STATUTORY INSTRUMENTS

S.I. No. 481 of 2001

Safety,	Health and	Welfare at	Work (Construction)	Regulations,	2001

(Pn. 10673)

SAFETY, HEALTH AND WELFARE AT WORK (CONSTRUCTION) REGULATIONS, $2001\,$

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Safety, Health and Welfare at Work (Construction) Regulations, 2001

I, TOM KITT, Minister of State at the Department of Enterprise, Trade and Employment, in exercise of the powers conferred on me by section 28 of the Safety, Health and Welfare at Work Act, 1989 (No. 7 of 1989), in relation to the matters set out in paragraphs 1 to 6, 8, 9, 11 to 15, 19 to 30, 32, 33, 35 and 36 of the Fourth Schedule of that Act, and the Labour (Transfer of Departmental Administration and Ministerial Functions) Order, 1993 (S.I. No. 18 of 1993), and the Enterprise and Employment (Delegation of Ministerial Functions) (No. 2) Order, 1995 (S.I. No. 43 of 1995) and after consultation with the National Authority for Occupational Safety and Health, and for the purpose of giving further effect to Council Directive 92/57/EEC¹, hereby make the following regulations:

PART 1 INTERPRETATION AND GENERAL

Citation and Commencement

- 1. (1) These Regulations may be cited as the Safety, Health and Welfare at Work (Construction) Regulations, 2001.
- (2) Except as specified in paragraph (3), these Regulations shall come into operation on the 1st day of January 2002.
 - (3) (a) In the case of persons employed in construction work for the first time, the provisions of Regulations 6(5) and 9(3) shall apply from the 1st day of January 2002.
 - (b) Where construction work on a construction site commences on or after the 1st day of May 2002, Regulations 6(5) and 9(3) shall apply from that date for all workers employed in construction work on that site.
 - (c) In respect of "scaffolding basic", designated in paragraph 1 of the Ninth Schedule, Regulations 6(6) and 9(4) shall come into operation on the 1st day of January 2002.
 - (d) In respect of "scaffolding-advanced", "tower crane operation", "slinging/signalling" and "telescopic handler operation" designated in paragraph 1 of the Ninth Schedule, Regulations 6(6) and 9(4) shall come into operation on the 1st day of July 2002.
 - (e) In all other cases, Regulations 6(5), 6(6), 9(3) and 9(4) shall come into operation on the 1st day of June 2003.

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¹ O.J. L245/6 of 26.8.92

2. (1) In these Regulations, unless the context otherwise requires -

"the Act" means the Safety, Health and Welfare at Work Act, 1989 (No. 7 of 1989);

"approved programme," means a programme with a syllabus and trainers approved by FAS or a course approved by a body in another jurisdiction recognised by FAS as equivalent;

"approved trainer" means a person or organisation approved by FAS for the purpose of delivering an approved programme;

"the Authority" means the National Authority for Occupational Safety and Health;

"construction site" means any site at which construction work in relation to a project is carried out;

"construction stage" means the period of time starting when preparation of the construction site begins, including the design of temporary works to facilitate the construction of the project, and ending when construction work on the project is completed;

"construction work" means the carrying out of any building, civil engineering or engineering construction work and includes any of the following -

- (a) the construction, alteration, conversion, fitting out, commissioning, renovation, repair, upkeep, redecoration or other maintenance (including cleaning which involves the use of water or an abrasive at high pressure or the use of substances or preparations classified as corrosive or toxic for the purposes of Regulation 8 of the European Communities (Classification, Packaging, Labelling and Notification of Dangerous Substances) Regulations, 1994 and Regulation 5 of the European Communities (Classification, Packaging, Labelling and Notification of Dangerous Preparations) Regulations, 1995), decommissioning, demolition or dismantling of a structure,
- (b) the preparation for an intended structure, including site clearance, exploration, investigation (but not site survey) and excavation, and laying or installing the foundations of an intended structure,
- (c) the assembly of prefabricated elements to form a structure, or the disassembly of prefabricated elements which, immediately before such disassembly, formed a structure,
- (d) the removal of a structure or part of a structure or of any product or waste resulting from demolition or dismantling of a structure or disassembly of prefabricated elements which, immediately before such disassembly, formed a structure,
- (e) the installation, commissioning, maintenance, repair or removal of mechanical, electrical, gas, compressed air, hydraulic, telecommunication systems, computer systems, or similar services

which are normally fixed within or to a structure, but does not include drilling and extraction in the extractive industries;

"client" means any person, engaged in trade, business or other undertaking, who commissions or procures the carrying out of a project or who undertakes a project directly for the purpose of such trade, business or undertaking

"contractor" means a contractor or an employer whose employees undertake, carry out or manage construction work, or any person who carries out or manages construction work for a fixed or other sum and who supplies the materials and labour (whether his own labour or that of another) to carry out such work or supplies the labour only;

"design" means the preparation of drawings, particulars, specifications, calculations, bills of quantities in so far as they contain specifications or other expressions of purpose, according to which a project, or any part or component of a project, is to be executed;

"design stage" means the period of time during which the design of a project is prepared but does not include the design of temporary works by the contractor to facilitate construction of the project;

"developed health and safety plan" means the health and safety plan developed in accordance with Regulation 6(1);

"FAS" means An Foras Aiseanna Saothair;

"hoist" means a lifting machine, whether worked by mechanical power or not, with a carriage, platform or cage, the movement of which is restricted by a guide or guides, but does not include a lifting appliance used for the movement of trucks or wagons on a line of rails;

"inspector" has the meaning assigned to it by the Act;

"ladder" does not include a folding step-ladder;

"lifting appliance" means any stationary or mobile appliance used for raising or lowering persons or loads, including: -

- (a) a crane, crab, winch, pulley block, gin wheel, hoist, mobile elevating work platform, sheer legs, excavator, dragline, piling frame, aerial cableway, aerial ropeway or overhead runways,
- (b) a vehicle which can be used to transport goods and which is fitted with forks or any other attachment for stacking, loading or unloading goods;

"lifting gear" means any gear or cable by means of which a load can be attached to a lifting appliance but which does not form an integral part of the appliance or load, and includes a chain sling, rope sling or similar gear and a ring, link, hook, plate, clamp, shackle, swivel or eye-bolt;

"locomotive" means any self-propelled wheeled vehicle used on a line of rails for the movement of trucks or wagons;

"man-lock" means any air lock or decompression chamber used for the compression or decompression of persons, but does not include an air lock which is only so used in emergency or a medical lock used solely for treatment purposes;

"mobile crane" means a crane capable of travelling under its own power, but does not include such a crane, which travels on a line of rails;

"the Principal Regulations" means the Safety, Health and Welfare at Work (General Application) Regulations, 1993 (S.I. No. 44 of 1993);

"project" means any development, which includes or is intended to include construction work;

"project supervisor," means a competent person or organisation appointed under Regulation 3(1) and responsible for carrying out the appropriate duties specified in these Regulations;

"raising or lowering or as a means of suspension" in Regulation 105, 106, 107, 110 or 111 means raising or lowering or as a means of suspension either of a load on a lifting appliance or lifting gear or a scaffold but does not include the use of a rope or chain solely as a means of lashing or securing together two or more rigid members of a scaffold to form a frame or as a means of making a lapped joint or the use of a rope or chain solely for the movement of a load in a horizontal direction:

"safe working load" means either the relevant safe working load required to be specified in the latest certificate of test obtained for the purposes of Regulation 97, 105, 106, 118 or 123 or, where no such certificate is required, the relevant safe working load required to be marked or exhibited on the lifting appliance, lifting gear, chain, rope or other article of plant or equipment by Regulation 98 or 105;

"scaffold" means any temporary structure whether fixed, suspended or mobile, (and its supporting components) which is used for supporting workers and materials or to gain access to any such structure and includes any working platform, working stage, gangway, run, ladder or step-ladder (other than 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 or a structure only used to support such an appliance or to support other plant or equipment;

"sloping roof" has the meaning assigned to it by Regulation 76 of these Regulations;

"slung scaffold" means a scaffold suspended by means of lifting gear, ropes or chains or rigid members and not provided with means of raising or lowering by a lifting appliance or similar device:

"structure" means -

- (a) any building, railway line or siding, tramway line, dock, harbour, inland navigation, tunnel, bridge, viaduct, waterworks, reservoir, pipeline (whatever it contains or is intended to contain) underground or overground cables, aqueduct, sewer, sewage works, gasholder, road, airfield, sea defence works, river works, drainage works, earthworks, lagoon, dam, wall, caisson, mast, tower, pylon, underground tank, earth retaining structure, or structure designed to preserve or alter any natural feature, and any other structure similar to the foregoing,
- (b) any formwork, falsework, scaffold or other structure designed or used to provide support or means of access during construction work, or
- (c) any fixed plant in respect of work which is installation, commissioning, de-commissioning or dismantling and where any such work involves a risk of falling more than 2.00 metres;

"suspended scaffold" means a scaffold (not being a slung scaffold) suspended by means of ropes or chains and capable of being raised or lowered but does not include a boatswain's chair or similar appliance;

"trestle scaffold" includes a scaffold in which the supports for the platforms are any of the following which are self-supporting, namely split heads, folding step-ladders, tripods or movable contrivances similar to any of the foregoing;

"plant or equipment" means any gear, machine, rig, apparatus or appliance, or any part of any plant or equipment;

"working platform" includes a working stage.

- (2) In these Regulations a reference to a paragraph is to a paragraph in the Regulation in which the reference occurs, unless it is indicated that reference to some other Regulation is intended, and a reference to a Regulation or a Schedule is to a Regulation of, or a Schedule to, these Regulations, unless it is indicated that reference to some other Regulation or Schedule is intended.
- (3) The provisions of Regulations 2, 4 and Part II of the Principal Regulations shall apply in full to the application of the provisions of these Regulations.

PART 2 DESIGN AND MANAGEMENT

General Duties of Client

- 3. (1) It shall be the duty of every client to appoint, in respect of every project, a project supervisor for the design stage and a project supervisor for the construction stage.
 - (2) Nothing in paragraph (1) shall:
 - (a) prevent the client appointing himself or herself as project supervisor if competent to undertake the duties involved,
 - (b) prevent the client appointing one person as project supervisor for both the design and construction stages if that person is competent to undertake the duties involved.
- (3) The appointments mentioned in paragraph (1) shall be made at the appropriate time and shall be terminated, changed or renewed as necessary.
- (4) It shall be the duty of every client to keep available any safety file referred to in Regulation 6(2)(a) and any information delivered to the client in relation to the file for inspection by any person who may need information in the file for the purpose of compliance by that person with any duties imposed under the relevant statutory provisions.
- (5) It shall be sufficient compliance with paragraph (5) by a client who disposes of his or her interest in the property involved in the project if he or she delivers the safety file for that property to the person who acquires such interest in that property and such person shall keep available such safety file in accordance with paragraph (4).

Duties of Project Supervisor appointed for Design Stage

- 4. (1) It shall be the duty of the project supervisor appointed for the design stage to -
 - (a) take account during the design of a project and when estimating the period of time required for completion of a project, and where appropriate for stages of a project, of the general principals of prevention specified in the First Schedule of the Principal Regulations and of any safety and health plan or safety file prepared in accordance with these Regulations, and to co-ordinate in these respects the activities of other persons engaged in work related to design of the project;
 - (b) subject to paragraph (2) prepare on a preliminary basis and for the purpose of providing information for the project supervisor appointed for the construction stage, the safety and health plan referred to in Regulation 6(1) specifying, in writing -
 - (i) a general description of the project and of the time within which it is intended that the project will be completed,
 - (ii) appropriate information on any other work activities taking place on the site, and
 - (iii) where appropriate work related to the project which will involve particular risks to the safety and health of persons at work as referred to in the Second Schedule,
 - (c) provide the project supervisor for the construction stage with any necessary information available to the project supervisor for the design stage which needs to be included in the safety file referred to in Regulation 6(2)(a).
- (2) Where notification of the construction site is not required under Regulation 8, a safety and health plan shall be required only for such sites where the work concerned involves a particular risk, including any of those specified in the Second Schedule.
- (3) The project supervisor for the design stage may appoint a competent person as health and safety co-ordinator for the design to undertake on behalf of the project supervisor the duties specified in paragraph (1).

Duties of Designers

- 5. (1) In any case in which a person is engaged in work related to the design of a project, it shall be the duty of that person to take account of the general principles of prevention as specified in the First Schedule of the Principal Regulations and any relevant safety and health plan or safety file prepared in accordance with these Regulations.
- (2) In any case in which a person is engaged in work related to the design of a project, save where such a person is appointed under Regulation 3(1) as project supervisor for the design stage, it shall be the duty of that person to -

- (a) co-operate with the project supervisor appointed for the design stage or the project supervisor for the construction stage, as appropriate, to enable that project supervisor to comply with these Regulations,
- (b) promptly provide the project supervisor appointed for the design stage or the project supervisor for the construction stage, as appropriate, with such information as is known to that person regarding particular risks to the safety and health of persons at work as referred to in the Second Schedule which may be associated with the project, and also with such information regarding the nature and scope of the project to the extent necessary to enable the project supervisor to comply with these Regulations, and
- (c) take into account any directions from the project supervisor appointed for the design stage or the project supervisor appointed for the construction stage, as appropriate.

Duties of project supervisor for the construction stage.

- 6. (1) It shall be the duty of the project supervisor appointed for the construction stage to develop before the commencement of the construction work the safety and health plan for the construction site prepared on a preliminary basis under Regulation 4(1)(b), and make adjustments to such plan where required to take account of the progress of the work and any changes which occur, and take account as regards such plan at all times during the construction stage of the requirements of section 12 of the Act and of other work activities taking place on the site, and include in such plan specific measures concerning work which falls within one or more of the categories of the Second Schedule.
- (2) It shall be the duty of the project supervisor appointed for the construction stage where more than one contractor is engaged in the project to -
 - (a) prepare a safety file appropriate to the characteristics of the project containing relevant health and safety information to be taken into account during any subsequent construction work following completion of the project and make any adjustments to the safety file where required to take account of the progress of the work and any changes which have occurred and, on completion of the project, deliver the safety file to the client,
 - (b) co-ordinate the implementation of the general principles of prevention specified in the First Schedule of the Principal Regulations when -
 - (i) technical or organisational aspects are being decided,
 - (ii) estimating the period required for completing such work or work stages,
 - (c) co-ordinate the implementation of any relevant requirements of these Regulations in order that the contractors, as regards the general

principles of prevention specified in the First Schedule of the Principal Regulations, apply in a consistent manner the requirements set out in the Third Schedule.

- (d) follow the provisions of the safety and health plan where required,
- (e) (i) organise co-operation between contractors (including successive contractors on the same site) and co-ordination of their activities in relation to a project with a view to protecting persons at work and preventing accidents and injury to health,
 - (ii) organise the implementation of Regulation 6 of the Principal Regulations, in particular in relation to the provision of information,
 - (iii) coordinate the implementation by contractors of Regulation 9(1)(e) and keep available for inspection a copy of any information provided to the project supervisor under that Regulation, and where the Authority requests information in relation to such a record, to comply with such a request as soon as possible,
 - (iv) provide access to appropriate information regarding safety, health and welfare required by paragraph (iii) to the site safety representative;
- (f) co-ordinate arrangements for checking the implementation of safe working procedures,
- (g) co-ordinate measures to permit authorised persons only on to the construction site.
- (3) The project supervisor appointed for the construction stage may appoint a competent person as health and safety co-ordinator for the construction stage to undertake on behalf of the project supervisor the duties specified in paragraphs (1) and (2).
- (4) It shall be the duty of the project supervisor appointed for the construction stage to co-ordinate arrangements which facilitate the provision and maintenance, in an appropriate condition, of site welfare facilities to all persons at work on the construction site, in accordance with the requirements of paragraphs 13 to 18 of the Fourth Schedule and the relevant requirements of the Fifth Schedule.
- (5) It shall be the duty of the project supervisor for the construction stage to coordinate arrangements whereby persons at work on the construction site to whom the Eighth Schedule applies are in possession of a current registration card in the form specified in the Eighth Schedule.
- (6) It shall be the duty of the project supervisor for the construction stage to coordinate arrangements whereby those persons who engage in any of the tasks specified in the

Ninth Schedule are in possession of a current certificate or registration card in the form specified in the Ninth Schedule.

(6A) A person shall not -

- (a) in applying for a registration card as specified in the Eighth or Ninth Schedule from FÁS or another competent authority, make a statement which he or she knows to be false,
- (b) with intent to deceive, forge or alter a registration card, or
- (c) with intent to deceive, make or possess any document closely resembling a registration card.
- (7) It shall be the duty of the project supervisor for the construction stage to maintain and keep available for inspection a record of the names of persons at work at the construction site to whom paragraphs (5) and (6) apply as provided by each contractor under Regulation 9(5).

Site Safety Representative

- 7. (1) (a) Without prejudice to the provisions of section 13 of the Act it shall be the duty of the project supervisor for the construction stage to -
 - (i) coordinate the development and application by contractors of arrangements, made in consultation with their employees, which will enable them and their employees to co-operate effectively in promoting and developing measures in relation to their health and safety on the construction site and in ascertaining the effectiveness of such measures,
 - (ii) facilitate, where more than 20 persons are normally employed at any one time on the site at any stage of the project, in cooperation with contractors and persons employed on the project, the appointment of a site safety representative from among the employees of the contractor or contractors undertaking the project in accordance with the procedure outlined in the Tenth Schedule.
 - (b) A site safety representative shall have the right of access to such information from the project supervisor for the construction stage regarding the safety, health and welfare of persons at work at the construction site including information referred to in 6(2)(e)(iv) and approved forms under these or the Principal Regulations.
 - (c) It shall be the duty of the project supervisor for the construction stage to take reasonable measures to inform the site safety representative when an inspector enters the construction site for the purpose of making a tour of inspection.

