First published in the Government Gazette, Electronic Edition, on 9th September 2011 at 5:00 pm.

#### No. S 518

# WORKPLACE SAFETY AND HEALTH ACT (CHAPTER 354A)

# WORKPLACE SAFETY AND HEALTH (SCAFFOLDS) REGULATIONS 2011

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In exercise of the powers conferred by section 65 of the Workplace Safety and Health Act, the Minister for Manpower hereby makes the following Regulations:

#### PART I

#### **PRELIMINARY**

#### Citation and commencement

1. These Regulations may be cited as the Workplace Safety and Health (Scaffolds) Regulations 2011 and shall come into operation on 10th September 2011.

#### **Definitions**

- 2. In these Regulations, unless the context otherwise requires
  - "approved scaffold contractor" means any firm or company which is the holder of a valid certificate of approval;
  - "base plate", in relation to a metal scaffold, means a plate for distributing the load from a standard;
  - "bay", in relation to a scaffold, means the portion of the scaffold between vertical supports (whether standards or supports from which that portion is suspended) which are adjacent longitudinally;
  - "brace" or "bracing" means a member incorporated in a scaffold for stability;
  - "building under construction" means a building in respect of which building operations are carried on;
  - "certificate of approval" means the certificate of approval issued to an approved scaffold contractor by the Commissioner under regulation 58(1);
  - "climber" means a lifting equipment through which a suspension wire rope, the lower end of which is not anchored, passes and which is controlled either by friction grips or by turns of the rope around drums within the equipment;
  - "frame or modular scaffold" means a scaffold manufactured in such a way that the geometry of the scaffold is predetermined and the relative spacings of the principal members are fixed;

- "guard-rail" means a horizontal rail secured to uprights and erected along an open or exposed side of any structure to prevent persons from falling;
- "hanging scaffold" means a scaffold suspended by means of lifting gear, ropes, chains or rigid members and not provided with means of raising or lowering by a lifting appliance or similar device;
- "independent tied scaffold" means a scaffold, the work platform of which is supported from the base by 2 or more rows of standards and which, apart from the necessary ties, stands completely free of any building, ship or other structure;
- "ledger" means a member which spans horizontally and ties a scaffold longitudinally, and which acts as a support for putlogs or transoms;
- "lift", in relation to any scaffold, means
  - (a) the vertical distance between
    - (i) the base of a scaffold and its first ledger; or
    - (ii) any 2 consecutive ledgers; or
  - (b) any level at which a platform is constructed;
- "outrigger" means a structure which projects beyond the facade of any building, ship or other structure with the inner end being anchored, and includes a cantilever or other support;
- "professional engineer" means a person registered as a professional engineer under the Professional Engineers Act (Cap. 253);
- "putlog" means a horizontal member on which the board, plank or decking of a work platform is laid;
- "recognised testing body" means a testing body acceptable to the Commissioner;
- "responsible person", in relation to any workplace in which a person carries out or is to carry out any work involving the construction, erection, installation, re-positioning, alteration, maintenance, repair or dismantling of a scaffold, means —

- (a) his employer; or
- (b) the principal under whose direction he carries out or is to carry out any such work;
- "reveal tie" means the assembly of a tie tube and a fitting used for tightening a tube between 2 opposing surfaces;
- "right angle coupler" means a coupler, other than a swivel or putlog coupler, used for connecting tubes at right angles;
- "scaffold" means any temporary structure
  - (a) on or from which any person performs work in any workplace; or
  - (b) which enables any person to obtain access to or which enables any material to be taken to any place at which such work is performed,

and includes any suspended scaffold, hanging scaffold, tubular scaffold, trestle scaffold, work platform, gangway, run, ladder or step-ladder (other than an independent ladder or step-ladder which does not form part of such a structure) together with any guard-rail, toe-board or other safeguards and all fixings, but does not include a lifting appliance, a lifting machine or a structure used merely to support such an appliance or such a machine or to support other plant or equipment;

- "scaffold erector" means a person who is involved in the construction, erection, installation, re-positioning, alteration, maintenance, repair or dismantling of a scaffold in a workplace;
- "scaffold supervisor" means a person appointed as a scaffold supervisor by the responsible person under regulation 6;
- "shipyard" means any premises in which ships are constructed, reconstructed, repaired, refitted, finished or broken up, and includes any dock, wharf, jetty or quay in or at which any ship is berthed;

- "sole plate" means a member used to distribute the load from the base plate or the standard of a scaffold to the supporting surface;
- "standard" means a member used as a vertical support or column in the construction of a scaffold which transmits a load to the ground or any other solid construction;
- "suspended scaffold" means a scaffold suspended by means of ropes or chains and capable of being raised or lowered, but does not include a boatswain's chair or other similar appliance;
- "swivel coupler" means a coupler used to connect 2 tubes at any angle other than a right angle;
- "tie" means an assembly used to connect a scaffold to a rigid anchorage;
- "timber scaffold" means any scaffold which uses a timber roller as any of its member or component;
- "toe-board" means a member fastened above a work platform or workplace to prevent persons or materials from falling from the work platform or workplace;
- "transom" means a member placed horizontally and used to tie one ledger transversely to another, or one standard to another, in an independent tied scaffold;
- "trestle scaffold" means a scaffold in which the supports for the platform are any of the following which are self-supporting:
  - (a) split heads;
  - (b) folding step-ladders;
  - (c) tripods; or
  - (d) other similar movable contrivances;
- "tubular scaffold" means a scaffold constructed from tubes and couplers;
- "work platform" means a platform which is used to support persons or materials, and includes a working stage.

# **Application**

**3.** These Regulations shall apply to every workplace in which any scaffold is, is being or is to be constructed, erected, installed, used, re-positioned, altered, maintained, repaired or dismantled, whether such work or use of the scaffold commences before, on or after 10th September 2011.

#### PART II

#### GENERAL PROVISIONS

# Only approved scaffold contractor to construct, erect, install, re-position, alter, maintain, repair or dismantle certain scaffolds

- **4.**—(1) No person shall construct, erect, install, re-position, alter, maintain, repair or dismantle any scaffold, not being an excluded scaffold, in any workplace unless he is an approved scaffold contractor.
- (2) For the purposes of paragraph (1), "excluded scaffold" means
  - (a) a tower scaffold;
  - (b) a trestle scaffold; or
  - (c) a scaffold (other than a suspended scaffold, hanging scaffold or a scaffold erected on cantilever or jib supports) which, when completed and excluding the handrails and their supports at the uppermost lift of the scaffold, is less than 4 metres in height.

#### Scaffold erectors

**5.** It shall be the duty of the responsible person to ensure that no person is involved in the construction, erection, installation, re-positioning, alteration, maintenance, repair or dismantling of a scaffold in a workplace unless he has successfully completed a training course acceptable to the Commissioner, to equip him to perform the work of a scaffold erector.

