AS/NZS 61241.14:2005 (Incorporating Amendment Nos 1, 2, 3, 4 and 5)

Australian/New Zealand Standard[™]

Electrical apparatus for use in the presence of combustible dust

Part 14: Selection and installation (IEC 61241-14, Ed.1.0(2004) MOD)





AS/NZS 61241.14:2005

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 Chamber of Commerce and Industry Australian Electrical and Electronic Manufacturers Association Australian Industry Group Australian Institute of Petroleum Ltd Certification Interests (Australia) Department of Natural Resources and Mines (Qld) Department of Primary Industries, Mine Safety (NSW) **Electrical Regulatory Authorities Council Energy Networks Association Engineers** Australia Institute of Electrical Inspectors Institute of Instrumentation, Control and Automation Australia Ministry of Economic Development (New Zealand) National Electrical and Communications Association New Zealand Association of Marine, Aviation and Power Engineers New Zealand Employers and Manufacturers Association New Zealand Hazardous Areas Electrical Coordinating Committee The Australian Gas Association WorkCover New South Wales

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This Standard was issued in draft form for comment as DR 04436.

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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 61241.1.2:2000, *Electrical apparatus for use in the presence of combustible dust*, Part 1.2: *Electrical apparatus protected by enclosures and surface temperature limitation—Selection, installation and maintenance*.

This Standard incorporates Amendment No. 1 (June 2005), Amendment No. 2 (September 2005), Amendment No. 3 (November 2006), Amendment No. 4 (February 2007) and Amendment No. 5 (March 2007). The changes required by the Amendments are indicated in the text by a marginal bar and amendment number against the clause, note, table, figure or part thereof affected.

The objective of this Standard is to provide guidance on the selection and installation of electrical apparatus to be used in areas where combustible dusts are or may be present.

This Standard is an adoption with national modifications and has been reproduced from IEC 61241-14, Ed.1.0(2004), *Electrical apparatus for use in the presence of combustible dust – Part 14: Selection and installation*, and has been varied as indicated to take account of Australian/New Zealand conditions.

The major changes with respect to AS/NZS 61241.1.2, are as follows:

- (a) Installation has changed to align with the changes to the definitions of the zones.
- (b) Requirements for installation of pressurization have been included.
- (c) Layers are no longer restricted to zone 20. Provision for the application of temperature according to layer depth is included.

Variations to IEC 61241-14:2004 are indicated at the appropriate places throughout this standard. Strikethrough (example) identifies IEC text, tables and figures which, for the purposes of this Australian/New Zealand Standard, are deleted. Where text, tables or figures are added, each is set in its proper place and identified by shading (example). Added figures are not themselves shaded, but are identified by a shaded border.

AS/NZS 61241 consists of the following parts under the general title: *Electrical apparatus for* use in the presence of combustible dust:

- Part 0: General requirements
- Part 1: Protection by enclosures 'tD'
- Part 2: Type of protection 'pD'*
- Part 10: Classification of areas where combustible dusts are or may be present
- Part 11: Protection by intrinsic safety 'iD'[†]
- Part 14: Selection and installation
- Part 17: Inspection and maintenance of electrical installations in hazardous areas (other than mines)†
- Part 18: Protection by encapsulation 'mD'
- Part 20: Test methods[‡]
- Part 20.1: Methods for determining the minimum ignition temperatures of dust
- Part 20.2: Method for determining the electrical resistivity of dust in layers
- Part 20.3: Method for determining minimum ignition energy of dust/air mixtures

As this Standard is reproduced from an International Standard a full point should be substituted for a comma when referring to a decimal marker.

^{*} To be published (to supersede current AS/NZS 61241.4).

[†] To be published.

[‡] Under consideration (to supersede current Parts 2.1, 2.2 and 2.3).

The terms 'normative' and 'informative' are used to define the application of the annex to which they apply. A normative annex is an integral part of a standard, whereas an informative annex is only for information and guidance.



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