



**THE CONSTRUCTION REGULATIONS 1961,
AMENDMENT NO. 13**

PAUL REEVES, Governor-General

ORDER IN COUNCIL

At Wellington this 2nd day of November 1987

Present:

HIS EXCELLENCY THE GOVERNOR-GENERAL IN COUNCIL

PURSUANT to the Construction Act 1959, His Excellency the Governor-General, acting by and with the advice and consent of the Executive Council, hereby makes the following regulations.

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REGULATIONS

1. Title and commencement—(1) These regulations may be cited as the Construction Regulations 1961, Amendment No. 13, and shall be read together with and deemed part of the Construction Regulations 1961* (hereinafter referred to as the principal regulations).

(2) These regulations shall come into force on the 1st day of February 1988.

2. Interpretation—(1) Regulation 3 of the principal regulations (as substituted by regulation 3(1) of the Construction Regulations 1961, Amendment No. 10) is hereby amended by revoking the definition of the term “guard-rail”, and substituting the following definition:

“Guardrail” means a rail erected to prevent persons or materials or other things falling from a working platform or other working place.”

(2) Regulation 3 of the principal regulations is hereby further amended by inserting, after the definition of the term “hanging scaffold”, the following definition:

“Heavy-duty working platform” means a working platform of the class of heavy-duty working platforms established under regulation 42(2) of these regulations.”

(3) Regulation 3 of the principal regulations is hereby further amended by omitting from the definition of the term “ladder” the word “uprights”, and substituting the word “stiles.”

(4) Regulation 3 of the principal regulations is hereby further amended by inserting, after the definition of the term “ledger”, the following definition:

*S.R. 1961/5 (Reprinted with Amendments Nos. 1 to 10: S.R.1981/181)
Amendment No. 11: (Revoked by S.R. 1986/232)
Amendment No. 11: S.R. 1986/232

“‘Light-duty working platform’ means a working platform of the class of light-duty working platforms established under regulation 42 (2) of these regulations.”

(5) Regulation 3 of the principal regulations is hereby further amended by inserting, after the definition of the term “span”, the following definition:

“‘Special-duty working platform’ means a working platform of the class of special-duty working platforms established under regulation 42 (2) of these regulations.”

(6) Regulation 3 of the principal regulations is hereby further amended by revoking the definition of the term “working platform” (including the words defining classes of working platforms), and substituting the following definition:

“‘Working platform’ means that part of scaffolding on which workmen or materials are supported while construction work is carried out; and includes a suspended or machine lifted working platform and a boatswain’s chair.”

3. Notifiable work—(1) Regulation 5 of the principal regulations (as amended by regulation 2 (2) of the Construction Regulations 1961, Amendment No. 7) is hereby amended by revoking paragraph (h), and substituting the following paragraph:

“(h) Any restricted work as defined in regulation 2 (1) of the Asbestos Regulations 1983.”*

(2) Regulation 2 (2) of the Construction Regulations 1961, Amendment No. 7 is hereby consequentially revoked.

4. Maintenance and protection of working places—(1) Regulation 31 of the principal regulations (as amended by regulation 4 of the Construction Regulations 1961, Amendment No. 5, regulation 7 of the Construction Regulations 1961, Amendment No. 7, and regulation 2 (1) of the Construction Regulation 1961, Amendment No. 8) is hereby amended by revoking subclauses (2), (3), and (4), and substituting the following subclause:

“(2) Where any danger exists of any person or any materials or other things falling from any working platform or other working place with resulting injury to that person or to persons below the platform or place, suitable and sufficient measures shall be taken to remove that danger.”

(2) The following regulations are hereby consequentially revoked:

(a) Regulation 4 of the Construction Regulations 1961, Amendment No. 5:

(b) Regulation 7 of the Construction Regulations 1961, Amendment No. 7:

(c) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 31 of the principal regulations.

5. Precautions to be taken in relation to work on roofs—(1) Regulation 34A (1) of the principal regulations (as inserted by regulation 6 of the Construction Regulations 1961, Amendment No. 5) is hereby amended by inserting, after the word “unless”, the words “crawling boards are used or”.

(2) Regulation 34A of the principal regulations is hereby further amended by adding the following subclause:

“(3) The following provisions shall apply in relation to crawling boards for use on roofs:

“(a) Every crawling board shall be not less than 250 mm wide and 25 mm thick:

“(b) The cleats of every crawling board shall be at equal intervals not exceeding 600 mm for the length of the boards and shall be fixed to the board by nails driven through and clinched on the underside:

“(c) The cleats shall be equal in length to the width of the board and shall be fixed to the board so that their ends are aligned with the sides of the board:

“(d) Every cleat shall be 40 mm wide and 25 mm thick:

“(e) Every crawling board shall be of such length that it extends from the ridge-pole of the roof on which it is used to the edge of the roof, and shall be secured to the roof by an adequate ridge hook or other effective means:

“(f) At all times when use is made of a crawling board, a firmly fastened rope of at least 19 mm diameter shall be strung beside the board for a handhold.”

6. Machine lifted platform—Regulation 34B(a) (as inserted by regulation 23(1) of the Construction Regulations 1961, Amendment No. 10) is hereby amended by omitting the expressions “4.5” and “3”, and substituting the expressions “2” and “1.5” respectively.

7. Code of practice for scaffolding—(1) The principal regulations are hereby amended by revoking regulation 36A (as substituted by regulation 24(1) of the Construction Regulations 1961, Amendment No. 10).

(2) Regulation 24 of the Construction Regulations 1961, Amendment No. 10 is hereby consequentially revoked.

8. Specifications for members—The principal regulations are hereby amended by revoking regulation 40.

9. General provisions as to scaffolding—(1) The principal regulations are hereby amended by revoking regulation 41 (as amended by regulation 2(1) of the Construction Regulations 1961, Amendment No. 8), and substituting the following regulation:

“41. (1) Subject to the provisions of these regulations, all scaffolding shall comply with the specifications and limits set out in Part I of the First Schedule to these regulations with respect to—

“(a) The quality, size, and strength of scaffolding members:

“(b) The height of uppermost working platforms:

“(c) The number of working platforms per bay:

“(d) The spans of planks:

“(e) The spacing of standards:

“(f) The spacing of ledgers:

“(g) The spans of bearers:

“(h) The spacing of ties:

“(i) Longitudinal bracing.

“(2) Nothing in subclause (1) of this regulation shall affect the provisions of regulation 53 of these regulations as to headroom.

“(3) The Inspector may authorise the erection of scaffolding that does not comply with the requirements of this regulation if satisfied that it is adequate in strength and stability for the purpose for which it is to be used.

“(4) Where authority is sought under subclause (3) of this regulation, the Inspector may require the applicant to submit written evidence from a registered engineer or other source satisfactory to the Inspector that the scaffolding would be adequate in strength and stability for the purpose for which it is to be used.”

(2) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 41 of the principal regulations is hereby revoked.

10. Working platforms—The principal regulations are hereby amended by revoking regulation 42, and substituting the following regulation:

“42. (1) Every working platform shall be adequate in terms of strength and stability for the purpose for which it is used and shall comply with the provisions of these regulations.

“(2) There shall be the following classes of working platforms for the purposes of these regulations:

“(a) Light-duty working platforms, being working platforms that are—

“(i) Supported in spans of not more than 2.4 m; and

“(ii) Not more than 1.5 m in width; and

“(iii) Designed for and capable of supporting concentrated live loads of 160 kg (1570 N) distributed at 2.4 m intervals along their length; and

“(iv) Not intended to be used to support any greater loading;

“(b) Heavy-duty working platforms, being working platforms that are—

“(i) Supported in spans of not more than 2.4 m; and

“(ii) Not more than 1.5 m in width; and

“(iii) Designed for and capable of supporting uniformly distributed loads of 120 kg (1180 N) for every metre of their length together with concentrated live loads of 160 kg (1570 N) distributed at 2.4 m intervals along their length; and

“(iv) Not intended to be used to support any greater loading;

“(c) Special-duty working platforms, being working platforms other than light-duty or heavy-duty working platforms.

