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AUGUST 1991
USE A.S. 3900 &
A.S. 3904.1-1987



Standards
Association of
Australia

# Australian Standard®
# 2000—1987

# GUIDE TO AS 1821–1823—
# SUPPLIERS QUALITY SYSTEMS

This Australian Standard was prepared by Committee QR/–, Quality and Reliability Standards. It was approved on behalf of the Council of the Standards Association of Australia on 7 October 1987 and published on 9 November 1987.

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The following interests are represented on Committee QR/–:

Australian Organization for Quality Control
Bureau of Steel Manufacturers of Australia
Confederation of Australian Industry
Department of Defence
Department of Primary Industry
Department of Transport
Electricity Supply Association of Australia
Federal Chamber of Automotive Industries
Federation of Automotive Products Manufacturers
Institute of Metals and Materials Australasia
Institute of Quality Assurance
Metal Trades Industry Association of Australia
Telecom Australia

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***Review of Australian Standards.*** *To keep abreast of progress in industry, Australian Standards are subject to periodic review and are kept up-to-date by the issue of amendments or new editions as necessary. It is important therefore that Standards users ensure that they are in possession of the latest edition, and any amendments thereto.*

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*Suggestions for improvements to Australian Standards, addressed to the head office of the Association, are welcomed. Notification of any inaccuracy or ambiguity found in an Australian Standard should be made without delay in order that the matter may be investigated and appropriate action taken.*

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*This Standard was issued in draft form for comment as DR 86148.*

DIFFERENCES BETWEEN AS 1821-1823 and AS 3900-3904.

AS 1821-3 is our nationally recognized standard for Australian use mainly (it is not generally known o/s)

AS 3900-4 is the internationally recognized standard based on ISO 9000-9004. This was prepared in the interest of international harmonization and-trade.

AS 1821 -3 and AS 3901 and AS 3902 are virtualliy identical. ISO 9003 (AS 3903) is different in that AS1821-3 provides for intermediate inspection; the ISO doesn't.

* SAA is to prepare guide to AS 3900-4 similar to AS 2000 in order to make the guidance given in AS 3904 more comprehensive.

AS 2990 Quality systems for engineering and construction projects is based on CSA Z299 series and is intended for One-off projects e.g. RIALTO BUILDING, Museum project etc.It is compatible with AS 1921-3.

* AS 2000 cannot be used with AS 3900 series. SAA is involved in ISO work on a guide for " " " . When published SAA will adapt as ie.

John Owen
89 11 17

AUSTRALIAN STANDARD

# GUIDE TO AS 1821–1823— SUPPLIERS QUALITY SYSTEMS

## AS 2000—1987

First published as AS 2000 ..... 1978
Second edition ..... 1987

PUBLISHED BY THE STANDARDS ASSOCIATION OF AUSTRALIA
STANDARDS HOUSE, 80 ARTHUR ST, NORTH SYDNEY, N.S.W.
ISBN 0 7262 4770 7

# PREFACE

This Standard was prepared by the Association's Committee on Quality and Reliability. It is a replacement for AS 2000—1978.

This Standard provides guidance to suppliers who are contracted to, or choose to, implement one of the Suppliers Quality Standards, AS 1821, AS 1822 or AS 1823, and to industry and government instrumentalities in assessing the capability of suppliers with regard to their compliance with the requirements of those Standards.

It offers suggestions for elements to be investigated and factors to be considered in the evaluation of the potential and continuing ability of a supplier to satisfy a particular requirement of AS 1821, AS 1822 and AS 1823.

# CONTENTS

# FOREWORD

Australian Standards 1821 to 1823 were prepared as a result of the need expressed by many organizations for national Standards for use by both Australian industry and by government instrumentalities as a condition of contract in the purchasing of goods or services of an assured quality. This Standard, AS 2000, provides guidance on the interpretation, design, implementation and assessment of quality systems based on these Standards. Supplier's quality system Standards are published in three separate Standards as follows:

**AS 1821 Suppliers Quality Systems for Design, Development, Production and Installation.** This Standard prescribes requirements to be met when optimum control is to be established in all phases including design and development, production, delivery and post-delivery services, using control of quality through control of processes which generate and protect quality features of supplies. In this system confidence in the quality of supplies is obtained principally from control of the process generating the feature, rather than from inspection or other subsequent activities.

**AS 1822 Suppliers Quality Systems for Production and Installation.** This Standard is identical with that of AS 1821 except for the omission of design and development assurance.

**AS 1823 Suppliers Quality Inspection Systems.** This Standard prescribes requirements to be met when the nature of the supplies permits adequate control of quality to be achieved through inspection alone. The minimum acceptable quality system is determined by the nature of the supplies and their intended use.

These Standards are essentially concerned with industrial purchasing using methods of contract control and supplier assessment where a purchaser specifies requirements for the supply of goods or services in a contractual manner. They may, however, also be applied to service industries under similar contractual relationships, or to the manufacture of consumer goods.

