



AUSTRALIAN COMMUNICATIONS INDUSTRY FORUM

**Guideline — Compliance levels in  
Standards development**

**ACIF G535**

Guideline — Compliance levels in ACA Technical Standards development.

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## FOREWORD

### General

This Guideline one of a series of publications produced for ACIF Working Group members. These guidelines are intended to assist ACIF Working Committees in determining what matters should be addressed in new or revised Technical Standards the ACIF is to propose to the ACA.

### Standards Revision

Guidelines developed by ACIF are updated, according to the needs of the industry, by amendments or revision. Users of this Guideline should make sure that they possess the latest amendments or editions. Representations concerning the need for a change to this Guideline should be addressed to:

The Project Manager  
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## 1 INTRODUCTION

The ACA has invited industry to participate in the standards making process. One activity of the Working Committee is the setting of requirements in the standards. In addition, the ACIF Board also seeks recommendations from the standards development Working Committees on the levels of compliance applicable to the standards developed. This data, along with other input will be used by the ACA in making the newly created or modified standards. The intention of this advice is to facilitate the Working Committee's recommendation on compliance levels, when requested by the ACIF Board, and to ensure the adoption of a common approach by all Working Committees.

**2 ASSOCIATED DOCUMENTS**

- Telecommunications Act 1997 (No.47, 1997)
- Telecommunications Labelling (Customer Equipment and Customer Cabling) Notice 1997
- (See also “Explanatory Statement to the Telecommunications Labelling (Customer Equipment and Customer Cabling) Notice1997” )
- Advice to Working Committees on Assessment of network integrity items for ACA Technical Standards
- Advice to Working Committees on Assessment of Emergency Service Access and Network Interoperability Items for the Standard Telephone Service, for ACA Technical Standards
- “Assessment of Uncertainties of Measurement for Electrical Testing” R. R. Cook 1992 (Published by NATA)
- Council of Australian Governments (COAG) "Principles and guidelines for national standard setting and regulatory action by ministerial councils and standards setting bodies"
- Council of Australian Governments (COAG) "Guidelines for preparation of regulatory impact assessment statements"

### 3 SCOPE AND APPLICATION

This advice applies to all standards developed after 1st July 1997 under Section 376 (s.376) of the Telecommunications Act 1997 (No. 47, 1997) whether newly created or derived by modification of existing or previously existing standards.

This advice is limited to dealing with levels of compliance for Customer Equipment (CE) or equipment or interface that is part of CE designed for connection to a telecommunications network or facility operated by a carrier or carriage service provider, and the objectives of the Heads of Power of the Act (see also sections 5.3 below).

The standard developed may have several applicable levels of compliance depending on the network or facility to which the CE covered by the standard is connected.

Wherever possible, all parts of the standard should be treated as having a common applicable compliance level. In some cases it

may not be possible, practical or reasonable for one compliance level to be applied to the whole standard. Then, a statement with the rationale as to why a common compliance level is not possible must be included in the Working Committee's recommendation. See section 6.2 below.)

## 4 UNDERLYING PRINCIPLES

The decisions of the Working Committees on the appropriate levels of compliance are to be guided by the need to minimise the risk of a false “positive compliance” assessment by the manufacturer or importer. Circumstances under which this may occur include when there is a likelihood of insufficient awareness of typical and possible uses of the Customer Equipment and the associated consequences for the user of such a lack of awareness. Naturally, compliance of the CE with relevant Technical Standards always needs to be demonstrated and is assumed. What needs to be identified is an appropriate compliance level for the standard that will allow the manufacturer or importer to adequately demonstrate such compliance. This is dependant on the subject matter and application of the standard. The compliance level ( and thus the compliance demonstration capability) should be set at a level that appropriately reflects the required repeatability, competency, technical qualification and experience associated with preparation and generation of test reports and other items needed to demonstrate compliance.

The need to achieve (either fully or partially) the objectives of the Heads of Power of the Act (see Section 5.3) must also be remembered. Situations can arise where performance limits in the standard need to be tightly specified to ensure that the Heads of Power are achieved. The compliance level must be consistent with the ability to measure such tight performance limits and the ability to demonstrate such compliance and minimise the risk of non - compliance. The performance of an item of specified Customer Equipment or customer cabling must, of course, remain compliant with the standard being developed, in the normal course of equipment operation. Exclusions to this principle would be where the user smashes the equipment with a hammer or other deliberate destructive actions. Note that if such a deliberate action is foreseeable eg. payphone equipment then this may need to be recognised in setting the requirements and compliance level. Section 5.4 touches on the related topic of parameter tolerances.

Where additions to international standards exist as Australian variations, and these may be deemed to be satisfied by using a different compliance level to the rest of the standard, the Working Committee may then recommend this level provided that the Australian variations have no impact on the compliance with existing s.376 standards.