“(3) No special-duty working platform shall be used unless—

“(a) The platform has been designed by a registered engineer and a certificate from the registered engineer certifying as to the platform’s design has been submitted to the Inspector; or

“(b) The platform has been approved by the Inspector.”

11. Decking of working platforms—(1) Regulation 43 of the principal regulations (as amended by regulation 2(1) of the Construction Regulations 1961, Amendment No. 8 and regulation 26 of the Construction Regulations 1961, Amendment No. 10) is hereby amended by revoking subclauses (1) and (2), and substituting the following subclauses:

“(1) Except with the approval of the Inspector, timber planks used for the decking of working platforms shall be not less than 225 mm wide unless used as marginal fillers.

“(2) Decking shall be so secured and placed as to prevent tipping or accidental displacement during normal use and shall project beyond each end support for not less than 80 mm and not more than 220 mm.

“(2a) Where decking planks are butted, each end bearing shall be not less than 75 mm, and, where lapped, the amount of overlap shall be not less than 150 mm.”

(2) Regulation 43 of the principal regulations is hereby further amended by revoking subclauses (6) and (7), and substituting the following subclauses:

“(6) Subject to subclauses (7) and (7a) of this regulation, the width of the decking of any working platform shall be not less than 675 mm.

“(7) Where materials are deposited on a working platform, the width of the decking shall be sufficient to ensure an unobstructed space not less than 450 mm wide along the whole length of the platform.

“(7a) Where a light-duty working platform is used and no materials are deposited on the platform, the decking may consist of a single plank that complies with the requirements of New Zealand Standard 3620:1985 ‘Scaffold Planks’.”

(3) The following regulations are hereby consequentially revoked:

(a) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 43 of the principal regulations:

(b) Regulation 26 of the Construction Regulations 1961, Amendment No. 10.

12. Protection against falls from working platforms or other working places—(1) The principal regulations are hereby amended by revoking regulation 44 (as amended by regulation 7 of the Construction Regulations 1961, Amendment No. 5, regulation 2 (1) of the Construction Regulations 1961, Amendment No. 8, regulation 3 of the Construction Regulations 1961, Amendment No. 9, and regulation 27 (1) of the Construction Regulations 1961, Amendment No. 10), and substituting the following regulation:

“44. (1) This regulation applies in relation to every working platform, and every working place adjacent to an opening in a floor, roof, or wall, where a danger exists of any person or any materials or other things falling 3 m or more from the platform or place.

“(2) In ascertaining for the purposes of subclause (1) of this regulation how far any person or any materials or other things might fall, no account shall be taken of any structure or thing temporarily placed below the working platform or working place unless it constitutes a safe means of arresting the fall.

“(3) Subject to the provisions of this regulation, guardrails shall be erected along the exposed edge of the working platform or working place in accordance with the following provisions:

“(a) One rail shall be erected along the exposed edge at a height not less than 1000 mm nor more than 1100 mm above the surface of the platform or place and a second rail shall be erected midway between that rail and that surface:

“(b) Each rail shall be secured to standards or upright members spaced at intervals no more than 2.4 m centre to centre or at such other intervals as may be approved by the Inspector:

“(c) Each rail shall be fixed as close as practicable to, but not more than 200 mm beyond, the edge of the platform or place:

“(d) Each rail, when secured to the standards or upright members, shall be capable of sustaining without failure or undue deflection a force at any point of 70 kg (690 N) vertical and 45 kg (440 N) horizontal acting separately.

“(4) Where, in the case of a working platform, protection is provided along the exposed edge by the presence of double cross-bracing between standards within the one lift, it shall not be necessary to erect an upper rail in accordance with subclause (3) of this regulation provided that—

“(a) The platform is decked out to within 200 mm horizontally from the cross-bracing; and

“(b) The braces each cross within 50 mm above or below a point 1050 mm above the surface of the platform.

“(5) Where a danger exists of materials or other things falling from the working platform or working place with resulting injury to persons below, a toeboard (which shall be of sufficient strength and height to remove the danger) shall be erected at the edge of the platform or place and secured to the inside of the standards or upright members to which the guardrails are secured.

“(6) Where a toeboard erected in accordance with subclause (5) of this regulation is 225 mm or more in height, it shall not be necessary to erect a lower guardrail above the toeboard in accordance with subclause (3) of this regulation.

“(7) Where, in the case of a working place adjacent to an opening in a floor or roof, protection is provided by placing a temporary cover over the opening, it shall not be necessary to erect guardrails and a toeboard along the edge of the opening in accordance with this regulation provided that—

“(a) The cover is so designed, constructed, and placed in position as to withstand any load placed on it and to prevent accidental displacement during normal use; and

“(b) The cover bears, in easily legible lettering, the words ‘Danger—Hole Below’.

“(8) Where the working platform or working place is situated above a public thoroughfare and a danger exists of materials or other things falling from the platform or place onto persons using the thoroughfare, then, unless the area below the platform or place is barricaded off to prevent public access, screens or projecting platforms shall be erected to the satisfaction of the Inspector to remove that danger.

“(9) Notwithstanding the other provisions of this regulation, the Inspector may approve alternative protection that is, in the Inspector’s opinion, suitable and sufficient in the circumstances.

“(10) Any guardrails, toeboards, covers, or other safeguards erected or put in place in accordance with this regulation shall, except when it is necessary on account of working conditions that they be removed temporarily, be kept in place and in good order and condition at all times while work is being carried out on, at, or in the vicinity of, the working platform or working place to which they relate.

“(11) This regulation shall not limit the effect of regulation 31 (2) of these regulations, but, where this regulation applies in any circumstances, compliance with the requirements of this regulation shall constitute sufficient compliance with the general duty under regulation 31 (2).”

(2) The following regulations are hereby consequentially revoked:

- (a) Regulation 7 of the Construction Regulations 1961, Amendment No. 5:
- (b) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 44 of the principal regulations:
- (c) Regulation 3 of the Construction Regulations 1961, Amendment No. 9:
- (d) Regulation 27 of the Construction Regulations 1961, Amendment No. 10.

13. Permissible working loads—Regulation 48(1) of the principal regulations (as amended by regulation 2(1) of the Construction Regulations 1961, Amendment No. 8) is hereby amended by omitting the expression “2.7 m”, and substituting the expression “2.4 m”.

14. Design—Regulation 49 of the principal regulations is hereby amended by revoking subclause (3), and substituting the following subclauses:

“(3) All scaffolding shall be designed and constructed to safely support not less than 3 times the permissible live load for the class of working platforms that the scaffolding is designed to support.

“(3a) All standing scaffolding shall be designed and constructed to withstand horizontal forces in any direction of not less than one-tenth of the sum of the total weight of the scaffolding and the total permissible live load for the number of working platforms that the scaffolding is designed to support.”

15. Stability of free-standing scaffolding—(1) The principal regulations are hereby amended by revoking regulation 61 (as amended by regulation 2(1) of the Construction Regulations 1961, Amendment No. 8), and substituting the following regulation:

“61. (1) Free-standing scaffolding shall have the following factor of safety against overturning under the applied horizontal forces referred to in regulation 49(3a) of these regulations:

“(a) For scaffolding not more than 3 m high, the factor of safety against overturning shall be not less than 1.5 in any direction:

“(b) For scaffolding exceeding 3 m in height, the factor of safety against overturning shall be not less than 3 in any direction.

