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AS IEC 60300.3.14—2005

Australian Standard™

Dependability management

Part 3.14: Application guide—Maintenance and maintenance support

STANDARDS AUSTRALIA

This Australian Standard was prepared by Committee QR-005, Dependability. It was approved on behalf of the Council of Standards Australia on 8 April 2005.
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Part 3.14: Application guide—Maintenance and maintenance support

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PREFACE

This Standards was prepared by Standards Australia Committee QR-005, Dependability.

It is identical with, and has been reproduced from, IEC 60300-3-14, Ed.1.0 (2004), *Dependability management, Part 3-14: Application guide—Maintenance and maintenance support*.

'Dependability' is a collective term for performance characteristics (reliability, availability, maintainability) of simple or complex products and systems. This Standard is part of the AS IEC 60300 series of dependability management Standards, which provide general guidelines for establishing a dependability management system to meet most organizational or project needs, supported by a 'tool kit' of non-prescriptive standards on a range of dependability application guidelines and methods, and outlines maintenance and maintenance support process as a major component of dependability.

The objective of this Standard is to provide an outline of the maintenance, maintenance support and management processes and techniques that can be applied to achieve adequate dependability and meet operational needs throughout the life cycle of systems, products and equipment.

As this Standard is reproduced from an International Standard, the following applies:

(a) Its number does not appear on each page of text and its identity is shown only on the cover and title page.

(b) The page numbers do not correspond to the IEC dual language (English/French) version.

(c) In the source text 'this part of IEC 60300' should read 'this Australian Standard'.

References to International Standards should be replaced by references to Australian or Australian/New Zealand Standards, as follows:

Reference to International Standard		*Australian/New Zealand Standard*	
IEC		AS IEC	
60300	Dependability management	60300	Dependability management
60300-1	Part 1: Dependability systems management	60300.1	Part 1: Dependability systems management
60300-2	Part 2: Guidelines for dependability management	60300.2	Part 2: Guidelines for dependability management
60300-3-3	Part 3-3: Application guide – Life cycle costing	60300.3.3	Part 3.3: Application guide – Life cycle costing
60300-3-10	Part 3-10: Application guide – Maintainability	60300.3.10	Part 3.10: Application guide – Maintainability
60300-3-11	Part 3-11: Application guide – Reliability centred maintenance	60300.3.11	Part 3.11: Application guide – Reliability centred maintenance
60300-3-12	Part 3-12: Application guide – Integrated logistic support	60300.3.12	Part 3.12: Application guide – Integrated logistic support

Only international references identical to Australian or Australian/New Zealand Standards have been listed.

The term 'informative' has been used in this Standard to define the application of the annex to which it applies. An 'informative' annex is only for information and guidance.

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INTRODUCTION

The provision of maintenance and maintenance support is a key element in ensuring the dependability of items (products, equipment and systems) throughout their life cycle. Proper functionality, capability and dependability performance are achieved by providing the necessary maintenance and maintenance support in conjunction with appropriate design, quality manufacturing, and sound operating practices.

The amount and type of maintenance and maintenance support depends on customer needs, the nature of the item, its condition, required availability and other factors. As these factors change, especially during the operation and maintenance phase, maintenance and maintenance support may need to be adjusted.

A number of different functions, such as maintenance management and asset management, include maintenance and maintenance support. This standard does not preclude their use, but does indicate what should be addressed under these headings.

Inadequate, excessive or incorrect maintenance can cause failures, which may significantly reduce the availability of items and result in greatly increased cost due to loss of performance and possible secondary damage. The reduced availability often produces operational penalties and a consequent loss of revenue, which can be significantly greater than the cost of maintenance or even the cost of the original failure. Safety may also be affected and in some industries this may be the most important consideration.

This standard provides a more general approach to maintenance and maintenance support than used in integrated logistic support (ILS). ILS is a method by which all logistic support services are considered and provided for customers as an integral part of product development. This standard addresses the case for complex systems where maintenance and maintenance support need to be adjusted to specific situations during both the design phase and the operation and maintenance phase.

NOTES

STANDARDS AUSTRALIA

Australian Standard

Dependability management
Part 3.14: Application guide—Maintenance and maintenance support

1 Scope

This part of IEC 60300 describes a framework for maintenance and maintenance support and the various minimal common practices that should be undertaken. The purpose of this standard is to outline, in a generic manner, management, processes and techniques related to maintenance and maintenance support that are necessary to achieve adequate dependability to meet the operational needs of the customer.

NOTE 1 Maintenance and maintenance support are a major element of dependability as described in IEC 60300-1 and IEC 60300-2.

In some cases, regulatory and other mandatory requirements need to be considered. Maintenance and maintenance support requirements and obligations may therefore need to be specified in a contract, which cites this standard.

This standard is intended for use by a wide range of suppliers, maintenance support organizations and users and can be applied to all items.

This standard is applicable to items, which include all types of products, equipment and systems (hardware and associated software). Most of these require a certain level of maintenance to ensure that their required functionality, dependability, capability, economic, safety and regulatory requirements are achieved.

NOTE 2 For consistency, this standard will use the term "item" as defined in 3.1.5, except where the context requires otherwise.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

IEC 60300-1:2003, *Dependability management – Part 1: Dependability management systems*

IEC 60300-2:2004, *Dependability management – Part 2: Guidelines for dependability management*

IEC 60300-3-2, *Dependability management – Part 3: Application guide – Section 2: Collection of dependability data from the field*

IEC 60300-3-3, *Dependability management – Part 3: Application guide – Section 3: Life cycle costing*

IEC 60300-3-10, *Dependability management – Part 3-10: Application guide – Maintainability*

