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AS 1170.3—1990

Australian Standard®

SAA Loading Code

Part 3: Snow loads

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This Australian Standard was prepared by Committee BD/6, Loading on Structures. It was approved on behalf of the Council of Standards Australia on 31 October 1989 and published on 26 January 1990.

The following interests are represented on Committee BD/6:

Association of Consulting Engineers, Australia

Association of Consulting Structural Engineers, Australia

Australian Clay Brick Association

Australian Construction Services (Department of Administrative Services)

Australian Council of Local Government Associations

Australian Federation of Construction Contractors

Australian Institute of Steel Construction

Australian Mining Industry Council

Bureau of Meteorology

Bureau of Steel Manufacturers of Australia

CSIRO, Division of Building, Construction and Engineering

Department of Local Government, Qld

Electricity Supply Association of Australia

Engineering and Water Supply Department, S.A.

James Cook University of North Queensland

Master Builders' Construction and Housing Association, Australia

Monash University

National Association of Australian State Road Authorities

Public Works Department, N.S.W.

University of Melbourne

University of Newcastle

Additional interests participating in preparation of Standard:

National Parks and Wildlife Service, N.S.W.

Public Works Department, Vic.

Shire of Bright, Vic.

Snowy Mountains Hydro–Electric Authority, N.S.W.

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Australian Standard®

Minimum design loads on structures

Part 3: Snow loads

(known as the SAA Loading Code)

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PREFACE

This Standard was prepared by the Standards Australia Committee for Loading on Structures.

In preparing this Standard the Committee referred to the following:

(a) ANSI A58.1–1982, *American National Standards Institute – Minimum Design Loads for Buildings and other Structures.*

(b) *National Building Code of Canada,* 1980.

The Supplement to the National Building Code of Canada – 1980.

(c) ISO 4355–1981 International Standard, *Bases for Design of Structures, Determination of Snow Loads on Roofs.*

Data on ground snow depths and densities were obtained mainly from the Bureau of Meteorology, Authorities, such as The Snowy Mountains Authority, and a private meteorologist .

The Committee acknowledges the assistance obtained from these sources.

The relationship between roof snow load and ground snow load was established on the basis of field observations by members of the Committee over many years, particularly years of very heavy snowfalls.

This Standard is intended to be used in establishing snow loads on roofs, balconies, walkways and other building surfaces which retain snow. It also provides guidance (see Appendix B) on the avoidance of common problems which occur mainly in alpine regions due to movement, sliding or drifting of snow.

Snow loads are difficult to assess accurately not only because the amount of snow which falls is sensitive to general and local topography but also because the amount of snow which is retained on the roof is sensitive to roof slope, roof geometry and orientation.

Designers must be alert to the extra snow loads which certain roof shapes attract, because of drifting effects. Blockages and effects of sliding snow or snow creep on the roof and in the environs of the building are further considerations for the designer.

Statements expressed in mandatory terms in Notes to tables and figures are deemed to be requirements of this Standard.

A Commentary (see AS 1170.3 Supplement 1) provides background material to the requirements of this Standard and includes some worked examples to illustrate its application.

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