“(2) Free-standing scaffolding shall not be used to support more than one working platform.”

(2) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 61 of the principal regulations is hereby revoked.

16. Prefabricated brackets and ladder brackets—Regulation 62 of the principal regulations is hereby amended by adding the following subclauses:

“(2) Ladder brackets shall not be used in construction work except for the purpose of painting.

“(3) Where ladder brackets are used to support a working platform for the purpose of painting, the following provisions shall apply:

“(a) The ladders shall comply with the requirements of regulation 106 of these regulations:

- “(b) Where the platform is supported at a height greater than 3 m—
 “(i) The brackets used to support the platform shall be underslung;
 “(ii) Guardrails shall be secured to the brackets or ladders so as to prevent any workman falling from the platform:
- “(c) The top rung to which each bracket is attached shall be not more than three-quarters of the ladder’s working length from the foot of the ladder:
- “(d) Precautions shall be taken to ensure that the feet and tops of the ladders are so restrained that the ladders will not move in any direction:
- “(e) No more than one workman shall work on the platform at one time and, if the platform is used in a public place, a second workman shall be on hand to take preventive action against mishaps and to assist in setting up and moving the ladders, brackets, and plank:
- “(f) The plank used for the platform shall comply with the provisions of these regulations relating to the performance requirements and span of planks used for light-duty working platforms.”

17. General provisions as to suspended scaffolding—(1) Regulation 64 of the principal regulations is hereby amended by revoking subparagraph (vii) of paragraph (a).

(2) Regulation 64 of the principal regulations is hereby further amended by adding, after paragraph (f), the following paragraphs:

- “(g) Except in the case of a boatswain’s chair or other platform intended for use in a sitting position, the platform shall comply with the provisions of regulation 44 of these regulations, but—
 “(i) The guardrails or other protective structure shall be securely fixed together with the rest of the platform to form a complete unit;
 “(ii) A section of the guardrails or other protective structure shall be designed to be removed or opened to facilitate working operations:
- “(h) In the case of a boatswain’s chair or other platform intended for use in a sitting position, provision shall be made for a back rail or rope and a front rail, rope, or post, in each case not less than 250 mm above the seat:
- “(i) Every workman on the platform shall wear a safety belt or parachute type harness that is secured to a fixed support or to an independent life line except—
 “(i) Where the platform is a boatswain’s chair that has more than one effective means of support; or
 “(ii) Where the platform is so designed and constructed that it would remain safely suspended notwithstanding the failure of one rope or anchorage or other means of support or suspension (in which case, the safety belt or harness may, instead of being independently secured, be secured to part of the platform):
- “(j) A safety belt or harness worn by a workman shall, if the workman falls from the platform, suspend the workman not more than 1.5 m below the platform and shall be so designed that the force in arresting the fall does not exceed 8000 N:
- “(k) Where an independent life line is used—

“(i) The line shall be used to secure the safety belt or harness of no more than one workman at the same time:

“(ii) The line shall have a minimum breaking strength of 29.4 kN and be of nylon at least 12 mm in diameter or of polypropylene or other equally durable material at least 16 mm in diameter:

“(iii) The line shall extend to the ground or be provided with a positive stop to prevent the safety belt or harness running off the end of the line.”

18. Single overhead support—(1) Regulation 65 of the principal regulations (as amended by regulation 2(1) of the Construction Regulations 1961, Amendment No. 8) is hereby amended by revoking subparagraphs (iii) and (iv) of paragraph (a) and subparagraph (ii) of paragraph (b).

(2) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 65(a)(iii) of the principal regulations is hereby consequentially revoked.

19. Double overhead support—(1) Regulation 66 of the principal regulations (as amended by regulation 2(1) of the Construction Regulations 1961, Amendment No. 8) is hereby amended by revoking paragraph (c).

(2) Regulation 66 of the principal regulations is hereby further amended by omitting from paragraph (d) the expression “340 kg (3330 N)”, and substituting the expression “360 kg (3530 N)”.

(3) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 66(d) of the principal regulations is hereby consequentially revoked.

20. Code of practice—(1) The principal regulations are hereby amended by revoking regulation 70A (as substituted by regulation 34(1) of the Construction Regulations 1961, Amendment No. 10).

(2) Regulation 34 of the Construction Regulations 1961, Amendment No. 10 is hereby consequentially revoked.

21. Excavations more than 1.5 m deep—(1) Regulation 71 of the principal regulations (as amended by regulation 2(1) of the Construction Regulations 1961, Amendment No. 8) is hereby amended by revoking paragraph (c), and substituting the following paragraph:

“(c) The provision of timbering is impracticable or unreasonable by reason of the nature of the work and other safety precautions are taken that are deemed adequate by the Inspector or are certified as being adequate by a registered engineer;”

(2) Regulation 71 of the principal regulations is hereby further amended by adding the following subclause:

“(2) A notification given in accordance with the Act in respect of an excavation that is notifiable work under regulation 5(c) of these regulations shall indicate (in addition to any other matters required under the Act or these regulations) whether the faces of the excavation are to be timbered and, if not, the reasons why it is considered that timbering is not required.”

22. Approval or certificate required before certain excavations commenced—The principal regulations are hereby amended by inserting, after regulation 71, the following regulation:

“71A. An employer shall not commence an excavation that is notifiable work under regulation 5 (c) of these regulations unless—

“(a) The employer’s proposals for timbering or for alternative safety precautions have been approved by the Inspector as being in accordance with these regulations; or

“(b) The employer has submitted to the Inspector a certificate of a registered engineer certifying—

“(i) That the employer’s proposals for timbering are in accordance with these regulations; or

“(ii) That the provision of timbering is impracticable or unreasonable by reason of the nature of the work and the alternative safety precautions proposed would be adequate in the circumstances; or

“(iii) That the material that would be in the faces of the excavation is of proven good standing quality under all anticipated conditions of work and weather.”

23. Precautions for trench excavations liable to cave-in—(1) The principal regulations are hereby amended by revoking regulation 78 (as amended by regulation 8 of the Construction Regulations 1961, Amendment No. 5, regulation 2 (1) of the Construction Regulations 1961, Amendment No. 8, and regulation 4 (1) of the Construction Regulations 1961, Amendment No. 9), and substituting the following regulation:

“78. (1) Subject to subclause (2) of this regulation, where a trench excavation is notifiable work under regulation 5 (c) of these regulations and liable to cave-in on exposure to weather or saturation by water, the following provisions shall apply:

“(a) The faces of the excavation shall be supported by vertical sheeting for the full depth of the faces or for so far as is practicable and shall be effectively held laterally by walings and struts:

“(b) The sheeting, walings, and struts shall conform to and be erected in accordance with the specifications set out in Part II of the First Schedule to these regulations:

“(c) Where the excavation is in saturated or running ground, the sheeting shall be such as to prevent the movement of fine material out of the bank:

“(d) With the approval of the Inspector, steel shields or other adequate methods of protection may be used instead of sheeting, walings, and struts as prescribed in the foregoing paragraphs of this subclause.

“(2) Subclause (1) of this regulation shall not apply where the provision of timbering is impracticable or unreasonable by reason of the nature of the work and other safety precautions are taken that are deemed adequate by the Inspector or are certified as being adequate by a registered engineer.”

(2) The following regulations are hereby consequentially revoked:

(a) Regulation 8 of the Construction Regulations 1961, Amendment No. 5:

- (b) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 78 of the principal regulations:
- (c) Regulation 4 of the Construction Regulations 1961, Amendment No. 9.

