

1996—No. 361

CONSTRUCTION SAFETY ACT 1912—REGULATION

(Relating to demolition of buildings)

NEW SOUTH WALES



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HIS Excellency the Governor, with the advice of the Executive Council, and in pursuance of the Construction Safety Act 1912, has been pleased to make the Regulation set forth hereunder.

JEFFREY SHAW, Q.C., M.L.C.
Minister for Industrial Relations.

Commencement

1. This Regulation commences on 1 September 1996.

Amendment

2. The Construction Safety Regulations 1950 are amended by omitting Regulation 84 and by inserting instead the following Regulations:

Definitions

84. (1) In this Regulation and Regulations 84AA–84AL:

“AS 2601:1991” means Australian Standard AS 2601:1991 published by Standards Australia on 9 August 1991 and entitled “The Demolition of Structures” as in force at the time of that publication;

“building” includes a structure, and includes part of a building or structure;

“demolition work” means building work involving the demolition of a building;

“public place” means a public road or any other place to which the public, whether on payment of a fee or otherwise, ordinarily has access.

(2) In applying the provisions of AS 2601:1991 for the purposes of these Regulations, references in that Standard to a public thoroughfare are taken to be references to a public place.

Work to be done in accordance with Australian Standard

84AA. (1) Demolition work must be carried out in accordance with AS 2601:1991 and Regulations 84AB–84AL.

(2) In the event of any inconsistency between a provision of AS 2601:1991 and Regulations 84AB–84AL, those Regulations prevail.

NOTE: Certain matters concerning demolition work that were previously dealt with under these Regulations are now regulated by AS 2601:1991. Reference should therefore be made to AS 2601:1991 in relation to the following matters:

- Sequential demolition;
- Measures to prevent materials falling on workers and the public, including adequate fencing;
- Use of heavy machinery and plant on suspended floors;
- Ensuring that stairs and other means of access, and scaffolding, are clear of rubble and other debris;
- Chimney demolition;
- Dust control;
- Warning signs and general safety measures;
- Fire prevention;
- Circumstances in which overhead protective structures and heavy duty independent scaffolding are required.

Carrying out demolition work

84AB. (1) A person must not carry out demolition work by means of:

- (a) pushing or pulling using a mobile crane; or
- (b) a crane using a demolition ball,

except with the written permission of the Authority.

(2) Mechanical means may be used in carrying out demolition work only if the work is carried out sequentially.

(3) Demolition work involving pulling with ropes or chains or similar means may be carried out only if the building (or part of the building) being demolished is not more than 4 metres in height and the work is carried out sequentially.

NOTE: A person who carries on the business of doing any such demolition work must be licensed under the Occupational Health and Safety (Demolition Licensing) Regulation 1996.

(4) In the case of the demolition of a building (or part of a building) that is more than 4 metres in height, demolition work involving pulling with ropes or chains or similar means may be carried out only with the written permission of the Authority. An application for such permission

must be made at least 7 days before the proposed work is carried out, and be accompanied by a risk assessment and such other documents as the Authority may require.

NOTE: In addition to obtaining the written permission of the Authority, a person who carries on the business of doing any such demolition work must be licensed under the Occupational Health and Safety (Demolition Licensing) Regulation 1996.

Working below building being demolished

84AC. A person must not work in any area below a building that is being demolished if, at any time during the carrying out of the demolition work, there is a danger that the person might be injured as a result of demolished or other material falling or rebounding.

Buildings adjacent to public places

84AD. (1) If a building that is being demolished is less than 4 metres in height and is adjacent to a public place, adequate precautionary measures must be taken to protect persons who are in the public place.

NOTE: AS 2601:1991 contains precautionary requirements for the demolition of buildings that are more than 4 metres in height.

(2) If a building (regardless of its height) that is being demolished is adjacent to another building, adequate precautionary measures must be taken to protect:

- (a) the other building; and
- (b) any person entering or leaving the other building; and
- (c) if the other building is shorter than the building being demolished, any person who is on top of the other building.

