



MINISTRY OF LABOUR AND NATIONAL SERVICE.

Factories Acts, 1937 & 1948

Revision of Regulations for Shipbuilding and Ship-Repairing

Preliminary Draft of New Code

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Revision of Regulations for Shipbuilding and Ship-Repairing

PREFACE

1. Revision of the Special Regulations under the Factories Acts for shipbuilding and ship-repairing has been in contemplation for a considerable time. A Committee on whose recommendations the Shipbuilding Regulations of 1931 were based urged that their recommendations should be applied to the repair of ships afloat in public wet docks and harbours as well as in shipbuilding yards and public dry docks and that the scope of the Regulations should be extended accordingly when amending legislation had been passed enabling this to be done. Such legislation (since slightly amended by the Factories Act of 1948) was included in the Factories Act of 1937. Further, some difficulties have been raised in connection with the existing Regulations, more especially as regards (i) precautions against fire or explosion on oil-carrying vessels and (ii) the allocation of responsibilities for the observance of the various requirements. Also, developments in methods and conditions of work have to be taken into account.

2. Revision has been delayed in view of circumstances arising out of the war; but the Department has now prepared, as a basis for consideration of the subject by the various organisations and others concerned, the preliminary draft Regulations in this pamphlet. It is suggested that in (say) three or four months' time, representatives of the organisations or bodies mainly concerned, and any others who may wish to do so, should send to the Ministry of Labour and National Service statements indicating briefly and provisionally (i.e., without prejudice to their being able to raise other points at a later stage) what points on the preliminary draft Regulations (or what particular paragraphs of the Regulations) they would like to discuss with representatives of the Department. A relatively informal procedure of this kind, as a preliminary to the preparation of a revised draft for formal proposal under the statutory procedure, has been found most helpful in connection with some other sets of Regulations under the Act and may well, it is felt, prove helpful in this case also, in clearing away misunderstandings and difficulties at an early stage.

3. It may be useful to add here the following comments on the preliminary draft.

(a) In preparing the draft, account has had to be taken not only of the Shipbuilding Regulations of 1931 but also of the terms of the Docks Regulations, 1934. The latter Regulations relate primarily to the loading and unloading of ships, but they contain requirements on some subjects (especially means of access and the safety of lifting appliances and lifting gear, whether on or off the ship) which are also of concern to firms undertaking repair or refitting work on the ships (whether or not while loading or unloading is also going on). To some extent, therefore, it would be advantageous that the two sets of Regulations should be in the same terms; and this point has been especially kept in mind in preparing Parts II and IV of the present draft.

(b) Similarly, in drafting Regulation 4 (as to responsibilities for the observance of various requirements in various circumstances) regard has been had to the paragraphs in the Docks Regulations headed "Duties". Some guidance has also been sought from Regulation 4 of the Building (Safety, Health and Welfare) Regulations, 1948 (S.I. 1948 No. 1145) in view of the fact that, in the case of shipbuilding or ship-repairing, problems arise somewhat similar to problems in the case of building operations—there may be a firm undertaking most of the work but other contractors or sub-contractors undertaking parts of it simultaneously or at some stages.

Ministry of Labour and National Service.

August, 1950.

DRAFT STATUTORY INSTRUMENTS

1950 No.

FACTORIES

THE SHIPBUILDING AND SHIP-REPAIRING SPECIAL REGULATIONS, 1950.

Made	1950
Laid before Parliament	1950
Coming into Operation	1950

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SECOND SCHEDULE—Chains and Lifting Gear excepted under Regulation 36(3) (As to heat treatment).

The Minister of Labour and National Service by virtue of Sections 46 and 60 of the Factories Act, 1937^(a) (hereinafter referred to as "the principal Act"), the Factories Act, 1948^(b), and the Transfer of Functions (Factories, &c., Acts) Order, 1946^(c) and of all other powers him enabling, hereby makes the following Special Regulations.