- (2) A site safety representative may -
 - (a) make representations to the project supervisor for the construction stage and, as appropriate, any contractor involved in the project on any aspects of safety, health and welfare at the construction site,
 - (b) investigate accidents and dangerous occurrences provided that he or she shall not interfere with or obstruct the performance of any statutory obligation required to be performed by any person under any relevant statutory provisions,
 - (c) make oral or written representations to inspectors on matters of safety, health and welfare at work,
 - (d) receive relevant advice and information from inspectors on matters of safety, health and welfare at work,
 - (e) subject to prior notice to the project supervisor for the construction stage and the contractor employing the site safety representative and to agreement between the site safety representative, project supervisor for the construction stage and the contractor employing the site safety representative as to frequency, carry out inspections and in reaching such agreement, which shall not unreasonably be withheld by the employer, the parties shall consider the nature and extent of the hazards at the construction site in determining the frequency of inspections to be carried out by the site safety representative,
 - (f) subject to prior notice to the project supervisor for the construction stage and the contractor employing the site safety representative, in circumstances in which it is reasonable to assume that risk of personal injury exists, to investigate potential hazards and complaints made by any person at work at the construction site relating to safety, health and welfare at the construction site, or
 - (g) on a request being made in that behalf by him, accompany an inspector on any tour of inspection other than a tour of inspection made by the inspector for the purpose of investigating an accident.
- (3) The project supervisor for the construction stage and, as appropriate, any contractor involved in the project shall take account of any representations made to him or her by a site safety representative on any matter affecting the safety, health and welfare at work of any person at work at the construction site.
- (4) The contractor employing the site safety representative shall afford him or her such time off from his or her duties as may be reasonable having regard to all the circumstances without loss of remuneration, to enable him or her to -
 - (a) acquire the knowledge necessary to discharge his or her functions as a safety representative, and

- (b) discharge his or her functions as a site safety representative under this Regulation.
- (5) Arising from the discharge of his or her functions under this Regulation, a site safety representative shall not be placed at any disadvantage in relation to his or her employment.

Notification of Projects to the Authority

- 8. (1) It shall be the duty of the project supervisor appointed for the construction stage to give notice to the Authority before work on a construction site begins, where work is planned to last longer than 30 working days or on which the volume of work is scheduled to exceed 500 person-days.
- (2) A notice required by paragraph (1) shall be in writing and shall contain the particulars provided for in the First Schedule.
- (3) The project supervisor appointed for the construction stage shall cause to be clearly displayed on the construction site and, if necessary, periodically cause to be updated the particulars required to be in any notice under this Regulation.

PART 3 GENERAL DUTIES OF CONTRACTORS AND OTHERS

Duties of Contractors

- 9. (1) It shall be the duty of every contractor
 - (a) to comply with the provisions of Parts 4 to 18 of these Regulations,
 - (b) to co-operate with the project supervisor appointed for the construction stage to enable such project supervisor to comply with the relevant statutory provisions,
 - (c) to provide promptly to the project supervisor appointed for the construction stage any information (including a copy of any relevant safety statement prepared under section 12 of the Act) which is likely to affect the health or safety of any person at work on the project or which might justify a review of the safety and health plan,
 - (d) to take into account any directions of the project supervisor appointed for the construction stage,
 - (e) to provide the project supervisor appointed for the construction stage with the information in relation to any death, injury, condition or dangerous occurrence which the contractor is required to notify or report under the Principal Regulations,
 - (f) to apply, where appropriate, the general principles of prevention specified in the First Schedule of the Principal Regulations in a consistent manner and in particular in relation to the matters specified in the Third Schedule in order to protect the health and safety of persons at work,
 - (g) to comply with the appropriate requirements of the Fourth and Fifth Schedules as regards any place of work under the contractor's control.
- (2) It shall be the duty of every contractor to comply with those requirements of the Fourth and Fifth Schedules which apply whenever required by the features of the construction site, the activity, the circumstances or a hazard at the site.
- (3) It shall be the duty of every contractor or other person to ensure that all persons under their direct control on a construction site to whom the Eighth Schedule refers have received the training specified in the Eighth Schedule and have been issued with a current registration card in the form specified in that Schedule.
- (4) It shall be the duty of every contractor or other person to ensure that any person under their direct control on a construction site who engages in any of the tasks

specified in the Ninth Schedule has received the training specified in that Schedule and has been issued with a current construction skills card in the form specified in that Schedule.

(5) It shall be the duty of every contractor or other person to ensure in respect of any person under their direct control on a construction site to whom Regulations 9(3) and 9(4) apply to furnish to the project supervisor appointed for the construction stage on the date upon which they first start work on that site written confirmation that the persons concerned are in possession of any registration cards required under Regulations 6(5) and 6(6) together with any other relevant certificates and documentation required under the Principal Regulations.

Appointment of Safety Officers

- 10. (1) It shall be the duty of every contractor who normally has more than 20 persons under his direct control at any one time on a construction site or normally more than 30 persons under his direct control at any one time engaged in construction work, taking account of the provisions of Regulation 8 of the Principal Regulations, to appoint in writing one or more persons as a safety officer and the person so appointed shall be qualified by experience and training to undertake the following duties:
 - (a) to advise the contractor as to the observance of the requirements of the relevant statutory provisions;
 - (b) to exercise a general supervision of the observance of the aforesaid requirements and the promotion of the safe conduct of work generally.
- (2) The duties assigned to any person appointed under paragraph (1) including any duties other than those mentioned in paragraph (1) shall not be such as to prevent that person from discharging with reasonable efficiency duties assigned under that paragraph.
- (3) Nothing in these Regulations shall be construed as preventing the same person or persons being appointed under these Regulations for a group of sites or two or more contractors from jointly so appointing the same person or persons.

Erection and Installation of Plant or Equipment

- 11. It shall be the duty of every contractor who -
 - (a) erects, installs, modifies, works or uses any plant or equipment to which any of the provisions of these Regulations applies to erect, install, modify, work or use any such plant or equipment in a manner which complies with those provisions, and
 - (b) erects or alters any scaffold to comply with the requirements of these Regulations having regard to the purpose or purposes for which the scaffold is designed at the time of erection or alteration.

Information

12. It shall be the duty of every contractor in providing information to his employees or safety representative (or both), as required under Regulation 11 of the Principal Regulations, to ensure that such information includes information on the measures to be taken concerning their safety and health on the construction site and that such information is comprehensible to the employees concerned.

Consultation

13. It shall be the duty of every contractor to ensure consultation with employees or their safety representative (or both) in relation to the requirements of these Regulations in accordance with the provisions of Regulation 12 of the Principal Regulations, taking account of the need, whenever necessary, for co-ordination between employees or the safety representatives of the different contractors on the construction site.

Duties of Employees and other Persons at Work

- 14. Without prejudice to the provisions of Regulation 14 of the Principal Regulations, it shall be the duty of every person at work
 - (a) to comply with these Regulations and to co-operate in carrying out these Regulations and if that person discovers any defect in the plant or equipment to which these Regulations apply and which might endanger safety, health and welfare, to report such defect without unreasonable delay to the employer, immediate supervisor or the contractor responsible for the plant or equipment,
 - (b) to make proper use of any safety helmet, harness or any other personal protective equipment provided for that person's health and safety,
 - (c) to accept reasonable offers of assessment and training specified in the Eighth and Ninth Schedules to these Regulations, without loss of remuneration, made by his employer, and
 - (d) when requested by their employer or the project supervisor appointed for the construction stage, to show relevant registration or construction skills cards referred to in Regulation 9(3) and Regulation 9(4).

PART 4 SAFETY OF WORKPLACES

General

- 15. (1) All appropriate precautions shall be taken to ensure that all workplaces are safe and without risk of injury to the safety and health of persons at work.
- (2) Safe means of access to and egress from all workplaces shall be provided and maintained, and indicated where appropriate.
- (3) Appropriate precautions shall be taken to protect persons present at or in the vicinity of a construction site from risks, which may arise from such site.

Protection from falling material

- 16. (1) (a) Adequate measures shall be taken to prevent persons at work from being struck by any falling material or article.
 - (b) Wherever technically feasible, persons shall be protected by collective methods against falling objects.
 - (c) Materials and equipment shall be laid out or stacked in such a way as to prevent their collapsing or overturning.
 - (d) Where necessary, there shall be covered passageways on the site or access to danger areas shall be prevented.
- (2) Every person carrying out construction work shall be provided with a suitable safety helmet or other suitable head protection unless there is no foreseeable risk of injury to the head other than by falling.
- (3) Every protective helmet provided pursuant to this Regulation shall be marked with a distinguishing mark which shall be used to identify it in relation to the person to whom it has been issued and the helmet shall not be issued to any other person unless and until it has been cleaned and disinfected.
 - (4) Scaffold materials, tools, other objects or material, including waste material, shall not be thrown, or shot down from a height where they are liable to cause injury, and where practicable shall be properly lowered.
 - (b) Where proper lowering is not practicable or where any part of a building or other structure is being demolished or removed adequate steps shall be taken to protect persons at work from falling or flying debris.

Lighting of Work Places

17. Every place at which persons are at work and the approach thereto and, in particular, every such place where raising or lowering operations with the use of a lifting appliance are in progress and all openings dangerous to persons at work, shall be adequately and suitably lighted.

Projecting Nails and Loose Material

18. No timber or material with projecting nails shall be used in any work to which these Regulations apply if such timber or material is a source of danger to persons at work nor shall such timber or materials be allowed to remain in any place where they are a source of danger to such persons.

Construction of Temporary Structures.

19. Any temporary structure erected for the purpose of construction work not being a scaffold or other structure to which Regulation 81 applies, shall, having regard to the purpose for which it is used, be of good construction and adequate strength and stability and shall be of sound material, free from patent defect and properly maintained.

Avoidance of Danger from Collapse of Structure

- 20. (1) Metal or concrete frameworks and their components, shutterings, prefabricated components or temporary support, and buttresses shall be erected and dismantled only under the supervision of a competent person.
- (2) All practicable precautions shall be taken by the use of temporary guys, stays, supports and fixings or otherwise where necessary to prevent danger to any person at work through the collapse of any part of a building or other structure during any temporary state of weakness or instability of the building or structure or part thereof before the whole building or structure is completed.
- (3) Any guys, stays, supports, fixings or other devices provided under paragraph (2) shall be designed, installed and maintained so as to safely withstand any strains and stresses which may be placed on them.
- (4) Where any work is carried on which is likely to reduce the security or stability of any part of an existing building or structure or of a building or structure in course of construction, all practicable precautions shall be taken by shoring or otherwise to prevent danger to any person at work from the collapse of the building or structure or the fall of any part thereof.

PART 5 EXCAVATIONS, SHAFTS, EARTHWORKS, UNDERGROUND WORKS AND TUNNELS

General

- 21. (1) Adequate precautions shall be taken in any excavation, shaft, earthwork, underground works or tunnel to -
 - (a) guard against danger to persons at work from a fall or dislodgement of earth, rock or other material by suitable shoring or otherwise,
 - (b) guard against dangers arising from the fall of persons at work, materials or objects or the inrush of water into the excavation, shaft, earthworks, underground works or tunnel,
 - (c) secure adequate ventilation at all workplaces so as to maintain an atmosphere fit for respiration and to limit any fumes, gases, vapours, dust or other impurities to levels which are not dangerous or injurious to health,
 - (d) enable persons at work to reach safety in the event of fire or an inrush of water or materials,
 - (e) avoid risk to persons at work arising from possible underground dangers such as underground cables or other distribution systems, the circulation of fluids or the presence of pockets of gas, by undertaking appropriate investigations to locate them before excavation begins,
 - (f) ensure that a safe means of access to and egress from each work place is provided.
- (2) Paragraph (1)(a) shall not apply to any excavation, shaft or earthwork where, having regard to the nature and slope of the sides of the excavation, shaft or earthwork and other circumstances, a fall or dislodgement of earth or other material which would bury or trap a person from a height of more than 1.25 metres is not liable to occur.
- (3) Where a person is engaged in shoring or other work which is being carried out for the purpose of compliance with paragraph (1) (a) appropriate precautions shall, as far as circumstances permit, be taken to ensure his safety.

Inspection and Examination

22. (1) Subject to the provisions of paragraph (4), every part of any excavation, shaft, earthwork, underground works or tunnel where persons are at work shall be inspected by a competent person at least once on every day during which persons are at work therein; and the face of every tunnel and the working end of every trench more than 2.00 metres deep and the base and crown of every shaft shall be inspected by a competent person at the commencement of every shift.

- (2) Subject to the provisions of paragraph (4), a person shall not be permitted to work in any excavation, shaft, earthwork, underground work or tunnel unless a thorough examination has been carried out by a competent person -
 - (a) of those parts thereof, and in particular any shoring or other support, in the region of the blast since explosives have been used in or near the excavation, shaft, earthwork, underground work or tunnel in a manner likely to have affected the strength or stability of that shoring or other support of any part thereof; and
 - (b) of those parts thereof in the region of any shoring or other support of any part thereof that has been substantially damaged and in the region of any unexpected fall of rock or earth or other material; and
 - (c) of every part thereof within the immediately preceding seven days.
- (3) A report of the results of every examination required by paragraph (2), signed by the person carrying out the examination, shall be made on the day of the examination in the approved form.
 - (4) This Regulation shall not apply -
 - (a) to any excavation, shaft or earthwork where, having regard to the nature and slope of the sides of the excavation, shaft or earthwork and other circumstances, a fall or dislodgement of earth or other material which would bury or trap a person or which would strike a person from a height of more than 1.25 metres is not likely to occur, or
 - (b) in relation to persons carrying out inspections or examinations required by this regulation or engaged in shoring or other work for the purpose of making a place safe, if appropriate precautions are taken to ensure their safety as far as circumstances permit.

Supervision and Execution of Shoring and Other Work

- 23. (1) No shoring or other support for any part of an excavation, shaft, earthwork, underground work or tunnel shall be erected or be substantially added to, altered or dismantled except under the direction of a competent person and so far as practicable by persons possessing adequate experience of such work and all material for any such work shall be inspected by a competent person on each occasion before being taken into use and material found defective in any respect shall not be used.
- (2) Shoring or other support for any part of an excavation, shaft, earthwork, underground work or tunnel shall be of good construction, sound material, free from patent defect and of adequate strength for the purpose for which it is used and shall be properly maintained.
- (3) All struts and braces in any excavation, shaft, earthwork, underground work or tunnel shall be properly and adequately secured so as to prevent their accidental displacement or fall.

Excavations etc. Likely to Reduce Security of a Structure

24. No excavation, shaft, earthwork, underground work or tunnel which is likely to reduce, so as to endanger any employee or other person at work, the security or stability of any part of any structure, whether temporary or permanent, shall be commenced or continued unless adequate steps are taken both before and during the progress of the work, to prevent danger to any such person from collapse of the structure or the fall of any part thereof.

Fencing of Excavations, etc.

- 25. (1) Every accessible part of an excavation, shaft, pit or opening in the ground near to which persons are working and into or down a side of which a person is liable to fall a distance of more than 2.00 metres shall be either provided with a suitable barrier placed as close as is practicable to the edge or securely covered.
- (2) Paragraph (1) shall not apply to any part of an excavation, shaft, pit or opening while, and to the extent to which, the absence of such barrier and covering is necessary for the access of persons or for the movement of plant or equipment or materials or while, and to the extent to which, it has not up to then been practicable to erect such barrier or covering since the formation of that part of the excavation, shaft, pit or opening.

Safeguarding Edges of Excavations, etc.

- 26. (1) Material shall not be placed or stacked near the edge of any excavation, shaft, pit or opening in the ground so as to endanger persons at work below.
- (2) No load, vehicle, or plant or equipment shall be placed or moved near the edge of any excavation, shaft, pit or opening in the ground where it is likely to cause a collapse of the side of the excavation, shaft, pit or opening and thereby endanger any person at work, and if necessary appropriate barriers shall be provided.

PART 6 COFFERDAMS AND CAISSONS

Construction and Maintenance

27. Every cofferdam or caisson and every part thereof shall be of good construction, of suitable and sound material, free from patent defect and of adequate strength and shall be properly maintained.

Means of Egress in Case of Flooding

28. Every cofferdam or caisson shall be provided with adequate means for persons at work to reach places of safety in the event of an inrush of water or material.

Supervision of Work and Inspection of Material

- 29. (1) No cofferdam or caisson or part thereof shall be constructed or be placed in position or be substantially added to or altered or be dismantled except under the immediate supervision of a competent person and so far as practicable by persons possessing adequate experience of such work.
- (2) All material used for the construction or fixing of a cofferdam or caisson shall be inspected by a competent person on each occasion before taken into such use and material, which is unsuitable or defective in any respect, shall not be used.

Inspections and Examinations

- 30. (1) Subject to paragraph (3), any cofferdam or caisson in which persons are at work shall -
 - (a) be inspected by a competent person at least once on every day during which persons are working therein, and
 - (b) be thoroughly examined by a competent person -
 - (i) in case explosives have been used in or near the cofferdam or caisson in a manner likely to have affected the strength or stability of the cofferdam or caisson or any part thereof, since the use of the explosives, and
 - (ii) in case the cofferdam or caisson has been substantially damaged, since it was so damaged, and
 - (iii) in any other case, at least once within the immediately preceding seven days.
- (2) A report of the results of every examination made pursuant to this regulation signed by the person carrying out the examination shall be made on the day of the examination in the approved form.
- (3) This Regulation shall not apply in relation to persons engaged in the construction, placing, repairing or alteration of the cofferdam or caisson or carrying out inspections or examinations required by this Regulation if appropriate precautions are taken to ensure their safety as far as circumstances permit.

PART 7 COMPRESSED AIR

Application of Part 7

31. In this Part of these Regulations: -

"pressure" means pressure in kg/cm² above atmospheric pressure.

General

- 32. Where persons are required to work in compressed air -
 - (a) appropriate precautions, arrangements and procedures shall be adapted, and
 - (b) the work shall be planned and undertaken only under the supervision of a competent person.

Plant and Equipment

- 33. All plant and equipment, including man-lock and air supply plant, and all parts and fittings thereof provided for use in relation to work in compressed air shall be -
 - (a) of good design and construction,
 - (b) of sound material and adequate strength,
 - (c) free from patent defect,
 - (d) properly maintained and used, and
 - (e) suitable for the purpose used.

Minimum Requirements

34. Work in compressed air shall be carried out in accordance with the minimum requirements specified in the Sixth Schedule.