24. Construction and use of single and extension ladders—Regulation 106 (2) of the principal regulations (as substituted by regulation 47 (1) of the Construction Regulations 1961, Amendment No. 10) is hereby amended by revoking paragraphs (b), (c), and (d), and substituting the following paragraph:

“(b) If made of material other than timber, not be inferior to the requirements set out in New Zealand Standard 5233:1986 ‘Portable Ladders (Other Than Timber Ladders)’.”

25. Ladder brackets—(1) The principal regulations are hereby amended by revoking regulation 107 (as amended by regulation 2 (1) of the Construction Regulations 1961, Amendment No. 8).

(2) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to regulation 107 of the principal regulations is hereby revoked.

26. Step ladders—Regulation 108 of the principal regulations (as substituted by regulation 48 (1) of the Construction Regulations 1961, Amendment No. 10) is hereby amended by revoking subclause (2), and substituting the following subclause:

“(2) Subject to subclause (1) of this regulation, every step ladder used in construction work shall—

“(a) If made of timber, not be inferior to the requirements set out in New Zealand Standard 3609:1978 ‘Timber Ladders’:

“(b) If made of material other than timber, not be inferior to the requirements set out in New Zealand Standard 5233:1986 ‘Portable Ladders (Other than Timber Ladders)’.”

27. New Parts XV and XVA substituted—(1) The principal regulations are hereby amended by revoking Part XV, and substituting the following Parts:

“PART XV

Underwater Work

“118. **Application of this Part**— This Part of these regulations shall apply to—

“(a) Construction work carried out under water; and

“(b) Construction work carried out on or above water in connection with construction work carried out under water.

“119. **Interpretation**—In this Part of these regulations, unless the context otherwise requires,—

“‘Diving bell’ means a compression chamber that can be lowered into the water from the surface and from which diving may take place; and includes equipment known as—

“(a) A submersible compression or decompression chamber:

“(b) A submersible personnel transfer capsule:

“(c) A submersible work chamber:

“(d) A submersible transfer chamber:

“ ‘Diving operations’ means diving operations carried out for the purpose of or in connection with construction work to which this Part of these regulations applies:

“ ‘Off-shore diving operations’ means diving operations carried out at sea.

“119A. **Eligibility for diving, etc.**—(1) A person shall not work as a diver in diving operations unless that person is medically fit for diving and—

“(a) Is registered as a construction diver under Part XIX of these regulations and acting in compliance with any conditions of the registration; or

“(b) Has been properly instructed in the working methods and in the dangers of the operations, is proficient in the operation of the underwater life support system being used, possesses an approved diving qualification, and is undergoing construction diving training under the direct personal supervision of a registered construction diver.

“(2) Basic training in diving of persons learning to dive shall not be carried out during the course of diving operations.

“119B. **Diving supervisor**—(1) Diving operations shall not be carried out unless they are under the direct supervision, at the site of the operations, of a diving supervisor appointed by the employer.

“(2) An employer shall not appoint a person as a diving supervisor unless the appointee has an adequate knowledge of, and is experienced in, the kind of diving operation to be carried out under the appointee’s supervision.

“(3) Every person appointed as a diving supervisor shall also be deemed to have been appointed by the employer, under section 9 of the Act, as the safety supervisor of the diving operation.

“119C. **First aid and medical assistance**—(1) At all times during the course of diving operations a person shall be in attendance on the surface who holds a current St. John Ambulance Standard Certificate in First Aid, or an equivalent qualification.

“(2) Where diving operations are carried out at a depth exceeding 10 m but not exceeding 20 m, the person in attendance on the surface shall have ready access to a medical practitioner approved by a Medical Officer of Health as having suitable experience in the treatment of injuries and illnesses brought about by working under water.

“(3) Where diving operations are carried out at a depth exceeding 20 m, the person in attendance on the surface shall—

“(a) Be suitably trained and experienced in the treatment of injuries and illnesses brought about by working under water; and

“(b) Have ready access to a medical practitioner approved by a Medical Officer of Health as having suitable experience in the treatment of injuries and illnesses brought about by working under water; and

“(c) If any of the dives planned require the consent of the Chief Construction Safety Engineer according to Part III of the First Schedule to these regulations, have such a medical practitioner readily available on call.

“119b. General safety provisions—In the carrying out of diving operations the following provisions shall apply:

- “(a) Every diver, on preparing to dive and while under water, shall be assigned as a diver’s attendant a person who has been instructed in the dangers of the diving operations and who has an adequate knowledge of the operation of the diving equipment in use at the site and of the diving equipment which is available for use in an emergency:
- “(b) There shall be present at the site of diving operations, while a diver is under water and at all other times when assistance may be required by a diver, such number of diver’s attendants and other competent persons as may be necessary to ensure the safety of the divers engaged in the operations:
- “(c) A diver shall not enter the water unless that diver’s attendant is present:
- “(d) Except as provided in paragraph (e) of this regulation, where a diver is engaged in diving operations without the use of a diving bell, another diver shall be ready to give immediate assistance to the working diver. That other diver shall be wearing such equipment as is required to give such assistance and shall have a helmet or mask, life support system, and weight-belt readily available for the diver’s own use:
- “(e) Unless otherwise directed by the diving supervisor appointed under regulation 119B of these regulations, the provisions of paragraph (d) of this regulation need not be complied with if 2 or more divers are diving together in circumstances which will enable them to give immediate assistance to each other:
- “(f) Where diving operations are being carried out with the use of a diving bell, a diver shall not operate outside the diving bell chamber unless another diver is stationed inside the chamber:
- “(g) A diver shall not dive unless equipped with such diving dress and ancillary equipment as will maintain the diver at a comfortable temperature while in the water:
- “(h) Diving operations shall not be carried out if, in the diving supervisor’s opinion, the velocity of the water current or the weather conditions or other conditions are such as to make diving or the carrying out of the operations unsafe:
- “(i) If the velocity of the water current in which diving operations are being carried out exceeds 0.5 m per second—
 - “(i) Equipment to prevent the diver from being swept from the site of the operations shall be used; and
 - “(ii) If a diving bell is being used, the diver shall be attached to the diving bell by a life-line not exceeding 30 m in length:
- “(j) Suitable provisions shall be made to enable a diver to enter and leave the water without undue physical effort and without the assistance of any other person:
- “(k) Off-shore diving operations shall be carried out only from the deck of a platform or a vessel that is safe and suitable for the purpose and on which all the equipment necessary for the diving operations is kept.

“119E. **Scuba diving safety provisions**—Divers wearing self-contained underwater breathing apparatus shall not carry out any diving operations unless—

- “(a) The ‘buddy’ diving system, with 2 divers in the water maintaining constant visual or physical contact with each other, is used; or
- “(b) Clear communications of a wireless or wire type are maintained between the diver and the surface and (in the case of wireless communications) a means of positively locating the diver is provided; or
- “(c) A safety line is provided between the diver and the surface attendant to provide for communications through the use of pull signals on the safety line.

“119F. **Diving depths and recompression**—(1) Diving operations of the following kinds shall not be carried out except with the written consent of the Chief Construction Safety Engineer and subject to such conditions as the Chief Construction Safety Engineer may specify:

- “(a) Diving operations involving the use of self-contained underwater breathing apparatus at a depth exceeding 20 m;
- “(b) Diving operations of any kind carried out at a depth exceeding 30 m;
- “(c) Diving operations involving dives for which the consent of the Chief Construction Safety Engineer is required according to Part III of the First Schedule to these regulations.