(3) In this Regulation, a reference to the height of a building is a reference to the height of the building measured from the lowest level of the ground immediately adjacent to the base of the building at the point where the height is to be measured to its highest point.

Demolition within confines of building

84AE. The requirements of AS 2601:1991 relating to fencing, overhead protective structures and scaffolding do not apply to the demolition of part of a building if

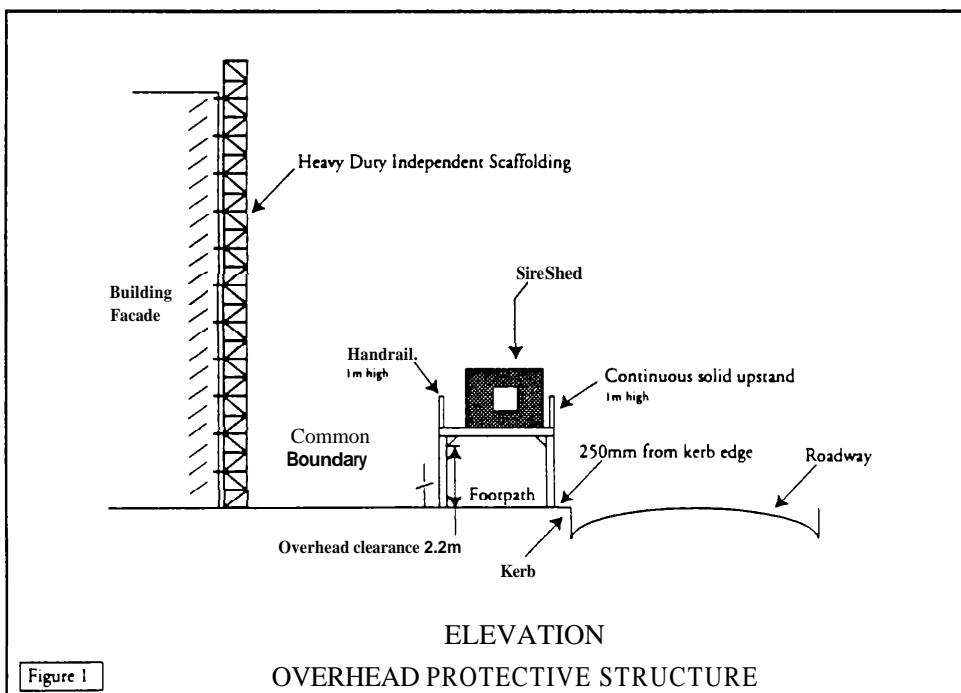
- (a) the work is carried out wholly within the confines of the building; and
- (b) the demolished material is, at all times during the carrying out of the work, prevented from falling or rebounding outside those confines.

Overhead protective structures

84AF. If AS 2601:1991 requires an overhead protective structure to be provided over a footpath that lies between a public place and the building that is being demolished, that overhead protective structure must:

- (a) consist of a horizontal platform of solid construction with vertical supports; and
- (b) be at least 250mm from the edge of the kerb of the footpath towards the common boundary of the footpath and the building that is being demolished; and
- (c) have a minimum overhead clearance of 2.2m to any bracings, beams or any other part of the overhead protective structure; and
- (d) have a continuous solid upstand projecting at least one metre above the platform surface; and
- (e) be designed for a uniformly distributed live load of 10kPa.

NOTE: See figure 1 below which illustrates these requirements.



NOTE: The NSW Code of Practice for Overhead Protective Structures (published by the WorkCover Authority) contains further information in relation to these requirements.

Scaffolding

84AG. (1) This Regulation does not apply to the demolition of a chimney stack.

(2) If AS 2601:1991 requires scaffolding to be provided, that scaffolding must:

- (a) be erected before the commencement of any demolition work on that side or part of the building being demolished that faces a public place; and
- (b) be kept in the erected position until the work is completed; and
- (c) otherwise comply with Regulation 86 (1A).

(3) Such scaffolding must be provided with at least two but not more than three platforms, unless otherwise certified by an engineer. One platform must be located at the working level and the other not more than 6m below that platform.