PART I. INTERPRETATION AND GENERAL

Short title, commencement and revocation

- (1) These Regulations may be cited as the Shipbuilding and Ship-repairing Special Regulations, 1950 and shall come into operation on the..... day of.....19.....
- (2) The Shipbuilding Regulations, 1931^(d) are hereby revoked.

Application of Regulations

- (1) Subject to paragraph (2) of this Regulation these Regulations shall apply :—
 - (a) to any yard or dry dock (including the precincts thereof) in which are carried on all or any of the following operations, namely, the constructing, reconstructing, repairing, refitting and finishing of ships or vessels; and
 - (b) as respects work carried out in a harbour or wet dock (other than such work done by the master or crew of a ship or done on board a ship during a trial run) in any of the operations mentioned in sub-paragraph (a) of this paragraph in the case of a ship (but not in the case of a vessel other than a ship) or in any of the following operations, namely, painting a ship, scaling, scurfing or cleaning boilers (including combustion chambers and smoke boxes) in a ship, and cleaning, in a ship, bilges or oil-fuel tanks or any tank last used for oil of any description carried as cargo.
- (2) (a) Nothing in Parts II to IX of these Regulations, except Regulations 47, 50 to 60, 67, 68 and 70 to 72, shall apply to a shipyard in which the operations are not carried on upon vessels exceeding 100 feet in length measured from the foreside of the stem to the afterside of the sternpost or, where a sternpost is not fitted, to the centre of the rudder stock, on the range of the upper deck beams in vessels which have less than three decks and on the range of the beams of the second deck from below in all other vessels.
- (b) Nothing in Parts II to IX of these Regulations, except Regulations 47, 48 (2) (3) (4) and (5), 50 to 60, 61, 65, and 67 to 72, shall apply as respects the carrying out of the operations, elsewhere than in a shipyard, upon ships not exceeding 100 feet in length measured as aforesaid.
- (c) Regulations 11 to 23 and 25 to 29 of these Regulations shall not apply as respects the carrying out of the operations, in a public dry dock, upon vessels not exceeding 100 feet in length measured as aforesaid.
- (3) Save as expressly provided in Regulation 31 of these Regulations, the requirements imposed by these Regulations shall be in addition to and not in derogation of the provisions imposing requirements as to health or safety contained in Parts I, II or IV of the principal Act, in so far as those

^(a) 1 Edw. 8. & 1 Geo. 6.c.67.

^(b) 11 & 12 Geo. 6.c.55.

^(c) S. R. & O. 1946 (No. 376) p.1006.

^(d) S. R. & O. 1931 (No. 133) p.431.

requirements of the Act apply, and no exemption or exception from any of the provisions of these Regulations shall be deemed to be an exemption or exception from any such requirement as to health or safety.

Interpretation

3. (1) The Interpretation Act, 1889 ^(a) applies to the interpretation of these Regulations as it applies to the interpretation of an Act of Parliament.

(2) In these Regulations, unless the context otherwise requires, the following expressions have the meanings hereby assigned to them :—

"Abel closed test" means a test carried out with the apparatus specified and in the manner set forth in the Second Schedule to the Petroleum (Consolidation) Act, 1928 ^(b).

"Approved" means approved for the time being by certificate of the Chief Inspector of Factories.

"Asbestos" means any fibrous silicate mineral and any admixture containing any such mineral.

"Breathing apparatus" means a helmet or face-piece with necessary connections by means of which a person using it can breathe ordinary air or any other apparatus approved for the purpose of any of these Regulations.

"Lead paint" means any paint, paste, spray, stopping, filling or other material which when treated in the manner described in the First Schedule to these Regulations yields to an aqueous solution of hydrochloric acid a quantity of soluble lead compound exceeding, when calculated as lead monoxide, 5 per cent of the dry weight of the portion taken for analysis.

"Lifting appliance" means a crab, winch, pulley block or gin wheel used for raising or lowering and a crane, derrick, sheer legs, teagle, transporter or runway.

"Lifting gear" means a chain sling, rope sling, plate grab, ring, link, hook, shackle, swivel or eyebolt.