“(2) Where diving operations—

- “(a) Are carried out at a depth exceeding 20 m; or
- “(b) Involve dives for which the consent of the Chief Construction Safety Engineer is required according to Part III of the First Schedule to these regulations,—

the following provisions shall apply:

- “(c) An approved recompression chamber shall be kept in the vicinity in an operational state during the course of the diving operations:
- “(d) Suitable transport shall be available on the site so that an approved 2-compartment recompression chamber that is in an operational state may be reached within 2 hours normal travelling time from the site.
- “(3) Where diving operations are carried out at a depth exceeding 50 m—
- “(a) The dives shall be made with an approved diving bell and surface supply breathing equipment; and
- “(b) A mixture of helium and oxygen or of helium, nitrogen, and oxygen shall be used for breathing by the divers.

“119G. **Compressed air**—(1) Compressed air used for breathing by divers engaged in diving operations shall comply with New Zealand Standard 5813:1981 ‘Underwater Swimming Equipment’.

“(2) Compressed air for breathing supplied by an air compressor shall not be used in diving operations unless—

- “(a) Within the period of 3 months preceding its use the compressed air delivered by the compressor has undergone a test and met the standards prescribed by subclause (1) of this regulation: and
- “(b) There is connected to the system supplying air from the compressor to the diver a pressure volume tank, and a water, air, and

particulate-matter filter or filters which purify the air to the standards prescribed by subclause (1) of this regulation.

“119H. Respiratory medium other than air—(1) Any respiratory medium, other than air, used by divers for breathing during diving operations shall not have a nauseous odour and shall not contain—

“(a) More than 5 parts per million, by volume, of either carbon monoxide or acetylene:

“(b) More than 25 parts per million, by volume, of methane:

“(c) More than 500 parts per million, by volume, of carbon dioxide:

“(d) Oil in any quantity.

“(2) Diving operations in which a respiratory medium other than air is used shall not be carried out unless the respiratory medium is suitable for use at the depths at which, and for the periods during which, the operations are to be carried out.

“119I. Rebreathing apparatus—Closed circuit rebreathing apparatus shall not be used in diving operations except with the written consent of the Chief Construction Safety Engineer and subject to such conditions as the Chief Construction Safety Engineer may specify.

“119J. Safety lines—(1) Unless the Inspector considers it impracticable, during diving operations there shall be used between the diver and the surface—

“(a) A breathing medium hose; or

“(b) A communication wire; or

“(c) A life-line—

having a tensile strength of not less than 5 kN.

“(2) Unless a diving bell is used or the diver is lowered by means of a platform or cage, during diving operations a shot-line not less than 50 mm in circumference and made of rope of other similar flexible material shall be used. One end of the shot-line shall be fixed at the seabed and the other end shall be fixed to a vessel or buoy on the surface; and each diver shall maintain contact with the shot-line.

“(3) Diving operations shall not be carried out from a diving bell unless each diver engaged in diving is equipped with a harness which enables the diver to be hoisted into the bell by means of lifting equipment fitted to it.

“119K. Communications—Unless the Inspector considers it impracticable because of the use of some other system, a diver using a surface-supplied breathing medium in diving operations shall be supplied with equipment enabling the diver to communicate verbally with the diving supervisor or a diver's attendant on the surface.

“119L. Record of diving operations—(1) The employer shall keep at each site where diving operations are carried out—

“(a) A written record of each dive carried out during the operations specifying—

“(i) The name of the diving supervisor, of the divers and the divers' attendants, and of any other person taking part in the operations:

“(ii) In respect of each dive, the times when the diver became exposed to pressure exceeding atmospheric pressure and when the diver commenced decompression:

“(iii) The equipment used:

“(iv) The decompression schedule used:

- “(v) The breathing medium used:
 - “(vi) The work performed by the divers:
 - “(vii) Details of any unusual conditions:
- “(b) A written record of each injury to a diver, including any decompression sickness (however minor), occurring during the operations specifying—
- “(i) The details specified in paragraph (a) of this subclause:
 - “(ii) The nature of the injury:
 - “(iii) The circumstances leading to the injury:
 - “(iv) The medical treatment given:
 - “(v) The names of medical practitioners consulted or attending the injured diver:
- “(c) A written record (in addition to the record of injuries) of each accident occurring during the operations.
- “(2) Every diver working on diving operations shall keep up to date a personal logbook which shall record—
- “(a) The dates and results of each medical examination which showed the diver’s fitness or otherwise for diving:
- “(b) In respect of each diving operation—
- “(i) The number of dives the diver made:
 - “(ii) The times when the diver became exposed to pressure exceeding atmospheric pressure and when the diver commenced decompression:
 - “(iii) The maximum depth of each dive:
 - “(iv) The nature of the work done:
 - “(v) The location of the work:
 - “(vi) The employer:
 - “(vii) The diving equipment used:
 - “(viii) The decompression schedule used:
 - “(ix) The breathing medium used:
 - “(x) Details of any unusual conditions:
 - “(xi) Any injuries or illnesses suffered by the diver.
- “(3) The records and logbook referred to in subclauses (1) and (2) of this regulation shall be open to inspection by an Inspector.

“PART XVA

“*Work in Compressed Air*

“119M. **Work in compressed air**—Every person who carries out, or causes to be carried out, construction work in compressed air shall comply with the code of practice issued on the 13th day of October 1978 by the Chief Construction Safety Engineer called ‘Code of Practice for Work in Compressed Air on Construction Work’.”

(2) The following regulations are hereby consequentially revoked:

- (a) Regulation 9 of the Construction Regulations 1961, Amendment No. 6:
- (b) Regulations 50 and 51 of the Construction Regulations 1961, Amendment No. 10.

28. General safety measures—The principal regulations are hereby amended by revoking regulation 121 (as inserted by regulation 21 of the Construction Regulations 1961, Amendment No. 7), and substituting the following regulation:

“121.(1) The employer shall not permit nor any worker cause the accumulation of combustible material likely to constitute a fire hazard in any fire protection area.

“(2) No person shall smoke in, or introduce any source of ignition into, any place where combustible materials are used, stored, or handled.

“(3) The employer shall ensure that there is provided at every place where combustible materials are used, stored, or handled a sign board bearing in easily legible lettering the words ‘Danger—No Smoking or Naked Lights’.”

29. Water supply—The principal regulations are hereby amended by revoking regulation 122 (as inserted by regulation 21 of the Construction Regulations 1961, Amendment No. 7), and substituting the following regulation:

“122. If construction work on a multi-storey building or in a fire protection area declared by an Inspector includes the installation of a permanent rising water main—

“(a) The main shall be installed at ground level as soon as practicable and progressively as work proceeds as far as is practicable so as to be available and ready for use not less than 9 m below the uppermost working place:

“(b) A water supply shall be provided in the main while work is being carried out:

“(c) Suitable hose connections shall be provided to the main so that a hose of 30 m or less in length shall be sufficient to fight a fire in any working place:

“(d) Suitable hoses not less than 20 mm in internal diameter shall be provided for use in conjunction with the hose connections.”

30. Fire extinguishers—Regulation 123 of the principal regulations (as inserted by regulation 21 of the Construction Regulations 1961, Amendment No. 7) is hereby amended by revoking paragraph (a), and substituting the following paragraph:

“(a) In every site workshop, site office, switchboard room, and in all workmen’s accommodation:”

31. Emergency evacuation precautions—Regulation 124 of the principal regulations (as inserted by regulation 21 of the Construction Regulations 1961, Amendment No. 7) is hereby amended by inserting, after the words “every fire protection area”, the words “where a danger exists of persons being trapped by fire or where the evacuation of persons might become necessary for any reason”.