# Scaffold supervisor

- **6.**—(1) It shall be the duty of the responsible person to appoint a scaffold supervisor before any construction, erection, installation, repositioning, alteration, maintenance, repair or dismantling of a scaffold in a workplace.
- (2) The responsible person shall not appoint any person as a scaffold supervisor unless the person is one
  - (a) who has successfully completed a training course acceptable to the Commissioner, to equip him to be a scaffold supervisor; and
  - (b) whom the responsible person reasonably believes is competent to perform the functions and duties of a scaffold supervisor.

# Personal protective equipment for scaffold erectors

- 7.—(1) It shall be the duty of the responsible person to provide to every scaffold erector involved in the construction, erection, installation, re-positioning, alteration, maintenance, repair or dismantling of any scaffold in a workplace
  - (a) a safety harness attached with a shock absorbing device; and
  - (b) sufficient and secured anchorage by means of an independent life line or other equally effective means.
- (2) It shall be the duty of the scaffold erector who is involved in any work referred to in paragraph (1) to use the safety harness attached with a shock absorbing device provided to him.
- (3) Any person who contravenes paragraph (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$1,000 and, in the case of a second or subsequent conviction, to a fine not exceeding \$2,000.

# Supervision of construction, erection, installation, re-positioning, alteration, maintenance, repair or dismantling of scaffolds

**8.** It shall be the duty of the responsible person to ensure that no scaffold is constructed, erected, installed, re-positioned, altered, maintained, repaired or dismantled in a workplace except under the immediate supervision of a scaffold supervisor.

#### Construction and materials

- **9.**—(1) It shall be the duty of the responsible person to ensure that every scaffold, and every member or component thereof, in a workplace shall be
  - (a) of sound material, good construction and adequate strength;
  - (b) free from patent defects; and
  - (c) suitable and safe for the purpose for which it is intended.
- (2) It shall be the duty of the responsible person to ensure that every scaffold erected at a building under construction, so far as is reasonably practicable, be erected such that it precedes the construction of the uppermost permanent floor of the building by not less than one metre above that floor.
- (3) Where the height of the scaffold referred to in paragraph (2) extends beyond the uppermost permanent floor by 2 metres or more, it shall be the duty of the responsible person to ensure that the scaffold shall be adequately supported to prevent its collapse.

#### Foundation of scaffolds

- **10.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (5) are complied with.
- (2) Every scaffold in a workplace shall be constructed, erected or installed on structures or foundations of adequate strength.
- (3) Where a scaffold in a workplace is to be founded on soil, the soil shall be adequately consolidated.

- (4) In the case of a scaffold in a workplace exceeding 15 metres in height or being erected on poorly drained soil, base plates shall bear upon sole plates that are
  - (a) of strength not less than 670 kgf per square metre; and
  - (b) of a length suitable to distribute the load.
- (5) There shall be no cavity under the sole plate immediately below any standard of a scaffold in a workplace.

# Scaffolds supported by buildings, ships or other structures

- 11.—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) and (3) are complied with.
- (2) No part of a building, ship or other structure shall be used as support for any part of a scaffold in a workplace unless it is sufficiently stable, and of sound material and adequate strength to afford safe support.
- (3) Overhanging eaves gutters shall not be used as supports for any part of a scaffold in a workplace unless they have been specially designed as walkways and are of adequate strength.

# Designated access point for scaffolds

- 12.—(1) It shall be the duty of the occupier of a workplace where a scaffold is constructed, erected or installed to ensure that every scaffold shall have at least one designated access point from which a person may gain access onto the scaffold.
- (2) It shall be the duty of the occupier of a workplace where a scaffold is constructed, erected or installed to ensure that every designated access point is
  - (a) clearly marked with a sign or label; and
  - (b) made safe for use by any person.

#### Stairs and ladders

**13.** It shall be the duty of the responsible person to ensure that stairs or ladders —

- (a) are provided to enable persons to gain access from one level of any scaffold in a workplace to another level; and
- (b) so far as is reasonably practicable, are installed within the scaffold.

# Standards and ledgers

- **14.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (8) are complied with.
  - (2) The standards of a scaffold in a workplace shall be
    - (a) plumb where practicable;
    - (b) fixed sufficiently close together to secure the stability of the scaffold, having regard to all the circumstances;
    - (c) in the case of a timber scaffold, spaced not more than 1.5 metres apart; and
    - (d) in the case of a metal scaffold, subject to paragraph (3), spaced not more than 2.5 metres apart.
- (3) No metal scaffold with standards spaced more than 2.5 metres apart shall be constructed or erected in a workplace unless it has been approved in writing by the Commissioner.
- (4) Subject to paragraph (5), a standard of a scaffold in a workplace shall be placed on an adequate and secured sole plate in order that the foot of the standard does not rest directly on the ground or supporting surface, so as to prevent any vertical displacement of the foot.
- (5) Where the floor or supporting structure is of sufficient rigidity to evenly distribute the load imposed upon it by the standard without causing any vertical displacement of the standard, the provision of a sole plate under the standard shall not be necessary.
- (6) The foot of a standard of any frame or modular scaffold in a workplace shall be secured to a base plate so that it does not rest directly on the ground or supporting surface.
- (7) The ledgers of a metal scaffold in a workplace shall be spaced at vertical intervals of not more than 2 metres.

- (8) The ledgers of a timber scaffold in a workplace shall
  - (a) as far as possible, be horizontal;
  - (b) be spaced at vertical intervals of not more than 1.8 metres; and
  - (c) be securely fastened to the standards.

#### **Transoms**

15. It shall be the duty of the responsible person to ensure that transoms are located at or near the intersections of standards and ledgers of a scaffold in a workplace.

# **Bracing**

- **16.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (8) are complied with.
- (2) Every scaffold in a workplace shall be effectively braced by means of longitudinal and transverse bracing systems which shall extend from the base to the top of the scaffold.
  - (3) The joints in bracing members shall be lapped or spliced.
- (4) Longitudinal bracing members shall be continuous and fixed at approximately 45° to the horizontal.
- (5) Each lift shall be crossed by at least one longitudinal bracing member in every 10 metres length of the scaffold.
- (6) Subject to paragraph (7), a transverse bracing system shall be provided at each end of the scaffold and at intervals of not more than 10 bays.
  - (7) A transverse bracing system need not be provided where
    - (a) vertical transverse frames are provided for the full height of the scaffold and at each pair of standards; and
    - (b) the frames are type-tested by a recognised testing body in accordance with a standard or specification acceptable to the Commissioner.

(8) Every frame scaffold in a workplace shall be provided with horizontal bracings or lacings at intervals of not more than every 5 lifts.