PART 8 EXPLOSIVES

Explosives

- 35. (1) Explosives for use in construction work, shall not be stored, transported, handled or used except by or under the immediate control of a competent person with an adequate knowledge of the dangers connected with their use.
- (2) All work involving the handling and use of explosives shall be carried out by competent persons and shall be organised and performed so as to avoid risks to persons at work.
 - (3) Suitable measures shall be taken to ensure that when a charge is fired -
 - (a) persons at work are in places where, so far as can reasonably be anticipated, they will not be exposed to risk of injury from the explosion or from flying materials, and
 - (b) other persons are not exposed to risk of injury.
- (4) This Regulation shall not be construed as being in substitution for, or otherwise affecting any provision of the Explosives Act, 1875 (1875 c.17), or any provision of any other enactment which amends the law relating to explosive substances.

PART 9 DANGEROUS OR UNHEALTHY ATMOSPHERES

Health Hazards

- 36. (1) Where a person at work is liable to be exposed to any chemical, physical or biological hazard to such an extent as is liable to be dangerous to health, appropriate preventative measures shall be taken against such exposure.
 - (2) The preventative measures referred to in paragraph (1) above shall comprise -
 - (a) the replacement of a hazardous substance by a harmless or less hazardous substance wherever possible, or
 - (b) technical measures applied to the plant, machinery, equipment or process; or
 - (c) where it is not possible to comply with subparagraphs (a) or (b) above, other effective measures, including the use of personal protective equipment and protective clothing.

Disposal of Waste

37. Waste shall not be destroyed or otherwise disposed of on a construction site in a manner, which is liable to be injurious to health.

Internal Combustion Engines or Dangerous Gas

38. No stationary internal combustion engine shall be used in any enclosed or confined place unless specific provision is made for conducting the exhaust gases from the engine into the open air or the place is adequately ventilated so as to prevent danger to health from such exhaust gases.

PART 10 WORK ON OR ADJACENT TO WATER

Transport by Water

39. When any person at work is conveyed to or from any place of work on water, proper measures shall be taken to provide for his safe transport and vessels used for this purpose shall be of suitable construction, properly maintained and in the charge of a competent person and not overcrowded or overloaded.

Prevention of Drowning

- 40. (1) Where, on or adjacent to a construction site there is water into which a person is, in the course of his work, liable to fall with risk of drowning, suitable rescue equipment shall be provided and kept in an efficient state and ready for use and measures shall be taken to arrange for the prompt rescue of any such person who is in danger of drowning.
- (2) Where there is special risk of such a fall from the edge of adjacent land or from a structure adjacent to or above the water, or from a floating stage, secure fencing shall be provided near the edge to prevent such a fall, but such fencing may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movement of materials.

TRANSPORT, EARTHMOVING AND MATERIALS-HANDLING MACHINERY, AND LOCOMOTIVES

General

- 41. (1) All transport vehicles, earth-moving and materials-handling machinery and locomotives shall -
 - (a) be of good design and construction taking into account as far as possible ergonomic principles,
 - (b) be maintained in good working order,
 - (c) be properly used,
 - (d) not be operated otherwise than by a competent person who has attained the age of eighteen years but notwithstanding the foregoing operation shall be permissible for the purpose of training by a person who is under the direct supervision of a qualified person for the purpose of training,
 - (e) in circumstances where the operator's visibility is restricted, be fitted with an efficient warning device.
- (2) On all construction sites on which transport vehicles, earth-moving or materials-handling machinery or locomotives are used -
 - (a) safe and suitable access ways shall be provided for them, and
 - (b) traffic shall be so organised and controlled as to secure their safe operation.

Rails and Rail Tracks

- 42. (1) All rails on which any locomotive, truck or wagon moves shall -
 - (a) have an even running surface, be sufficiently and adequately supported and be of adequate section,
 - (b) be jointed by fishplates or double chairs,
 - (c) be securely fastened to sleepers or bearers,
 - (d) be supported on a surface sufficiently firm to prevent undue movement of the rails.
 - (e) be laid in straight lines or in curves of such radii that the locomotive, truck or wagon can be moved freely and without danger of derailment,
 - (f) be provided with an adequate stop or buffer on each rail at each end of the track.

(2) All rails and equipment referred to in this Regulation shall be properly maintained but paragraphs (1) (b) and (1) (c) shall not apply if other adequate steps are taken to ensure the proper junction of the rails, and to prevent any material variation in their gauge.

Clearance

- 43. (1) In connection with the erection, installation, working or use of any line of rails on which any locomotive, truck or wagon moves, there shall be adequate clearance so that persons are not likely to be crushed or trapped by a locomotive, truck or wagon or any part of a load thereon.
- (2) Where it is not practicable to provide clearance in accordance with paragraph (1), such suitable arrangements shall be provided as are necessary to ensure that persons at work are not exposed to unnecessary risks.

Riding in Insecure Positions on Vehicles, etc.

- 44. No person at work shall ride or be required or permitted to ride on the buffer, running board or other insecure position -
 - (a) on any transport vehicle, earthmoving or materials handling machinery, or
 - (b) on any locomotive, truck or wagon,

and shall only ride on the part thereof provided for that purpose.

Vehicles Near Edge of Excavations, etc.

45. Where any vehicle or machinery is used for tipping material into any excavation or shaft or over the edge of any embankment or earthwork or into water adequate measures shall be taken where necessary so as to prevent such vehicle or machinery from overturning or from overrunning the edge of such excavation, shaft, embankment, earthwork or water.

Protection of Driver

46. Where appropriate, excavating machinery and materials handling machinery shall comply with the provisions of any relevant Directive of the European Communities which is applicable as regards the protection of the driver against being crushed if the machine overturns and against falling objects.

PART 12 DEMOLITION

Application of Part 12

47. The requirements of this Part of these Regulations shall apply to the demolition of the whole or any substantial part of a building or other structure.

General

- 48. When the demolition of any building or structure might present danger to persons at work and others -
 - (a) appropriate precautions, methods and procedures shall be adopted, including those for the disposal of waste or residues,
 - (b) the work shall be planned and undertaken only under the supervision of a competent person.

Fire and Flooding

- 49. Before demolition is commenced and also during the progress of the work, appropriate steps shall be taken to prevent danger to persons at work -
 - (a) from risk of fire or explosion through leakage or accumulation of gas or vapour, and
 - (b) from risk of flooding.

Precautions in Connection with Demolition

- 50. (1) No part of a building or other structure as regards which demolition is carried out shall be so overloaded with debris or materials as to render it unsafe to any person at work.
- (2) The following operations shall be carried out only under the immediate supervision of a competent person or by persons trained and experienced in the kind of work and under the direction of a competent person -
 - (a) the actual demolition of a building or other structure or part thereof, except where there is no risk of a collapse of any part of the building or the structure in the course or as a result of the demolition which would endanger persons at work,
 - (b) the actual demolition of any part of a building or other structure where there is such a risk of collapse, whether of that or of any part of the building or structure, in the course or as a result of the said demolition,
 - (c) the cutting of reinforced or prestressed concrete, steelwork or ironwork forming part of the building or other structure which is being demolished.

- (3) Before any steelwork or ironwork is cut or released, precautions shall be taken to avoid danger from any sudden twist, spring, or collapse.
- (4) Where demolition is being carried out all appropriate precautions shall be taken to avoid danger from collapse of a building or other structure when any part of the framing is removed from a framed or partly framed building or other structure.
- (5) Before demolition is commenced and also during the progress of the work precautions shall, where necessary, be taken by adequate shoring or otherwise to prevent the accidental collapse of any part of the relevant building or structure or of any adjoining building or structure, the collapse of which may endanger persons at work, but this requirement shall not apply in relation to any person actually engaged in erecting or placing shoring or other safeguards for the purpose of compliance with this requirement, if appropriate precautions are taken to ensure his safety as far as circumstances permit.
- (6) Before demolition is commenced and also during the progress of the work all appropriate steps shall be taken to ensure that there is no danger to persons at work from electric cables, gas pipes, water mains, sewers or other underground watercourses.
- (7) Appropriate steps shall be taken to suppress, either by water sprays or other means, any dust generated during the process of demolition.

PART 13 WORKING AT HEIGHTS

Provision of Scaffolds, etc.

Where work cannot safely be done on or from the ground or from part of a building or other permanent structure, there shall be provided, placed and kept in position for use and properly maintained either scaffolds or, where appropriate, ladders or other means of support, all of which shall be sufficient and suitable for the purpose for which it is used.

Supervision of Work and Inspection of Material

- 52. (1) No scaffold shall be erected or be substantially added to or altered or be dismantled except under the immediate supervision of a competent person and by persons trained and experienced in the kind of work.
- (2) All material for any scaffold shall be inspected by a competent person on each occasion before being taken into use.

Construction and Material

- 53. (1) Every scaffold and every part thereof shall be of good design and construction, of suitable and sound material and of adequate strength for the purpose for which it is used.
- (2) Sufficient material shall be provided for and shall be used in the construction of scaffolds.
- (3) Timber used for scaffolds shall be of suitable quality, be in good condition, and have the bark completely stripped off.
- (4) Timber used for scaffolds, trestles, ladders, and folding step ladders shall not be so painted or treated that defects cannot easily be seen.
- (5) Metal parts used for scaffolds shall be of suitable quality and be in good condition and free from corrosion or other patent defect likely to affect their strength.

Defective Material

- 54. (1) No defective material or defective part shall be used for a scaffold.
- (2) No rope or bond, which is defective whether through contact with an acid or other corrosive substance or otherwise, shall be used.
- (3) All material and parts for scaffolds shall when not in use be kept under good conditions and apart from any materials or parts unsuitable for scaffolds.

Maintenance of Scaffolds

55. Every scaffold shall be properly maintained and every part shall be kept so fixed, secured or placed in position as to prevent accidental displacement.

Partly Erected or Dismantled Scaffolds

- 56. (1) No scaffold or part of a scaffold, which is partly erected or partly dismantled, shall be used unless the scaffold complies with this Part of these Regulations.
- (2) In case a scaffold or part of a scaffold which is partly erected or partly dismantled does not comply with this Part of these Regulations either
 - (a) a prominent warning notice indicating that the scaffold or part, as the case may be, is not to be used is 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, or
 - (b) access to the scaffold or part, as the case may be, shall be prevented by suitable barriers or other equally effective means.

Standards or Uprights, Ledgers and Putlogs

- 57. (1) Standards or uprights of scaffolds shall -
 - (a) where practicable, be either vertical or slightly inclined towards the building or other structures, and
 - (b) be fixed sufficiently close together to secure the stability of the scaffold having regard to all the circumstances.
- (2) The foot or base of any such standard or upright shall be placed on an adequate base plate in a manner to prevent slipping or sinking, or its displacement shall be prevented in some other sufficient way.
- (3) Ledgers of scaffolds shall be as nearly as possible horizontal and shall be securely fastened to the standards or uprights by efficient means.
- (4) Putlogs or other supports on which a platform rests shall be securely fastened to the ledgers or to the standards or uprights or their movement shall be prevented by other efficient means, and where one end of a putlog is supported by a wall, that end shall extend into or on to the wall sufficiently to provide a supporting surface of sufficient area.
- (5) The distance between two consecutive putlogs or other supports on which a platform rests shall be fixed with due regard to the anticipated load and the nature of the platform flooring.

Stability of Scaffolds

- 58. (1) Every scaffold shall be securely supported or suspended and shall where necessary be sufficiently and properly strutted or braced to prevent collapse and shall be rigidly connected with the building or other structure unless the scaffold is so designed and constructed as to ensure stability without such connection.
- (2) Every structure and appliance used as a support for a scaffold shall be of sound construction, have a firm footing or be firmly supported and shall, where necessary, be sufficiently and properly strutted or braced to prevent collapse and to ensure stability.

- (3) Every scaffold, not being a suspended scaffold or slung scaffold, which can be moved on wheels or skids shall -
 - (a) be constructed with due regard to stability and, if necessary for stability, be adequately weighted at the base,
 - (b) be used only on a firm and even surface not so sloping as to involve risk of instability of the scaffold or any load thereon,
 - (c) be adequately secured to prevent movement when any person is working upon it or upon any ladder or other plant or equipment, being a ladder or plant or equipment which is supported by the scaffold, and
 - (d) be moved only by the application of force at or near the base.
- (4) Loose bricks, drain pipes, chimney pots or other unsuitable material shall not be used for the construction or support of scaffolds.

Slung Scaffolds

- 59. (1) No chain, wire rope, lifting gear, metal tube or other means of suspension for slung scaffolds shall be used unless the following requirements, in so far as they are applicable, are observed, that is to say -
 - (a) it is suitable and of adequate strength for the purpose for which it is used,
 - (b) it is properly and securely fastened to safe anchorage points and to the scaffold ledgers or other main supporting members,
 - (c) it is so placed as to ensure stability of the scaffold,
 - (d) it is as nearly vertical as is practicable, and
 - (e) it is kept taut.
- (2) No rope other than a wire rope shall be used for the suspension of a slung scaffold.
- (3) Where chains or wire ropes are used for the suspension of a slung scaffold, steps shall be taken to prevent such chains or wire ropes coming into contact at points of suspension with edges where this would cause danger.
- (4) Every slung scaffold shall be secured to prevent undue horizontal movement while it is used as a working platform.

Cantilever, Jib, Figure and Bracket Scaffolds

- 60. (1) No cantilever scaffold or jib scaffold shall be used unless it is adequately supported, fixed and anchored, has outriggers of adequate length and strength and is where necessary sufficiently and properly strutted or braced to ensure rigidity and stability.
- (2) No figure or bracket scaffold supported or held by dogs, spikes, or similar fixings liable to pull out of the stone work, brickwork or other surface in which they are gripped or fixed shall be used.

Support for Scaffolds, etc.

61. No part of a building or other structure shall be used as support for a scaffold, ladder, folding step-ladder or crawling ladder or for part of a scaffold, ladder, folding step-ladder or crawling ladder unless the part of the building or other structure is of sound material and sufficiently stable and of sufficient strength to afford safe support.

Suspended Scaffolds (not power operated)

- 62. (1) This Regulation applies to -
 - (a) every suspended scaffold, and
 - (b) plant or equipment which is permanent plant or equipment of a building and which, but for the fact that it is permanently provided, would be a suspended scaffold,

which is not raised or lowered by a power-driven lifting appliance or power driven lifting appliances and no such suspended scaffold, plant or equipment shall be used unless it complies with the requirements of this Regulation.

- (2) In this Regulation, references to suspended scaffolds shall include references to plant or equipment referred to in paragraph (1)(b).
- (3) Every suspended scaffold shall be provided with adequate and suitable chains or ropes and winches or other lifting appliances or similar devices and shall be suspended from suitable outriggers, joists, runways, rail tracks or other equally safe anchorage.
- (4) The winches or other lifting appliances or similar devices of a suspended scaffold shall be -
 - (a) provided with a brake or similar device which comes into operation when the operating handle or lever is released, and
 - (b) adequately protected against the effects of weather, dust or material likely to cause damage.
 - (5) The suspension ropes or chains of a suspended scaffold shall be -

- (a) securely attached to the outriggers or other supports and to the platform framework or to any lifting appliance or other device attached thereto, as the case may be, and
- (b) kept in tension.
- (6) Every part of a suspended scaffold and all plant and equipment, including supports, outriggers and counter weights, used for the purposes thereof shall be of good design and construction, suitable and sound material, of adequate strength for the purpose for which it is used and shall be properly maintained, and, where constructed of metal, shall be free from corrosion and other patent defects, being corrosion and defects likely materially to affect its strength.
- (7) Adequate arrangements shall be made to prevent undue tipping, tilting or swinging of a suspended scaffold and to secure it to prevent undue horizontal movement while it is being used as a working platform.

Boatswain's Chairs, Skips etc. (Not Power Operated)

- 63. (1) A boatswain's chair, cage, skip or similar plant or equipment, other than a boatswain's chair, cage, skip or similar plant or equipment which is raised or lowered by a power-driven lifting appliance, shall not be used unless -
 - (a) it is of good construction, suitable and sound material, adequate strength, free from patent defect and properly maintained,
 - (b) the outriggers or other supports are of adequate strength and properly installed and supported,
 - (c) the chains, ropes, lifting gear or other means of suspension used therewith are securely attached to the outriggers or other supports and to the chair, cage, skip or similar plant or equipment or to any lifting appliance or other device attached thereto, as the case may be,
 - (d) suitable means are provided to prevent any person at work falling out,
 - (e) it is free of materials or articles liable to interfere with such person's handhold or foothold or otherwise endanger him,
 - (f) suitable measures are taken to prevent spinning or tipping in a manner dangerous to any such person,
 - (g) in the case of any skip or other receptacle it is at least 950 millimetres deep, and has at least a toe board, a main handrail and an intermediate handrail,
 - (h) its installation has been, and its use is, supervised by a competent person.

(2) No boatswain's chair, cage, skip or similar plant or equipment, other than a boatswain's chair, cage, skip or similar plant or equipment which is raised or lowered by a power driven lifting appliance, shall be used as a workplace in circumstances in which a suspended scaffold could be used unless the work is of such short duration as to make the use of a suspended scaffold unreasonable or the use of a suspended scaffold is not practicable.

Trestle Scaffolds

- 64. (1) All trestles and supports used for the construction of any trestle scaffold shall be of good design and construction, suitable and sound material, adequate strength for the purpose for which they are used and free from patent defect and shall be properly maintained.
 - (2) A trestle scaffold shall not be used if constructed with more than one tier.
 - (3) No trestle scaffold shall be erected on a scaffold platform unless -
 - (a) the width of the said platform is such as to leave sufficient clear space for the transport of materials along the platform, and
 - (b) the trestles or supports are firmly attached to the said platform and adequately braced to prevent displacement.

Inspection of Scaffolds, Boatswain's Chairs etc.

- 65. (1) Subject to the provisions of this Regulation, no scaffold, including any boatswain's chair, cage, skip, or similar plant or equipment, and no plant or equipment used for the purposes of any of the foregoing shall be used unless -
 - (a) it has been inspected by a competent person before being taken into use;
 - (b) it has been inspected by a competent person since any modification, period without use, exposure to bad weather or seismic tremors, or any other circumstance which may have affected its strength or stability or displaced any part of it,
 - (c) it has been inspected by a competent person since being taken into use, at least once within the previous seven days, and
 - (d) a report has been made of the results of every such inspection in the approved form and signed by the person making the inspection.

(2) Paragraph (1)(d) shall

- (a) not apply to a trestle scaffold or a scaffold from no part of which a person is liable to fall a distance of more than 2.00 metres,
- (b) not be construed as requiring a scaffold to be inspected by reason only of the fact that it has been added to, altered or partly dismantled.