The compliance levels specified in the Labelling Notice indicate the acceptable minimum level of technical verification (and the associated required testing procedures and expertise) for a particular item of CE prior to being labelled compliant and marketed in Australia.

## 5 ISSUES TO CONSIDER

### 5.1 The Labelling Notice

The Labelling Notice was produced through a consensus agreement of industry bodies, user and consumer groups, and government representatives and applies to manufacturers and importers of Customer Equipment and customer cabling intended for connection to the telecommunications network in Australia.

For the purposes of the standards development process, the applicable standards and compliance levels that need to be met are given in Schedule 1 of the Labelling Notice.

### 5.2 Compliance levels

Compliance levels apply in several regulatory frameworks. The ACA administers the regulatory framework under the Radiocommunications Act and Telecommunications Act. Due to differences in the two items of legislation, each has its own distinct requirements for the levels of compliance and their application.

The levels below are associated with the Telecommunications Act and are provided as background to the standard development process.

Level 1 is the lowest compliance level while level 3 is the highest compliance level. Where the relevant compliance level is satisfied, the manufacturer or importer will be permitted to apply labels indicating compliance with the relevant S.376 standards.

Level 1 requires only that a declaration be made that the equipment or cabling complies with relevant S.376 standards (a declaration of conformity), and that a description of the equipment or cabling be produced.

Level 2 requires a declaration of conformity, a description and one of the following:

- (a) a test report (which may be an in-house report) indicating, or a number of test reports that together indicate, compliance with all relevant S.376 standards
- (b) a test report, issued following a trial testing period of the equipment or cabling in connection with a telecommunications network or facility operated by a carrier or carriage service provider, may be used where the carrier or carriage service provider has issued a written statement that it does not object to the connection of the equipment or cabling to the network or facility. This does not apply in relation to compliance level 3 test reports. For any period of testing, the carrier or carriage service provider must agree to the equipment under test being connected to the network or facility. There must also be evidence that the equipment was fully tested in its operational modes while so connected. The carrier or carriage service provider may terminate such a test under s.446 & 447 of the Act.

Level 3 has the same requirements as level 2 except that any test report has to be from a recognised testing authority (appointed by an accreditation body - NATA - under S.409 of the Act). Network testing is insufficient evidence of level 3 compliance.

The choice of obtaining a statement from a competent body in relation to compliance levels 2 and 3 may only be exercised in certain circumstances, namely where it is impracticable to test the equipment because of its size, location or nature. However, the impracticality cannot relate to expense.

**5.2.1 Compliance level 1**

This is the lowest compliance level required by the Labelling Notice. Compliance level 1 has been applied in relation to standards or parts of standards where non-compliance would not be expected to have any serious consequences in relation to the safety of persons or the integrity of networks.

The only requirements in compliance level 1 are that the manufacturer or importer must have: a description of the equipment or cabling and make a declaration of conformity in the form set out in Schedule 6 of the Labelling Notice. The form of the declaration in Schedule 6 simply requires the manufacturer or importer to be identified and to declare that the equipment or cabling complies with all applicable standards specified in Schedule 1.

**5.2.2 Compliance level 2**

This is the middle compliance level and has been applied in relation to standards or parts of standards where non-compliance would be expected to have some consequences of concern in relation to the safety of persons or the integrity of networks.

To comply with this compliance level, a manufacturer or importer must comply with the following elements:

- (a) compliance with level 1 is required, that is to have a description of the equipment or cabling, and to make a declaration of conformity,
- (b) at least one of the following must be obtained:
  - (i) a test report that indicates, or a number of test reports that taken together indicate, that the equipment or cabling complies with all relevant S.376 standards or parts of standards,

Note 1: These test reports can be in-house reports or reports prepared by another test laboratory. The reports do not have to be from a recognised testing authority;

Note 2: Alternatively, a test can be done by conducting a trial of the item in connection with a carrier's network, after which the carrier issues a statement to the effect that it has no objections to the connection to its network of an item of the trialed item. (For the period of testing, the carrier or carriage service provider must agree to the equipment under test being connected to the network or facility. There must also be evidence that the equipment was fully tested in its operational modes while so connected. The carrier or carriage service provider may terminate such a test under s.446 & 447 of the Act) or

- (ii) a written statement from a certification body that certifies that the equipment or cabling complies with all applicable S.376 standards specified in Schedule 1,

Note: Certification bodies are appointed by an approving body under S.410 of the Act. or

- (iii) where applicable (as described in the Labelling Notice), a written statement from a competent body that states that all reasonable steps have been taken in relation to the equipment

or cabling to avoid a contravention of all applicable S.376 standards specified in Schedule 1,

Note 1: No competent bodies have yet been appointed. Competent bodies are appointed by an accreditation body under S.409 of the Act. It is expected that NATA will be appointed as an accreditation body before 1 July 1997

Note 2: The Labelling Notice specifies the circumstances in which the option of obtaining a statement from a competent body may be exercised.

