

**Submission to Communications Alliance**

**REQUEST FOR COMMENTS**

**DR AS/CA S008:2019 CUSTOMER PRODUCTS**

**AND**

**DR AS/CA S009:2019 WIRING RULES**

**Submission by**  
**Communications Experts Group Pty Ltd**



## INTRODUCTION

This submission has been prepared by Communications Experts Group Pty Ltd who are Telecommunications consultants and who have provided engineering and consultation services to a number of West Australian organisations and persons. They also have a knowledge of the Telecommunications industry in Western Australia.

Dr Green was a Director of ATUG and has been a member of a number of committees providing Telecommunications Policy advice to the WA State Government, Federal Senate and Federal Government agencies.

Communications Experts Group receives a number of enquiries and requests for advice on telecommunication services from a wide range of persons and is familiar with the telecommunication issues affecting Western Australian organisations and the community. A number of persons have provided input to this submission.

Dr Green and CEG have been responsible for the design of fibre services since 1989 and have substantial experience in the design and operation of other network technologies such as copper cable, coaxial cable and wireless networks.

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 also include prohibiting the use of cable trays for accessing such areas.

The information given in this document is based on events that have occurred in Western Australia.

Dr Green has 30 years experience conducting Professional Interviews for Engineers and ten years experience conducting Professional Interviews for Computer and IT professionals. He has also served on an International Registration and Standards Committee.

## **Comments on Draft S008**

### **S008 Clause 4.2.38 Registered Structural Engineer Definition**

Replace the Clause 4.2.31 first paragraph

An engineer that has formal recognition of the minimum knowledge and competencies equivalent to a four year Washington Accord degree, five years industry experience in a particular engineering discipline and certified compliance with CPD requirements.

A registered engineer may be a member of either a mandatory jurisdictional registration for engineers (e.g. RPEQ) or a Professional Engineering registration organisation that is compliant with the International Engineering Alliance requirements.

The draft definition may not be compatible with existing legislation and engineering standards defined by the International Engineering Alliance (IEA), relevant Federal and State Laws.

There are also opportunities 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. The proposed revision includes the combination of a three year engineering bachelor degree plus a masters degree.

### **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 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

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.

### **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**

Recommend the Introduction include 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**

Replace the Clause 4.2.81 first paragraph

An engineer that has formal recognition of the minimum knowledge and competencies equivalent to a four year Washington Accord degree, five years industry experience in a particular engineering discipline and certified compliance with CPD requirements.

Replace Note 1 with

A registered engineer may be either a mandatory jurisdictional registration for engineers (e.g. RPEQ) or a Professional Engineering registration organisation that is compliant with the International Engineering Alliance requirements.

### **Clause 4.2.81.2 Registered Telecommunications Engineer**

Recommend the clause be amended to read;

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

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