AS/NZS ISO 8402:1994

Australian/New Zealand Standard

Quality management and quality assurance—Vocabulary

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee QR/7, Quality Terminology. It was approved on behalf of the Council of Standards Australia on 1 August 1994 and on behalf of the Council of Standards New Zealand on 1 August 1994. It was published on 19 September 1994.

The following interests are represented on Committee QR/7:

Australian Bankers Association
Australian Electrical & Electronic Manufacturers Association
Australian Information Industry Association
Australian Organization for Quality
Australian Quality Council
Bureau of Steel Manufacturers of Australia
CSIRO, Division of Mathematics and Statistics (Australia)
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Australian/New Zealand Standard

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PREFACE

This Standard was prepared by the Joint Standards Australia/ Standards New Zealand Committee QR/7 on Quality Terminology to supersede NZS 5604:1987 and AS 1057-1985, which have been withdrawn.

This Standard is identical with and has been reproduced from ISO 8402, Quality management and quality assurance—Vocabulary; however, non-English text has been deleted. Committee QR/7 provided input to the International Committee, ISO/TC 176, in the preparation of the International Standard. It is issued as a Joint Standard under the terms of the Active Cooperation Agreement between Standards Australia and Standards New Zealand.

At the time of publication, Committee QR/7 is preparing an Australian supplement to incorporate relevant terms which were defined in the superseded AS 1057 and are referenced in current Australian Standards, but are not included in AS/NZS ISO 8402.

For the purpose of this Standard, the ISO text should be modified as follows:

(a) *Terminology* The words 'this Australian Standard', 'this New Zealand Standard' or 'this Joint Australian/New Zealand Standard' should replace the words 'this International Standard', wherever they appear.

(b) *References* The references to ISO/IEC Guide 2 should be replaced by reference to Standards Australia/Standards New Zealand Handbook SAA/SNZ HB18.2, *Guidelines for third-party certification and accreditation,* Guide 2—*General terms and their definitions concerning standardization and related activities.*

(c) *Bibliographical references* Annex A provides references to other documents for information and guidance only.

CONTENTS

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and nongovernmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 8402 was prepared by Technical Committee ISO/TC 176, Quality *management and quality assurance,* Subcommittee SC 1, *Concepts and terminology*.

This second edition cancels and replaces the first edition (ISO 8402:1986), which has been revised and substantially extended.

Annex A of this International Standard is for information only.

Introduction

Many ordinary words, in everyday use, are used in the quality field in a specific or restricted manner compared with the full range of dictionary definitions, due to such reasons as:

— the adoption of quality terminology by different sectors of business and industry to suit their specific perceived needs,

— the introduction of a multiplicity of terms by quality professionals in different industrial and economic sectors.

The intent of this International Standard is to clarify and standardize the quality terms as they apply to the field of quality management. These terms and definitions are discussed and grouped together in the text according to logical topics. They are also regrouped in an alphabetical index at the end for convenience.

The word **quality** (2.1) in popular usage often means different things to different people. In this International Standard **quality** is defined as **the totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs.**

There are many different usages of the word quality. These different usages create considerable confusion and misunderstanding. Two such usages are ”conformance to requirements” and ”degree of excellence”. ”Conformance to requirements” leads people to argue that ”quality costs less”, which in some cases it does. Conversely, ”degree of excellence” implies that ”quality costs more”, which in some cases it does. In order to resolve some of the confusion in the usage of the word quality, another term **grade** (2.2) can be used to describe the degree of excellence. The term grade is used, when needed, to describe the sense of technical excellence. Grade reflects a planned or recognized difference in the requirements for quality. Although the different categories of grade do not necessarily stand in rank order relationship to each other, grade indicators can readily be used in a rank order sense to describe the sense of technical excellence. An example of this usage is that it costs more to provide and run a five-star hotel than a boarding house.

The term **product** (1.4) is used throughout this International Standard. It is the **result of activities or processes** and can be tangible or intangible, or a combination thereof. In current ISO quality management standardization, products are classified in four generic product categories:

— hardware (e.g. parts, components, assemblies),

— software (e.g. computer programs, procedures, information, data, records),

— processed materials (e.g. raw materials, liquids, solids, gases, sheets, wires),

— services (e.g. insurance, banking, transport).

It is recognized that products generally involve combinations of these generic product categories. The terms and concepts presented in this International Standard are intended to be applicable to any product.

In this International Standard, the term **entity** (1.1) includes the term **product,** but extends further to cover, for example, activity, **process** (1.2), **organization** (1.7) or person.

Confusion has arisen in understanding the terms **quality control** (3.4), **quality assurance** (3.5), **quality management** (3.2) and **total quality management** (3.7). This International Standard is intended to clarify these concepts.

In simplified terms, **quality control** concerns the operational means to fulfil the **quality requirements,** while **quality assurance** aims at providing confidence in this fulfilment, both within the organization and externally to **customers** (1.9) and authorities. Within International Standards, the English terms ”ensure” and ”assure” are used in the following sense: ”ensure” means to make sure or certain, ”assure” means to give confidence to oneself or to others.

Quality management includes both **quality control** and **quality assurance**, as well as the additional concepts of **quality policy** (3.1), **quality planning** (3.3) and **quality improvement** (3.8). **Quality management** operates throughout the **quality system** (3.6). These concepts can be extended to all parts of an organization.

Total quality management brings to these concepts a long-term global management strategy and the participation of all members of the organization for the benefit of the organization itself, its members, its customers and society as a whole.

All concepts addressed in this International Standard have both economic and time implications. This should be recognized in the interpretation of all definitions in this International Standard even though it has not been explicitly stated in each definition.

The distinction made in this International Standard between the terms **defect** (2.11) and **nonconformity** (2.10) is crucial as it has legal connotations, particularly those associated with **product liability** (2.12) issues. Consequently, the term **defect** should be used with extreme care.

The terms defined in this International Standard have direct application to the International Standards on quality given in annex A.

Other pertinent standards are listed in annex A. Special attention should be paid to vocabulary standards in the statistics field: parts 1 to 3 of ISO 3534.

AUSTRALIAN/NEW ZEALAND STANDARD

Quality management and quality assurance—Vocabulary

Scope

This International Standard defines the fundamental terms relating to quality concepts, as they apply to all areas, for the preparation and use of quality-related standards and for mutual understanding in international communications.

Terms and definitions

In the following definitions, the terms appearing in the alphabetical index are in semi-bold type. Within each definition, reference is made to the number where they are defined.

The numbered terms and definitions are classified under the following main headings:

— general terms;

— terms related to quality;

— terms related to the quality system;

— terms related to tools and techniques.

Section 1: General terms

1.1
entity
item

that which can be individually described and considered

NOTE — An **entity** may be, for example:

— an activity or a **process** (1.2),

— a **product** (1.4),

— an **organization** (1.7), a system or a person, or

— any combination thereof.

1.2
process

set of inter-related resources and activities which transform inputs into outputs

NOTE—Resources may include personnel, finance, facilities, equipment, techniques and methods.

1.3
procedure
specified way to perform an activity

NOTES

1 In many cases, **procedures** are documented [e.g. **quality system** (3.6) **procedures**].

2 When a **procedure** is documented, the term "written **procedure**" or "documented **procedure**" is frequently used.

3 A written or documented **procedure** usually contains the purposes and scope of an activity; what shall be done and by whom; when, where and how it shall be done; what materials, equipment and documents shall be used; and how it shall be controlled and recorded.

1.4
product
result of activities or **processes** (1.2)

NOTES

1 A **product** may include **service** (1.5), hardware, processed materials, software or a combination thereof.

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