32. New Parts XVIII and XIX added—The principal regulations are hereby amended by adding, after Part XVII (as added by regulation 22 of the Construction Regulations 1961, Amendment No. 7), the following Parts:

“PART XVIII

“*Roll-over Protective Structures*

“128. **Application of this Part**—(1) Subject to the provisions of this regulation, this Part of these regulations shall apply to all mechanical plant

of the following kinds supplied new or imported (whether or not in new condition) into New Zealand after the commencement of this Part:

“(a) Dozers:

“(b) Loaders:

“(c) Motor graders:

“(d) Motor scrapers:

“(e) Tractors.

“(2) This Part of these regulations shall not apply to any of the following:

“(a) Cranes:

“(b) Drag lines:

“(c) Hydraulic excavators:

“(d) Paving machines:

“(e) Road rollers:

“(f) Shovels:

“(g) Any machine that has a mass of 700 kg or less.

“(3) The Chief Construction Safety Engineer may, subject to such conditions, if any, as may be specified therein, by certificate in writing, exempt from any or all of the provisions of this Part of these regulations—

“(a) Any particular machine or kind of machine; or

“(b) Any particular work or kind of work,—

if satisfied that, having regard to any conditions imposed, the provisions in respect of which the exemption is granted are not necessary for the protection of workmen or not reasonably practicable.

“(4) The Chief Construction Safety Engineer may at any time, in the Chief Construction Safety Engineer’s discretion, revoke a certificate by which an exemption is granted under subclause (3) of this regulation.

“129. **Interpretation**—(1) In this Part of these regulations, unless the context otherwise requires—

“‘Dozer’ means a self-propelled crawler or wheeled machine that has a blade mounted at the front and is used to cut and push materials; and includes any self-propelled compactor that is fitted with such a blade:

“‘Loader’ means a self-propelled crawler or wheeled machine that has a bucket mounted at the front and is used to excavate, load, lift, transport, and discharge materials:

“‘Mobile plant’ means any mechanical plant of a kind to which this Part applies:

“‘Motor grader’ means a self-propelled wheeled machine that has a blade mounted between the front and rear axles and is used to cut, move, and spread materials:

“‘Motor scraper’ means a self-propelled wheeled machine that has a blade mounted between the front and rear axles and is used to cut, load, transport, discharge, and spread materials:

“‘Roll-over protective structure’ means a structure designed to be attached to, or form part of, a mobile plant for the purpose of reducing the possibility of the operator being crushed if the plant overturns:

“‘Supply’ means sale, exchange, lease, hire, or hire-purchase, and ‘supplied’ has a corresponding meaning:

“Tractor” means a self-propelled crawler or wheeled machine used to exert a push or pull force through a mounted attachment or drawbar.

“(2) For the purposes of this Part of these regulations, any plant shall be regarded as having been supplied new if, before it was supplied, it had not been used for any purpose other than a purpose connected with its manufacture or the supply of that plant or plant of the same kind.

“130. Mobile plant to be fitted with roll-over protective structures and seat belts—(1) Every mobile plant used in construction work shall be fitted with a roll-over protective structure and seat belt in accordance with this regulation.

“(2) Any roll-over protective structure fitted to a mobile plant shall be of a design and construction approved by the Chief Construction Safety Engineer.

“(3) The Chief Construction Safety Engineer shall approve the design and construction of a roll-over protective structure in relation to mobile plants of a particular kind if satisfied, after such tests as the Chief Construction Safety Engineer may approve, that the structure—

“(a) Is capable of withstanding without failure or undue deflection the forces applied to it when any plant of that kind while travelling at 16 kilometres an hour overturns through 360° down a hard clay slope inclined at 30° in the case of a wheeled mobile plant, or at 45° in the case of a crawler; and

“(b) Is adequate and safe in such other respects as the Chief Construction Safety Engineer may require.

“(4) Any seat belt fitted to a mobile plant shall be of a kind and shall be fitted in a manner approved by the Chief Construction Safety Engineer.

“(5) A tractor shall be deemed to meet the requirements of the foregoing provisions of this regulation if it is fitted with a safety frame that meets the requirements of the Tractor Safety Frame Regulations 1986* and is fitted with a bucket seat and a seat belt that meets the requirements of New Zealand Standard 5401:1976 ‘Seat Belt Assemblies for Motor Vehicles’.

“(6) For the purposes of subclause (5) of this regulation, a tractor shall be deemed to continue to meet the requirements referred to in that subclause notwithstanding any increase in its mass resulting from the fitting of a hydraulic digger or a hydraulic loader bucket or both.

“(7) Where the roll-over protective structure fitted to any mobile plant is damaged so that its effectiveness is substantially reduced, the plant shall not be used in construction work until the structure has been replaced or restored to a condition approved by the manufacturer, or the manufacturer’s principal agent in New Zealand, or by a registered engineer, as equal in strength and effectiveness to the structure as originally fitted.

“PART XIX

“Registration of Workmen

“131. Certificates of registration—Certificates of registration of the following classes may be issued to workmen under these regulations:

“(a) Certificates of registration as a construction diver:

“(b) Certificates of registration as a crane operator (all types):

“(c) Certificates of registration as a crane operator (tower cranes):

“(d) Certificates of registration as a crane operator (mobile cranes):

“(e) Certificates of registration as a dogman:

“(f) Certificates of registration as a rigger.

“132. **Issue and renewal of certificates**—(1) Certificates of registration may be issued, and, from time to time, renewed under the hand of the Chief Construction Safety Engineer.

“(2) The Chief Construction Safety Engineer shall cause a register to be kept of workmen holding current certificates of registration.

“(3) Every certificate of registration issued or renewed under these regulations shall remain in force until it is revoked or until the expiration of the term fixed by the Chief Construction Safety Engineer and specified in the certificate.

“(4) The term for which a certificate of registration is issued or renewed shall not exceed 4 years and may be different for different classes of certificates.

“(5) If the Chief Construction Safety Engineer so determines, a certificate of registration as a construction diver shall be subject to conditions endorsed on the certificate as to the class of diving operations that may be carried out and the types of equipment or breathing media that may be used pursuant to the registration, and any such endorsement may be modified from time to time or revoked by the Chief Construction Safety Engineer.

“133. **Applications for issue or renewal of certificates**—(1) An application for the issue or renewal of a certificate of registration shall be made on a form provided for the purpose by the Secretary of Labour and shall be lodged at the office of the Department nearest to the usual address of the applicant accompanied by the prescribed fee.

“(2) An application for the renewal of a certificate of registration shall be lodged before the day on which the certificate expires and may be granted in advance or retrospectively to take effect on the date of expiry.

“134. **Qualifications for issue or renewal of certificates**—(1) A certificate of registration shall not be issued or renewed under these regulations unless the Chief Construction Safety Engineer is satisfied that the applicant—

“(a) Is a fit and proper person to be granted the certificate; and

“(b) Has adequate and appropriate training and working experience for the class of certificate sought; and

“(c) Has adequate knowledge of safety legislation and safe working practices for the class of certificate sought; and

“(d) Is not suffering from any bodily defect or any defect in health that would prevent the applicant from safely performing work of the kind for which the certificate is sought.

“(2) Without limiting the discretion of the Chief Construction Safety Engineer to determine the matter in favour of a particular applicant or class of applicants with less extensive or recent experience, an applicant shall be deemed to have adequate and appropriate working experience for the purposes of subclause (1) (b) of this regulation if the Chief Construction Safety Engineer is satisfied that the applicant has been employed in the relevant branch of the construction industry for not less than 10 of the 12 months preceding the date of the application and has been engaged for not less than 3 of those months in work of the particular kind for which the certificate is sought.

