AS/NZS 2430.3.1:2004
(Incorporating Amendment No. 1)

AS/NZS 2430.3.1:2004

Australian/New Zealand Standard™

Classification of hazardous areas

Part 3.1: Examples of area classification—General

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee MS-011, Classification of Hazardous Areas. It was approved on behalf of the Council of Standards Australia on 31 March 2004 and on behalf of the Council of Standards New Zealand on 30 April 2004.
This Standard was published on 20 May 2004.

The following are represented on Committee MS-011:

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 Limited
Australian Paint Manufacturers Federation
Certification Bodies (Australia)
Department of Labour New Zealand
Department of Natural Resources and Mines (Qld)
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Institute of Electrical Inspectors
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New Zealand Oil Companies
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Standards are living documents which reflect progress in science, technology and systems. To maintain their currency, all Standards are periodically reviewed, and new editions are published. Between editions, amendments may be issued. Standards may also be withdrawn. It is important that readers assure themselves they are using a current Standard, which should include any amendments which may have been published since the Standard was purchased.

Detailed information about joint Australian/New Zealand Standards can be found by visiting the Standards Web Shop at www.standards.com.au or Standards New Zealand web site at www.standards.co.nz and looking up the relevant Standard in the on-line catalogue.

Alternatively, both organizations publish an annual printed Catalogue with full details of all current Standards. For more frequent listings or notification of revisions, amendments and withdrawals, Standards Australia and Standards New Zealand offer a number of update options. For information about these services, users should contact their respective national Standards organization.

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 03559.

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Originated in Australia as part of AS 1076.2—1977.
Originated in New Zealand as part of NZS 6101P:1972.
Previous edition AS/NZS 2430.3.1:1997.
Second edition 2004.
Reissued incorporating Amendment No. 1 (2007).

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

ISBN 0 7337 5968 8

PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MS-011, Classification of Hazardous Areas, to supersede, in part, AS/NZS 2430.3.1:1997, *Classification of hazardous areas*, Part 3.1: *Examples of area classification—General*

This Standard incorporates Amendment No. 1 (March 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 objective of the AS/NZS 2430.3 series of Standards is to provide guidance to the industries and statutory authorities concerned with the classification of hazardous areas.

Changes to the 1997 edition include—

(a) rewording of Clause 1, Scope;

(b) correction of typographical errors; and

(c) update of referenced documents.

This series of Standards details examples of area classification of commonly occurring situations, based on the principles of AS/NZS 60079.10, *Electrical apparatus for explosive gas atmospheres*, Part 10: *Classification of hazardous areas.*

The AS/NZS 2430.3 series is as follows:

AS/NZS	
2430.3	Classification of hazardous areas—Examples of area classification
2430.3.1	Part 3.1: General (this Part)
2430.3.2	Part 3.2: Vehicle workshops, vehicle parking, fuel dispensing stations and aircraft hangars
2430.3.3	Part 3.3: Flammable liquids
2430.3.4	Part 3.4: Flammable gases
2430.3.5	Part 3.5: Refineries and major processing plants
2430.3.6	Part 3.6: Laboratories including fume cupboards and flammable medical agents
2430.3.7	Part 3.7: Landfill gas, sewage treatment and sewage pumping plants
2430.3.8	Part 3.8: Surface coatings and adhesives
2430.3.9	Part 3.9: Miscellaneous

The AS 2430 series of Standards for classification of hazardous areas used to be formed by AS 2430.1, AS 2430.2 and AS 2430.3.

AS 2430.2 was replaced by AS/NZS 61241.3 in 1999 and AS 2430.1 was replaced by AS/NZS 60079.10 in 2004.

In 1997, AS 2430.3 was split into a Series of nine Parts – 3.1 to 3.9; these initial nine Parts have been superseded by this 2004 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.

CONTENTS

STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard
Classification of hazardous areas

Part 3.1: Examples of area classification—General

1 SCOPE

This Standard provides examples of area classification and is based on the internationally accepted concept which recognizes the different degrees of probability with which explosive (flammable) concentrations of flammable gas or vapour may arise in installations in terms of both the frequency of occurrence and the probable duration of existence on each occasion. The recommended classifications of this Standard are based on the assumption that plant and equipment are adequately maintained. The Standard is part of a series which recommends the classifications of several commonly occurring situations.

NOTE: Appendix A provides methods of classification.

This Standard details general matters which must be taken into account when using any other of the AS/NZS 2430.3 series of Standards for the purpose of conducting an area classification.

This Standard covers risks due to both fire and explosion.

The examples in this Standard may not apply to specific occupancies where—

(a) the quantity of release is either very large or very small, in such cases dispersion calculations may be required;

(b) the design of a particular plant does not comply with the appropriate Australian or New Zealand Standards; or

(c) ventilation, use of inert gases, vapour barriers or other methods, are used to reduce the extent or degree of risk of a particular hazardous area.

In all cases classification may be made using the fundamental principles detailed in AS/NZS 60079.10.

In general, classifications in accordance with the following codes are acceptable, subject to any additional provisions or modifications as required by the authority:

(i) UK IP (Institute of Petroleum), Model Code of Safe Practice for the Petroleum Industry, Part 15: Area Classification Code for Installations Handling Flammable Fluids.

(ii) API (American Petroleum Institute) RP 505, Recommended Practice for ‘Classification of Locations for Electrical Installations at Petroleum Facilities classified as Class I, Zone , Zone 1 and Zone 2’.

(iii) BS 5908, Code of practice for fire precautions in the chemical and allied industries.

Attention is drawn to the fact that an area classified non-hazardous, in accordance with this Standard, may not necessarily be safe in all respects, e.g. toxic and chemical hazards.

Unless otherwise specified, the classifications given throughout this Standard are based on the ventilation criteria given in Appendix B.