# Gear for suspension of scaffolds

- 17.—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (4) are complied with.
- (2) Every chain, rope and lifting gear used for the suspension of a scaffold in a workplace shall be of sound material, adequate strength and suitable quality, and in good condition.
- (3) Any chain, rope and metal tube used for the suspension of a scaffold in a workplace, other than a suspended scaffold, shall be
  - (a) properly and securely fastened to safe anchorage points and to the scaffold ledgers or other main supporting members;
  - (b) positioned so as to ensure stability of the scaffold;
  - (c) approximately vertical; and
  - (d) kept taut.
- (4) Every scaffold in a workplace that is suspended by means of chains or ropes shall be secured to prevent undue horizontal movement while it is used as a work platform.

# Work platforms

- **18.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (6) are complied with.
  - (2) Work platforms in a workplace shall be provided
    - (a) at any place of work which does not afford a proper and secure foothold; and
    - (b) in the case of a building under construction, around the edge of the building at every uppermost permanent floor which is under construction.

- (3) Notwithstanding paragraph (2)
  - (a) work platforms shall be provided at intervals of not less than every alternate lift of any scaffold, except a tower scaffold or a trestle scaffold, used in any premises where building operations are being carried on; and
  - (b) unless approval is given in writing by the Commissioner, the vertical distance between any 2 work platforms shall not exceed 4 metres.
- (4) Every work platform provided under paragraph (3) shall cover the lift of a scaffold throughout its entire length.
  - (5) Every work platform provided under this regulation shall
    - (a) be closely boarded, planked or decked;
    - (b) be at least 500 millimeters wide; and
    - (c) not have any opening except to allow access to that work platform.
- (6) The distance between a work platform and any building, ship or other structure shall be as narrow as is reasonably practicable and shall not exceed 300 millimetres.

# Loading requirements for scaffolds

- 19.—(1) It shall be the duty of the responsible person to ensure that signboards stating the maximum permissible weight of tools and materials and the maximum number of persons permissible on each bay are prominently displayed at suitable locations on the scaffold in a workplace.
- (2) It shall be the duty of the occupier of the workplace to ensure that the signboards referred to in paragraph (1) are displayed at all times until the scaffold is dismantled.
- (3) It shall be the duty of the occupier of a workplace in which a scaffold is constructed, erected or installed to ensure that the requirements of paragraphs (4) to (8) are complied with.

(4) Subject to regulation 45, a scaffold in a workplace shall not be overloaded and, so far as is reasonably practicable, the load thereon shall be evenly distributed.

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- (5) When any material is transferred to or from a scaffold in a workplace, the material shall be moved or deposited without imposing any violent shock.
- (6) The maximum loading for persons and materials allowed on any work platform in any bay of a scaffold in a workplace shall be
  - (a) in the case of a timber scaffold, 75 kgf per square metre; or
  - (b) in any other case, 220 kgf per square metre.
- (7) The maximum number of persons allowed on any work platform in any bay of a timber or metal scaffold in a workplace shall be
  - (a) in the case of a timber scaffold, not more than 2 persons; and
  - (b) in the case of a metal scaffold, not more than 4 persons.
- (8) The maximum number of persons allowed in any bay of a timber or metal scaffold in a workplace shall be
  - (a) in the case of a timber scaffold, not more than 4 persons; and
  - (b) in the case of a metal scaffold, not more than 8 persons.

# Design by professional engineer

- **20.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) and (3) are complied with.
- (2) Subject to regulation 19(6) and (7), a work platform and any support thereof in a workplace shall be constructed in accordance with the design and drawings of a professional engineer where the work platform is used
  - (a) to provide footing for more than 2 persons in each bay; or
  - (b) to support tools or materials exceeding 25 kgf in each bay.

- (3) Subject to regulation 19(8)(b), where a metal scaffold is used in a workplace to support more than 4 persons in any bay, the scaffold shall be constructed in accordance with the design and drawings of a professional engineer.
- (4) It shall be the duty of a professional engineer who designs any work platform or support referred to in paragraph (2) or any metal scaffold referred to in paragraph (3) to
  - (a) take, so far as is reasonably practicable, such measures to ensure that his design can be executed safely by any person who constructs or uses the work platform, support or metal scaffold according to his design; and
  - (b) provide to any person who constructs or is to construct the work platform, support or metal scaffold, all design documentation (including all relevant calculations, drawings and construction procedures) as is necessary to facilitate the proper construction of the work platform, support or metal scaffold according to his design.
- (5) It shall be the duty of the occupier of the workplace in which a scaffold is erected or installed to ensure that no work platform or support referred to in paragraph (2) or metal scaffold referred to in paragraph (3) is used unless the design and drawings certified by the professional engineer are kept available at the workplace for inspection by an inspector.
- (6) Any person who contravenes paragraph (5) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

# Boards, planks and decking

- **21.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (4) are complied with.
- (2) All boards, planks or decking used in the construction of work platforms in a workplace shall
  - (a) be of uniform thickness;
  - (b) be capable of supporting a load of 670 kgf per square metre with due regard to the spacing of the supports; and

- (c) be flushed along their lengths and effectively secured to prevent tipping or uplift.
- (3) Any metal decking which forms part of a work platform in a workplace shall be provided with non-skid surfaces.
- (4) Any board or plank which forms part of a work platform in a workplace shall project beyond its end support to a distance of not less than 50 millimetres and not more than 4 times the thickness of the board or plank.

# Toe-boards and guard-rails

- **22.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (6) are complied with.
- (2) Every side of a work platform or workplace from which a person is liable to fall more than 2 metres shall be provided with toe-boards and 2 or more guard-rails.
- (3) The toe-boards and guard-rails provided under paragraph (2) shall
  - (a) be of sound material, good construction and adequate strength to withstand the impact during the course of work;
  - (b) be placed on the inside of the uprights and secured so as to prevent any accidental displacement; and
  - (c) be placed so as to prevent the fall of any person or material.
- (4) The uppermost guard-rail provided under paragraph (2) shall be at least one metre above the work platform or workplace for which the guard-rail is provided.
- (5) The height of the toe-boards provided under paragraph (2) shall not be less than 90 millimetres.
  - (6) The vertical distance
    - (a) between any 2 adjacent guard-rails provided under paragraph (2); and
    - (b) between any work platform or workplace and the guard-rail immediately above it,

shall not exceed 600 millimetres.

# Overlay and screening nets

- 23.—(1) Subject to paragraph (2), it shall be the duty of the responsible person to ensure that overlay or screening nets shall be used to envelope any timber or metal scaffold in a workplace which is erected on the outside of a building.
  - (2) Paragraph (1) shall not apply to a tower scaffold.

# Scaffolds to be free of material which endanger safety

**24.** It shall be the duty of the occupier of a workplace in which a scaffold is constructed, erected or installed to remove any material, including waste material or debris, from the scaffold which may endanger the safety of any person.