“(3) The Chief Construction Safety Engineer may require an applicant for the issue or renewal of a certificate of registration to do one or more of the following:

- “(a) To produce evidence of the applicant’s training and working experience:
- “(b) To sit an examination on the topics of safety legislation and safe working practices conducted at the direction of the Chief Construction Safety Engineer:
- “(c) To produce a certificate of a medical practitioner certifying as to the applicant’s medical fitness.

“135. **Revocation and suspension**—(1) The Chief Construction Safety Engineer may revoke any certificate of registration if satisfied that—

- “(a) The holder has died or has become unable to carry out efficiently work of the kind for which the certificate is issued due to physical or mental infirmity:
- “(b) The holder has been guilty of such improper conduct in the execution of the holder’s duties as to render the holder, in the opinion of the Chief Construction Safety Engineer, unfit to be the holder of the certificate:
- “(c) The holder has been culpably negligent in the execution of the holder’s duties to such an extent as to endanger the life of any person.

“(2) Instead of revoking a certificate, the Chief Construction Safety Engineer may, on the grounds referred to in paragraph (b) or paragraph (c) of subclause (1) of this regulation, suspend the certificate for such period as the Chief Construction Safety Engineer thinks fit.

“(3) The Chief Construction Engineer shall cause to be noted in the register every suspension under this regulation.

“136. **Appeals**—(1) There shall be a right of appeal within 28 days after the date of the decision appealed against from any decision of the Chief Construction Safety Engineer refusing a renewal of a certificate of registration or revoking or suspending any such certificate.

“(2) Every appeal under this regulation shall be addressed to the Secretary of Labour and shall be accompanied by—

- “(a) A statement containing an indication of the decision appealed against:
- “(b) The grounds of the appeal:
- “(c) The name and address of the assessor appointed by the appellant:
- “(d) The prescribed fee.

“(3) Every appeal under this regulation shall be heard as soon as practicable by a Board of Appeal consisting of a District Court Judge and 2 assessors, one of whom shall be appointed by the Chief Construction Safety Engineer and one by the appellant.

“(4) At the hearing of any appeal the Board of Appeal may confirm the decision of the Chief Construction Safety Engineer, or order the grant of a renewal to the applicant, or order the cancellation of the order of suspension or revocation.

“(5) The decision of the Board of Appeal shall be final and conclusive.

“(6) Pending the decision of the Board of Appeal, the decision of the Chief Construction Safety Engineer shall remain in force and have effect according to its tenor.

“(7) On any appeal under this regulation the Board of Appeal shall be deemed to be a Commission of Inquiry under the Commissions of Inquiry Act 1908, and all the provisions of that Act shall apply accordingly.

“(8) Where any appeal under this regulation is successful, the fee paid by the appellant in respect of the appeal may, at the discretion of the Board of Appeal, be refunded to the appellant.

“(9) There shall be paid to each assessor appointed under this regulation fees and travelling allowances and expenses in accordance with the Fees and Travelling Allowances Act 1951, and the provisions of that Act shall apply accordingly, as if the assessors were members of a statutory Board within the meaning of that Act.

“137. **Lost certificate**—Where a certificate of registration has been lost or rendered unfit for use, the Chief Construction Safety Engineer, on proof of the loss or unfitness for use and on payment of the prescribed fee, may issue a new certificate.”

33. New First Schedule—(1) The principal regulations are hereby amended by revoking the First Schedule (as amended by regulation 4 of the Construction Regulations 1961, Amendment No. 3, regulation 23 of the Construction Regulations 1961, Amendment No. 7, and regulation 2 of the Construction Regulations 1961, Amendment No. 8), and substituting the First Schedule set out in the First Schedule to these regulations.

(2) The following regulations are hereby consequentially revoked:

- (a) Regulation 4 of the Construction Regulations 1961, Amendment No. 3;
- (b) Regulation 23 of the Construction Regulations 1961, Amendment No. 7;
- (c) Regulation 2 (2) of the Construction Regulations 1961, Amendment No. 8;
- (d) So much of the First Schedule to the Construction Regulations 1961, Amendment No. 8 as relates to Part I of the First Schedule to the principal regulations.

34. New Second Schedule—(1) The principal regulations are hereby amended by revoking the Second Schedule (as substituted by regulation 2 of the Construction Regulations 1961, Amendment No. 12), and substituting the Second Schedule set out in the Second Schedule to these regulations.

(2) The Construction Regulations 1961, Amendment No. 12 are hereby consequentially revoked.

SCHEDULES

FIRST SCHEDULE

Reg. 33 (1)

NEW FIRST SCHEDULE TO PRINCIPAL REGULATIONS

"FIRST SCHEDULE

Reg. 41 (1)

PART I

Specifications and Limits in Respect of Scaffolding

1. Scaffold planks (whether timber or other material) for decking of working platforms shall meet the performance requirements specified in Part I of New Zealand Standard 3620:1985 'Scaffold Planks'.
2. Timber for standards, ledgers, guardrails, upright members to support guardrails, and bearers shall be radiata pine or douglas fir or other approved timber not inferior in quality to Building A or No. 1 Framing Grade as set out in New Zealand Standard 3631:1978 'Classification and Grading of New Zealand Timber'.
- 3.1 Steel and aluminium tubes (including fittings and couplers) used for or in conjunction with standards, ledgers, guardrails, upright members to support guardrails, and bearers shall comply with the requirements of British Standard 1139:Parts 1 and 2:1982.
- 3.2 Steel tubes referred to in clause 3.1 of this Part shall be manufactured by a seamless or welded process and have a minimum outside diameter and wall thickness of 48.3 mm and 4.00 mm respectively. Where steel tubes are galvanised in accordance with clause 8 of British Standard 1139:1982, a wall thickness of not less than 3.2 mm may be used provided that the tubes are manufactured in accordance with British Standard 6323:Parts 1 to 4:1982.
- 3.3 Aluminium tubes referred to in clause 3.1 of this Part shall be manufactured by an extrusion process, shall comply with the requirements for alloy 6082 TF as specified in British Standard 1474:1972, and shall have a minimum outside diameter and wall thickness of 48.3 mm and 4.5 mm respectively.
4. Metal prefabricated frames for scaffolding shall, when assembled (whether or not in conjunction with other metal members), produce scaffolding with an overall strength not less than that of scaffolding with metal tubes complying with the specifications referred to in clause 3 of this Part and constructed in accordance with these regulations.
5. Unless otherwise approved by the Chief Construction Safety Engineer, the maximum height of the uppermost working platform in any scaffolding shall be 33 m.
6. The maximum number of working platforms that may be erected in one bay at the same time shall be,—
 - (a) In the case of light-duty working platforms,—
 - (i) Where the height of the uppermost platform does not exceed 33 m, 2 platforms:
 - (ii) Where the height of the uppermost platform does not exceed 13.5 m, 4 platforms:
 - (b) In the case of heavy-duty working platforms,—