Scaffolds used by Employees of Different Contractors

66. Where a scaffold or part of a scaffold is to be used by or on behalf of a contractor other than the contractor for whose employees it was first erected, the first-mentioned contractor shall, before such use, and without prejudice to any other obligations imposed upon him by these Regulations, either personally or through a servant or agent, satisfy himself that the scaffold is stable, that the materials used in its construction are sound and that the safeguards required by this Part of these Regulations are in position.

Construction of Working Platforms, Gangways, Runs and Stairs

- 67. (1) Working platforms, gangways, runs and stairs shall be constructed, dimensioned, protected and used in such a way as to prevent persons at work from falling or being exposed to falling objects.
- (2) Working platforms, gangways and runs shall be of a sufficient width to allow the safe passage of persons at work and of materials where appropriate.
- (3) Working platforms shall be of sufficient width to afford adequate working space at every part.

Decking of Working Platforms, Gangways and Runs

- 68. (1) Every board, plank or other decking forming part of a working platform, gangway or run shall be of a thickness and width which are such as to afford adequate strength and security having regard to the distance between the supports.
- (2) No board, plank or other decking which forms part of a working platform, gangway or run shall project beyond its end support to a distance which, having regard to the thickness and strength of the decking, renders the projecting part of the decking an unsafe support for any weight liable to be upon it unless it is effectively secured to prevent tipping.
- (3) Suitable measures shall be taken by the provision of adequate bevelled pieces or otherwise to reduce to a minimum the risk of tripping and to facilitate the movement of barrows where boards, planks or other decking which form part of a working platform, gangway or run overlap each other, or are not of reasonably uniform thickness where they meet each other, or, owing to warping or for some other reason, do not provide an even surface.
- (4) Paragraph (3) shall not apply to a working platform, gangway or run one side of which is contiguous to a curved surface of any cylindrical or spherical structure.
- (5) Every board, plank or other decking which forms part of a working platform, gangway or run shall -
 - (a) rest securely and evenly on its supports, and
 - (b) rest on at least three supports unless, taking into account the distance between the supports and the thickness of the board, plank, or other decking, the conditions are such as to prevent undue or unequal sagging.

Guard-rails and toe-boards at working platforms and workplaces

- 69. (1) Every side of a working platform or workplace, being a side from which a person at work is liable to fall a distance of more than 2.00 metres, shall, subject to the following paragraphs, be provided with a suitable guard-rail or guard-rails of adequate strength to a height neither greater than 1.20 metres nor less than 950 millimetres above the platform, and with toe-boards or other barriers up to a sufficient height which shall in no case be less than 150 millimetres.
- (2) Guard rails and toe-boards or other barriers required to be provided under paragraph (1) shall be so placed as to prevent, so far as practicable, the fall of persons at work, materials and articles from the working platform or workplace.
- (3) Without prejudice to the generality of Regulation 55, the outward movement of guard-rails and toe-boards or barriers, shall, unless they are so designed and used as to prevent such movement, be prevented by placing them on the inside of the uprights or by other equally effective means.
- (4) Where guard-rails are required to be provided, the distance between any toe-board or other barrier and the lowest guard-rail above it shall not exceed 800 millimetres.
 - (5) On the side of a suspended scaffold next to the wall or working face -
 - (a) guard-rails required by this Regulation need not extend to a height of more than 700 millimetres above the platform if the work is impracticable with a guard-rail at a greater height; and
 - (b) guard-rails and toe-boards or other barriers shall not be required if persons sit at the edge of the platform to work and ropes or chains affording all such persons a safe and secure handhold are provided.
 - (6) Subject to paragraph (7), paragraphs (1), (2) and (3) shall not apply to -
 - (a) a platform which is used only in the course of erecting any framework or prefabricated unit forming part of a building or other permanent structure for the purposes of joining, bolting up, riveting or welding work and which is used for such a short period as to make the provision of guardrails and toe-boards or barriers unreasonable, if the following requirements are complied with, namely -
 - (i) the platform is of sufficient width,
 - (ii) except where a person at work cannot fall from the platform a distance exceeding 2.00 metres, there is adequate handhold, and steps are taken to prevent persons working thereon from falling, and
 - (iii) the platform is not used for the deposit of materials or articles otherwise than in boxes or receptacles suitable to prevent the fall of the materials or articles from the platform;

- (b) a temporary platform passing between two adjacent glazing bars of a roof with a sloping surface if those bars or the roof framework afford secure handhold along the full length of the platform.
- (7) Not withstanding the provisions of paragraphs (6) (a) and (b) toe-boards or barriers shall be provided on such platforms in accordance with paragraphs (1), (2) and (3) except where the provision of toe-boards or barriers is impracticable on account of the nature or circumstances of the work.
 - (8) Paragraphs (1), (2) and (3) shall not apply to -
 - (a) a platform under a roof being a platform which is supported by or suspended from roof members or the roof and which is used only for work on or in the vicinity of the roof, being work which is of a light nature and of such short duration as to make the provision of guardrails and toe-boards or barriers unreasonable if the following requirements are complied with, namely
 - (i) there is adequate handhold at every working position and steps are taken to prevent persons working thereon from falling a distance of more than 2.00 metres, and
 - (ii) the material required for the work is such that the platform can be used with safety,
 - (b) a working platform or workplace one side of which is contiguous to the concave surface of a cylindrical or spherical structure for so long as practicable steps are being taken to prevent persons working thereon from falling a distance of more than 2.00 metres.

Guard-rails, etc. for Gangways, Runs and Stairs

- 70. (1) Every side of any gangway, run or stairs from which a person at work is liable to fall a distance of more than 2.00 metres shall comply with the following requirements -
 - (a) it shall be provided with a suitable guard-rail or guard-rails of adequate strength to a height of not more than 1.20 metres nor less than 950 millimetres above the gangway, run or stairs,
 - (b) except in the case of stairs, it shall be provided with toe-boards or other barriers, up to a sufficient height which shall in no case be less than 150 millimetres and placed so as to prevent, as far as possible, the fall of persons at work, materials or articles, and
 - (c) the space between any toe-boards or barrier and the lowest guard-rail above it shall not exceed 800 millimetres.

Platforms, Gangways, Runs and Stairs, etc. to Afford Safe Foothold

- 71. (1) If a platform, gangway, run or stair becomes slippery, appropriate steps shall, as soon as practicable, be taken by way of sanding, cleaning or otherwise to remedy the condition.
 - (2) Every platform, gangway, run or stair shall be kept free from any unnecessary obstruction and material and free from rubbish and any projecting nails.

(3)

Construction and maintenance of ladders and folding step-ladders.

- 72. (1) Every ladder and folding step-ladder shall be of good construction, of suitable and sound material and of adequate strength for the purpose for which it is used and shall be properly maintained.
- (2) No ladder shall be used from which a rung is missing or where a rung is defective.
 - (3) Every rung of a ladder shall be properly fixed to the stiles or sides.
- (4) No ladders shall be used in which any rung depends for its support solely on nails, spikes or other similar fixing.
- (5) Where in the case of a wooden ladder the tenon joints are not secured by wedges, reinforcing ties shall be used.
- (6) Wooden stiles or sides and wooden rungs of ladders shall have the grain running lengthwise.
 - (7) This Regulation shall not apply to ladders to which Regulation 76 applies.

Use of ladders and folding step-ladders

- 73. (1) This Regulation applies to ladders and folding step ladders other than a ladder lying upon a roof or a crawling board or crawling ladder, being ladders and folding step-ladders which afford a means of access, egress, communication or support to a person at work.
- (2) Subject to the provisions of paragraphs (3) and (4), no ladder standing on a base shall be used unless -
 - (a) it is securely fixed near to its upper resting-place or, in the case of a vertical ladder near to its upper end, provided that where such fixing is impracticable the ladder shall be securely fixed at or near to its lower end,
 - (b) it has a level and firm footing and is not standing on loose bricks or other loose packing,
 - (c) it is secured where necessary to prevent undue swaying or sagging, and
 - (d) it is equally and properly supported on each stile or side.

- (3) Subject to paragraph (4), where it is impracticable in relation to a ladder standing on a base to comply with the requirements of paragraph (2)(a), a person who is at work shall be stationed at the foot of the ladder when in use to prevent it slipping.
- (4) Paragraphs (2) and (3) shall not apply to a ladder which is not more than 3.00 metres in length and which is not used as a means of communication, if the ladder is securely placed as to prevent it from slipping or falling.
 - (5) No ladder shall be used unless -
 - (a) (i) it extends to a height of at least 1.00 metres above the place of landing or the highest rung to be reached by the feet of any person at work using the ladder, as the case may be, or, if this is impracticable, it extends to the greatest practicable height, or
 - (ii) there is other adequate handhold, apart from the ladder, and
 - (b) there is sufficient space at each rung to provide adequate foothold.
 - (6) Every ladder, other than ladders standing on bases, shall before being used be -
 - (a) securely suspended,
 - (b) secured where necessary to prevent undue swinging or swaying, and
 - (c) equally and properly suspended by each stile or side.
 - (7) No folding step-ladder shall be used -
 - (a) unless it has a level and firm footing, or
 - (b) while it is standing on loose bricks or other loose packing.
- (8) No ladder or run of ladders rising a vertical distance of over 9.00 metres shall be used unless it is, if practicable, provided with an intermediate landing place or intermediate landing places so that the vertical distance between any two successive landing places shall not exceed 9.00 metres.
- (9) Every landing place provided under paragraph (8) shall be of adequate dimensions and, if a person at work is liable to fall from the landing place a distance of more than 2.00 metres, shall, except in so far as it is not practicable to do so, be provided with sufficient and suitable guard-rails to a height neither greater than 1.20 metres nor less than 950 millimetres above the landing place and with toe-boards or other barriers up to a sufficient height which shall in no case be less than 150 millimetres.

- (10) Guard-rails provided under paragraph (9) shall be so placed as to prevent as far as possible the fall of persons at work, materials and articles and so that the space between any toe-boards or other barriers up to a sufficient height which shall not exceed 800 millimetres.
- (11) Where a ladder passes through an opening in the floor of a landing place, the opening shall be as small as is practicable.

Openings, Corners, Breaks, Edges and Open Joisting

- 74. (1) Paragraphs (1) to (3) apply to every opening, corner, break, or edge which any person at work is liable to approach or across which any such person is liable to pass, being an opening, corner, break or edge -
 - (a) in or of a roof, other than a roof to which Regulation 76 of these Regulations applies, floor, wall or other similar part either of a building or of any other structure whether the roof, floor, wall or other structure is complete or only partly complete or is in course of construction, maintenance, repair or demolition, or
 - (b) in or of a working platform, gangway, or run.
- (2) Subject to Regulation 75, where a person at work is liable to fall from or through an opening, corner, break or edge to which this Regulation applies either a distance of more than 2.00 metres or into any liquid or material so as to involve risk of drowning or serious injury, then, either -
 - (a) a suitable guard-rail or guard-rails of adequate strength shall be provided to a height of not less than 950 millimetres and not exceeding 1.20 metres above the surface across which such person is liable to pass, together with toe-boards or other barriers up to a sufficient height which shall be not less than 150 millimetres, and shall be so placed as to prevent, as far as possible, the fall of persons at work, materials and articles and so that the space between any toe-board or other barrier at the lowest guard-rail above it shall not exceed 800 millimetres, or
 - (b) a covering shall be provided which is so constructed as to prevent the fall of persons at work, materials or articles and any such covering shall be securely fixed in position.
- (3) Subject to Regulation 75, where materials or articles are liable to fall through or from an opening, corner, break or edge to which this Regulation applies, other than an opening, corner, break or edge to which paragraph (2) applies, so as to endanger persons at work, suitable precautions by way of the erection of toe-boards, secure covering or otherwise shall be taken to prevent such falls.

(4) Subject to Regulation 75, when work is done on or immediately above any open joisting through which there is a risk of a person at work falling a distance of more than 2.00 metres, the following requirements shall be complied with, namely such joisting shall be securely covered by boards or other temporary covering to the extent necessary to afford safe access to or foothold for the work or other effective measures shall be taken to prevent persons at work from falling.

Exceptions from Regulation 74

- 75. (1) Guard-rails, toe-boards, barriers and coverings required by Regulation 74 may be removed or remain unerected -
 - (a) where and when this is necessary in order to proceed with any permanent filling in, covering or enclosure, or
 - (b) for the time and to the extent necessary for the access of persons at work or the movement of materials or other purposes of the work,

but the opening, corner, break or edge shall not be left unattended and guard-rails, toe-boards, barriers and coverings removed or remaining unerected for any of those purposes shall be replaced or re-erected as soon as practicable.

(2) Without prejudice to Regulation 69, Regulation 74 shall not apply to any opening, corner, break or edge created in the course of demolition operations to which Part XII of these Regulations applies or to any opening, corner, break or edge created in the course of any other demolition operation if in the course of such last mentioned demolition operation the opening, corner, break or edge is not left unattended.

Sloping roofs

76. (1) In this Regulation -

"sloping roof" means a roof or part of a roof being a roof or part having a pitch of more than 10 degrees which is covered either wholly or partly.

- (2) This Regulation applies to a sloping roof which is -
 - (a) in the course of construction, maintenance, repair or demolition, or
 - (b) used as a means of access to or egress from work on a roof or part of a roof being work to which these Regulations apply.
- (3) Except as provided in paragraphs (7) and (8), work on or from a sloping roof shall only be carried out by persons who are suitable for such work and in addition the requirements of paragraphs (4) and (5) shall be complied with.

- (4) Where a sloping roof is used as a means of access to or egress from work on a roof or a part of a roof being work to which these Regulations apply, sufficient and suitable crawling ladders or crawling boards shall be provided on that sloping roof.
- (5) Subject to paragraph (8) where any work is done on or from any sloping roof sufficient and suitable crawling ladders or crawling boards shall be provided on that sloping roof and either -
 - (a) a suitable barrier shall be provided at the lower edge of the sloping roof, other than the upper surface of a tank or similar structure of metal construction, of such a design and so constructed as to prevent any person at work falling from that edge, or
 - (b) the work shall be done from a securely supported working platform of sufficient width and which complies with the requirements of paragraphs (1) to (5) of Regulation 69.
- (6) Crawling ladders and crawling boards required to be provided by paragraph (4) or (5) of this Regulation shall be -
 - (a) of good construction, suitable and sound material, adequate strength for the purpose for which they are used, free from patent defect and properly maintained,
 - (b) properly supported, and
 - (c) securely fixed or anchored to the sloping surface or over the roof ridge or securely fixed in some other way.
- (7) The provision of crawling ladders or crawling boards shall not be required in the case of any sloping roof where the handhold and foothold afforded by the battens or other similar members of the structure are such that the said sloping roof is as safe for every person at work thereon as it would be if the said provision had been made.
- (8) Paragraphs (5)(a) and (5)(b) shall apply only in the case of a sloping roof from the eaves of which a person at work could fall a distance of more than 2.00 metres.
- (9) Suitable and sufficient means shall be provided to prevent the fall of materials or articles from a sloping roof.

Work on or near fragile materials

77. (1) A person shall not pass across, or work on or from, material which is liable to fracture if his weight were to be applied to it and it is so situated that if it were so fractured he could fall a distance of more than 2.00 metres unless such one or more of all or any of the following are provided, that is to say, suitable and sufficient ladders, crawling ladders, crawling boards and duck-boards, which shall be securely supported and, if necessary, secured so as to prevent their slipping, as are necessary to ensure that the weight of any such

person so passing or working is wholly or mainly supported by such ladders or boards unless his weight is supported by other equally safe and sufficient means.

- (2) A person at work shall not pass or work near material of the kind as specified in paragraph (1) and so situated unless provision is made by means of such one or more of all or any of the following, that is to say, suitable guard-rails, suitable coverings and other suitable means as are appropriate for preventing any such person so passing or working from falling through the said material.
- (3) A suitable warning notice "danger fragile roof" shall be affixed at the approach to material of the kind specified in paragraph (1).
- (4) References in this Regulation to a person's weight shall be construed as references to the aggregate of his weight and that of anything he may, for the time being, be supporting by his person.
- (5) All plant and equipment provided in pursuance of this Regulation shall be of good construction, suitable and sound material, adequate strength for the purpose for which it is used, free from patent defect, properly maintained and used.

Loads on scaffolds

- 78. (1) A scaffold shall not be overloaded and so far as practicable the load thereon shall be evenly distributed.
- (2) When any material is transferred on or to a scaffold it shall be moved or deposited without imposing any sudden shock.
- (3) Materials shall not be kept upon a scaffold unless needed for work within a reasonable time.

Prevention of falls and provision of safety nets and harnesses

- 79. (1) Where, by reason of the special nature or circumstances of any part of the work to which these Regulations apply or of the access thereto or any egress therefrom, it is impracticable to comply with any of the requirements of Regulations 15 (2), 51, 67 to 71, 74, 76 and 77 those requirements shall be complied with so far as practicable and in any case, subject to paragraphs (2) and (3), there shall in addition where practicable be provided and so erected and kept in such positions as to be effective to protect persons carrying on that part of the work or using the said access or egress, suitable safety nets or safety sheets of such a design and so constructed and installed as to prevent so far as practicable injury to persons at work falling on to them.
- (2) Where by virtue of paragraph (1) safety nets or safety sheets would be required to be provided for the protection of persons at work but all such person are able safely to carry on the relevant work or use the relevant access or egress by making use of safety harnesses or safety belts attached continuously to a suitable and securely fixed anchorage, such safety nets or safety sheets shall not be required to be provided if there are provided instead and properly used suitable and sufficient safety harnesses, safety belts or other suitable and sufficient safety equipment.

- (3) In any of the following cases, that is to say -
 - (a) where it is impracticable to provide all such safety nets or safety sheets as would be required to comply with the requirements of paragraph (1),
 - (b) where it is not practicable so to provide all such nets or sheets by reason of the frequent movement of materials or other purposes of the work, and
 - (c) where the work is of such short duration as to make the provision of all such nets or sheets unreasonable,

safety nets or safety sheets in accordance with the requirements of paragraph (1) shall be provided to the extent to which it is possible to provide them and, in any such case, there shall also be provided suitable and sufficient safety harnesses or safety belts, together with suitable and sufficient anchorages, or other suitable and sufficient safety equipment having suitable fittings and being of such a design and so constructed as to prevent serious injury in the event of a fall to a person at work using them.