# Measures against electrical hazards

- **25.** It shall be the duty of
  - (a) the employer of any person who uses or is to use any scaffold in a workplace; or
  - (b) the principal under whose direction any person uses or is to use any scaffold in the workplace,

to ensure that all practicable measures shall be taken to protect the person from electric shock by electrical wires or equipment when using the scaffold.

# Inspection of scaffolds

- **26.**—(1) Subject to paragraph (4), it shall be the duty of the occupier of a workplace in which a scaffold is constructed, erected or installed to ensure that no scaffold is used unless it has been inspected by a scaffold supervisor
  - (a) upon completion of its construction, erection or installation, as the case may be;
  - (b) thereafter, at intervals of not more than 7 days immediately following the date of the last inspection by the scaffold supervisor; and

- (c) after exposure to weather conditions likely to have affected its strength or stability or to have displaced any part.
- (2) It shall be the duty of the scaffold supervisor to
  - (a) enter the results of every inspection referred to in paragraph (1) into a register containing such details as may be required by the Commissioner; and
  - (b) provide the register to the occupier of the workplace.
- (3) Subject to paragraph (4), it shall be the duty of the occupier of the workplace in which a scaffold is constructed, erected or installed to
  - (a) keep the register referred to in paragraph (2) at the workplace; and
  - (b) produce the register for inspection upon request by an inspector.
  - (4) This regulation shall not apply to
    - (a) a trestle scaffold; or
    - (b) a scaffold, from no part of which a person is liable to fall more than 2 metres.
- (5) Any person who contravenes paragraph (3) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

# Labelling of scaffolds after inspection

- 27.—(1) It shall be the duty of the scaffold supervisor who carries out the inspection of a scaffold under regulation 26 to, immediately after such inspection, display a notice or label indicating whether the scaffold is safe for use or otherwise.
  - (2) The notice or label referred to in paragraph (1) shall
    - (a) be in a form readily understood by the persons employed in the workplace; and
    - (b) be displayed at every designated access point.

- (3) Subject to paragraph (4), it shall be the duty of
  - (a) the employer of any person who uses or is to use any scaffold in a workplace to which regulation 26 applies; or
  - (b) the principal under whose direction any person uses or is to use any scaffold in a workplace to which regulation 26 applies,

to ensure that the person does not use the scaffold unless a notice or label is displayed at the designated access point indicating that the scaffold is safe for use.

- (4) Paragraph (3) shall not apply in relation to a person who is
  - (a) a scaffold supervisor carrying out any inspection of a scaffold under regulation 26; or
  - (b) a scaffold erector carrying out the repair of a scaffold under regulation 28.

# Construction, erection, maintenance, repair and dismantling of scaffolds

- **28.**—(1) It shall be the duty of the occupier of a workplace in which a scaffold is, or is being, constructed, erected or installed to ensure that the requirements of paragraphs (2) to (8) are complied with.
- (2) No scaffold or part thereof which is partially constructed, erected, installed or dismantled shall be allowed to be used unless it is made safe.
- (3) Where any scaffold referred to in paragraph (2) is unsafe for use, a prominent warning notice or signs in a form readily understood by all persons indicating that the scaffold or part thereof is not to be used shall be affixed near any point at which the scaffold or part, as the case may be, is liable to be approached for the purpose of use.
- (4) Every scaffold shall be properly maintained and every part thereof shall be fixed, secured or placed in position so as to prevent, so far as is reasonably practicable, any accidental displacement.
- (5) Any scaffold, and any member or component thereof, that has been damaged or weakened shall be repaired as soon as is reasonably practicable.

- (6) No person shall be permitted on a scaffold that is damaged or weakened except a scaffold erector who is carrying out the repair of the scaffold.
- (7) All reasonably practicable measures shall be taken to ensure the safety of the persons carrying out the repairs referred to in paragraph (6).
- (8) Where ties of a scaffold to a permanent structure have to be removed, the portion of the scaffold from which the ties are removed shall be dismantled unless adequate measures are taken to ensure the stability of the scaffold.

#### PART III

#### METAL SCAFFOLDS

# Approved metal scaffolds

- **29.** It shall be the duty of the responsible person to ensure that no metal scaffold shall be erected or installed in a workplace unless
  - (a) it has been type-tested by a recognised testing body in accordance with a standard or specification acceptable to the Commissioner; and
  - (b) it complies with such conditions as the Commissioner may think fit to impose.

# Design of certain metal scaffolds by professional engineer

- **30.**—(1) It shall be the duty of the responsible person to ensure that every metal scaffold
  - (a) exceeding 15 metres in height in any shipyard; or
  - (b) exceeding 30 metres in height in any workplace other than in a shipyard,

be erected or installed in accordance with the design and drawings of a professional engineer.

(2) It shall be the duty of a professional engineer who designs any metal scaffold referred to in paragraph (1) to —

- (a) take, so far as is reasonably practicable, such measures to ensure that his design can be executed safely by any person who erects, installs or uses the scaffold according to his design; and
- (b) provide to any person who erects or installs or is to erect or install the scaffold, all design documentation (including all relevant calculations, drawings and construction procedures) as is necessary to facilitate the proper erection or installation of the scaffold according to his design.
- (3) It shall be the duty of the occupier of a workplace in which a metal scaffold referred to in paragraph (1) is erected or installed to ensure the scaffold is not used unless
  - (a) the scaffold has been examined by the professional engineer after its erection or installation, and a certificate stating that the scaffold is safe for use has been obtained from the professional engineer;
  - (b) the design and drawings certified by the professional engineer and the certificate referred to in sub-paragraph (a) are kept available at the workplace for inspection by an inspector; and
  - (c) the scaffold has been inspected by a professional engineer at least once every 3 months to ensure that it is safe for use.
- (4) It shall be the duty of the professional engineer, when he discovers any defect in a metal scaffold in the course of his examination or inspection referred to in paragraph (3), to immediately inform the occupier of the workplace in which the scaffold is erected or installed.
- (5) It shall be the duty of the occupier referred to in paragraph (4), upon being informed of any defect in a scaffold under that paragraph, to immediately take action to rectify the defect before the scaffold is used.
- (6) Any person who contravenes paragraph (3)(b) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

#### Ties for metal scaffolds

- **31.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (7) are complied with.
- (2) Every alternate lift and every uppermost lift of an independent tied metal scaffold in a workplace shall be effectively tied to the building or structure by means of ties.
- (3) Ties shall be located no further than one bay from the ends of the independent tied metal scaffold and thereafter, at intermediate spacing of not more than 3 bays or 7.5 metres apart, whichever is the lesser.
- (4) Ties other than tie tubes and couplers shall not be used without the approval in writing of the Commissioner.
- (5) Every tie under this regulation shall conform with the following:
  - (a) tie tubes shall be attached by right angle couplers to the outside ledger or standard or, in the case of an independent scaffold, to both the inside and outside standards as close as possible to the junction of the standards and ledgers; and
  - (b) the ends of the tie tubes shall be attached to the building or structure by one of the following methods:
    - (i) the tie tubes shall form part of a yoke constructed of tubes and couplers which passes around and bears hard against the sides of a column, pier, beam or similar structural members;
    - (ii) each tie tube shall pass through the wall and be secured with 2 pieces of tube of minimum length of 300 millimetres and shall be attached one on each side of, and bear hard against, the wall;
    - (iii) each tie tube shall be attached to a reveal tie not greater than 1.5 metres in length but reveal ties shall not be used where a horizontal diagonal plan bracing is used; or

- (iv) each tie tube shall pass through ring bolts which shall be secured by casting in or being anchored in the wall.
- (6) Every tie tube shall be perpendicular to the longitudinal plane of the scaffold and, where this is not practicable, the deviation from the perpendicular shall not exceed 15°.
- (7) Every tie shall be capable of withstanding a force of 1,000 kgf applied in either direction along the length of the tie.