FIRST SCHEDULE—*continued*

- (i) Where the height of the uppermost platform does not exceed 33 m, 1 platform:
 - (ii) Where the height of the uppermost platform does not exceed 13.5 m, 2 platforms.
7. The maximum span of scaffold planks shall be,—
- (a) In the case of timber planks—
 - (i) For a light-duty working platform, 2.4 m:
 - (ii) For a heavy-duty working platform, 2.0 m:
 - (b) In the case of steel planks or aluminium planks whether for a light-duty or heavy-duty working platform, 2.4 m.
- 8.1 The minimum size of timber standards shall be 150 mm × 100 mm.
- 8.2 The maximum spacing of standards (whether timber or metal tubes) shall be 2.4 m longitudinally and 1.55 m transversely.
- 9.1 The minimum size of timber ledgers shall be 150 mm × 50 mm.
- 9.2 The maximum spacing of ledgers (whether timber or metal tubes) shall be 1.45 m horizontally between standards and 2.10 m vertically between lifts.
- 9.3 Timber ledgers shall be used on edge.
- 10.1 The minimum size of timber bearers shall be 2/100 mm × 50 mm or 100 mm × 75 mm.
- 10.2 The maximum span of bearers (whether timber or metal tubes) shall be 1.45 m.
- 10.3 Timber bearers shall be used on the flat.
11. The maximum spacing of ties shall be 4.8 m horizontally and 4.2 m vertically.
- 12.1 Standing scaffolding shall be braced longitudinally.
- 12.2 The longitudinal bracing for timber or metal tubular standing scaffolding shall consist of one diagonal on the outer face for every 3 bays or less in length and 3 lifts in height, arranged at approximately 40° slope either in a zig-zag pattern from bottom to top or sloping continuously from bottom to top.
- 12.3 The longitudinal bracing for metal prefabricated frame standing scaffolding shall consist of,—
- (a) Where ledgers are not used, cross bracing on both faces in each lift of each bay:
 - (b) Where ledgers are used,—
 - (i) Diagonal bracing as referred to in clause 12.2 of this Part for timber or metal tubular standing scaffolding; or
 - (ii) Cross bracing on both faces in each bay for the first 12 m in height, reducing to one bay in two for the next 12 m in height and one bay in four for the top 9 m in height.

Reg. 78 (b)

PART II
Specifications in respect of Timbering of Trench Excavations

SOIL CONDITIONS	TRENCH DEPTH	TIMBER SHEETING		TIMBER WALINGS		TIMBER STRUTS (mm)					STEEL STRUTS (size no.)				
	(m)	Min. Dims. (mm)	Horizontal Spacing;ctoc (mm)	Min. Dims. (mm)	Vertical Spacing;ctoc (mm)	Trench Width			Spacing;ctoc		Trench Width			Spacing;ctoc	
						up to 1.0 (m)	2.0 (m)	2.5 (m)	Vertical (mm)	Horizontal (mm)	up to 1.0 (m)	1.5 (m)	2.0 (m)	Vertical (mm)	Horizontal (mm)
TYPE "A" Unsaturated ground; soils above ground water table or level	up to 3.0	150×50	1200-300	150×100	1200	100×100	150×100	150×150	1200	1800	No.2	No.3	No.3	1200	1600
	3.0-4.5	150×50	600-close	150×100	1200	150×100	150×150	150×150	1200	1800	No.2	No.3	No.3	1200	1000
	4.5-6.0	200×50	300-close	250×100	1200	150×100	150×150	200×150	1200	1800	2/No.2	2/No.3	2/No.3	1200	1600
TYPE "B" Saturated ground; soils below ground water table or level	up to 3.0	150×50	close	225×150	1200	150×100	150×150	150×150	1200	1800	2/No.2	2/No.3	2/No.3	1200	1600
	3.0-4.5	200×50	close	250×150	1200	150×150	200×150	200×150	1200	1800	2/No.2	2/No.3	2/No.3	1200	1000

Notes: (1) All timber used for timbering shall be of sound quality No. 1 framing grade or better and conform to the requirements of New Zealand Standard 3603:1981.

(2) Steel struts shall conform to British Standard 4074:1982. Metal props shall not be used in place of trench struts.

(3) Walings and sheeting made of steel or other material may be used in lieu of timber provided that they are equivalent in strength to the sizes of timber prescribed.

FIRST SCHEDULE—*continued*Regs. 119c (3) (c),
119f (1) (c), (2) (b)

PART III

Dives Requiring Consent of Chief Construction Safety Engineer

1. Subject to clause 2 of this Part, a dive shall require the consent of the Chief Construction Safety Engineer unless—
 - (a) The duration of the dive from the start of the dive to the start of the ascent ('the bottom time') is less than the bottom time specified in the table below in relation to the maximum depth of the dive; and
 - (b) The time taken for the ascent ('the ascent time') is not less than the ascent time specified in the table below in relation to the maximum depth of the dive.
2. Where several dives are made by the same person without a surface break of 12 hours or more between successive dives, the provisions of clause 1 of this Part shall apply in relation to each succeeding dive—
 - (a) As if the bottom time of that dive were the aggregate of the bottom times of that dive and the preceding dive or dives; and
 - (b) Where that dive and the preceding dive or dives are not to the same maximum depth, as if the maximum depth of that dive were whichever is the greater or greatest of the maximum depths of that dive and the preceding dive or dives.

<i>Maximum Depth of Dive</i> (Metres)	<i>Bottom Time</i> (Minutes)	<i>Ascent Time</i> (Seconds)
12	200	40
15	100	50
18	60	60
21	50	70
24	40	80
27	30	90
30	25	100

SECOND SCHEDULE

Reg. 34 (1)

NEW SECOND SCHEDULE TO PRINCIPAL REGULATIONS

"SECOND SCHEDULE

Reg. 84

FEES

	\$
For application for issue of certificate of competency as—	
Scaffolder	80
Construction blaster	80
Safety supervisor	80
For application for renewal of certificate of competency ..	50
For replacement of certificate of competency ..	10
For application for issue of certificate of registration as—	
Construction diver	50
Crane operator	30
Dogman	30
Rigger	30
For application for renewal of certificate of registration ..	20
For replacement of certificate of registration ..	10
For appeal under regulation 15	20
For appeal under regulation 136	20"

MARIE SHROFF,
Clerk of the Executive Council.

EXPLANATORY NOTE

This note is not part of the regulations, but is intended to indicate their general effect.

These regulations, which come into force on 1 February 1988, make various amendments to the Construction Regulations 1961. A principal feature of the amendments is the revocation of various provisions requiring compliance with codes of practice issued by the Chief Construction Safety Engineer and many of the amendments are consequential on that change.

The regulations effect a general revision of the provisions relating to scaffolding. Regulation 36A which requires compliance with the Code of Practice for Scaffolding in Construction Work is revoked.

The regulations clarify and extend the requirements relating to excavations. The most significant change in this area is the new requirement for an Inspector's approval or a registered engineer's certificate as to planned safety precautions before the commencement of any excavation that is notifiable work under regulation 5(c). Again, regulation 70A requiring compliance with the Code of Practice for Excavation on Construction Work is revoked.

The regulations insert a new Part dealing with construction work under water in place of the previous single regulation requiring compliance with the Code of Practice for Underwater Diving in Construction Work. In addition to setting various safety requirements, the new regulations require divers carrying out construction work under water to register as construction divers with the Chief Construction Safety Engineer. Work in compressed air will continue to be regulated by code of practice.

Amendments are made relating to ladders, crawling boards, and fire protection.

Two new Parts are inserted into the principal regulations.

New Part XVIII introduces requirements for mobile plant to be fitted with roll-over protective structures and seat belts. The new requirements apply to dozers, loaders, motor graders, motor scrapers, and tractors used in construction work and supplied new or imported into New Zealand after 1 February 1988. Provision is made excluding machines of 700 kg or less and for conditional or unconditional exemptions to be granted by the Chief Construction Safety Engineer.

New Part XIX provides for the registration of construction divers, crane operators (all types), crane operators (tower cranes), crane operators (mobile cranes), dogmen, and riggers. Registration is required in the case of construction divers, but voluntary only in the case of the other categories of workmen.

Issued under the authority of the Regulations Act 1936.

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These regulations are administered in the Department of Labour.