Additionally, these Standards are recommended to suppliers whose products are distributed for general sale as a guide in the identification of the requirements of effective and economical management systems and in the evaluation of their ability to control and assure the quality of their products.

The Standards define the essential features of the three systems but do not describe how they should be implemented. It is for each supplier to establish procedures appropriate to the supplier's own industry, technology and organization to achieve the requirements of a particular system. This Standard is intended to assist in this regard by suggesting how these procedures can be effective. For a potential customer, the supplier's means of implementing the required quality system should be agreed on before entering into a contract. Subsequently the customer or the quality assurance representative should be able to be satisfied that the quality system in operation will be maintained for the duration of the contract and be capable of assuring the required product quality.

At appropriate places in this Standard and in AS 1821, AS 1822 and AS 1823, reference is made to Australian Standard AS 2415, Calibration System Requirements. At other places in these Standards references are also made to measurements which are most suitably made by a laboratory. Where such reference is made to measurements and calibrations, NATA registration of a laboratory is acceptable evidence of the adequacy of that laboratory for the ranges and accuracies of measurement for which it has NATA accreditation and registration. Further, such registration is suitable evidence of traceability of calibration to the National Standards of measurement.

*When using AS 2000 for implementation, assessments or subsequent auditing it should be noted that not all questions included are necessarily relevant to each quality system. The quality manager installing the system, or an assessor assessing or auditing the system, should carefully analyze the particular areas of control and quality requirements which apply, and extract and use only those questions which are applicable or other questions more suited to the individual case. The questions are not exhaustive and the assessor may introduce alternate additional questions related to a particular requirement or to meet individual needs.*

Assessors of supplier's quality systems should give consideration to a current approval previously granted by an organization recognized by the customer, for example the Standards Association of Australia's Supplier Assessment Scheme. This may well be partly or wholly acceptable, thus reducing the time and cost of another full assessment.

Assessors should recognize that in the course of assessments, certain statements are elicited during discussion. All such statements should be verified by observation. Where proprietary information is involved it must be suitably protected.

STANDARDS ASSOCIATION OF AUSTRALIA

# Australian Standard

# GUIDE TO AS 1821–1823—SUPPLIERS QUALITY SYSTEMS

## SECTION 1. SCOPE AND APPLICATION

**1.1 SCOPE.** This Standard reviews the clauses in the three Standards, AS 1821, AS 1822, and AS 1823, and explains why each element dealt with in a particular clause is a desirable part of a quality system. In appropriate cases it provides a suggested interpretation and course of action likely to satisfy the provisions of the clause. Suggestions for elements to be investigated, factors to be considered in the assessment of a supplier's quality system, and questions that should be answered as a result of an assessment of a particular element of the supplier's system, are included for the guidance of the quality manager and the quality assurance representative, or other person assessing, reviewing or auditing the system.

**1.2 APPLICATION.** The principal applications of this Standard are intended to be in the activities of implementing, assessing, reviewing and auditing quality systems in industry. This Standard contains sections on explanation, assessment guidance, and a series of questions on each area of control identified in each of the three Standards, AS 1821, AS 1822 and AS 1823.

For the purpose of this Standard, and for AS 1821, AS 1822 and AS 1823, the phases of product creation are identified as design, development, production, delivery and post-delivery services. A number of other activities also contribute to quality in industrial companies, including marketing, accounting, sales, etc., but these Standards do not prescribe requirements for these activities as part of the systems described.

AS 1821 prescribes a system which provides for control of activities in all phases listed in the first sequence above, i.e. design and development, production, delivery and post-delivery services. AS 1822 prescribes a system which provides for control of activities during production, delivery and post-delivery services, and does so at precisely the same level of control as in AS 1821 for these same activities.

AS 1823, prescribes a system of controls based on inspection alone (which may be before, during or after production, as appropriate), to verify the quality of all product features identified in the contract. Its scope includes production, delivery and post-delivery services.

Decisions as to when and where in the production process evaluations should be instituted, and to what extent, have to be made to suit each situation. Consequently it has not been possible to provide all-embracing guidance in this respect. The questions posed are typical questions and are not necessarily applicable in all situations, e.g. for small organizations.

In the requirement applicability charts following the questions, those questions indicated by an asterisk (*) are questions where an affirmative answer is considered to be of particular importance in meeting the requirements of the relevant Standard. For questions indicated by a dagger sign (†) an affirmative answer is desirable but may not be applicable in all circumstances.

**1.3 REFERENCED DOCUMENTS.** The following Standards are referred to in this Standard:

AS 1199 Sampling Procedures and Tables for Inspection by Attributes.

AS 1821 Suppliers Quality Systems for Design, Development, Production and Installation.

AS 1822 Suppliers Quality Systems for Production and Installation.

AS 1823 Suppliers Quality Inspection Systems.

AS 2415 Calibration System Requirements.

AS 2490 Sampling Procedures and Charts for Inspection by Variables.