(4) All safety nets, safety sheets, safety harnesses, safety belts and other equipment provided in pursuance of this Regulation shall be properly maintained and used.

PART 14

LIFTING APPLIANCES

Construction, Maintenance and Inspection.

- 80. (1) Every lifting appliance and every part thereof, including all working gear and all other plant or equipment used for anchoring, fixing or supporting such appliances, shall -
 - (a) be of good design and mechanical construction, sound material, adequate strength and free from patent defect,
 - (b) be properly installed and used,
 - (c) be properly maintained,
 - (d) be used only for the purposes for which they were intended,
 - (e) as far as the construction permits, be inspected at least once in every week by the driver, if competent for the purpose, or if the driver is not competent, by some other person who is competent.
- (2) A report of the results of every inspection, carried out under paragraph (1)(e), signed by the person carrying out the inspection, shall be made forthwith in the approved form.

Support, anchoring, fixing and erecting

- 81. (1) Every lifting appliance shall be adequately and securely supported.
- (2) Every part of a stage, scaffold, framework or other structure and every mast, beam, pole or other article of plant or equipment, supporting a lifting appliance or any part thereof shall, having regard to the nature of the lifting appliance, its lifting and reaching capacity and the circumstance of its use, be of good construction, adequate strength, sound material and free from patent defect.
- (3) Every part of the framework of every crab or winch, other than a jack roll, including its bearers, shall be of metal.
- (4) Any anchoring or fixing arrangements provided in connection with a lifting appliance shall be adequate and secure.
- (5) Every temporary attachment or connection of a rope, chain or other plant or equipment used in the erection or dismantling of any lifting appliance shall be adequate and secure.
- (6) In the case of a crane which is on occasion dismantled or partially dismantled, any jib or boom which is separated from the crane in dismantling shall be clearly marked so as to indicate the crane of which it was a part.

Precautions where Lifting Appliance has Travelling or Slewing Motion.

- 82. (1) On every stage, gantry or other place where a lifting appliance having a travelling or slewing motion is in use, an unobstructed passageway not less than 600 millimetres wide shall be maintained between any part of the appliance liable so to move and any guard-rails, fencing or other nearby fixture.
- (2) If at any time it is impracticable to maintain such a passageway at any place or point all appropriate steps shall be taken to prevent the access of any person at work to such place or point.

Platforms for Crane Drivers and Signaller.

- 83. (1) Where a platform is provided for the person or persons driving or operating a crane, or for any signaller, it shall be -
 - (a) of sufficient area for the person thereon,
 - (b) closely planked or plated,
 - (c) provided with safe means of access and egress,

and

every side of such platform from which there is risk of a person at work falling a distance of more than 2.00 metres shall be provided with suitable guard rails and toe boards in accordance with Regulation 69(1) and (2).

(2) Guard-rails and toe boards required under paragraph (1) may be removed and remain unerected only for the time and to the extent necessary for the access of persons at work or the movement of materials.

Cabins for Drivers.

- 84. (1) Subject to paragraphs (2) and (4), the driver of every power-driven lifting appliance shall be provided with a suitable cabin, which shall -
 - (a) afford adequate protection from the weather,
 - (b) be equipped with suitable fire fighting equipment and kept in a clean state,
 - (c) be so constructed as to afford ready access to such parts of the lifting appliance as are within the cabin and need periodic inspection or maintenance, but no cabin shall be provided which prevents the driver from having such clear and unrestricted view as is necessary for the safe use of the appliance.
- (2) Subject to paragraph (4), the cabin shall, before the relevant lifting appliance is put into general use, be completely erected or other adequate provision shall be made for the protection of the driver from the weather.

- (3) Subject to paragraph (4), the cabin shall, where practicable when in use during cold weather, be adequately heated by suitable means.
 - (4) Paragraphs (1) to (3) shall not apply -
 - (a) in cases where the driver is indoors or otherwise adequately protected from the weather,
 - (b) to a hoist other than a hoist operated only from one position alongside the winch,
 - (c) to lifting appliances mounted on wheels and having a maximum safe working load of 1000 kilogrammes or less,
 - (d) to any machine incorporating a lifting appliance where the primary purpose of that machine is not that of a lifting appliance,
 - (e) to mobile elevating work platforms, or
 - (f) lifting appliances intended for occasional use or for use for only short periods.

Drums and Pulleys.

- 85. (1) Every drum or pulley round which the chain or wire rope of any lifting appliance is carried shall be of suitable diameter and construction for the chain or rope used.
- (2) Every chain or rope which terminates at the winding drum of a lifting appliance shall be properly secured thereto and at least two turns of such chains or rope shall remain on such drum in every operating position of this appliance.

Brakes, Controls, Safety Devices, etc.

- 86. (1) Every crane, crab and winch (other than a jack roll) shall be provided with an efficient brake or brakes or other safety devices which will prevent the fall of the load when suspended and by which the load can be effectively controlled whilst being lowered.
- On every lifting appliance every lever, handle, switch or other device provided for controlling the operation of any part of the appliance, being a lever, handle, switch or device whose accidental movement or displacement is liable to cause danger, shall, where practicable, unless it is so placed or the appliance is so constructed as to prevent accidental movement or displacement, be provided with a suitable spring or other locking arrangement to prevent the accidental movement or displacement.
- (3) Every lever, handle, switch or other device provided for controlling the operation of any part of a lifting appliance shall have upon or adjacent to it clear markings to indicate its purpose and mode of operation.
- (4) Paragraph (3) shall not apply to rotating handles for raising or lowering the load in the case of a winch or nonderricking jib crane not operated by mechanical power.

Safe Means of Access.

87. Where, as regards any person engaged on the examination, maintenance, repair, cleaning or lubrication of any lifting appliance, there is a risk of the person falling a distance of more than 2.00 metres there shall, so far as is practicable, be provided and maintained a safe means of access to and egress from the place at which the person has so to work and, where necessary, the means shall be provided with such adequate handholds and footholds.

Poles or Beams Supporting Pulley Blocks or Gin Wheels.

- 88. No pulley block or gin wheel suspended from or supported by a pole or beam shall be used for raising or lowering materials unless it is effectively secured to the pole or beam and the pole or beam -
 - (a) is of adequate strength for the purpose for which it is being used, and
 - (b) is adequately and properly secured so as to support the pulley block or gin wheel and the load with safety and so as to prevent undue movement of the pole or beam.

Stability of Lifting Appliances.

- 89. (1) Appropriate precautions shall be taken to ensure the stability of lifting appliances used on a soft or uneven surface or on a slope.
- (2) No crane shall be used for raising or lowering unless, so as to ensure stability, it is either -
 - (a) securely anchored, or
 - (b) adequately weighted by suitable ballast which shall be properly placed on the crane structure and sufficiently secured to prevent its being accidentally displaced.
- (3) No part of any rails on which a crane is mounted or the sleepers supporting such rails shall be used as anchorage for the purposes of paragraph (2).
- (4) The whole of the appliances for the anchorage or ballasting of a crane shall be examined by a competent person on each occasion before the crane is erected.
- (5) After each erection of a crane on a site to which these Regulations apply and after each removal of a crane about or to such a site, or any adjustment to any member of a crane, being a removal or adjustment which involves changes in the arrangements for anchoring or ballasting the crane, the security of the anchorage or the adequacy of the ballasting, as the case may be, shall, before the crane is used, be tested by a competent person, by the imposition either -
 - (a) of a load of twenty-five per cent above the maximum load to be lifted by the crane as erected at the position where there is the maximum pull on each anchorage, or
 - (b) of a less load arranged to provide an equivalent test of the anchorage or ballasting arrangements.

- (6) A report of every test and the results thereof, signed by the person carrying out the test, shall be made forthwith in the approved form.
- (7) If the person making tests under paragraph (5) considers that the maximum load which may safely be lifted by a crane as erected is less than the safe working load of the crane he shall specify that maximum in his report pursuant to this Regulation and a loading diagram appropriate to the stability of the crane at the time of the test, taking into account, in the case of a crane mounted on wheels, the conditions of the track, and indicating a modified safe working load or loads shall be affixed in a position where it can readily be seen by the crane driver.
- (8) Notwithstanding Regulation 2, the modified safe working load or loads specified under this Regulation shall be deemed for the purposes of these Regulations to be the safe working load or loads of the crane as erected.
- (9) Where the stability of a crane is secured by means of removable weights, a diagram or notice indicating the position and amount of such weights shall be affixed on the crane so that it can be readily seen and each such removable weight shall be clearly stamped with its correct weight.
- (10) A crane shall not be used or erected under weather conditions likely to endanger its stability.
- (11) After exposure to weather conditions likely to have affected the stability of a crane, the anchorage arrangements and ballast shall be examined by a competent person as soon as practicable and before the crane is used, and any necessary steps shall be taken to ensure the stability of the crane.

Rail mounted cranes.

- 90. (1) All rails on which a crane moves shall -
 - (a) be supported on a surface sufficiently firm to prevent undue movement of the rails,
 - (b) have an even running surface, be sufficiently and adequately supported and be of adequate section,
 - (c) be jointed by fish plates or double chairs,
 - (d) be securely fastened to sleepers or bearers,
 - (e) be laid in straight lines or in curves of such radii that the crane can be moved freely and without danger of derailment, and
 - (f) be provided with adequate stops or buffers on each rail at each end of the track.

- (2) All rails and equipment referred to in paragraph (1) shall be properly maintained.
- (3) The requirements of paragraphs (1) (c) and (1) (d) shall not apply in the case of cranes on bridge rails or in the case of any crane if other adequate steps are taken to ensure the proper alignment of the rails and to prevent any material variation in their gauge.
- (4) Where a Scotch derrick crane is mounted on more than one bogie, trolley or wheeled carriage -
 - (a) the crane sleepers or land ties, and if necessary the bogies, trolleys or wheeled carriages, shall be rigidly braced and properly connected together and the rails on which each bogie, trolley or wheeled carriage moves shall be level, and
 - (b) the crane shall be moved on the track only in a manner not liable to cause instability, racking or distortion either to the crane structure or of the supporting framework or track.
- (5) Every travelling crane on rails shall be provided with guards to remove from the rails any loose material likely to cause danger.

Mounting of cranes.

91. Every bogie, trolley or wheeled carriage on which a crane is mounted shall, having regard to the purposes for which the crane is being used, be of good construction, adequate strength and suitable to support the crane and shall be of sound material, free from patent defect and properly maintained.

Cranes with Derricking Jibs.

- 92. (1) On every crane having a derricking jib operated through a clutch there shall be provided and properly maintained an effective interlocking arrangement between the derricking clutch and the pawl sustaining the derricking drum which shall ensure the clutch cannot be disengaged unless the pawl is in effective engagement with the derricking drum and the pawl cannot be disengaged unless the clutch is in effective engagement with the derricking drum.
 - (2) This Regulation shall not apply to any crane in which -
 - (a) the hoisting drum and the derricking drum are independently driven, or
 - (b) the mechanism driving the derricking drum is self-locking.

Restriction on use of cranes.

93. (1) The hoisting mechanism of a crane shall not be used for any purpose other than raising or lowering a load vertically unless no undue stress is imposed on any part of the crane structure or mechanism, the stability of the crane is not thereby endangered and unless such use is supervised by a competent person.

(2) In addition to the requirements of paragraph (1), a crane with a derricking jib shall not be used with the jib at a radius exceeding the maximum radius required to be specified for the jib in the certificate of test and examination required by Regulation 97.

Erection of Cranes under Supervision.

94. A crane shall not be erected or dismantled except under the supervision of a competent person.

Competent Persons to Operate Lifting Appliances and Give Signals.

- 95. (1) A lifting appliance shall not be operated otherwise than by a person competent to operate that appliance but, to notwithstanding the foregoing, it shall be permissible for the appliance to be operated by a person who is under the direct supervision of a qualified person for the purpose of training.
- (2) No person under eighteen years of age shall be employed either to give signals to the operator of a lifting appliance driven by mechanical power or to operate any such appliance.
- (3) Subject to paragraph (4), if the person operating a lifting appliance has not a clear and unrestricted view of the load, or where there is no load, of the point of attachment for a load, and of its vicinity, throughout the operation except at any place where such view is not necessary for safe working, there shall be appointed and suitably stationed one or more competent persons as may be necessary to give necessary signals to the operator.
- (4) Where and in so far as it is impracticable to comply with the requirements of paragraph (3), effective measures shall be taken to enable the driver or operator of the lifting appliance -
 - (a) to ascertain the position of the load or point of attachment for a load when it is in the vicinity of a loading or unloading point or of any other place at which danger is reasonably to be anticipated, or
 - (b) by other means, to ensure the safe movement of the load.
 - (5) The provisions of paragraphs (3) and (4) shall not apply -
 - (a) in the case of a hoist, of an aerial cableway or of an aerial ropeway, or
 - (b) in a case other than that of a hoist, as respects places where the appliance can raise or lower the load, or point of attachment for a load, vertically only, without any horizontal or slewing motion, if for safe working the driver or operator of the appliance needs information related to the movement, stopping or position of the load, or point of attachment for a load, when it is at or in the immediate vicinity of certain points only, and effective arrangements are made by means of a signalling system, position indicators or otherwise, for providing the driver or operator with any such information necessary for safe working.

(6) There shall be efficient signalling arrangements between the driver or operator and persons employed at a loading or unloading point of an aerial cableway or aerial ropeway.

Signals.

- 96. (1) Every signal given for the moving or stopping of a lifting appliance shall be distinctive in character and such that the person to whom it is given is able to hear or see it easily.
- (2) Devices or apparatus used for giving sound, colour, light or other signals for the purpose aforesaid shall be properly maintained and the means of communication shall be adequately protected from accidental interference.

Testing and examination of lifting appliances.

- 97. (1) Subject to paragraph (4) -
 - (a) no crane, crab or winch shall be used unless it has been tested and thoroughly examined by a competent person within the previous four years,
 - (b) no pulley block, gin wheel or sheer legs shall be used in the raising or lowering of any load weighing 1,000 kilogrammes or more unless it has been tested and thoroughly examined by a competent person, and
 - (c) no other lifting appliance first brought into use after 31st December 1996 shall be used in the raising or lowering of any load weighing 1,000 kilogrammes or more unless it has been tested and thoroughly examined by a competent person.
 - (2) Subject to paragraph (4) -
 - (a) no crane, crab or winch shall be used after any substantial alteration or repair affecting its strength or stability until it has been tested and thoroughly examined by a competent person, and
 - (b) no other lifting appliance shall, after any substantial alteration or repair, be used in the raising or lowering of any load weighing 1,000 kilogrammes or more until it has been tested and thoroughly examined by a competent person.
- (3) Subject to paragraph (4), no lifting appliance shall be used unless it has been thoroughly examined by a competent person within the previous fourteen months, and in case it undergoes any substantial alteration or repair, since the alteration or repair.
- (4) Paragraphs (1) to (3) shall not apply to a hoist, or to a mobile elevating work platform as covered by Regulation 123.
- (5) No lifting appliance shall be used unless there has been obtained, in such form as may be approved as respects the kind of lifting appliance tested and examined, a certificate of any test and examination required by paragraphs (1) to (3) signed by the person making or

responsible for the carrying out of the test and examination and specifying each of the following -

- (a) the safe working load or loads,
- (b) in the case of a crane with a variable operating radius, including a crane with a derricking jib, the radii of the jib, trolley or crab appropriate to the specified safe working loads, and
- (c) in the case of a crane with a derricking jib, the maximum radius at which the jib may be worked.
- (6) A report in an approved form of the results of every test or examination required by paragraphs (1) to (3), signed by the person carrying out the test or examination, shall be made within twenty-eight days, but this paragraph shall not apply to a test or examination of which a certificate has been obtained in accordance with paragraph (5).
- (7) The person making the report of any test or examination required by paragraphs (1) to (3) shall within 28 days of the completion of the test or examination, send to the Authority a copy of the report in every case where the test or examination shows that the plant or equipment cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.

Marking of Safe Working Loads.

- 98. (1) The safe working load or safe working loads and a means of identification shall be plainly marked -
 - (a) upon every crane, crab or winch,
 - (b) upon every lifting appliance used in the raising or lowering of any load weighing 1,000 kilogrammes or more.
- (2) Every crane of variable operating radius, including a crane with a derricking jib, shall before the crane is taken into use -
 - (a) have plainly marked upon it the safe working load at various radii of the jib, trolley or crab, and, in the case of a crane with a derricking jib, the maximum radius at which the jib may be worked, and
 - (b) be fitted with an accurate indicator, clearly visible to the driver, showing at any time the radius of the jib, trolley or crab, and the safe working load corresponding to that radius.

Indication of Safe Working Load on Jib Cranes.

- 99. (1) Subject to paragraph (4) -
 - (a) no jib crane having either a fixed or derricking jib, other than a mobile crane, shall be used unless it is fitted with an approved type of automatic safe load indicator which shall be tested by a competent

person, not being the crane driver, after erection or installation of the crane for the purpose of any work to which these Regulations apply and before the crane is taken into use, and

(b) when the crane is in use, the indicator shall be inspected in any case at intervals not exceeding one week by the person carrying out the inspection required under Regulation 80(1)(e) and the results of every such inspection shall be reported in the manner specified in Regulation 80(2).

(2) Subject to paragraph (4) -

- (a) no mobile crane having either a fixed or a derricking jib shall be used unless it is fitted with a suitable type of automatic safe load indicator which shall be properly maintained,
- (b) before such mobile crane is taken into use every such indicator shall be tested by a competent person -
 - (i) on each occasion after it has been wholly or partially dismantled, and
 - (ii) after each erection, alteration or removal of the crane for the purpose of any works to which these Regulations apply, being an erection, alteration or removal likely to have affected the proper operation of the indicator, and
- (c) when such mobile crane is in use, the indicator shall be inspected in any case at intervals not exceeding one week by the person carrying out the inspection required under Regulation 80(1)(e) and the results of every such inspection shall be reported in the manner specified in Regulation 80(2).
- (3) A report of the results of every test required by this Regulation, signed by the person carrying out the test, shall be made forthwith in the approved form.
 - (4) This Regulation shall not apply to -
 - (a) any guy derrick crane, being a crane of which the mast is held upright solely by means of ropes with the necessary fittings and tightening screws,
 - (b) any hand crane which is being used solely for erecting or dismantling another crane, or
 - (c) any crane having a maximum safe working load of 1,000 kilogrammes or less.