# Transoms for modular or tube-and-coupler scaffolds

**32.** It shall be the duty of the responsible person to ensure that every modular scaffold or tube-and-coupler scaffold in a workplace is provided with transverse horizontal members or transoms for each lift.

# Spigots, jointpins or sleeves

- **33.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (6) are complied with.
- (2) Spigots, jointpins or sleeves shall be used to connect one standard of a metal scaffold in a workplace to another standard.
- (3) Where spigots, jointpins or sleeves are used to locate and connect one standard to another, such spigots, jointpins or sleeves shall
  - (a) permit full bearing over the whole bearing area at the ends of the standards; and
  - (b) have such external or internal dimensions that the maximum difference of mating diameters in any part between the spigot, jointpin or sleeve and the other standard does not exceed 1.6 millimetres.
- (4) Spigots and jointpins shall engage in the ends of the standards by at least 70 millimetres.
- (5) Sleeves shall cover the end of the standard by at least 70 millimetres.

(6) The standards shall be securely held if they are connected by the spigots, jointpins or sleeves.

# Adjustable base plates

**34.** Where an adjustable base plate is used on a standard of a metal scaffold in a workplace and the adjustment exceeds 150 millimetres, it shall be the duty of the responsible person to ensure that the standard is tied longitudinally to the adjacent standard or standards at a height of not more than 460 millimetres above the supporting surface by right angle or swivel couplers.

# Frame or modular scaffolds to be erected in one plane

**35.** It shall be the duty of the responsible person to ensure that every frame or modular scaffold in a workplace is erected such that every lift is horizontal and in one plane.

# Cross brace not to be used as means of access or egress

- **36.** It shall be the duty of
  - (a) the employer of any person who uses or is to use any frame scaffold in a workplace; or
  - (b) the principal under whose direction any person uses or is to use any frame scaffold in a workplace,

to ensure that no cross brace on the frame scaffold shall be used as a means of access or egress by the person.

#### PART IV

# TIMBER SCAFFOLDS

# Timber scaffolds not to be used in shipyards

**37.** It shall be the duty of the occupier of a shipyard to ensure that no timber scaffold shall be used in the shipyard.

#### Materials for timber scaffolds

**38.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (7) are complied with.

- (2) Timber used for any scaffold in a workplace
  - (a) shall be of a suitable quality;
  - (b) shall be in good condition;
  - (c) shall have the bark completely stripped off; and
  - (d) shall not be painted or treated in any way such that defects in the wood cannot be seen easily.
- (3) Timber used for any scaffold in a workplace shall comprise
  - (a) Bintangor rollers; or
  - (b) other species of timber rollers which are of similar strength, durability and resilience as Bintangor rollers and which are approved in writing by the Commissioner.
- (4) Every standard of a timber scaffold in a workplace shall have a diameter of at least 50 millimetres throughout its length.
- (5) Every timber roller used as a ledger or horizontal bracing, transom or putlog in a scaffold in a workplace shall have a diameter of at least 38 millimetres at the tip.
- (6) The members or components of a timber scaffold in a workplace shall be lashed using rattan strips or other material approved in writing by the Commissioner.
- (7) The lashing required under paragraph (6) shall be done with strips not less than 1.8 metres in length with a minimum of 6 turns per strip.

#### Construction of timber scaffolds

- **39.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (5) are complied with.
- (2) Every timber scaffold in a workplace shall not exceed 15 metres in height.
- (3) No timber scaffold with a single row of standards shall be erected in a workplace.
  - (4) Every timber scaffold in a workplace shall be
    - (a) securely tied and braced at the corners; and

- (b) rigidly anchored to the building or other structure at regular close intervals.
- (5) Transverse and longitudinal braces of a timber scaffold in a workplace shall be securely placed and lashed to the standards.

#### Ties for timber scaffolds

- **40.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (5) are complied with.
- (2) A timber scaffold in a workplace shall be tied to a building or other structure by horizontal ties.
  - (3) Subject to paragraph (4), each tie shall
    - (a) pass through an opening or hole in the wall in the building or structure; and
    - (b) be secured at a right angle to another pole which shall be fixed firmly inside the building or structure.
- (4) Where it is not practicable to install any tie referred to in paragraph (3), the timber scaffold shall be tied to a building or other structure
  - (a) using ties which are constructed and installed in accordance with the design and drawings of a professional engineer; or
  - (b) by such other means which are approved in writing by the Commissioner.
  - (5) Ties made up of wires shall not be used.
- (6) It shall be the duty of a professional engineer who designs any tie of a timber scaffold referred to in paragraph (4)(a) to
  - (a) take, so far as is reasonably practicable, such measures to ensure that his design can be executed safely by any person who constructs, installs or uses the tie according to his design; and
  - (b) provide to any person who constructs or installs or is to construct or install the tie of the timber scaffold, all design documentation (including all relevant calculations,

- drawings and construction procedures) as is necessary to facilitate the proper construction or installation of the tie according to his design.
- (7) It shall be the duty of the occupier of a workplace in which a timber scaffold is erected to ensure that no scaffold with ties referred to in paragraph (4)(a) is used unless the design and drawings certified by the professional engineer are kept available at the workplace for inspection by an inspector.
- (8) Any person who contravenes paragraph (7) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

#### **Duration of use of timber scaffolds**

**41.** It shall be the duty of the occupier of a workplace in which a timber scaffold is erected to ensure that the timber scaffold shall be dismantled within a period of 9 months after its erection.

