AS/NZS 2381.1:2005
(Incorporating Amendment Nos 1, 2 and 3)

Australian/New Zealand Standard™

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

Part 1: General requirements

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 5 April 2005 and on behalf of the Council of Standards New Zealand on 11 February 2005.
This Standard was published on 5 May 2005.

The following are represented on Committee EL-014:

Auckland Regional Chamber of Commerce
Australian Association of Certification Bodies
Australian Chamber of Commerce and Industry
Australian Gas Association
Australian Industry Group
Australian Liquefied Petroleum Gas Association
Australian Paint Manufacturers Federation
Department of Labour New Zealand
Department of Natural Resources and Mines (Qld)
Electricity Supply Association of Australia
Gas Association of New Zealand
Institute of Electrical Inspectors
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LPG Association of New Zealand
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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.

This Standard was issued in draft form for comment as DR 04437.

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Originated in Australia as AS 1076.1—1977.
Revised and redesignated as AS 2381.1—1991.
Jointly revised and redesignated as AS/NZS 2381.1:1999.
Third edition 2005.
Reissued incorporating Amendment No. 1 (September 2005).
Reissued incorporating Amendment No. 2 (December 2006).
Reissued incorporating Amendment No. 3 (October 2007).

Jointly published by Standards Australia, GPO Box 476, Sydney, NSW 2001 and Standards New Zealand, Private Bag 2439, Wellington 6020

ISBN 0 7337 6678 1

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee EL-014, *Electrical Equipment in Hazardous Areas*, to supersede AS/NZS 2381.1:1999 and Amendment 1:2004.

This Standard incorporates Amendment No. 1 (September 2005), Amendment No. 2 (December 2006) and Amendment No. 3 (October 2007). 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-014 has endorsed the adoption of the IEC 60079 Gases and vapours and IEC 61241 Dusts series of Standards as Joint Australian/New Zealand Standards. The different Zones are identified as Zone 0, 1, 2 for explosive gases atmospheres and Zones 20, 21, 22 for explosive dust atmospheres.

The significant changes in this edition are as follows:

(a) The removal of all references to combustible dusts other than references in the Clauses 1.2 and 2.5 stating that the requirements for dusts are given in AS/NZS 61241.14.

(b) Clauses 1.6, 2.4.6, 2.6, 3.8.4, 3.8.15.1.2, 3.11.2, 4.2, 4.3.1 and 5.10 were reworded.

(c) Clauses 3.2.6 and 4.3.2 were added.

(d) Appendices B and F were deleted.

(e) Appendix G has changed title and content.

(f) Appendix I has been added.

All permitted explosion-protection techniques for electrical equipment for Zones 0, 1 and 2 and the respective applicable Standards are summarized in Table 2.1.

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.

This revision which is to accommodate the introduction of AS/NZS 61241.14 for dusts, will have a relatively short currency, since it is planned to replace it with modified versions of IEC 60079-14 and IEC 60079-17 as AS/NZS 60079.14 and AS/NZS 60079.17, as part of a strategy for alignment with IEC Standards. Publication of AS/NZS 60079.14 and AS/NZS 60079.17, is expected for early 2007.

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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* These Clauses do not apply to intrinsically safe installations.