"The operations" means the operations mentioned in paragraph (1) (a) and the work mentioned in paragraph (1) (b) of Regulation 2 of these Regulations, or any such operations or work.

"Person employed" means a person employed in any of the operations.

"Public dry dock" means a dry dock which is available for hire.

"Safe working load" means the relevant safe working load specified in the latest certificate of test obtained for the purposes of Regulations 34 or 36 as the case may be or, in the case of a fibre rope or fibre rope sling, the safe working load marked thereon or ascertainable as provided for by Regulation 38.

"Ship", "vessel" and "harbour" have the same meaning as in the Merchant Shipping Act, 1894 ^(c).

"Shipyards" means any such yard or dry dock as is mentioned in paragraph (1) (a) of Regulation 2 hereof.

"Stage" means any temporary platform on or from which persons perform work in connection with the operations, but does not include a boatswain's chair.

^(a) 52 & 53 Vict. c.63.

^(b) 18 & 19 Geo. 5. c.32.

^(c) 57 & 58 Vict. c.60.

"Staging" includes any stage, and any upright, thwart, thwart pin, wedge, distance piece, bolt or other appliance or material, not being part of the structure of the vessel, which is used in connection with the support of any stage, and any guard-rails and toe-boards connected with a stage.

"Toe-board" includes heel-board or foot-board.

(3) References in these Regulations to any enactment shall be construed as references to that enactment as amended by any subsequent enactment including the principal Act.

Obligations under Regulations

4. (1) It shall be the duty of every employer of workmen who is undertaking any of the operations :—

(a) to comply with such of the requirements of Regulations 6, 9, 12 to 23, 24 in so far as that Regulation relates to the keeping or replacing of fencing in position, 25 (except in so far as the shipowner is responsible under paragraph (7) of this Regulation), 48, 49, 54, 55, 64, 67 to 71, and 74 as affect any workman employed by him; and

(b) to comply with such of the requirements of Regulations 26 to 28, 58, 59, 60 (3), 65, 66 and 72 as relate to any work, act or operation performed or about to be performed by such employer of workmen.

(2) It shall be the duty of the owner of machinery or plant to which any of the provisions of Regulations 33 to 39, 61 or 62 applies, and in the case of such machinery or plant carried on board a ship not being a ship registered in the United Kingdom it shall also be the duty of the master of such ship, to comply with those provisions; and it shall be the duty of every employer undertaking the operations not to use, and not to allow his workmen to use, any machinery or plant which does not comply with those provisions.

(3) It shall be the duty of every person who installs, works or uses any appliance or plant or part thereof, being an appliance or plant or part thereof to which any of the provisions of Regulations 40 to 46, 50 to 53, 63(2) or 63(3) applies, to instal, work or use such appliance or plant or part thereof in a manner which complies with those provisions.

(4) In the case of a shipyard other than a public dry dock it shall be the duty of the person having the general management and control of the shipyard to comply with Regulations 7, 8, 10, 11, 24 in so far as it relates to the provision of fencing, 54, 63(1) and 73.

(5) In the case of a public dry dock it shall be the duty of the person having the general management and control of the dock to comply with Regulations 10, 24 in so far as it relates to the provision of fencing, 63(1) as respects lighting of approaches to the edge of the dock, and 73, and it shall be the duty of every employer of workmen who is undertaking any of the operations to comply with such of the requirements of Regulations 7, 8 and 11, and of Regulation 63(1) as respects other lighting, as affect any workman employed by him.

(6) In the case of a ship lying in or at a dock, wharf or quay but not in a shipyard, it shall be the duty of the person having the general management and control of the dock, wharf or quay to comply with Regulation 63(1) as respects the lighting of approaches to the edge of the dock, wharf or quay :

Provided that if any other person has the exclusive right to occupation of any part of the dock, wharf or quay and has the general management and control of such part, the said duty in respect of that part shall devolve upon that other person.