# PART V SUSPENDED SCAFFOLDS

# Suspended scaffolds

- **42.**—(1) It shall be the duty of the responsible person to ensure that no suspended scaffold shall be erected or installed in a workplace unless
  - (a) the outriggers or other supports are
    - (i) of adequate length and strength;
    - (ii) properly installed and supported;
    - (iii) securely fixed to a building, ship or other structure by anchor bolts or other similar means, or where such fixing is not reasonably practicable, adequately and securely anchored at the inner ends; and
    - (iv) subject to paragraph (2), provided with rope guards of adequate strength at the outer ends to prevent the ropes from being displaced from the outriggers;

- (b) the points of suspension are at adequate horizontal distances from the building face, the hull of the ship or any other structure;
- (c) the suspension ropes are
  - (i) of galvanised wire ropes;
  - (ii) of sound material, good construction and adequate strength, and free from patent defects;
  - (iii) securely attached to the outriggers or other supports and, if winch drums are used, to the winch drums; and
  - (iv) of such length that the platform is capable of being lowered to the ground or floor, and in the case of winches, that there are at least 2 turns of the rope remaining on each winch drum;
- (d) the platform is
  - (i) at least 500 millimetres and not more than 750 millimetres in width unless measures have been taken to prevent transverse tilting of the platform; and
  - (ii) so arranged or secured that, at each working position, the edge of the platform is as close as practicable to the work area and the distance between the platform and the work area is not more than 460 millimetres; and
- (e) boards, planks or decking used as platforms shall be capable of supporting a load of 670 kgf per square metre with due regard to the spacing of the supports.
- (2) Paragraph (1)(a)(iv) shall not apply when the primary suspension wire ropes are suspended from the outer end of the outriggers or other supports by means which preclude the displacement of the wire rope from its point of suspension.

- (3) It shall be the duty of
  - (a) the employer of any person who uses or is to use any suspended scaffold in a workplace; or
  - (b) the principal under whose direction any person uses or is to use any suspended scaffold in a workplace,

to ensure that no person shall enter or leave the cradle of a suspended scaffold unless it is at rest on the ground or at any level which affords a safe means of access or egress.

# Suspended scaffolds raised or lowered by climbers, winches or powered device

- **43.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (7) and (9) are complied with.
- (2) No suspended scaffold that is raised or lowered by climbers, winches or any powered device shall be erected or installed in a workplace unless
  - (a) the suspended scaffold has been designed and constructed in accordance with a standard or code acceptable to the Commissioner;
  - (b) the climbers, winches or device is properly maintained;
  - (c) the climbers, winches or device is opened for inspection and servicing at least once in every 12 months to ensure that the drive mechanisms are in safe working order; and
  - (d) records of such inspection and servicing are kept for each climber, winch and device.
- (3) The outriggers or overhead supports shall be spaced not more than 3.2 metres apart measured from the longitudinal centre line of one outrigger or support to such centre line of the adjacent outrigger or support, unless the prior approval in writing of the Commissioner has been obtained.
- (4) Wire ropes used to suspend the work platform shall be vertical and taut.

- (5) The climbers, winches or device shall be synchronised so that the work platform of the suspended scaffold is maintained level at all times.
- (6) In the case of a suspended scaffold manufactured outside Singapore, the design of the suspended scaffold shall be certified by a professional engineer or a third-party inspection agency approved in writing by the Commissioner.
- (7) Where the work platform of a suspended scaffold is supported by wire ropes, the outriggers or other overhead supports for the suspended scaffold shall be constructed in accordance with the design and drawings of a professional engineer.
- (8) It shall be the duty of a professional engineer who designs any outrigger or overhead support for the suspended scaffold referred to in paragraph (7) to
  - (a) take, so far as is reasonably practicable, such measures to ensure that his design can be executed safely by any person who constructs or uses the outrigger or other overhead support for the suspended scaffold according to his design; and
  - (b) provide to any person who constructs or is to construct the outrigger or other overhead support for the suspended scaffold, all design documentation (including all relevant calculations, drawings and construction procedures) as is necessary to facilitate the proper construction of the outrigger or other overhead support for the suspended scaffold according to his design.
- (9) Where a suspended scaffold has been re-positioned or shifted from one location to another within the same workplace, the suspended scaffold and its attachments shall be erected or installed in accordance with the design and drawings certified by the professional engineer.
- (10) It shall be the duty of the occupier of a workplace in which a suspended scaffold is erected or installed to ensure that no suspended scaffold referred to in paragraph (7) shall be used unless the design

and drawings certified by the professional engineer are kept available at the workplace for inspection by an inspector.

(11) Any person who contravenes paragraph (10) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

# Safety device for suspended scaffolds

- **44.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) and (3) are complied with.
- (2) Subject to paragraph (4), every suspended scaffold in a workplace that is raised or lowered by climbers, winches or a powered device shall be provided at each suspension point with a safety rope with an automatic safety device mounted on it.
- (3) The safety rope with the automatic safety device referred to in paragraph (2) shall be capable of supporting the platform in the event of a failure of the primary suspension rope, winch, climber or any part of the device or mechanism used for raising or lowering the suspended scaffold.
  - (4) Paragraph (2) shall not apply if
    - (a) the platform is supported on 2 independent suspension wire ropes at or near each end such that, in the event of a failure of one suspension wire rope, the other wire rope is capable of sustaining the weight of the platform and its load and preventing it from tilting; or
    - (b) a system is incorporated which operates automatically to support the platform and its load in the event of a failure of the primary suspension rope.

# Prohibition of overloading of suspended scaffolds

**45.** It shall be the duty of the occupier of a workplace in which a suspended scaffold is erected or installed to ensure that the suspended scaffold shall not at any time be loaded beyond the safe working load except in a test in the presence of an inspector or authorised examiner.

# Suspended scaffolds counter-balanced by counter-weights

- **46.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (5) are complied with.
- (2) In relation to a scaffold in a workplace, water or other liquids, earth, clay, sand, chippings or other aggregates shall not be used as counter-weights.
- (3) Every portable counter-weight shall have its weight permanently and distinctly stamped, engraved or embossed thereon.
- (4) Every counter-weight shall be securely attached at the inner end of the outriggers to prevent any accidental displacement or tampering by any person.
- (5) The counter-balancing weight on any outrigger shall not be less than 3 times the weight necessary to balance the load on the projecting part of the outrigger when the suspended scaffold in a workplace is fully loaded.

# Prevention of sway

**47.** It shall be the duty of the responsible person to ensure that the work platform of a suspended scaffold in a workplace shall be securely fastened to the building or other structure in such a manner and at such intervals as to prevent the platform from swaying.

# Age limit of operator

- **48.** It shall be the duty of
  - (a) the employer of any person who uses or is to use any suspended scaffold in a workplace; or
  - (b) the principal under whose direction any person uses or is to use any suspended scaffold in a workplace,

to take, so far as is reasonably practicable, such measures as are necessary to ensure that no person below the age of 18 years operates a climber, winch, powered device or mechanism used for raising or lowering a suspended scaffold.

