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AS/NZS 80079.34:2012

Australian/New Zealand Standard™

Explosive atmospheres

Part 34: Application of quality systems for equipment manufacture

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-014, Explosive Atmospheres. It was approved on behalf of the Council of Standards Australia on 27 January 2012 and on behalf of the Council of Standards New Zealand on 24 January 2012.
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The following are represented on Committee EL-014:

Auckland Regional Chamber of Commerce
Australian Chamber of Commerce and Industry
Australian Coal Association
Australian Industry Group
Australian Institute of Petroleum
Australian Institute of Refrigeration, Air Conditioning and Heating
Australian Petroleum Production and Exploration Association
Australian Pipeline Industry Association
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We also welcome suggestions for improvement in our Standards, and especially encourage readers to notify us immediately of any apparent inaccuracies or ambiguities. Please address your comments to the Chief Executive of either Standards Australia or Standards New Zealand at the address shown on the back cover.

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Australian/New Zealand Standard™

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Part 34: Application of quality systems for equipment manufacture

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, Explosive Atmospheres.

The objective of this Standard is to establish the specific requirements for a quality system that can be used by an organization for the production of equipment and protective systems for explosive atmospheres.

This Standard is identical with, and has been reproduced from, ISO/IEC 80079-34, Ed.1.0 (2011), *Explosive Atmospheres*—Part 34: *Application of quality systems for equipment manufacture.*

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

(a) Its number appears on the cover and title page while the International Standard number appears only on the cover.

(b) In the source text 'this part of ISO/IEC 80079' should read 'this Australian/New Zealand'.

(c) A full point substitutes for a comma when referring to a decimal marker.

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/NZS	
60079	Explosive atmospheres	60079	Explosive atmospheres
60079-0	Part 0: Equipment—General requirements	60079.0	Part 0: Equipment—General requirements
ISO/IEC		AS ISO/IEC	
17050	Conformity assessment—Supplier's declaration of conformity	17050	Conformity assessment—Supplier's declaration of conformity
17050-1	Part 1: General requirements	17050.1	Part 1: General requirements
ISO		AS/NZS ISO	
9000	Quality management systems—Fundamentals and vocabulary	9000	Quality management systems—Fundamentals and vocabulary
9001	Quality management systems—Requirements	9001	Quality management systems—Requirements

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

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INTRODUCTION

This International Standard specifies requirements for a quality system that can be used by an organization for the production of equipment and protective systems for explosive atmosphere.

It can also be used by third parties, including certification bodies, to assess the organization's ability to meet conformity assessments system requirements and/or regulatory requirements.

The application of this standard is intended to cover both electrical and non-electrical equipment and protective systems. The detailed content (e.g. annexes) is currently more focused on the established equipment standards for electrical equipment, However, IEC sub-committee 31M has recently been formed with the responsibility for the development of standards for non-electrical equipment. It is anticipated that, where appropriate, these standards, or requirements related to them, will be referenced within this standard in the future.

Manufacturer's quality requirements are an integral part of most certification schemes and as such this Standard has been prepared with the IECEx equipment certification scheme requirements in mind, is intended to support the ATEX scheme requirements for a manufacturer's quality system and can be applied in other national or regional certifications schemes that relate to the manufacture of explosion-protected equipment.

AUSTRALIAN/NEW ZEALAND STANDARD

Explosive atmospheres

Part 34:
Application of quality systems for equipment manufacture

1 Scope

This part of ISO/IEC 80079 specifies particular requirements and information for establishing and maintaining a quality system to manufacture Ex equipment including protective systems in accordance with the Ex certificate.

It does not preclude the use of other quality systems that are compatible with the objectives of ISO 9001:2008 and which provide equivalent results.

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 60050-426, *International Electrotechnical Vocabulary – Part 426: Equipment for explosive atmospheres*

IEC 60079-0, *Explosive atmospheres – Part 0: Equipment – General requirements*

ISO/IEC 17050-1, *Conformity assessment – Supplier's declaration of conformity – Part 1: General requirements*

ISO 9000:2005, *Quality management systems – Fundamentals and vocabulary*

ISO 9001:2008, *Quality management systems – Requirements*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in IEC 60050-426, IEC 60079-0 and ISO 9000:2005, as well as the following definitions, apply.

3.1
Ex Component
part of Ex equipment or a module (other than an Ex cable gland), marked with the symbol “U”, which is not intended to be used alone and requires additional consideration when incorporated into Ex equipment or systems for use in explosive atmospheres

NOTE This definition is identical to that of IEC 60079-0, except that the term “electrical” has been replaced by “Ex” to allow a broader application of the definition.

3.2
Ex Equipment
machines, apparatus, fixed or mobile devices, control components and instrumentation thereof and detection or prevention systems which, separately or jointly, are intended for the generation, transfer, storage, measurement, control and conversion of energy for the processing of material and which are capable of causing an explosion through their own potential sources of ignition