(7) In the case of a ship elsewhere than in a shipyard, it shall (unless paragraph (8) of this Regulation applies) be the duty of the owner and of the master or officer in charge of the ship:—

(a) to comply with Regulations 7, 8 and 54 and (save as respects lighting of approaches to the edge of a dock, wharf or quay in or at which the ship is lying) Regulation 63(1); and

(b) to comply (save in so far as responsibility for the protection of a hatch rests for the time being on a stevedore or other person who carries on any of the processes of loading, unloading or coaling the ship) with Regulation 25 as respects—

(i) any opening which has not been taken over by a person undertaking the operations, and

(ii) any opening which, after having been taken over by any such person, has been reported by him or on his behalf to the owner, master or officer in charge of the ship, by written notice in the prescribed form, as being an opening the use of which he will no longer require for the purpose of the operations and which has not been taken over by another person undertaking the operations;

and it shall be a duty of the owner, master or officer in charge of the ship to give immediately a written acknowledgment in the prescribed form of such written notice as aforesaid.

(8) If, in the case of a ship elsewhere than in a shipyard, the shipowner has not yet assumed control of the ship or has abandoned control of the ship so that no master or officer remains in charge thereof, it shall be the duty of every employer of workmen who is undertaking any of the operations on the ship to comply with such of the requirements of Regulations 7, 8, 25 and (save as respects lighting of approaches to the edge of a dock, wharf or quay in or at which the ship is lying) 63(1) as affect any workman employed by him.

(9) It shall be the duty of every person employed to comply with such requirements of these Regulations as relate to the performance of an act by him and if he discovers any defect in staging, plant or appliances to report such defect without unreasonable delay to his employer or foreman or to a person appointed by the employer under Regulation 75.

(10) For the purposes of the provisions in this Regulation which impose upon an employer a duty to comply with such of the requirements of certain specified Regulations as affect any workman employed by him, the requirements of those Regulations, other than Regulations 48, 54, 55 and 64, shall be deemed not to affect any workman if and so long as his presence in any place is not in the course of performing any work on behalf of his employer and is not expressly or impliedly authorised or permitted by his employer.

Publication of Regulations

5. (1) Every employer who employs persons in the operations shall take steps to secure that a printed copy of these Regulations or of the prescribed abstract of these Regulations is kept posted at each shipyard and at each office, yard or shop of the employer at which persons employed by him in the operations attend, in such characters and in such positions as to be conveniently read by such persons.

(2) Every such employer as aforesaid shall give a printed copy of these Regulations to any person employed by him and affected thereby on his application.

PART II. MEANS OF ACCESS AND STAGING

Safe access in general

6. Without prejudice to the other requirements of these Regulations, there shall, so far as is reasonably practicable, be provided and maintained safe means of access to every place at which any person has at any time to work in connection with the operations.

Access to ship at wharf or quay or in dry dock

7. If a ship is lying at a wharf or quay, or is in a dry dock for the purpose of any of the operations other than its actual construction, there shall be safe means of access for the use of persons employed at such times as they have to pass to or from the ship from or to the wharf, quay or dock side, as follows:—

(a) where reasonably practicable the ship's accommodation ladder or a soundly constructed gangway or similar construction not less than twenty-two inches wide, properly secured, and fenced throughout on each side to a clear height of two feet nine inches by means of upper and lower rails, taut ropes or chains or by other equally safe means, except that in the case of the ship's accommodation ladder such fencing shall be necessary on one side only if the other side is properly protected by the ship's side;

(b) in other cases a ladder of sound material and adequate length which shall be properly secured to prevent slipping:

Provided that as regards any sailing vessel not exceeding 250 tons net registered tonnage and any steam vessel not exceeding 150 tons gross registered tonnage this Regulation shall not apply if and while the conditions are such that it is possible without undue risk to pass to and from the ship without the aid of any special appliance.

Access between vessels

8. (1) If a ship is alongside any other vessel and persons employed have to pass from one to the other, safe means of access shall be provided for their use, unless the conditions are such that it is possible without undue risk to pass from one to the other without the aid of any special appliance.