# Personal protective equipment for users of suspended scaffolds

- **49.**—(1) It shall be the duty of
  - (a) the employer of any person who uses or is to use any suspended scaffold in a workplace; or
  - (b) the principal under whose direction any person uses or is to use any suspended scaffold in a workplace,

# to provide to the person —

- (i) a safety harness attached with a shock absorbing device; and
- (ii) sufficient and secured anchorage by means of an independent life line or other equally effective means.
- (2) It shall be the duty of the person who uses any suspended scaffold in a workplace to use the safety harness attached with a shock absorbing device provided to him.
- (3) Any person who contravenes paragraph (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$1,000 and, in the case of a second or subsequent conviction, to a fine not exceeding \$2,000.

# Notice to be displayed in suspended scaffolds

- **50.**—(1) It shall be the duty of the responsible person to prominently display a notice in the cradle of a suspended scaffold in a workplace that is in a form readily understood by any person
  - (a) stating the safe working load of the suspended scaffold;
  - (b) stating the maximum number of persons allowed to be in the suspended scaffold; and
  - (c) reminding the person to attach his safety harness to a secured anchorage at all times.
- (2) It shall be the duty of the occupier of the workplace to ensure that the notice referred to in paragraph (1) is displayed at all times until the suspended scaffold is dismantled.

#### PART VI

#### OTHER SCAFFOLDS

#### Tower scaffolds

- **51.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (5) are complied with.
- (2) The height of a tower scaffold erected or installed on board a ship in a shipyard shall not exceed 4 times the lesser of the base dimensions of the scaffold.
- (3) The height of a tower scaffold in a workplace, other than a tower scaffold referred to in paragraph (2), shall not exceed 8 times the lesser of the base dimensions of the scaffold.
- (4) Where the height of a tower scaffold in a workplace, excluding the handrails and their supports at the uppermost lift of the scaffold, exceeds 3 times the lesser of the base dimensions of the scaffold, the scaffold shall be effectively tied to the building or a rigid structure so as to prevent toppling.
  - (5) Any tower scaffold which can be moved on casters shall
    - (a) be constructed with due regard to its stability and, if necessary, adequately weighted at the base;
    - (b) be used only on a firm and even surface; and
    - (c) be provided with a positive locking device on each caster to hold the scaffold in position.
  - (6) It shall be the duty of
    - (a) the employer of any person who uses or is to use any tower scaffold in a workplace; or
    - (b) the principal under whose direction any person uses or is to use any tower scaffold in a workplace,

to ensure that no more than 2 work platforms shall be used on a tower scaffold in the workplace at any one time.

- (7) It shall be the duty of
  - (a) the employer of any person who uses or is to use any tower scaffold in a workplace; or

(b) the principal under whose direction any person uses or is to use any tower scaffold in a workplace,

#### to ensure that —

- (i) no tower scaffold is moved except by applying force at or near the base;
- (ii) the casters are locked to hold the tower scaffold in position while the person is on the tower scaffold; and
- (iii) no person remains on the tower scaffold when it is being moved.

# Scaffolds and work platforms erected on cantilever or jib supports

- **52.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (4) are complied with.
- (2) A scaffold in a workplace that is erected on cantilever or jib supports shall be adequately supported, fixed and anchored on the supports to prevent displacement.
- (3) The cantilever or jib supports used to support the scaffold shall
  - (a) have outriggers of adequate length and cross section; and
  - (b) be constructed in accordance with the design and drawings of a professional engineer.
- (4) Where a work platform in a workplace rests on bearers that let into a wall at one end and it does not have other support, the bearers shall
  - (a) pass through the wall;
  - (b) be of adequate strength; and
  - (c) be securely fastened on the other side of the wall.
- (5) For the purposes of this regulation and regulation 53, "cantilever or jib support" includes any structure, including a bracket or beam, that projects beyond a fulcrum or point of attachment and that is not supported directly from the ground or floor below.

# Design of cantilever or jib supports by professional engineer

- **53.**—(1) It shall be the duty of a professional engineer who designs a cantilever or jib support referred to in regulation 52(3)(*b*) to
  - (a) take, so far as is reasonably practicable, such measures to ensure that his design can be executed safely by any person who constructs or uses the cantilever or jib support according to his design; and
  - (b) provide to any person who constructs or is to construct the cantilever or jib support, all design documentation (including all relevant calculations, drawings and construction procedures) as is necessary to facilitate the proper construction of the cantilever or jib support according to his design.
- (2) It shall be the duty of the occupier of a workplace in which a scaffold is erected on cantilever or jib supports to ensure that the scaffold is not used unless
  - (a) the scaffold (including the cantilever or jib support) has been examined by the professional engineer after its erection or installation, and a certificate stating that the scaffold is safe for use has been obtained from the professional engineer;
  - (b) the design and drawings certified by the professional engineer and the certificate referred to in sub-paragraph (a) are kept available at the workplace for inspection by an inspector; and
  - (c) the scaffold has been inspected by a professional engineer at least once every 3 months to ensure that it is safe for use.
- (3) It shall be the duty of the professional engineer, when he discovers any defect in a scaffold in the course of his examination or inspection referred to in paragraph (2), to immediately inform the occupier of the workplace in which the scaffold is erected or installed.
- (4) It shall be the duty of the occupier of the workplace referred to in paragraph (3), upon being informed of any defect in a scaffold

under that paragraph, to immediately take action to rectify the defect before the scaffold is used.

(5) Any person who contravenes paragraph (2)(b) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2.000.

# Hanging scaffolds

- **54.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2) to (4) are complied with.
  - (2) A hanging scaffold in a workplace shall be
    - (a) constructed before being hung into position on a building, ship or other structure;
    - (b) securely anchored to the hull or any other part of the building, ship or structure to prevent lateral movement or sway;
    - (c) constructed so that the work platform is in a horizontal plane; and
    - (d) provided with safe means of access to and egress from its platform by means of stairs or ladders.
  - (3) For the purposes of paragraph (2)(d), stairs or ladders
    - (a) shall be placed in such a manner as to prevent any person from falling; and
    - (b) shall not rise to a vertical distance of more than 3 metres between landings.
- (4) A hanging scaffold from which a person may fall more than 2 metres shall be constructed and installed in accordance with the design and drawings of a professional engineer.
- (5) It shall be the duty of a professional engineer who designs a hanging scaffold referred to in paragraph (4) to
  - (a) take, so far as is reasonably practicable, such measures to ensure that his design can be executed safely by any person who constructs, installs or uses the hanging scaffold according to his design; and

- (b) provide to any person who constructs or installs or is to construct or install the hanging scaffold, all design documentation (including all relevant calculations, drawings and construction procedures) as is necessary to facilitate the proper construction or installation of the hanging scaffold according to his design.
- (6) It shall be the duty of the occupier of a workplace in which a hanging scaffold is constructed or installed to ensure that no hanging scaffold referred to in paragraph (4) is used unless the design and drawings certified by the professional engineer are kept available at the workplace for inspection by an inspector.
- (7) Any person who contravenes paragraph (6) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

# Personal protective equipment for users of hanging scaffolds

- **55.**—(1) It shall be the duty of
  - (a) the employer of any person who uses or is to use any hanging scaffold in a workplace; or
  - (b) the principal under whose direction any person uses or is to use any hanging scaffold in a workplace,

to provide to the person —

- (i) a safety harness attached with a shock absorbing device; and
- (ii) sufficient and secured anchorage by means of an independent life line or other equally effective means.
- (2) It shall be the duty of the person who uses any hanging scaffold in a workplace to use the safety harness attached with a shock absorbing device provided to him.
- (3) Any person who contravenes paragraph (2) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$1,000 and, in the case of a second or subsequent conviction, to a fine not exceeding \$2,000.