(4) Each platform on the scaffolding must:

- (a) extend the full width of the scaffold frame; and
- (b) be closely boarded; and
- (c) abut the building; and
- (d) extend into any openings of the building for a sufficient distance in order to catch any falling material.

(5) Any platform or section of a platform (other than the platform at the final lower level of the scaffolding) must not be dismantled, repositioned or removed unless:

- (a) a further platform has been installed not more than 6m below the platform or section of platform to be repositioned or removed; and
- (b) all material on the platform has been removed.

(6) The scaffolding must be effectively enclosed on the outer faces and ends for the full height with steel wire mesh that:

- (a) has a cross section dimension of not less than 2.5mm and an aperture of not greater than 50mm; and
- (b) is adequately secured to the scaffolding; and
- (c) is sufficient to withhold demolished material,

or with some other equivalent system that is adequately secured to the scaffolding and is sufficient to withhold demolished material.

(7) The edges of the runs of wire mesh must be adequately overlapped and secured.

(8) Appropriate material must be securely fixed to the wire mesh to minimise the release of dust into the atmosphere.

Permission to use explosives

84AH. The demolition of a building by means of explosives:

- (a) may, despite any provisions of AS 2601:1991 or these Regulations, be carried out with the permission in writing of the Authority, which may attach conditions to any such permission; and
- (b) must not be carried out without that permission and except in accordance with any such conditions.

Demolition of chimney stacks

84AI. (1) The demolition of a chimney stack may only be carried out:

- (a) by felling using undercutting or explosives; or
- (b) by the removal of successive sections of metal, or successive courses of brickwork or masonry, from the top.

(2) If a chimney stack is or is to be demolished by felling, the following provisions must be observed:

- (a) felling must not be done in a wind that is likely to cause the chimney stack to fall otherwise than in the intended direction, or in a wind that exceeds 20 knots;
- (b) if undercutting is used, the equilibrium of the stack being undercut must be gauged in compression by positive means to ensure that sufficient time remains for the safe retreat of workers from the stack when it commences to fall;
- (c) 24 hours notice of the intended commencement of the demolition work must be given to:
 - (i) the council of the local government area in which the work is carried out; and
 - (ii) a police officer,

if the chimney stack could, in falling, endanger the safety of any person or property in any place outside the area under the control of the person who (directly or by his or her employees or agents) carries out that work.

(3) If a chimney stack is to be demolished by the removal of successive sections of metal from the top, or successive courses of brickwork or masonry from the top, overhead protection complying with Regulation 73 (6) must be provided over the discharge end of any chute, hopper, bin or material outlet to protect any person removing material from the discharge area from falling objects.

(4) Material must not be allowed to accumulate on, or to overload, any such overhead protection.

Openings in floors

84AJ. (1) Openings made in floors must not be larger than is reasonably necessary for the carrying out of the demolition work concerned, and the total area of such openings in any floor, together with any existing openings, must not exceed 25 per cent of the area of that floor (except in any case where any entire floor is being demolished).

(2) If openings are to be made in timber floors, any floor joists must be supported by appropriate propping before the openings are made.

(3) Beams that support a floor joist must not be cut when making an opening in a floor.

NOTE: Attention is drawn to the provisions of Regulation 73 (8) as to the fencing of openings in floors.

Chutes

84AK. (1) This Regulation applies to inclined or vertical chutes used for lowering demolished or other material from a building.

(2) Chutes must be properly secured to the building that is being demolished.

(3) Chutes must be completely enclosed except as provided by this Regulation.

(4) The open end at the top of each chute must have a cover that can be locked securely.

(5) Each opening in a chute must have:

(a) a hinged or sliding door that can be locked securely when demolished material is not being fed into the chute through that opening; and

(b) a hopper fitted to it to channel demolished material into the chute.

(6) To prevent demolished material that is being fed into the chute from spilling outside the chute, a solid fence at least 1m high and 1m long must be erected at each opening in a chute at an angle of 45 degrees to the building line.