### 5.2.3 Compliance level 3

This is the highest compliance level and has been applied in relation to standards or parts of standards where non-compliance would be expected to have any serious consequences in relation to the safety of persons or the integrity of networks.

To comply with this compliance level, a manufacturer or importer must comply with the same elements as for compliance level 2, the only difference being that any test report must be from a recognised testing authority. Network testing is insufficient evidence of level 3 compliance.

A written statement from a certification body may be obtained for this compliance level where there is a part of an applicable standard for which there is not a recognised testing authority who is accredited to conduct tests.

## 5.3 Heads of power of the Telecommunications Act

As defined in S.376 of the Act, standards made under this section are to consist only of such requirements as are necessary or convenient for:

- (a) protecting the integrity of a telecommunications network or a facility; or
- (b) protecting the health or safety of persons who:
  - (i) operate; or
  - (ii) work on; or
  - (iii) use services supplied by means of; or
  - (iv) are otherwise reasonably likely to be affected by the operation of;
 a telecommunications network or a facility; or
- (c) ensuring that Customer Equipment can be used to give access to an emergency call service; or
- (d) ensuring, for the purpose of the supply of a standard telephone service, the interoperability of Customer Equipment with a telecommunications network to which the equipment is, or is proposed to be, connected; or
- (e) achieving an objective specified in the regulations.

## 5.4 Parameter tolerances

In deciding on a value of a particular parameter and a compliance level, the Working Committee must consider the impact of the uncertainties in measurements made by recognised testing authorities and those made by other non-recognised facilities. The publication "Assessment of

Uncertainties of Measurement for Electrical Testing” R. R. Cook 1992 (Published by NATA) gives guidance on measurement uncertainty.

There may also be a physical limitation to the value chosen for a particular parameter at a particular compliance level. For example, the electrical breakdown of an item of CE may be set at 1000 volts when compliance level 3 is decided or set at 2000 volts for level 2 ( allowing for greater uncertainty). It may not be physically possible for the item to ever meet the 2000 volt level due to inherent design constraints. Thus level 3 is to be specified. If one parameter is set to level 3, then the whole standard will be at level 3 compliance.

The above must be considered in the process of defining a test method and the impact this will have on achieving the desired result.

## **5.5 International Standards**

Wherever possible the contents of standards are to be aligned with international (eg ITU, IEC, ISO) and if not appropriate, then regional standards (eg ETSI). See also the section entitled “Reference to Other Standards” of the Advice to Working Committees on Network Integrity.

## 6 IMPLICATIONS FOR THE STANDARDS DEVELOPMENT PROCESS

### 6.1 The process

The process of establishing a compliance level and the choice of appropriate parameter values and other requirements is envisaged to be iterative, especially considering that a standard may be applicable to CE designed for operation with several different network interfaces.

A possible process would be:

- (a) consider the need to define and specify a parameter to meet the objectives of the Heads of Power (see section 5.3 above).
- (b) set a value for the parameter
- (c) consider the relationship and impact of the parameter and its value to other parts of the standard, and the implications of Section 5.4 above should be considered here.
- (d) confirm that the objectives set for the Working Committee have been met.

The Working Committee can however choose the most appropriate development and internal review process being mindful of the output to be delivered as defined by the ACIF Board.

### 6.2 The recommendation

The recommendation forwarded to the ACIF Board is to be a written submission on the compliance level(s) for the standard.

A statement on the rationale for the choice of compliance level interface is to be provided for each network interface. The fact that one particular interface could have a number of applicable standards and a range of CE to which the developed standard applies need to be considered in developing the rationale. It is expected that the Working Committee's output will have encompassed this broader perspective.



The Australian Communications Industry Forum Ltd (ACIF) is a communications self-regulatory body established in 1997 by the industry to manage communications self-regulation within Australia.

The primary role of ACIF is to develop and administer Standards, Industry Codes of practice and industry support services that promote both the long-term interest of end-users and the efficiency and international competitiveness of the Australian communications industry.

ACIF is an industry initiative, funded and resourced by the industry, with a membership that encompasses all industry sectors. ACIF comprises a Board, Advisory Assembly, Executive, six standing Reference Panels and a number of task-specific Working Committees.

Standards and Industry Codes of practice are prepared by Working Committees made up of experts from industry, consumer, government, and other bodies. The requirements or recommendations contained in ACIF's published documents are a consensus of views of representative interests and also take into account comments received from other sources.

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