AS/NZS 61241.3:1999 IEC 61241-3:1997

Australian/New Zealand Standard<sup>™</sup>

Electrical apparatus for use in the presence of combustible dust

Part 3: Classification of areas where combustible dusts are or may be present

#### AS/NZS 61241.3:1999

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee MS/11, Classification of 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 interests are represented on Committee MS/11:

Association of Consulting Engineers Australia Auckland Regional Chamber of Commerce Australian Association of Certification Bodies Australian Gas Association Australian Industry Group Australian Liquified Petroleum Gas Association Australian Paint Manufacturers Federation Department of Infrastructure, Energy and Resources, Tasmania Department of Labour, New Zealand Department of Mines and Energy, Qld Electricity Supply Association of Australia Gas Association of New Zealand Institute of Electrical Inspectors Institute of Instrumentation and Control Australia Institution of Engineers Australia Institution of Professional Engineers, New Zealand LPG Association of New Zealand Ministry of Commerce, New Zealand National Electrical and Communications Association New South Wales Grain Corporation New Zealand Association of Marine, Aviation and Power Engineers New Zealand Chemical Industry Council Royal Australian Chemical Institute Shell Services International, New Zealand Victorian WorkCover Authority WorkCover New South Wales

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This Standard was issued in draft form for comment as DR 98642.

### Australian/New Zealand Standard<sup>™</sup>

## Electrical apparatus for use in the presence of combustible dust

# Part 3: Classification of areas where combustible dusts are or may be present

Originated in Australia as AS 2430.2—1981. Final Australian edition as AS 2430.2—1986. Originated in New Zealand as NZS 6101:2:1990. AS 2430.2—1986 and NZS 6101:2:1990 jointly revised and designated AS/NZS 61241.3:1999.

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Jointly published by Standards Australia International Ltd, PO Box 1055, Strathfield, NSW 2135 and Standards New Zealand, Private Bag 2439, Wellington 6020 ISBN 0 7337 3090 6

ii

### PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MS/11, Classification of Hazardous Areas, with the assistance of the Joint Subcommittee EL/14/5, *Dust and Plenum Systems*, to supersede AS 2430.2—1986, *Classification of hazardous areas* Part 2: *Combustible dusts* and NZS 6101:2:1990, *Classification of hazardous areas* Part 2: *Combustible dusts*.

This Standard is identical with and has been reproduced from IEC 61241-3:1997, *Electrical apparatus for use in the presence of combustible dust*—Part 3: *Classification of areas where combustible dusts are or may be present.* 

The objective of this Standard is to provide manufacturers and installers of electrical equipment, as well as electrical inspecting authorities, with classifications of areas where explosive dust/air mixtures and combustible dust layers are present, in order to permit the proper selection of electrical apparatus for use in such areas.

In January 1997, the IEC commenced numbering its Standards from 60000 by adding 60000 to the number of each existing Standard. This coordinates IEC numbering with ISO numbering. During the transition period an IEC Standard might be identified by its new number or its old number (for example, IEC 60050 or IEC 50).

This Standard is part of a series covering electrical apparatus for use in the presence of combustible dust which comprises the following:

AS/NZS

61241	Electrical apparatus for use in the presence of combustible dust	
61241.1.1	Part 1.1: Electrical apparatus protected by enclosures and surface temperature limitation—Specification for apparatus	
61241.1.2	Part 1.2: Electrical apparatus protected by enclosures and surface temperature limitation—Selection, installation and maintenance	
61241.2.1	Part 2.1: Test methods—Methods for determining the minimum ignition temperatures of dust	
61241.2.2	Part 2.2: Test methods—Method for determining the electrical resistivity of dust in layers	
61241.2.3	Part 2.3: Test methods—Method for determining minimum ignition energy of dust/air mixtures	
61241.3	Part 3: Classification of areas where combustible dusts are or may be present (this Standard)	
At this stage alternate prot safety and end	other Standards are being developed by IEC for electrical equipment using ection techniques suitable for dust hazardous areas—pressurization, intrinsic capsulation.	

Additional informative annexes are being prepared to be added to this Standard, in due course. These annexes will give further information on the following four aspects:

Regulatory requirements	Guidance on the role of regulatory authorities such as O.H.S.
Explanations of the Standard	To expand on the meanings of terms used in the classification process such as 'inside containment' and 'housekeeping'.
Dust characteristics	To include the latest data available on the dusts characteristics such as cloud ignition temperature for a range of commonly encountered materials.

iii

Examples of area classification Grain storage, flour mills, dairy powder manufacturing plants, pharmaceutical plants, and others.

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

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



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