

AS 2381.7—1989

Australian Standard®

**Electrical equipment for explosive
atmospheres— Selection,
installation and maintenance**

Part 7: Intrinsic safety i

This Australian Standard was prepared by Committee EL/14, Electrical Equipment in Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 24 November 1988 and published on 20 March 1989.

The following interests are represented on Committee EL/14:

Australian Coal Association
Australian Electrical and Electronic Manufacturers Association
Australian Institute of Petroleum
Confederation of Australian Industry
Department of Defence
Department of Industrial Relations and Employment, N.S.W.
Department of Industry and Commerce
Department of Minerals and Energy, N.S.W.
Department of Mines, Qld
Electrical Contractors Associations of Australia
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Insurance Council of Australia
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Australian Gas Association

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PREFACE

This Standard was prepared by the Standards Australia Committee on Electrical Equipment in Hazardous Areas, to supersede AS 1076.4–1977, *Code of practice for selection, installation and maintenance of electrical apparatus and associated equipment for use in explosive atmospheres (other than mining applications), Part 4: Apparatus with type of protection 'i' – Intrinsically safe apparatus and systems*, and AS 2010–1977, *Code of practice for installation and application of shunt diode safety barriers*. This Standard is intended for the guidance of manufacturers, designers, installers, users, statutory authorities and associated interests.

In its terminology, definitions and general treatment of the subject, this Standard is similar to BS 5345, *Code of practice for selection, installation and maintenance of electrical apparatus for use in potentially explosive atmospheres (other than mining applications or explosive processing and manufacture), Part 4: Installation and maintenance requirements for electrical apparatus with type of protection 'i', intrinsically safe electrical apparatus and systems*.

Acknowledgement is made of the assistance received from this source.

This Standard is Part 7 of a series of Standards which deal with the installation of electrical equipment in potentially explosive atmospheres.

Historically, intrinsic safety has been used as a protection technique for electrical equipment intended to be used in explosive gas (Class I) atmospheres. However, this technique has now been recognized as suitable for combustible dust areas (Class II) under certain specified conditions.

The purpose of this new edition is to ensure that all requirements for intrinsic safety installations are contained in one Standard.

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