

Australian/New Zealand Standard™

**Domestic solid fuel burning
appliances—Method for determination
of flue gas emission**



AS/NZS 4013:2014

This Joint Australian/New Zealand Standard was prepared by Joint Technical Committee CS-062, Solid Fuel Burning Appliances. It was approved on behalf of the Council of Standards Australia on 1 April 2014 and on behalf of the Council of Standards New Zealand on 25 July 2014.
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The following are represented on Committee CS-062:

Australasian Fire and Emergency Service Authorities Council
Australian Building Codes Board
Australian Chamber of Commerce and Industry
Australian Home Heating Association
Australian Industry Group
Bioenergy Association of New Zealand
Clean Air Society of Australia and New Zealand
Consumers Federation of Australia
CSIRO
Department of Environment Regulation, WA
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Australian/New Zealand Standard™

Domestic solid fuel burning appliances—Method for determination of flue gas emission

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PREFACE

This Standard was prepared by the Joint Standards Australia/Standards New Zealand Committee CS-062, Solid Fuel Burning Appliances, to supersede AS/NZS 4013:1999.

The Standard sets out comprehensive specifications and instructions to enable any interested organization having the appropriate test equipment to determine the flue gas emissions of solid fuel burning appliances.

Results of testing to the described method are also intended for use by consumers when selecting a domestic solid fuel burning appliance, and regulatory bodies when setting allowable emission limits for domestic solid fuel burning appliances.

In this edition the particulate emissions limits have been reduced. The marking requirements for emissions have been included in AS/NZS 4012. Changes have been made to the use of fans during testing (Clause 6.7.3 in AS/NZS 4012). In Australia, appliances previously exempt from testing because heat output rates exceeded 25 kW will now be tested with smaller fuel loads.

The relevant regulators have indicated that they will mandate the levels of appliances in Clauses 7.1.1(a) and 7.1.2(a) one year from publication of this Standard. The relevant regulators have indicated that they will mandate the levels of appliances in Clauses 7.1.1(b) and 7.1.2(b) five years from publication of this Standard.

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.

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STANDARDS AUSTRALIA/STANDARDS NEW ZEALAND

Australian/New Zealand Standard**Domestic solid fuel burning appliances—Method for determination of flue gas emission**

SECTION 1 SCOPE AND GENERAL

1.1 SCOPE

This Standard specifies a test method for determining the particulate emission factor from batch-fed domestic solid fuel burning appliances and the associated particulate emission acceptance criteria.

1.2 APPLICATION**1.2.1 General**

This Standard applies to domestic solid fuel burning appliances.

1.2.2 Included appliances

Appliances within the scope of this Standard include—

- (a) space-heating appliances; and
- (b) space-heating appliances which include water-heating devices.

1.2.3 Excluded appliances

Appliances excluded from this Standard are—

- (a) site-built masonry appliances;
- (b) central heating appliances;
- (c) cooking appliances;
- (d) appliances intended solely for water heating;
- (e) appliances intended solely to distribute convective heat via ducting to locations remote from the appliance;
- (f) appliances that when fired at the high burn rate prescribed in this Standard have a maximum carbon dioxide output from the combustion chamber of less than 5% by volume with any optional doors fitted and closed; and
- (g) appliances with volumetric flow rates through the combustion chamber which are too high to allow for total smoke capture by the method described in this Standard.

1.3 REFERENCED DOCUMENTS

The following documents are referred to in this Standard:

AS

2918 Domestic solid fuel burning appliances—Installation

AS/NZS

4012 Domestic solid fuel burning appliances—Method for determination of power output and efficiency

4014 Domestic solid fuel burning appliances—Test fuels (series)