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SAA DEMOLITION CODE

For referenced documents see Appendix E



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The following interests were represented on the committee responsible for the preparation of this standard:

- Association of Consulting Engineers Australia
- Australian Assembly of Fire Authorities
- Australian Federation of Construction Contractors
- Australian Post Tensioning Association
- Australian Uniform Building Regulations Coordinating Council
- Building Owners and Managers Association of Australia Limited
- CSIRO, Division of Building Research
- Department of Industrial Relations, N.S.W.
- Department of Labour and Industry, Vic.
- Department of Local Government, N.S.W.
- Department of Transport and Construction
- Experimental Building Station
- Master Builders Federation of Australia
- Royal Australian Institute of Architects

The National Committee on Rationalised Building was also represented on the subcommittee that prepared the earlier drafts of this standard.

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AUSTRALIAN STANDARD

THE DEMOLITION OF STRUCTURES

known as

SAA DEMOLITION CODE

AS 2601—1983

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PREFACE

This standard was prepared by the Association's Committee on Demolition at the request of the National Committee on Rationalised Building. It sets out requirements and precautions aimed at ensuring the safe demolition of structures.

Among the more important conclusions reached by the committee in the preparation of the standard were the following:

- (a) Because of such factors as the more widespread use of reinforced concrete construction, precast and prestressed concrete construction and high-rise buildings, and the adoption of materials of a potentially hazardous nature such as asbestos lagging for pipes and flammable foam infills, the demolition of structures has become more complex and more dangerous than in the past.
- (b) With sites tending to be smaller and more restricted, the traditional nuisances of demolition—dust, noise and fire—are likely to be more offensive and more environmentally unacceptable than in the past.
- (c) While the demolition of each structure presents its own difficulties, stability of the whole structure and of partially demolished sections must be carefully considered at all times.
- (d) Partly because of the lack of practical experience in the demolition of newer structural forms, and especially where the details of construction are not available at the time of demolition, there can be dangers to the workers on the site, to the public and to the environment.

Appropriate clauses have been incorporated in the standard to cover these important matters.

With regard to (d) above, it should be noted that in order to minimize the dangers inherent in the demolition of prestressed and precast concrete structures, and in the demolition of structures where there are no detailed plans of the construction or where the plans are not a true 'as constructed' record, after considerable discussion the committee decided—

- (i) to define as 'special buildings', those buildings that are identified by the designer or Regulatory Authority as buildings that cannot be demolished without the possibility of unpremeditated collapse and to require that—
 - A. for special buildings, 'as constructed' records of critical members must be used for planning the demolition; and
 - B. for special buildings that are of precast concrete or of prestressed concrete construction, demolition procedures must be approved by an engineer experienced in precast and prestressed concrete design and construction; and
- (ii) to recommend that 'as constructed' records of critical members of special buildings be lodged with the Regulatory Authority for safe keeping, with copies also stored within a designated repository located in the building and there maintained until the building is demolished.

Such an approach which has been dictated by consideration of what is feasible and within the influence of the committee may entail administrative and other difficulties, but experience has led to the conclusion that the resultant benefits of better planning for demolition with more efficient use of plant and men and the consequent reduction of risks to life and property make it necessary.

Because the standard might be adopted by reference in regulations and in contract documents it has been drafted in mandatory terms. Advisory material has been added in the form of notes in the body of the text and in appropriate appendices in order either to explain the requirements and to assist in their correct interpretation, or to be used as a guide to recommended practice.

During preparation of the standard, BSI CP 94, Demolition, and its successor BS 6187 were used as references and acknowledgement is made of the assistance obtained from these sources.

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STANDARDS ASSOCIATION OF AUSTRALIA

Australian Standard
for
THE DEMOLITION OF STRUCTURES

SECTION 1. SCOPE AND GENERAL

1.1 SCOPE. This standard sets out requirements and precautions for the demolition of structures.

NOTE: In this standard the words 'structure' and 'building' are used synonymously.

The standard does not include requirements for underpinning or excavation works or the demolition of major civil engineering structures such as large bridges.

1.2 APPLICATION. This standard is intended to provide minimum technical requirements and performance criteria forming the basis for regulatory provisions and contract documents for demolition works.

1.3 REFERENCED DOCUMENTS. The following documents are referred to in this standard:

AS 1270	Hearing Protection Devices
AS 1319	Rules for the Design and Use of Safety Signs for the Occupational Environment
AS 1336	Recommended Practices for Eye Protection in the Industrial Environment
AS 1337	Eye Protectors for Industrial Applications
AS 1656	Steel Wire Ropes (Other than for Mining Purposes)
AS 1674	Fire Precautions in Cutting, Heating and Welding Operations
AS 1715	Selection, Use and Maintenance of Respiratory Protective Devices
AS 1716	Respiratory Protective Devices
AS 1801	Industrial Safety Helmets
AS 1940	SAA Flammable and Combustible Liquids Code
AS 2161	Industrial Safety Gloves and Mittens (Excluding Electrical and Medical Gloves)
AS 2187	SAA Explosives Code Part 1—Storage and Land Transport of Explosives Part 2—Use of Explosives
AS 2210	Safety Footwear
AS 2436	Guide to Noise Control on Construction, Maintenance and Demolition Sites
AS 2550	Cranes—Mobile, Tower and Derrick—Selection and Operation
NFPA*	Fire Protection Handbook
NHMRC†	Approved Occupational Health Guides

1.4 DEFINITIONS. For the purposes of this standard, the following definitions apply:

1.4.1 Building, special—a building that has been identified by the designer or Regulatory Authority as being one which cannot be demolished without danger of unpremeditated collapse. These buildings may include precast and prestressed concrete structures.

1.4.2 Cantilever catch platforms (fans)—protective screens erected at intervals up the face of a structure and projected so as to contain falling debris of a light fragmental nature.

1.4.3 Clear space—the clear space surrounding the building within the boundaries of the site.

1.4.4 Contractor—a person, company or organization, employed by the Owner to carry out the demolition works on his behalf.

1.4.5 Engineer—a person qualified for corporate membership of the Institution of Engineers, Australia, and practising in the civil or structural field.

1.4.6 Felling—the collapse of a structure or part of a structure in a manner that causes the debris to fall in a predetermined area.

1.4.7 Height of structure—the height from the lowest ground level to the highest part of the structure to be demolished.

1.4.8 Methods of demolition.

1.4.8.1 Hand demolition—the progressive demolition of a structure by workmen using handheld tools (lifting appliances may be used for lifting and lowering members once they are released).

1.4.8.2 Mechanical demolition—the demolition of a structure or part of a structure by mechanical means.

1.4.8.3 Demolition by deliberate collapse—the removal of key structural members causing complete collapse of the whole or part of the structure.

1.4.9 Owner—a person, company or organization holding title to the property which includes the structure to be demolished.

1.4.10 Records—drawings and other documents showing in detail the construction of the building, its location and services.

1.4.11 Regulatory Authority—a body having statutory powers to control the demolition of structures and associated matters.

1.4.12 Shoring—a system of temporary supports to prevent movement.

1.5 NEW METHODS. This standard shall not be interpreted so as to prevent the use of methods not referred to in this standard (see Clause 2.2.2).

*National Fire Protection Association.

†National Health and Medical Research Council.