

AS/NZS 2381.1:1999
(Incorporating Amendment No. 1)

AS/NZS 2381.1

Australian/New Zealand Standard™

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

Part 1: General requirements

AS/NZS 2381.1:1999

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee EL-014, Electrical Equipment in Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 18 November 1999 and on behalf of the Council of Standards New Zealand on 22 November 1999. It was published on 5 December 1999.

The following are represented on Committee EL-014:

Association of Consulting Engineers Australia
Auckland Regional Chamber of Commerce
Australian Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Coal Association
Australian Electrical and Electronic Manufacturers Association
Australian Gas Association
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Australian Institute of Petroleum
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Part 1: General requirements

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL/14, *Electrical Equipment in Hazardous Areas*, to supersede, AS 2381.1—1991. It forms the first part of a series of Standards for the selection, installation and maintenance of electrical equipment for use in areas where flammable materials are generated, processed, handled or stored, and which therefore are potentially hazardous.

This Standard incorporates Amendment No. 1 (March 2003). The changes required by the Amendment are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The Joint Committee EL/14 has endorsed the adoption of the IEC 60079 Gases and vapours and IEC 61241 Dusts series of Standards as Joint Australian/New Zealand Standards. In these series of Standards there is no reference to Class I and Class II areas. The different Zones are identified as Zone 0, 1, 2 for explosive gases atmospheres and Zone 20, 21, 22 for explosive dust atmospheres.

Considering that the process of adoption of IEC Standards has started, references to Class I and Class II areas have been removed from this Standard to initiate the alignment with the upcoming adopted Standards.

The presentation of this edition is more relevant to the electrical regulatory structures in Australia and New Zealand.

Significant changes in this edition are as follows:

- (a) Inclusion of the New Zealand requirements and references to allow the application of this Standard in New Zealand.
- (b) Deletion of all references to Class I (gases) and Class II (dusts) areas.
- (c) Inclusion of Zones 20, 21 and 22 to address the zoning of hazardous areas in explosive dust atmospheres.
- (d) Revision and expansion of definitions.
- (e) Addition to Section 1 of a specific clause covering documentation.
- (f) Addition to Section 2 of clauses clarifying the verification of acceptance of electrical equipment and the selection of repaired or existing equipment.
- (g) Revision and expansion of requirements regarding installation of equipment and wiring; addition of a clause addressing specific occupancies.
- (h) Restructure and expansion of Section 5 covering maintenance.
- (i) Addition of appendices showing the Standards and overseas certifications bodies recognized by regulatory authorities in New Zealand.
- (j) Addition of an appendix containing a report on the dangers from high-intensity light sources in hazardous areas.
- (k) Deletion of the appendix covering marking of explosion-protected equipment (see AS/NZS 60079.0 and AS 2380.1).

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This Standard necessarily deals with existing conditions, but it is not intended to discourage invention or to exclude materials, equipment and methods which may be developed in the future. Revisions will be made from time to time in view of such developments and amendments to this edition will be made only where absolutely necessary. It is expected that the next edition will be issued approximately 5 years from the publication date of this edition.

The terms 'normative' and 'informative' have been used in this Standard to define the application of the appendix to which they apply. A 'normative' appendix is an integral part of a Standard, whereas an 'informative' appendix is only for information and guidance.

Statements expressed in mandatory terms in notes to tables and figures are deemed to be requirements of this Standard.

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