Excavators used as Cranes.

100. Any excavator, loader or combined excavator/loader used in connection with any excavation to which these Regulations apply and, when so used, it is for the time being used as a crane, solely by the secure attachment of lifting gear to the bucket or part of the machine specifically designed for the purpose and solely for work immediately connected with that excavation, the requirements of Regulations 97(1)(a), 98 and 99 shall not apply provided all the conditions specified in the Seventh Schedule are fulfilled.

Load not to Exceed Safe Working Load.

101. A lifting appliance or any part of such appliance shall not be loaded beyond its safe working load except for testing purposes as specified by and under the direction of a competent person appointed to carry out the tests.

Precautions on Raising or Lowering Loads.

- 102. (1) Where there is lifted on a crane, crab, winch, other than a piling winch, sheer legs or aerial cableway a load which is equal to or slightly less than the relevant safe working load and which is not already sustained wholly by the crane or other appliance, the lifting shall be halted after the load has been raised a short distance and before the operation is proceeded with.
- (2) Where more than one lifting appliance is required to raise or lower the same load -
 - (a) the plant or equipment used shall be so arranged and fixed that no lifting appliance to be used will at any time be loaded beyond its safe working load or rendered unstable in the raising or lowering of the load, and
 - (b) a competent person shall be specially appointed to supervise the operation.

Scotch and Guy Derrick Cranes.

- 103. (1) The jib of a Scotch derrick crane shall not be erected between the back stays of the crane.
- (2) No load which lies in the angle between the back stays of a Scotch derrick crane shall be moved by that crane.
- (3) Appropriate measures shall be taken to prevent the foot of the king post of any Scotch derrick crane from being lifted out of its socket or support whilst in use.
- (4) Where the guys of a guy derrick crane cannot be fixed at approximately equal inclinations to the mast and so that the angles between adjacent pairs of guys are approximately equal, such other measures shall be taken as will ensure the stability of the crane.

Cranes etc. in Factories and Other Premises.

- 104. (1) Subject to paragraph (2), Regulation 97(1)(a) shall not apply to the incidental or occasional use of a crane, crab or winch for the purposes of work to which these Regulations apply provided that the crane, crab or winch was tested before it was first brought into use.
- (2) This Regulation applies to a crane, crab or winch which forms part of the permanent equipment of a factory or other premises and which is used at such a premises for raising and lowering for purposes other than works to which these Regulations apply.

PART 15

CHAINS, ROPES AND LIFTING GEAR

Construction, testing, examinations and safe working load.

- 105. (1) Subject to paragraph (2), no chain, rope or lifting gear shall be used in raising or lowering or as a means of suspension unless -
 - (a) it is of good construction, sound material, adequate strength, suitable quality and free from patent defect,
 - (b) it is properly installed and used,
 - (c) it is properly maintained,
 - (d) it is used only for the purpose for which it was intended,
 - (e) except in the case of a fibre rope or fibre rope sling, it has been tested and examined by a competent person and there has been obtained in the approved form a certificate of such test and examination specifying the safe working load and signed by the person making or responsible for the carrying out of the test and examination, and
 - (f) it is marked in plain legible figures and letters with the safe working load and a means of identification.
- (2) A rope or rope sling need not be marked with the safe working load if its safe working load is contained in the report made pursuant to Regulation 111 and the rope or sling is so marked as to enable its safe working load as specified in the said report to be ascertained from the said report or if, in the case of a rope or a rope sling to which paragraph (1) (e) does not apply, its safe working load can be ascertained from a table of safe working loads posted in a prominent position on the construction site; and in the case of a rope or rope sling which is not required to have been tested and which is not marked with the safe working load, the safe working load required to be entered in the said report or required to be shown by the table, as the case may be, shall be deemed, not withstanding Regulation 2, to be the safe working load of the rope or rope sling.
- (3) No wire rope shall be used in raising or lowering or as a means of suspension if in any length of ten diameters the total number of visible broken wires exceeds five per cent of the total number of wires in the rope.
- (4) A chain, rope or lifting gear shall not be loaded beyond its safe working load except for testing purposes as specified by and under the direction of a competent person appointed to carry out the tests.
- (5) The original safe working load of a wire rope shall be determined by a competent person by testing to destruction a sample of the rope to ascertain the breaking load and, to ascertain the original safe working load -

- (a) in cases where the wire rope is used as a wire rope sling, one eighth of the breaking load shall be taken as the original safe working load, and
- (b) in any other case, one sixth of the breaking load shall be so taken.

Testing of Chains, Rings, etc. Altered or Repaired by Welding.

106. A chain, ring, link, hook, plate clamp, shackle, swivel, eye-bolt or other similar lifting gear which has been lengthened, altered or repaired by welding shall not be used in raising or lowering or as a means or suspension unless since such lengthening, alteration or repair it has been tested and thoroughly examined by a competent person and there has been obtained in the approved form a certificate of such test and examination and specifying the safe working load and the certificate shall be signed by the person carrying out the test and examination or, in case that person is not responsible for the carrying out of the test and examination, by the person so responsible.

Hooks.

- 107. Every hook used for raising or lowering or as a means of suspension shall either -
 - (a) be provided with an efficient device to prevent the displacement of the sling or load from the hook, or
 - (b) be of such shape as to reduce as far as possible the risk of such displacement.

Slings.

- 108. (1) Every sling used for raising or lowering on a lifting appliance shall be securely attached to the appliance and the method of attachment shall not be a method likely to result in damage to any part of the sling or to any lifting gear supporting it.
 - (2) No double or multiple sling shall be used for raising or lowering if -
 - (a) the upper ends of the sling legs are not connected by means of a shackle, ring or link of adequate strength, or
 - (b) the safe working load of any sling leg is exceeded because of the angle between the sling legs.

Edges of Load not to come into Contact with Sling, etc.

109. Where a load is being lifted or otherwise moved, adequate steps shall be taken by the use of suitable packing or otherwise to prevent the edges of the load from coming into contact with a sling, rope or chain, where this would cause danger.

Knotted Chains, etc.

- 110. (1) A load shall not be raised, lowered or suspended on a chain or wire rope, which has a knot, tied in any part of the chain or rope under direct tension.
- (2) A chain, which is shortened or joined to another chain by means of, bolts and nuts inserted through the links shall not be used for raising, lowering or suspending any load.

Examination of Chains, Ropes and Lifting Gear.

- 111. (1) A chain, rope or lifting gear shall not be used for raising or lowering or as a means of suspension unless it has been thoroughly examined by a competent person at least once within the previous six months, but chains, ropes and lifting gear which are not in regular use need only be so examined when necessary.
- (2) A report in the approved form of the results of every such examination pursuant to this Regulation, signed by the person carrying out the examination, shall be made forthwith.

Annealing of Chains and Lifting Gear.

- 112. (1) Where a chain or lifting gear is made of such material that would require annealing or a form of heat treatment to ensure its safety such a chain or lifting gear shall be effectively annealed or subjected to an appropriate form of heat treatment under the supervision of a competent person and at intervals as specified by a competent person.
- (2) A chain or lifting gear of the type specified in paragraph (1) shall not be used in raising or lowering or as a means of suspension unless a report in the approved form has been made in writing of every annealing or appropriate heat treatment signed by the competent person under whose supervision the annealing or heat treatment was carried out.

Delivery of Loads with Lifting Gear Attached.

113. Where -

- (a) any article, material or other load intended for use in construction work is delivered at, or adjacent to, the construction site with a chain, rope or lifting gear attached thereto and designed for use as a means of raising and lowering that class of load when removing the same from the point of delivery to a position on the site, and
- (b) the chain, rope or gear is free from patent defect whether of construction or quality and is not owned or hired by any contractor who is undertaking construction work aforesaid on the site,

the requirements of Regulations 105, 106, 111 and 112 shall not apply in respect of the use of such chain, rope or lifting gear for raising or lowering the load so long as the chain, rope or gear remains attached to the article, material or load.

PART 16

SPECIAL PROVISIONS AS TO HOISTS

Safety of Hoistways, Platforms and Cages.

- 114. (1) The hoistway of every hoist shall at all points at which access to the hoistway is provided or at which there is a risk that persons at work will be struck by any moving part of the hoist, be efficiently protected by a substantial enclosure and the enclosure shall be fitted with gates where access to the hoist is needed.
- (2) The enclosure and gates referred to in paragraph (1) shall where practicable extend to a height of at least 2.00 metres except where a lesser height is sufficient to prevent any person at work falling down the hoistway and there is no risk to any such person coming into contact with any moving part of the hoist, but in no case shall the enclosure be less than 1.00 metre in height.
- (3) Gates fitted in accordance with the provisions of paragraph (1) shall be kept closed except at a landing place where the platform or cage is at rest and it is for the time being necessary for the gate to be open for the purpose of loading or unloading goods, plant or material, or to allow persons at work to enter or leave the cage; and it shall be the duty of every such person, immediately after using any gateway, to see that the gate is closed unless it is for the time being necessary for the gate to be open for any of the purposes aforesaid.
- (4) Nothing in paragraphs (1) to (3) shall be construed as affecting any obligation of a contractor under any other provision of these Regulations.
- (5) In connection with every hoist there shall where practicable be provided and maintained efficient devices which will support the platform or cage together with its safe working load in the event of failure of the hoist rope or ropes or any part of the hoisting gear.
- (6) In connection with every hoist there shall be provided and maintained efficient automatic devices which will ensure that the platform or cage does not over-run the highest point to which it is for the time being constructed to travel.

Operation of Hoist.

- 115. (1) The Construction and the installation arrangements of every hoist shall where practicable be such that it can be operated at any one time only from one position and a hoist shall not be operated from the cage unless the requirements of Regulation 120 of these Regulations are complied with.
- (2) If a person operating a hoist has not a clear and unrestricted view of the platform or cage throughout its travel, except at points where such a view is not necessary for safe working, then effective arrangements shall be made for operating signals to be given to the person operating the hoist from each landing place at which the hoist is used and to enable that person to stop the platform or cage at the appropriate level.

Winches.

116. Where a hoist is operated by means of a winch, the winch shall be so constructed that the brake is applied when the control lever, handle or switch is not held in the operating position, and a winch which is fitted with a pawl and ratchet gear on which the pawl has to be disengaged before the platform or cage can be lowered shall not be used to operate a hoist.

Safe Working Load and Marking of Hoists.

- 117. (1) The safe working load shall be plainly marked on every hoist, platform or cage and no load greater than the load so marked shall be carried, but for the purpose of carrying out a test the safe working load may be exceeded by such amount as specified by and under the direction of a competent person appointed to carry out the test.
- (2) In the case of a hoist used for carrying persons the maximum number of persons to be carried at any one time shall also be so marked, and a number of persons greater than the number so marked shall not be so carried.
- (3) In the case of any other hoist there shall be a readily legible notice on the platform or cage stating that the carriage of persons is prohibited.

Test and Examination of Hoists.

- 118. (1) No hoist shall be used unless -
 - (a) it has been tested and thoroughly examined by a competent person and there has been obtained, in such form as may be approved, a certificate of such test and examination, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load of the hoist and in the case of a hoist used for carrying persons the maximum number of persons permitted to be carried at one time,
 - (b) in the case of a hoist which has been substantially altered or substantially repaired it has since such alteration or repair been tested and thoroughly examined and a certificate obtained which fulfils the requirements of subparagraph (a),
 - (c) in the case of a hoist to be used for carrying persons, it has since it was last erected or the height of travel of the cage was last altered, as may be appropriate, been tested and thoroughly examined by a competent person and a report of the results of such test and examination, signed by a person making or responsible for the carrying out of the test and examination, has been made in the approved form, and
 - (d) it has been thoroughly examined by a competent person at least once within the previous six months.
- (2) A report in the approved form of the results of every examination required by paragraph (1) (d), signed by the person making or responsible for the carrying out of the examination, shall be made within twenty-eight days.

(3) The person making the report of any test or examination required by paragraph (1) shall within 28 days of completion of the test or examination send to the Authority a copy of the report in every case where the test or examination shows that the hoist cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.

PART 17

CARRIAGE OF PERSONS AND SECURENESS OF LOADS

Carrying Persons by Means of Lifting Appliances.

- 119. (1) No person at work shall be raised, lowered or carried by a power driven lifting appliance except -
 - (a) on the driver's platform in the case of a crane,
 - (b) on a hoist,
 - (c) on an approved suspended scaffold,
 - (d) on a suitable mobile elevating work platform, or
 - (e) as permitted by paragraph (2).
- (2) A person at work may be raised, lowered or carried by a power driven lifting appliance in a manner other than one mentioned in subparagraphs (a), (b), (c) or (d) of paragraph (1) only -
 - (a) in circumstances where the use of a hoist or of an approved suspended scaffold or a suitable mobile elevating work platform is not practicable and the requirements of paragraph (3) are complied with, or
 - (b) on an aerial cableway or aerial ropeway provided that the requirements of sub-paragraphs (b), (c) and (d) of paragraph (3) are complied with.
 - (3) The requirements referred to in paragraph (2) are -
 - (a) that the power driven appliance can be operated from one position only,
 - (b) that any winch used in connection with the appliance shall comply with the requirement of Regulation 117,
 - (c) that no person at work shall be carried except -
 - (i) in a suitable chair or cage, or
 - (ii) in a suitable skip or other receptacle at least 950 millimetres deep, and which has at least a toe board, a main handrail and an intermediate handrail,

and any such chair, cage, skip or other receptacle shall be of good construction, sound material, adequate strength and properly maintained, and shall be provided with suitable means to prevent any occupant falling out and shall not contain material or tools liable to

- interfere with his or her handhold or foothold or otherwise endanger him or her, and
- (d) that suitable measures shall be taken to prevent the chair, cage, skip or other receptacle from spinning or tipping in a manner dangerous to any occupant.

Hoists Carrying Persons.

- 120. (1) No person at work shall be carried by a hoist unless it is provided with a cage which -
 - (a) is so constructed as to prevent, when the cage gate or gates are shut, any such person carried from falling out or from being trapped between any part of the cage and any fixed structure or other moving part of the hoist or from being struck by articles or materials falling down the hoistway,
 - (b) is fitted on each side from which access is provided to a landing place with a gate which, so far as is practicable, shall have efficient interlocking or other devices to ensure that the gate cannot be opened except when the cage is at the landing place, and that the cage cannot be moved away from the landing place until the gate is closed.
- (2) Every gate in the hoistway enclosure of a hoist used for carrying persons shall be fitted with efficient interlocking or other devices to ensure that the gate cannot be opened except when the cage is at the landing place, and that the cage cannot be moved away from the landing place until the gate is closed.
- (3) In connection with every hoist used for carrying persons at work there shall be provided suitable efficient automatic devices which will ensure that the cage comes to rest at a point above the lowest point to which the cage can travel.

Hoists Forming Part of the Permanent Equipment.

- 121. Regulations 80, 114 to 118 and 120 shall not apply to a hoist forming part of the permanent equipment of any structure or underground shaft and which is regularly and ordinarily used for the carriage of persons or goods, but no such hoist shall be used for the purposes of construction work unless the following conditions are complied with, that is to say -
 - (a) the hoist shall not be used for carrying persons unless a maximum number of persons to be carried at any one time has been specified by the maker or by an insurer of the hoist or by a competent firm of lift engineers carrying out periodic examinations of the hoist, and a greater number than that maximum is not being carried,
 - (b) the hoist shall not be used for carrying materials, tools or other articles other than light articles readily carried by a person who is riding in the hoist, unless a safe working load for the hoist has been specified by the maker or an insurer or firm as aforesaid and the safe working load so specified is not being exceeded, and

(c) on an occasion when the hoist has been used for raising or lowering for the purposes of construction work the hoistway gate at a landing place shall not be left open except where it is immediately necessary for it to be open.

Secureness of Loads.

- 122. (1) Every part of a load shall be securely suspended or supported whilst being raised or lowered and shall be adequately secured to prevent danger from slipping or displacement.
- (2) Where by reason of the nature or position of the operation a load is liable, whilst being moved on a lifting appliance or lifting gear, to come into contact with any object so that the object may become displaced, special measures shall be adopted to prevent the danger so far as practicable.
- (3) Every container or receptacle used for raising or lowering stone, bricks, tiles, slates or other objects shall be so enclosed, constructed or designed as to prevent the accidental fall of such objects, except that this requirement shall not apply to a grab, shovel or other similar excavating receptacle if effective steps are taken to prevent any person at work being endangered by a fall of objects therefrom.
- (4) Goods or loose material shall not be placed directly on a platform of a hoist unless such platform is enclosed or other effective precautions are taken where necessary to prevent the fall of any such goods or materials.
- (5) No load shall be left suspended from a lifting appliance unless a competent person in charge of the appliance is present at the appliance.

Mobile Elevating Work Platforms.

- 123. (1) No mobile elevating work platform shall be used unless -
 - (a) in the case of a mobile elevating work platform manufactured or substantially altered or substantially repaired after the date of commencement of these Regulations, it has since such manufacture, alteration or repair, as the case may be, been tested and thoroughly examined by a competent person and there has been obtained, in the approved form, a certificate of test and examination signed by the person making or responsible for the carrying out of the test and examination, and
 - (b) it has been thoroughly examined by a competent person at least once within the previous six months.
- (2) A report in the approved form of the results of every examination required by paragraph (1)(b), signed by the person making or responsible for the carrying out of the examination, shall be made within 28 days.

- (3) The person making the report of any test or examination required by paragraph (1) shall within 28 days of the completion of the test or examination send to the Authority a copy of the report in every case where the test or examination shows that the power operated mobile access platform cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time.
- (4) The safe working load and a suitable means of identification shall be plainly marked on every mobile elevating work platform and no load greater than the load so marked shall be carried, but for the purpose of carrying out a test the safe working load may be exceeded by such amount as specified by and under the direction of a competent person appointed to carry out the test.
- (5) The maximum number of persons to be carried at any one time shall also be so marked, and a number of persons greater than the number so marked shall not be so carried.

PART 18

MISCELLANEOUS

Installations, Machinery, Equipment.

- 124. All installations, machinery and equipment, including hand tools whether power-operated or not, shall be -
 - (a) properly designed and constructed taking account, as far as possible, of the principles of ergonomics,
 - (b) maintained in proper working order,
 - (c) used only for the work for which they were designed, and
 - (d) operated by persons who have received appropriate training.

Wet Paint or Cement Wash on Ironwork or Steelwork.