(2) Where the means of access provided consists of a Jacob's ladder, such means of access shall not be deemed to be safe unless in the case of the vessel with the higher free-board:—

(a) the top rung of the ladder is not more than twelve inches below the gunwale or top of the bulwark where the ladder gives immediate access to the vessel; and

(b) at least one secure adequate handhold is provided at the position of boarding the vessel; and

(c) a suitable gangway or stairway is provided leading from the top of the bulwark on to the deck, the gangway or stairway being so placed as to be as nearly as practicable opposite to the Jacob's ladder.

Access to ship by water

9. Where any person employed has to proceed to or from a ship by water, proper measures shall be taken to provide for his safe transport. Vessels used for this purpose shall be under the charge of a competent person and shall not be overcrowded.

Access to dry dock

10. Every flight of steps giving access from ground level either to an altar or to the bottom of a dry dock shall be provided throughout on each side with a substantial hand-rail, but in the case of an open side with secure fencing to a height of at least two feet nine inches by means of upper and lower rails, taut ropes or chains or by other equally safe means.

General access to vessel in a shipyard

11. All main gangways giving general access to a vessel in a shipyard, whether from the ground or from a dock side, and all cross gangways leading from such a main gangway on to the vessel, shall :—

- (a) be sufficiently wide having regard to the number of persons employed on or at the vessel; and
- (b) be securely protected on each side to a height of at least two feet nine inches by strongly constructed upper and lower hand-rails and by a secure lee-board or toe-board projecting at least six inches above the floor; and
- (c) be stable and, wherever practicable, of permanent construction; and
- (d) be kept in position as long as required.

Access to and from bulwarks

12. Where there is a gangway leading on to the bulwarks of a vessel, there shall be provided :—

- (a) wherever practicable, a platform at the inboard end of the gangway with safe means of access therefrom to the deck; or
- (b) where such a platform is not practicable, a second gangway or stairway leading from the bulwarks on to the deck which shall either be attached to the end of the first-mentioned gangway or be placed contiguous to it, in which case means of access, securely protected by fencing, shall be provided from the one to the other.

Further provisions as to access

13. (1) Where outside staging is erected in a shipyard, there shall be provided sufficient ladders giving direct access to the stages having regard to the extent of the staging and to the work to be done.

(2) Where a vessel is under construction or reconstruction and persons employed are liable to go forward or aft or thwartship across or along uncovered deck-beams, sufficient planks shall be provided on deck-beams for the purpose of access to and from places of work.

(3) No footway or passageway constructed of planks and for the use of one or more persons employed shall be less than seventeen inches wide: Provided that :—

- (i) this requirement shall be without prejudice to any other provision in these Regulations requiring a greater width, and
- (ii) this requirement shall not apply to a completed and permanent footway or passageway of a ship.

Ladders

14. (1) Subject to paragraphs (2) and (3) of this Regulation, every ladder which affords a means of communication or support to a person or persons employed shall :—

- (a) be of good construction, sound material and adequate strength and be in good repair; and

(b) unless so fixed or placed that there is no danger of it slipping, be adequately secured as near the upper resting place as possible; and

(c) unless there is other adequate handhold, extend to a height of at least three feet above the place of landing or the highest rung to be reached by the feet of any person working on the ladder, as the case may be or, if that is impracticable, to the greatest practicable height; and

(d) be kept free from obstruction, save that rungs of a ladder may be used to support planks if the ladder is of such a width that the planks do not materially obstruct passage.

(2) This Regulation shall not apply to a fixed ladder of a ship if and while there is affixed near any point at which a person employed can obtain access to the ladder a prominent warning notice indicating that the ladder is not to be used by any such persons.

(3) Requirement (b) of paragraph (1) of this Regulation shall not apply in the case of a ladder not more than ten feet in length carried from place to place by a workman in the course of his work and erected by him for that work.

Lashing of Ladders

15. (1) A fibre rope, or a rope made with strands consisting of wire cores covered with fibre, shall not be used to secure a ladder used for the purpose of the operations.

