

Australian/New Zealand Standard™

**Code of practice for handling
combustible dusts**



AS/NZS 4745:2012

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 19 September 2012 and on behalf of the Council of Standards New Zealand on 27 August 2012. This Standard was published on 10 October 2012.

The following are represented on Committee MS-011:

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Australian Chamber of Commerce and Industry
Australian Industry Group
Australian Institute of Petroleum
Australian Paint Manufacturers Federation
Australian Petroleum Production and Exploration Association
Aviation and Marine Engineers Association
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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee MS-011, Classification of Hazardous Areas, with the assistance of the Joint Subcommittee MS-011-01, Combustible Dusts, to supersede AS/NZS 4745:2004.

This Standard incorporates Amendment No. 1 (June 2013). 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.

This Standard is intended to assist those industries which may have risks associated with the presence of combustible dusts as part of their process, in minimizing the risk of injury, death or loss of property to fire and/or explosion. It sets out good design and management principles and practices for the construction, operation and maintenance of manufacturing and processing plants and associated transportation and storage systems.

The objective of this revision is to update the referenced documents and bring the Standard into line with current editorial practices. This revision also modifies the classification for levels of protection in Section 7 to align with the classifications used in referenced Standards.

The technical content of this Standard is based on but not equivalent to EN 1127-1, *Explosive Atmospheres—Explosion-prevention and Protection, Part 1: Basic Concepts and Methodology*.

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

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S E C T I O N 1 S C O P E A N D G E N E R A L

1.1 SCOPE

This Code of Practice is intended to apply whenever combustible dusts are encountered in quantities sufficient to give rise to a fire and/or explosion. This would normally include, but is not limited to, manufacturing plants and processes (where dusts may be generated or used as part of the process) and bulk storage and handling installations.

It provides a means by which relevant parties can firstly determine whether or not risks exist within an existing or a proposed system or facility, secondly ascertain the nature of such risks, and thirdly determine the means by which the criteria for safe design, construction, operation and maintenance can be met.

The Code is not intended to apply to parts of pulverized fuel combustion systems, or other systems where burning is intended. Where other applicable Standards and Codes exist for the design, construction, operation and maintenance of those systems, they may be adopted.

1.2 APPLICATION

The people who should use this Standard will specifically include those listed below, but this list is not meant to be exhaustive and the Standard may well be relevant to others not listed. Anyone in doubt should make their own enquiries as to the relevance of the Standard to their industry or specific circumstances.

Interested and affected groups include—

- (a) designers;
- (b) equipment manufacturers and suppliers;
- (c) installers of plants;
- (d) plant owners and operators;
- (e) employees;
- (f) storage and transport operators;
- (g) inspectors;
- (h) insurance companies; and
- (i) training providers.