- 125. (1) No ironwork or steelwork which has been painted or cement-washed shall be moved or manipulated on a site unless all the paint or wash on it, other than paint for the purpose of jointing, is dry and no person shall walk or work or be required or permitted to walk or work on erected iron or steel work on which the paint, other than paint for the purpose of jointing, or cement wash is wet.
- (2) The requirement of this Regulation as to moving or manipulating shall not apply to moving or manipulating in connection with the painting or cement washing of ironwork or steelwork on a site.

Helmets or Crowns for Pile Driving.

126. Every helmet or crown used in connection with pile driving shall be of good construction, of sound and suitable material, of adequate strength and free from patent defect.

Keeping of records.

- 127. (1) The reports required by Regulations 21(3), 29(2), 65, 80, 89(6), 99(3) and 118(1)(c) shall be kept on the site but when no relevant works are being carried out on such site the reports shall be kept at an office of the contractor for whom the inspection, test or examination, as the case may be, was carried out.
- (2) In the case of a site where the contractor has reasonable grounds for believing that the work will be completed in a period of less than 30 working days, the contractor may, in lieu of keeping the reports referred to in paragraph (1) at the relevant site, keep the reports at his office.
- (3) All other reports and every certificate or other document required by these Regulations shall be kept either on the relevant site or at an office of the contractor for whom the report was made or the certificate or document was obtained or of the owner of the plant or equipment to which the certificate relates.

- (4) All reports, certificates and other documents required by these Regulations shall at all reasonable times be open to inspection by an inspector and the person having custody of any such report, certificate or other document shall send to any such inspector such extracts there from or copies thereof as the inspector may from time to time require for the purpose of the execution of his or her duties under the Act.
- (5) Wherever under these Regulations records are required to be made and kept it shall be sufficient compliance with such requirement if the individual making the examination enters his or her report in the approved form in a computer and duly authenticates it as soon as practicable after completing the examination and it shall be sufficient compliance with such requirement if the report is kept by the user in a computer.

Revocations.

128. The Safety, Health and Welfare at Work (Construction) Regulations 1995 (S.I. No 138 of 1995) are hereby revoked.

PART 19

APPLICATION

Application

- 129. (1) Subject to paragraphs (2) and (3), these Regulations shall apply to and in relation to construction work.
- (2) Subject to Paragraph (3), Regulations 6(4), 6(5), 6(7) and 7(1)(a) shall not apply to or in relation to construction work included in any single project to which Regulation 8(1) does not apply.
- (3) These Regulations shall apply to and in relation to the demolition or dismantling of a structure.
- (4) The Eighth Schedule is applicable to craft and general construction workers as well as to persons undertaking on-site security work.

FIRST SCHEDULE

Regulation 8

PARTICULARS TO BE NOTIFIED TO THE AUTHORITY BEFORE CONSTRUCTION BEGINS

- 1. Date of forwarding notice to the Authority;
- 2. Exact address of the construction site;
- 3. Client(s) name(s) and address(es);
- 4. Description of project;
- 5. Name(s), Address(es) and, where appropriate, telephone number(s), of
 - the project supervisor appointed for the design stage
 - the health and safety co-ordinator appointed for the design stage, where appointed,
 - the project supervisor appointed for the construction stage, and
 - the health and safety co-ordinator appointed for the construction stage, where appointed;
- 6. Date the preliminary health and safety plan was prepared;
- 7. Date the developed health and safety plan was prepared;
- 8. Date planned for start of work on the construction site;
- 9. Planned duration of work on the construction site;
- 10. Estimated maximum number of people at work on the construction site;
- 11. Planned number of contractors and self-employed persons on the construction site;
- 12. Details of contractors already chosen.

SECOND SCHEDULE

Regulations 4, 5 and 6

NON-EXHAUSTIVE LIST OF WORK INVOLVING PARTICULAR RISKS TO THE SAFETY AND HEALTH OF PERSONS AT WORK.

- 1. Work which puts persons at work at risk of burial under earthfalls, engulfment in swampland or falling from a height, where the risk is particularly aggravated by the nature of the work or processes used or by the environment at the place of work or site.
- 2. Work which puts persons at work at risk from chemical or biological substances constituting a particular danger to the safety and health of such persons or involving a legal requirement for health monitoring.
- 3. Work with ionising radiation requiring the designation of controlled or supervised areas as defined in Article 20 of Directive 80/836/Euratom.
- 4. Work near high voltage power lines.
- 5. Work exposing persons at work to the risk of drowning.
- 6. Work on wells, underground earthworks and tunnels.
- 7. Work carried out by divers at work having a system of air supply.
- 8. Work carried out in a caisson with a compressed-air atmosphere.
- 9. Work involving the use of explosives.
- 10. Work involving the assembly or dismantling of heavy prefabricated components.

THIRD SCHEDULE

Regulations 6 and 9

REQUIREMENTS TO BE APPLIED AS REGARDS THE GENERAL PRINCIPLES OF PREVENTION.

- (a) keeping the construction site in good order and in a satisfactory state of cleanliness;
- (b) choosing the location of workstations bearing in mind how access to these workplaces is obtained, and determining routes or areas for the passage and movement of equipment;
- (c) the conditions under which various materials are handled;
- (d) technical maintenance, pre-commissioning checks and regular checks on installations and equipment with a view to correcting any faults which might affect the safety and health of persons at work;
- (e) the demarcation and laying-out of areas for the storage of various materials, in particular where dangerous materials or substances are concerned;
- (f) the conditions under which the dangerous materials used are removed;
- (g) the storage and disposal or removal of waste and debris;
- (h) the adaptation, based on progress made with the site, of the actual period to be allocated for the various types of work or work stages;
- (i) co-operation between employers and self-employed persons;
- (j) interaction with industrial activities at the place within which or in the vicinity of which the construction site is located.

FOURTH SCHEDULE

Regulations 6 and 9

MINIMUM SAFETY AND HEALTH REQUIREMENTS FOR CONSTRUCTION SITES.

Stability and Solidity

- 1. (1) Materials, equipment and, more generally, any component which, when moving in any way, may affect the safety and health of persons at work shall be stabilised in an appropriate and safe manner.
- (2) Access to any surface involving insufficiently resistant materials shall not be authorised unless appropriate equipment or means are provided to enable the work to be carried out safely.
- (3) High-level or low-level movable or fixed outdoor workstations shall be solid and stable, taking account of
 - -the number of persons occupying them,
 - -the maximum loads they may have to bear and the weight distribution,
 - -the outside influences to which they may be subject.

If the support and the other components of these workstations are not intrinsically stable, their stability shall be ensured by appropriate and safe methods of fixing to avoid any untimely or spontaneous movement of the whole or of parts of the workstations.

Stability and solidity shall be checked appropriately and especially after any change in the height or depth of the workstation.

Energy Distribution Installations

- 2. (1) The installations shall be designed, constructed and used so as not to present a fire or explosion hazard; persons at work shall be adequately protected against the risk of electrocution caused by direct or indirect contact.
- (2) The design, construction and choice of equipment and protection devices shall take account of the type and power of the energy distributed, external conditions and the competence of persons with access to parts of the installation.
- (3) On-site outdoor energy distribution installations, especially those subject to outside influences, shall be regularly checked and maintained.
- (4) Outdoor installations existing before the site began shall be identified, checked and clearly signposted.
- (5) Whenever possible, where overhead power lines exist, they shall either be redirected away from the area of the site or else the current shall be cut off.

If this is not possible, there shall be barriers or notices as appropriate to ensure that vehicles and installations are kept away.

Suitable warnings and suspended protections shall be provided where vehicles have to pass beneath the lines.

Emergency Routes and Exits

- 3. The following requirements shall apply without prejudice to the Fire Services Act, 1981 (No. 30 of 1981) or other relevant legislation.
- (1) Emergency routes and exits shall remain clear and lead as directly as possible to a safe area.
- (2) In the event of danger, it shall be possible for persons to evacuate all workstations quickly and as safely as possible.
- (3) The number, distribution and dimensions of emergency routes and exits depend on the use, equipment and dimensions of the site and of the rooms and the maximum number of persons that may be present.
- (4) Specific emergency routes and exits shall be indicated by signs in accordance with the Safety, Health and Welfare at Work (Signs) Regulations, 1995 (S.I. No. 132 of 1995).
- (5) Emergency routes and exits, and the traffic routes and doors giving access to them, shall be free from obstruction so that they can be used at any time without hindrance.
- (6) Emergency routes and exits requiring illumination shall be provided with emergency lighting of adequate intensity in case the lighting fails.

Fire Detection and Fire Fighting

- 4. The following requirements shall apply without prejudice to the Fire Services Act, 1981 (No. 30 of 1981) or other relevant legislation.
- (1) Depending of the characteristics of the site, the dimensions and use of rooms, the on-site equipment, the physical and chemical properties of the substances present and the maximum potential number of persons at work present, an adequate number of appropriate fire-fighting devices and, where required, fire detectors and alarm systems shall be provided.
- (2) These fire-fighting devices, fire detectors and alarm systems shall be regularly checked and properly maintained. Appropriate tests and drills shall take place at regular intervals.
- (3) Non-automatic fire-fighting equipment shall be easily accessible and easy to use.

The equipment must be indicated by signs in accordance with the Safety, Health and Welfare at Work (Signs) Regulations, 1995 (S.I. No. 132 of 1995).

Atmospheric Influences

5. Persons working outdoors shall be protected against atmospheric influences which could affect their health and safety.

Ventilation

6. Steps shall be taken to ensure that there is sufficient fresh air, having regard to the working methods used and the physical demands placed on the persons at work. If a forced ventilation system is used, it shall be maintained in working order and shall not expose persons at work to draughts which are harmful to health. Any breakdown shall be indicated by a control system where this is necessary for the health

Any breakdown shall be indicated by a control system where this is necessary for the health of persons at work.

Temperature

7. During working hours, the temperature shall be appropriate for human beings, having regard to the working methods used and the physical demands placed on the persons at work.

Natural and Artificial Lighting of Workstations, Rooms and Traffic Routes on the Site

8. (1) Workstations, rooms and traffic routes shall as far as possible have sufficient natural lighting and be provided with appropriate and sufficient artificial lighting at night and when natural daylight is inadequate, where necessary, portable light sources that are protected against impact shall be used.

The colour of artificial light used shall not alter or affect the perception of signals or signposts.

- (2) Lighting installations for rooms, workstations and traffic routes shall be placed in such a way that there is no risk of accidents to persons at work as a result of the type of lighting fitted.
- (3) Rooms, workstations and traffic routes where persons at work are especially exposed to risks in the event of failure of artificial lighting shall be provided with emergency lighting of adequate intensity.

Doors and Gates

- 9. (1) Sliding doors shall be fitted with safety devices to prevent them from being derailed and falling over.
- (2) Doors and gates opening upwards shall be fitted with a mechanism to secure them against falling back.
 - (3) Doors and gates along escape routes shall be appropriately marked.
- (4) In the immediate vicinity of gates intended primarily for vehicle traffic, there shall be doors for pedestrian traffic unless it is safe for pedestrians to cross and such doors shall be clearly marked and kept free at all times.
- (5) Mechanical doors and gates shall operate without any risk of accident to persons at work.

They shall be fitted with stop devices which are easily identifiable and accessible and, unless they open automatically in the event of a power-cut, it shall be possible for them to be opened manually.

Traffic Routes—Danger Areas

- 10. (1) Traffic routes, including stairs, fixed ladders and loading bays and ramps, shall be designed, located, laid out and made negotiable to ensure easy, safe and appropriate access in such a way as not to endanger persons working in the vicinity of these traffic routes.
- (2) Routes used for pedestrian traffic and/or goods traffic including those used for loading and unloading shall be dimensioned in accordance with the number of potential users and the type of activity concerned.

If means of transport are used on traffic routes, a sufficient safety clearance or adequate protective devices shall be provided for other site users.

Routes shall be clearly marked, regularly checked and properly maintained.

- (3) Sufficient clearance shall be allowed between vehicle traffic routes and doors, gates, passages for pedestrians, corridors and staircases.
- (4) If the site includes limited access areas, these shall be equipped with devices to prevent unauthorised persons at work from entering.

Appropriate measures shall be taken to protect persons who are authorised to enter the danger areas. Danger areas shall be clearly signposted.

Loading Bays and Ramps

- 11. (1) Loading bays and ramps shall be suitable for the dimension of the loads to be transported.
 - (2) Loading bays shall have at least one exit point.
- (3) Loading ramps shall be sufficiently safe to prevent persons at work from falling off.

Freedom of Movement at the Workstation

12. The floor area at the workstation must be such as to allow persons sufficient freedom of movement to perform their work, taking account of any necessary equipment or appliances present.

Welfare Facilities

- 13. (1) Shelters and accommodation for clothing and for taking meals.
 - (a) Subject to 13 (1) (b) and 13 (1) (c) there shall be provided at or in the immediate vicinity of every site for the use of persons at work and conveniently accessible to them
 - (i) adequate and suitable enclosed accommodation for taking shelter during interruptions of work owing to bad weather and

for depositing clothing not worn during working hours, being accommodation containing

- where there are more than five persons at work on a site, adequate and suitable means of enabling such persons to warm themselves and to dry wet clothing, or
- where there are five persons or less at work on a site, such arrangements as are practicable for enabling persons to warm themselves and for drying wet clothing,
- (ii) adequate and suitable accommodation for the deposit of protective clothing used for work and kept, when not in use, at or in the immediate vicinity of the site, with such arrangements as are practicable for drying such clothing if it becomes wet,
- (iii) adequate and suitable accommodation affording protection from the weather and including sufficient tables with impermeable surfaces and seats with backs, for taking meals,
- (iv) facilities for boiling water and, where there are more than five persons at work on a site and heated food is not otherwise available on the site, adequate facilities for heating food, and
- (v) an adequate supply of wholesome drinking water and possibly another suitable non-alcoholic beverage, at a convenient point or convenient points.
- (b) For the purpose of subparagraph 13 (1) (a) (iii), in determining whether accommodation of any kind provided in pursuance of the subparagraph at any time and place is adequate, regard shall be had to the number of the persons at work who appear to be likely to use such accommodation at that time and place.
- (c) For the purpose of subparagraph 13 (1) (a), in determining whether accommodation is conveniently accessible account shall be taken of any transport provided by the relevant contractor for the persons at work.
- (d) All accommodation provided in pursuance of subparagraph 13 (1) (a) shall be properly ventilated, adequately lighted, kept in a clean, hygienic and orderly condition and shall not be used for the deposit or storage of building materials or plant.
- (2) Changing rooms and lockers.
 - (a) Appropriate changing rooms shall be provided for persons at work if they have to wear special work clothes and if, for reasons of health or propriety, they cannot be expected to change in another area. Changing

- rooms shall be easily accessible, be of sufficient capacity and be provided with seating.
- (b) If circumstances so require where work clothes are likely to be contaminated by dangerous substances, atmospheric conditions or the conditions of the workplace, facilities shall be provided to enable working clothes to be kept in a place separate from personal clothing and effects.
- (c) Provisions shall be made for separate changing rooms or separate use of changing rooms for men and women.
- (d) If changing rooms are not required as referred to in subparagraph 13(2)(a), every person at work shall be provided with a place to lock away his or her own clothes and personal effects.
- (3) Washing Facilities.
 - (a) Adequate and suitable facilities for washing appropriate to the numbers of persons at work and the duration of the work shall be provided at every construction site.
 - (b) Subject to the provisions of subparagraph 13 (3) (d) where there are reasonable grounds for believing that the work to be undertaken on the site will not be completed within 30 working days from commencement, suitable facilities for washing shall be provided for such persons which shall include -
 - (i) adequate troughs or basins having in every case a smooth impervious internal surface,
 - (ii) adequate and suitable means of cleaning and drying, being either soap and towels or other means, as the case may require, and
 - (iii) a sufficient supply of hot and cold or warm running water.
 - (c) Subject to the provisions of subparagraph 13 (3) (d) where there are more than one hundred persons at work on a site and there are reasonable grounds for believing that the work to be undertaken on the site will not be completed within twelve months from commencement, in lieu of providing troughs or basins mentioned in subparagraph 13 (b) (i) washbasins shall be provided on the following scale, that is to say, six with the addition of one for every unit of twenty persons at work by which the number of persons exceeds one hundred, any fraction of a unit of twenty persons being treated as one.
 - (d) In any case where persons are at work on a site in a process in which a dangerous substance is used the relevant contractor shall provide nail

brushes and paragraph 13 (3) (b) (i) or 13 (3) (c), as may be appropriate, shall as regards the particular case be construed as requiring the provision of one trough or basin, or washbasin, as may be appropriate, for every five persons at work.

- (e) Washing facilities provided shall be conveniently accessible from the accommodation for taking meals and shall be adequately lighted, properly ventilated and kept in a clean and orderly condition.
- (f) Provision must be made for separate washbasins, or separate use of washbasins for men and women when so required for reasons of propriety.
- (g) Suitable showers in sufficient numbers shall be provided for persons at work if required by the nature of the work or for health reasons.
 Provision shall be made for separate shower rooms or separate use of shower rooms for men and women.
- (h) The shower rooms shall be sufficiently large to permit each person to wash without hindrance in conditions of an appropriate standard of hygiene. Such showers shall be equipped with hot and cold running water.
 - (i) Where the rooms housing the showers or washbasins are separate from the changing rooms, there shall be easy communication between the two.

Sanitary Conveniences.

- (4) Subject to subparagraph 13 (4) (b) a at least one suitable sanitary convenience shall be provided, not being a convenience suitable only as urinal, for every 20 persons at work on a site.
 - (b) Where practicable all sanitary conveniences shall discharge into a main sewer. Where there are more than 100 persons at work on a site, and sufficient urinal accommodation is also provided it shall suffice if there is one such convenience as aforesaid for every 25 persons at work on the site up to the first 100 and one for every 35 persons thereafter.
 - (c) In calculating the number of conveniences required by this Regulation any number of persons less than 20 or 30, as may be appropriate, shall be reckoned as 20 or 30, and any number which is not a multiple of 20 or 30, as may be appropriate, shall be regarded as being the nearest lower number which is a multiple of 20 or 30.
 - (d) Every sanitary convenience required to be provided shall be sufficiently ventilated and shall not communicate with any workroom or messroom except through the open air or through an intervening ventilated space.

