e.g. NER), or

A Professional Engineering Registration Organisation (e.g. Engineers Australia).

Add in Note 1 with

The minimum mandatory requirement for listing on a register is-

- (a) Has a qualification for a structural engineering that complies with the requirements of the Washington Accord,
- (b) accumulated five years of relevant engineering industry experience over the past seven years; and
- (c) continuing professional development of 150 hours over the past three years.

The above proposed changes separate the options of acceptable registration organisations and the minimum requirements for registration.

The current draft also creates an opportunity for persons to manipulate the differences or gaps in engineering competencies listed in the draft. It should be noted that the Washington accord defines the standard of a degree, but not the content.

### S008 Clause 5.8.1.3 b) General Product Information

Add in at the end of sub-clause 5.8.1.3 b) "that complies with the design criteria with S009 Section 18.1".

Section 18.1 of S009 imposes some constraints on the registered structural engineer when specifying the required tests and methods.

The existing clause allows a registered structural engineer to provide a design specification that is unfit for purpose or non compliant.

The additional text ensures that a registered structural engineer is aware of the additional constraints.

#### S008 Clause 5.4.1.3.4 Shared Enclosures

Clause a) add in new sub clause

Fibre Optic Cables with AS/ANZ 60825.2 category rating “3B” shall not share the same conduits or enclosures with other services.

When cable damage occurs there is no protection for electrical or other staff against the high power laser circuits, especially where there are fibre cables with a large number of active cores.

#### Clause 5.6.19 ES3 Generic Cable

There is support for the new requirement for ES3 cables to be easily differentiated from other generic cables.

ES3 cables that connect to different devices [e.g WiFi, VoIP, CCTV, etc.] can use either colour or alpha-numerical coding methods to clearly identify the type of service.

## Comments on Draft S009

S009 Clause 4.2.53

Recommend the addition of new Note f)

f) a telecommunication fibre optic cable that carries hazardous laser radiation category “3B” AS/ANZ 60825.2

S009 Clause 18.1.4.1

Amend the wording to read

Shall only enter the pit where the sides are more than 600 mm apart at the level where the conduits are located.

The draft clause allows conduits to enter pits where there is insufficient space and/or minimum radius of curvature of fibre optic cables. e.g. the existing P2 pit size.

The above clause caters for large pits where conduit entry on all sides is required.

S009 Section 9 Separation of Services

Introduce a general clause

Fibre Optic cables with hazardous laser light levels defined in AS/ANZ 60825.2 category “3B” shall not share conduits or enclosures with any other service.

When there is cable damage there is no protection for electrical or other staff against the high power laser circuits, especially those fibre optic cables with large numbers of active cores. If this restriction is not included then Telecom staff will be needed to deactivate and make safe the fibre optic cables before other services can work on their cables or services.

The addition of this clause is needed to comply with S008 2.2 b) Protection of Staff.

#### S009 4.2.81 Registered Engineer definition

Amend Clause 4.2.81

Replace the first paragraph with;

An engineer that has formal recognition of the qualification and competency of an engineer in a particular field and is current on an engineer register.

The engineer register may be;

A mandatory jurisdictional registration system for engineers (e.g. RPEQ), or

A National Engineering Register (e.g. NER), or

A Professional Registration Organisation (e.g. Engineers Australia).

Replace Note 1 with

The minimum mandatory requirement for listing on a register is-

- (a) Has a qualification in a particular engineering discipline that complies with the requirements of the Washington Accord,
- (b) accumulated five years of relevant engineering industry experience over the past seven years; and
- (c) continuing professional development of 150 hours over the past three years.

The above proposed changes separate the options of acceptable registration organisations, and the minimum requirements for registration.

The current draft also creates an opportunity for persons to manipulate the differences or gaps in engineering competencies listed in the draft. It should be noted that the Washington accord defines the standard of a degree, but not the content.

#### Clause 4.2.8.1.2 Registered Telecommunications Engineer

Replace the clause with;

Registered ITEE (Information, Telecommunications and Electronic Engineering) complying with Telecommunications Engineering knowledge and competencies.

The other ITEE engineering disciplines of Electronic, Computer, Information and Software Engineering do not have the required competencies to comply with the requirements of this standard.