#### Trestle scaffolds

- **56.**—(1) It shall be the duty of the responsible person to ensure that the requirements of paragraphs (2), (5) and (6) are complied with.
- (2) Subject to paragraph (3), no trestle scaffold in a workplace shall
  - (a) be constructed with more than 3 tiers; or
  - (b) have a work platform more than 4.5 metres above the ground or floor or other surfaces upon which the scaffold is erected.
- (3) Paragraph (2) shall not apply to a trestle scaffold constructed in accordance with the design and drawings of a professional engineer.
- (4) It shall be the duty of a professional engineer who designs a trestle scaffold referred to in paragraph (3) to
  - (a) take, so far as is reasonably practicable, such measures to ensure that his design can be executed safely by any person who constructs or uses the trestle scaffold according to his design; and
  - (b) provide to any person who constructs or is to construct the trestle scaffold, all design documentation (including all relevant calculations, drawings and construction procedures) as is necessary to facilitate the proper construction of the trestle scaffold according to his design.
- (5) No trestle scaffold shall be erected on a scaffold platform unless
  - (a) the width of the platform is such as to leave sufficient clear space for the transport of materials; and
  - (b) the trestles or uprights are firmly attached to the platform and adequately braced to prevent displacement.
  - (6) No trestle scaffold shall be erected on a suspended scaffold.
- (7) It shall be the duty of the occupier of a workplace in which a trestle scaffold is constructed or erected to ensure that no trestle scaffold referred to in paragraph (3) is used unless the design and

drawings certified by the professional engineer are kept available at the workplace for inspection by an inspector.

(8) Any person who contravenes paragraph (7) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000.

#### PART VII

#### APPROVED SCAFFOLD CONTRACTORS

# Application for approval to be approved scaffold contractor

- **57.**—(1) A firm or company may apply to the Commissioner for his approval to act as an approved scaffold contractor.
  - (2) An application under paragraph (1) shall
    - (a) be accompanied by a non-refundable fee of \$150;
    - (b) be in such form and manner as the Commissioner may require; and
    - (c) be accompanied by such particulars, information, statements and documents as the Commissioner may require.

# Certificate of approval

- **58.**—(1) On receipt of an application under regulation 57(1), the Commissioner may
  - (a) issue to the applicant a certificate of approval, subject to such conditions as the Commissioner may think fit to impose; or
  - (b) refuse to approve the application.
- (2) Where the Commissioner refuses to approve the applicant to act as an approved scaffold contractor, he shall give the applicant notice in writing of the reasons for his refusal.
- (3) The Commissioner may at any time vary or revoke any of the conditions of a certificate of approval or impose new conditions.
  - (4) A certificate of approval shall not be transferable.

# Production of certificate of approval

- **59.**—(1) It shall be the duty of any approved scaffold contractor to produce his certificate of approval for inspection upon request by an inspector.
- (2) Any person who contravenes paragraph (1) shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$2,000 and, in the case of a second or subsequent conviction, to a fine not exceeding \$5,000.

# Suspension or cancellation of certificate

- **60.**—(1) The Commissioner may suspend or cancel the certificate of approval of any approved scaffold contractor if the Commissioner is satisfied that the approved scaffold contractor
  - (a) has obtained the certificate of approval by means of fraud, false representation or the concealment of any material fact; or
  - (b) is contravening or has contravened any condition of the certificate of approval.
- (2) Where a certificate of approval is suspended under paragraph (1), the firm or company to which the certificate of approval was issued shall, during the period of suspension, cease to be, and cease to act as, an approved scaffold contractor.
- (3) Where a certificate of approval is cancelled under paragraph (1), the firm or company to which the certificate of approval was issued shall immediately cease to be, and cease to act as, an approved scaffold contractor.

# Notice of suspension or cancellation of certificate

- **61.**—(1) When the Commissioner has suspended or cancelled the certificate of approval under regulation 60, the Commissioner shall inform the approved scaffold contractor concerned by notice in writing of such suspension or cancellation.
- (2) An approved scaffold contractor whose certificate of approval has been suspended or cancelled by the Commissioner under regulation 60 may, within 21 days of the date of the service of the

notice of suspension or cancellation, appeal to the Minister whose decision shall be final.

- (3) The suspension or cancellation of the certificate of approval shall take effect 21 days after the date of the service of the notice on the approved scaffold contractor or, if an appeal against the suspension or cancellation of the certificate of approval has been made to the Minister under paragraph (2), on the date the Minister dismisses the appeal.
- (4) Notwithstanding that the suspension or cancellation has not taken effect, any approved scaffold contractor whose certificate of approval is suspended or cancelled by the Commissioner shall not, between the date of the service of the notice of suspension or cancellation and the date the suspension or cancellation takes effect (both dates inclusive), construct, erect, install, re-position, alter, maintain, repair or dismantle any scaffold referred to in regulation 4(1) in a workplace.
- (5) A notice of suspension or cancellation may be served on any firm or company by leaving it at, or sending it by registered post to, the last known business address.

# PART VIII

# MISCELLANEOUS

# Offence 62 Any

**62.** Any person who contravenes regulation 4(1), or any provision of these Regulations which imposes a duty on him for which no penalty is expressly provided, shall be guilty of an offence and shall be liable on conviction to a fine not exceeding \$20,000 or to imprisonment for a term not exceeding 2 years or to both.

#### Revocation

**63.** The Factories (Scaffolds) Regulations 2004 (G.N. No. S 19/2004) are revoked.

# Savings and transitional provision

- **64.** Notwithstanding the revocation of the Factories (Scaffolds) Regulations 2004, every person who, immediately before 10th September 2011, is registered as an approved scaffold contractor under regulation 5(3) of the revoked Regulations shall
  - (a) be deemed to be an approved scaffold contractor under these Regulations; and
  - (b) cease to be an approved scaffold contractor on the expiry of its registration as an approved scaffold contractor as if these Regulations had not been made.

Made this 8th day of September 2011.

LOH KHUM YEAN
Permanent Secretary,
Ministry of Manpower,
Singapore.

[C010-048-00011; AG/LLRD/SL/354A/2006/12 Vol. 2]

(To be presented to Parliament under section 65(8) of the Workplace Safety and Health Act).