- (e) Every sanitary convenience shall be under cover and so partitioned off as to secure privacy and every sanitary convenience, other than a convenience suitable only as a urinal, shall have a proper door and fastening.
- (f) The sanitary conveniences shall be so arranged as to be conveniently accessible to persons at work at all times while they are at the site and shall where practicable be convenient to the washing facilities.
- (g) Provision shall be made for separate sanitary conveniences or separate use of sanitary conveniences for men and women.
- (h) Every sanitary convenience shall be maintained in a clean and hygienic condition.

Accommodation Areas

14. (1) Fixed accommodation areas, unless used only in exceptional cases, shall have sufficient sanitary equipment, a rest room and a leisure room.

They shall be equipped with beds, cupboards, tables and seats with backs, taking account of the number of persons at work, and be allocated taking account, where appropriate, of the presence of persons of both sexes.

(2) Appropriate measures shall be taken for the protection of non-smokers against discomfort caused by tobacco smoke in rest rooms and accommodation areas (or both).

Safe access to places where facilities are provided

15. Safe means of access and egress shall be provided and maintained to and from every place at which any of such facilities provided is situated and every such place shall be made and kept safe for persons using such facilities.

Pregnant Women and Nursing Mothers

16. Pregnant women and nursing mothers shall be able to lie down to rest in appropriate conditions.

Handicapped Workers

17. Workplaces must be organised to take account of handicapped persons at work, if necessary.

This provision applies in particular to the doors, passageways, staircases, showers, washbasins, lavatories and work-stations used or occupied directly by handicapped persons at work.

Miscellaneous Provisions

18. The surroundings and the perimeter of the site shall be signposted and laid out so as to be clearly visible and identifiable.

FIFTH SCHEDULE

Regulation 9

MINIMUM REQUIREMENTS FOR ON-SITE INDOOR WORKSTATIONS.

Stability and Solidity

1. Premises shall have a structure and stability appropriate to the nature of their use.

Emergency Doors

2. Emergency doors shall open outwards.

Emergency doors shall not be so locked or fastened that they cannot be easily and immediately opened by any person at work who may require to use them in an emergency. Sliding or revolving doors are not permitted if intended as emergency exists.

Ventilation

3. If air conditioning or mechanical ventilation installations are used, they shall operate in such a way that persons at work are not exposed to draughts, which cause discomfort. Any deposit or dirt likely to create an immediate danger to the health of persons at work by polluting the atmosphere shall be removed without delay.

Temperature

- 4. (1) The temperature in rest areas, rooms for duty staff, sanitary facilities, canteens and first-aid rooms shall be appropriate to the particular purpose of such areas.
- (2) Windows, skylights and glass partitions shall allow excessive effects of sunlight to be avoided, having regard to the nature of the work and use of the room.

Natural and Artificial Lighting

5. Workplaces shall as far as possible have sufficient natural light and be equipped with the means of providing artificial lighting which is adequate for the purposes of protecting the safety and health of persons at work.

Floors, Walls, Ceilings and Roofs of Rooms

- 6. (1) The floors of workplaces shall have no dangerous bumps, holes or slopes and shall be fixed, stable and not slippery.
- (2) The surfaces of floors, walls and ceilings in rooms shall be such that they can be cleaned or refurbished to an appropriate standard of hygiene.
- (3) Transparent or translucent walls, in particular all-glass partitions, in rooms or in the vicinity of workplaces and traffic routes shall be clearly indicated and made of safety material or be shielded from such places or traffic routes to prevent persons at work from coming into contact with walls or being injured should the walls shatter.

Windows and Skylights

7. (1) It shall be possible for persons at work to open, close, adjust or secure windows, skylights and ventilators in a safe manner.

When open, they shall not be positioned so as to constitute a hazard to persons at work.

(2) Windows and skylights shall be designed in conjunction with equipment or otherwise fitted with devices allowing them to be cleaned without risk to the persons carrying out this work or to other persons present.

Doors and Gates

- 8. (1) The position, number and dimensions of doors and gates, and the materials used in their construction, shall be determined by the nature and use of the rooms or areas.
 - (2) Transparent doors shall be appropriately marked at a conspicuous level.
 - (3) Swing doors and gates shall be transparent or have see-through panels.
- (4) If transparent or translucent surfaces in doors and gates are not made of safety material and if there is a danger that persons at work may be injured if a door or gate should shatter, the surfaces shall be protected against breakage.

Traffic Routes

9. Where the use and equipment of rooms so requires for the protection of persons at work, traffic routes shall be clearly identified.

Specific Measures for Escalators and Travelators

10. Escalators and travelators shall function safely, be equipped with any necessary safety devices and with easily identifiable and accessible emergency shut-down devices.

Room Dimensions and Air Space in Rooms

11. Workrooms shall have sufficient surface area and height to allow persons to perform their work without risk to their safety, health or well-being.

SIXTH SCHEDULE

Regulation 34

MINIMUM REQUIREMENTS FOR WORK IN COMPRESSED AIR

Fitness to Work and Supervision

- 1. (a) Work in compressed air shall be carried out only by persons who have been medically examined and found fit for such work.
 - (b) Work in compressed air shall be carried out only when a competent person is present to supervise and take charge of the operations.
 - (c) No person shall be permitted to work in compressed air unless properly instructed and informed as to the precautions to be taken in connection with such work.

Maximum Pressure and Records

- 2. (a) No person shall be subjected to a pressure exceeding 3.5 kg/cm² except in emergencies.
 - (b) For every shift a record shall be kept showing the time every person spends in the working chamber and the time taken for decompression.

Medical Examinations and First Aid

- 3. (a) Without prejudice to subparagraph (b), no person shall be permitted to work in compressed air where the air pressure exceeds 1.25 kg/cm² unless he or she has been medically examined, by a doctor familiar with compressed air work, within the previous four weeks and certified as being fit for such work.
 - (b) Persons who work continuously in compressed air at a pressure not more than 1.5 kg/cm² shall be medically re-examined every two months and if the pressure is more than 1.5 kg/cm², the period between re-examinations shall be shorter.
 - (c) Persons who have been absent from work in compressed air for any period due to illness or for ten days or more for reasons other than illness shall be medically re-examined.

- (d) For every project where persons work in compressed air, a doctor, a nurse, or a trained first-aid attendant, familiar with compressed air work, shall be available at all times.
- (e) When persons work in compressed air at a pressure exceeding 1.25 kg/cm² a neighbouring hospital shall be informed of the location of the site and of the name and address of the doctor exercising medical supervision.

Identification Badge

- 4. (a) Every person who works in compressed air at a pressure exceeding 1.25 kg/cm² shall be provided with an identification badge to be worn on the body indicating that he or she has worked in compressed air and giving the address of the medical lock at the place of work.
 - (b) The identification badge shall state that the wearer, if ill, should be taken to the medical lock and not to a hospital.

Compressions and Decompressions

- 5. (a) Adequate and suitable facilities for remaining on the site after decompression, including shelters with seats shall be provided for persons working in compressed air.
 - (b) Any person who has not previously worked in compressed air shall not be subject to compressed air unless accompanied in the manlock by a person competent to advise as to the appropriate conduct of persons during compression.
 - (c) During compression the pressure shall not be raised to more than 0.35 kg/cm² until the man-lock attendant has ascertained that no person is complaining of discomfort, and thereafter it should be raised at a rate not exceeding about 0.7 kg/cm² per minute.
 - (d) If during compression any person is suffering from discomfort, compression should stop and the pressure be gradually reduced.

Working Chambers

6. (a) Every working chamber shall be provided with a wet-bulb thermometer.

- (b) Work under pressure when the wet-bulb temperature exceeds 28C shall be restricted unless it is absolutely necessary.
- (c) While any person is in a working chamber, the door between the chamber and a man-lock leading to a lower pressure shall as far as practicable be kept open if the lock is not in use.

Medical Locks

- 7. (a) Where the pressure in a working chamber ordinarily exceeds 1.25 kg/cm², a suitable medical lock conveniently situated shall be provided solely for the treatment of persons at work in compressed air.
 - (b) The medical lock shall have two components so that it can be entered under pressure.
 - (c) While any person is at work in compressed air a medical lock shall be in the charge of a suitably qualified person.

Man-Locks

- 8. (a) Every man-lock shall be of adequate internal dimensions and equipped with:
 - (i) pressure gauges that indicate to the man-lock attendant the pressure in the man-lock and in each working chamber to which it affords direct or indirect access and indicate to the persons in the man-lock the pressure in it:
 - (ii) a clock or clocks so placed that the man-lock attendant and the persons in the man-lock can readily ascertain the time;
 - (iii) efficient means of verbal communication between the man-lock attendant, the man-lock and the working chamber or chambers;
 - (iv) means of enabling the persons in the man-lock to convey visible or other non-verbal signals to the manlock attendant; and
 - (v) efficient means enabling the man-lock attendant, from outside the man-lock, to reduce or cut off the supply of compressed air to the man-lock.

- (b) Persons in every man-lock shall not be able to reduce the air pressure except:
 - (i) under the control of the man-lock attendant; or
 - (ii) in an emergency, by special means that should normally be kept sealed or locked.
- (c) In every man-lock there shall be a suitable notice indicating the precautions to be taken by persons during compression and decompression, and after decompression.
- (d) Every man-lock shall, while any person is in it or in any working chamber to which it affords direct or indirect access, be in the charge of an attendant who should:
 - (i) control compression and decompression in the manlock; and
 - (ii) if the pressure exceeds 1.25 kg/cm², keep a register showing:
 - the times at which each person enters and leaves the man-lock;
 - the pressures at the times of entering and leaving; and
 - the times taken to decompress each person.

Air Supply

9. Compressed air installations shall be provided with air supply plant capable of supplying any working chamber with sufficient fresh uncontaminated air at the pressure in the chamber, and not less than 0.3 m³ per minute per person in the chamber.

SEVENTH SCHEDULE

Regulation 100

MINIMUM REQUIREMENTS FOR AN EXCAVATOR OR LOADER USED AS A CRANE

1. Before an excavator, loader or combined excavator/loader is first used as a crane, a competent person appointed by the owner shall specify the safe working load to be raised and lowered by the said machine when used as a crane, or if it may be used with jibs or booms which it is intended to use.

When an excavator is fitted with outriggers, the competent person shall specify safe working loads for both the following positions -

- (a) free-on-wheels or tracks, and
- (b) with outriggers fully extended and blocked,

for each length or construction of jib or boom which it is intended to use.

The safe working load shall be the same for all radii at which the jib or boom is operated and shall not be greater that the load which the machine in its least stable configuration is designed to lift with that jib or boom.

- 2. Before the machine is first used as a crane a certificate signed by the competent person giving the particulars specified in the approved form shall be obtained. The requirements of Regulation 127(3) shall apply to the said certificate as they apply to the certificates required by the Regulations, except that the certificate, or a copy thereof, shall be kept available for inspection on the site.
- 3. The machine, when used as a crane, shall not be loaded beyond the relevant safe working load specified in the certificate required by paragraph 2 of this Schedule.
- 4. Means of identification shall be plainly marked on the machine.
- 5. The specified safe working load or loads and the outrigger position and the length of jib or boom to which the safe working loads related shall either be plainly marked on the machine or a copy of the table of safe working loads, specified in the approved form, shall be affixed in a clearly visible position in the driver's cab.

If, after the issue of the certificate required by paragraph 2 of this Schedule, the machine undergoes any substantial alteration or repair likely to affect the specified safe working loads, the said certificate shall be cancelled and a new certificate giving the particulars specified in the approved form shall be required.

6. In the case of hydraulically-operated machines this exemption shall only apply to machines fitted with check valves on the hydraulic lifting cylinders, or some other suitable device, to prevent a gravity fall of the load in the event of a hydraulic failure.	

EIGHTH SCHEDULE

Regulations 6, 9, 14 and 129(4)

FÁS SAFE PASS PROGRAMME

- (1) Training requirements under Regulations 6, 9 and 14 are:
 - (a) the FÁS Safe Pass safety awareness programme, or
 - (b) an equivalent safety awareness programme approved by a body in another jurisdiction recognised by FÁS as its equivalent.
- (2) The FÁS registration card shall bear the name and logo of An Foras Áiseanna Saothair, the registration number, card expiry date, FÁS contact details, the name of the holder and a photograph of the holder.
- (3) Registration cards issued by recognised bodies in another jurisdiction shall bear the name of the body concerned, the registration number, card expiry date, contact details of the issuing body, the name of the holder and a photograph of the holder.

NINTH SCHEDULE

Regulation 6, 9 and 14

FÁS CONSTRUCTION SKILLS CERTIFICATION SCHEME

- 1. Regulations 6(6) and 9(4) apply to the following tasks:
 - (a) Scaffolding basic
 - (b) Scaffolding advanced
 - (c) Tower crane operation
 - (d) Slinging/Signalling
 - (e) Telescopic Handler Operation
 - (f) Tractor/Dozer Operation
 - (g) Mobile Crane Operation
 - (h) Crawler Crane operation
 - (i) Articulated dumper operation
 - (j) Site dumper operation
 - (k) 180^{0} Excavator operation
 - (1) 360° Excavator operation
 - (m) Roof and wall cladding/sheeting
 - (n) Built up roof felting

and to other tasks which may be prescribed from time to time by the Minister for Enterprise, Trade and Employment and published in Iris Oifigiúil.

- 2. The certification requirements for Regulations 6, 9 and 14 are:
 - (a) the relevant certificate under the FÁS Construction Skills Certification Scheme

or

(b) an equivalent certificate approved by a body in another jurisdiction recognised by FAS as its equivalent.

3. Scaffolding

"Scaffolding – basic" (Paragraph 1(a) above) means general scaffolding operations other than those covered by Scaffolding – advanced (Paragraph 1(b)).

"Scaffolding – advanced" (Paragraph 1(b) above) means the following:

- (a) the erection and dismantling of independent scaffolding,
- (b) the erection and dismantling of sheeted scaffolding,
- (c) the erection and dismantling of scaffolding with a larger number of platforms than recommended in the manufacturer's instructions or relevant code of practice,
- (d) the erection and dismantling of scaffold loading bays,

- (e) the erection and dismantling of scaffolding with different tie spacing than recommended in the manufacturer's instructions or relevant code of practice,
- (f) the erection and dismantling of scaffolding under which the public will have access.
- (g) the erection and dismantling of a buttress or truss-out scaffold,
- (h) the erection and dismantling of a saddle and stack scaffold with access tower,
- (i) the method of constructing and loading a cantilever (counterbalance) scaffold,
- (j) the erection and dismantling of scaffolding with work platforms 7 metres or more above the level of the base of the scaffolding, or
- (k) or other tasks which may be prescribed from time to time by the Minister for Enterprise Trade and Employment and published in Iris Oifigiúil.

4. Exceptions

In the case of persons undertaking the following tasks:

- (a) Scaffolding basic
- (b) Tower crane operation
- (c) Excavator operation
- (d) Roof and wall cladding/sheeting

in order to gain the experience which is a pre requisite to undertaking the relevant programme, it shall be permissible for those persons to undertake the tasks during the period required by the programme provided that:-

- (i) they are at all times under the direct supervision of a person who is in possession of the relevant registration card and
- (ii) they are in possession of a letter from their employer stating that they are a trainee under supervision and giving the date at which they began undertaking this type of work.

5. Registration cards

- (1) The FÁS registration card will bear the name and logo of FAS, the registration number, card expiry date, FÁS contact details, the name of the holder and a photograph of the holder.
- (2) Registration cards issued by other recognised bodies will bear the name of the body concerned, the registration number, card expiry date, contact details for the issuing body, the name of the holder and a photograph of the holder.

PROCEDURE FOR SELECTION OF SAFETY REPRESENTATIVES

In the absence of a site safety representative selected by the persons at work on the site, the following procedures shall apply.

The selection of a site safety representative should proceed as follows:

- 1. If a site safety representative is elected by the workers on the site at any time after commencement of activities on the site this person shall be recognised as such by the project supervisor for the construction stage and particulars shall be noted in writing by the project supervisor for the construction stage.
- 2. If a safety representative has previously been selected under section 13 of the Principal Act by the employees of any of the contractors on the construction site the views of all persons at work on the site at the time must be taken into account when confirming that person as site safety representative.
- 3. If, at the time the number of persons at work on the construction site normally exceeds 20 and there is no site safety representative the project supervisor for the construction stage shall invite all persons working on the site at that time to elect a site safety representative from amongst their number. If those working on the site are unwilling to organise a selection process themselves and request the project supervisor for the construction stage to do so he or she shall organise the election.
- 4. If a site safety representative is not selected under paragraph (3) the project supervisor for the construction stage shall invite persons working on the construction site or their representatives to nominate persons willing to undertake the role. If more than one name is put forward the project supervisor for the construction stage shall determine which candidate has the most support from all persons employed on the site. The person who has the most support shall be deemed selected.
- 5. If no site safety representative has been selected under paragraphs (1) to (4), the project supervisor for the construction stage shall nominate a provisional site safety representative. If subsequently a site safety representative is elected by a process involving more than 50 per cent of the persons working on the site at a particular time then that person shall be deemed to be the site safety representative.
 - 6. The project supervisor for the construction stage shall take steps to inform all persons who are at work on the site at the time of the selection and subsequently of the name of the site safety representative. The project supervisor for the construction stage must keep available for inspection by an inspector a record of the name of the site safety representative and details of the selection process.

GIVEN under my hand, this 26th day of October, 2001.

Tom Kitt
Minister of State at the Department
of Enterprise, Trade and Employment

EXPLANATORY NOTE

(This note is not part of the Instrument and does not purpot to be a legal interpretation)

The purpose of these Regulations is to amend to the Safety, Health and Welfare at Work (Construction) Regulations, 1995 and to give further effect to the Council Directive 92/57/EEC on the minimum safety and health requirements at temporary or mobile construction sites. The amended Regulations include new provisions for mandatory safety training and safety representation as well as providing for more effective arrangements in ensuring the availability of adequate welfare facilities by requiring the Project Supervisor, Construction Stage, to co-ordinate the provision of these facilities on site.

The Regulations prescribe the main requirements for the protection of the safety, health and welfare of persons working on construction sites.

The Regulations apply to all construction projects as well as to the maintenance of buildings. They place obligations on clients and designers to ensure health and safety is taken into account before any construction work begins. Contractors must ensure that the work on site is properly co-ordinated and carried out in a safe manner.

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