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(7) The discharge end of the chute must be kept open at all times.

(8) A designated area must be provided around the discharge end of the chute and this area must be adequately fenced. Alternatively, if a bin is used at the discharge end, a fence with a hinged gate that can be securely locked must be provided around the bin at a distance of at least 2 metres from the bin.

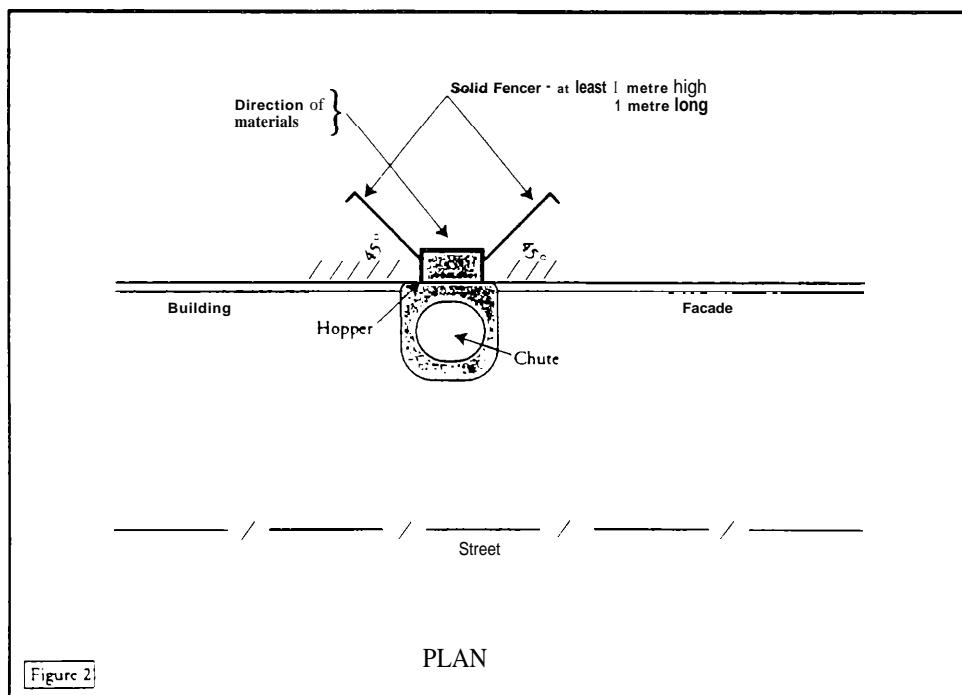
(9) Doors and all other openings of the chute (except the discharge end) must be closed and securely locked before:

- (a) any demolished material is removed from any such designated area; or
- (b) any such bin is replaced.

(10) Notices warning of the danger from discharged material must be prominently placed at the discharge end of the chute and on the access gate of the fence.

(11) In this Regulation, “**opening**”, in relation to a chute, means an opening in the side of the chute through which demolished material can be fed into the chute.

NOTE: See figure 2 below which illustrates these requirements.



Notification of dangerous work

84AL. A police officer must be informed immediately if, during any demolition work:

- (a) the building concerned (including an undemolished part of the building) becomes unstable; and
- (b) there is a danger that the building could collapse and injure any person who is in any place not under the control of the person who (directly or by his or her employees or agents) carries out that work.

EXPLANATORY NOTE

The object of this Regulation is to update the requirements relating to the demolition of buildings and structures. Currently, Australian Standard AS 2601:1991 and the Construction Safety Regulations 1950 contain specifications concerning the carrying out of demolition. This Regulation imposes a requirement to comply with AS 2601:1991 and makes consequent amendments to the Construction Safety Regulations 1950 so that those Regulations do not conflict with AS 2601:1991. Certain additional requirements are also prescribed under the Construction Safety Regulations 1950 to supplement AS 2601:1991.

This Regulation is made under the Construction Safety Act 1912, including section 22 (the general regulation-making power), in particular section 22 (2) (g) (iv) and (v), (3) (b) and (4).