(2) A wire rope shall not be used to secure any such ladder unless its ends are ferruled, but this provision shall not apply in the case of an end which is so situated or covered that a person using the ladder is not liable to come into contact with it so as to suffer injury.

Material for staging

16. (1) A sufficient supply of sound and substantial material and appliances shall be available for the construction of staging and in the case of a shipyard such supplies shall be kept in a convenient place or places within the precincts of the yard.

(2) All planks and other material and appliances intended to be used for staging shall be carefully examined before being taken into use in any staging and re-examined on each occasion after removal from staging in course of dismantlement and before being used again in any other staging; and every examination or re-examination required by this paragraph shall be carried out by a person competent for the purpose.

Construction, maintenance and inspection of staging

17. (1) All staging and every part thereof 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, and every part shall be kept so fixed, secured or placed in position as to prevent, so far as practicable, accidental displacement.

(2) All staging suspended on the inside of the vessel, staging supported by brackets, staging on the outside of the vessel at the fore and after ends and, where there is a gap in a stage caused by the inside uprights, the plank in the way of such gap, shall be erected and adjusted by staging gangs specially, though not necessarily exclusively, employed for the purpose.

(3) All staging in use in a shipyard or in connection with the construction or reconstruction of a ship in a harbour or wet dock shall be inspected at regular and frequent intervals by a competent person.

Upright used for hoisting block

18. If any upright forming part of staging is used as a fixing for a block for hoisting material :—

(a) It shall be fitted with a cross-piece at the base and be properly housed in the ground or shall otherwise be adequately secured so as to prevent it from rising; and

(b) it shall be suitably protected against damage by the action of the chain or wire or other means of securing the block to the upright.

Support of stages on planks

19. Planks supported on the rungs of ladders shall not be used to support stages.

Suspended stages

20. (1) Stages suspended by ropes or chains shall be secured as far as possible so as to prevent their swinging.

(2) A fibre rope, or a rope made with strands consisting of wire cores covered with fibre, shall not be used for suspending a stage except that fibre ropes may be used in the case of a stage of which the suspension ropes are reeved through blocks.

Securing of planks

21. All planks forming a rising stage at the bow end of a vessel shall be securely fastened to prevent slipping and all planks forming other stages shall be so fastened unless they extend eighteen inches or more beyond the inside edge of the thwart or support on which they rest.

Width of stages

22. (1) All stages shall be of sufficient width as is reasonable in all the circumstances of the case to secure the safety of all persons working thereon.

(2) Any stage from which a person is liable to fall a distance of more than six feet six inches or into water in which there is risk of drowning shall be at least seventeen inches wide and so constructed or placed that a person is not liable to fall more than that distance, or into water as aforesaid, through a gap in the stage.

Fencing of stages

23. Every side of a stage, being a side thereof from which a person is liable to fall a distance of more than six feet six inches or into water in which there is risk of drowning, shall be provided with a suitable guard-rail or guard-rails of adequate strength to a height of at least three feet above the stage and above any raised standing place on the stage and with toe-boards up to a sufficient height being in no case less than eight inches and so placed as to prevent so far as possible the fall of persons, materials and tools from such stage or place:

Provided that :—

(i) guard-rails and toe-boards may be removed or remain unerected for the time and to the extent necessary for the access of persons or the movement of materials; and

(ii) this Regulation shall not apply to a stage suspended by ropes or chains which is being used solely for the purpose of painting.

PART III. FURTHER PRECAUTIONS AGAINST FALLS OF PERSONS, MATERIALS AND ARTICLES

Fencing of dry docks

24. (1) (a) The edges of a dry dock at ground level, including edges above flights of steps and chutes for materials, shall be provided with fencing which shall at no point be less than two feet six inches in height.

(b) Such fencing as aforesaid shall be kept in position except for the time and to the extent to which its absence is necessary for traffic or working or for the access of persons or the movement of materials, but fencing removed for that purpose shall be kept readily available and shall be replaced as soon as practicable.

(2) Where at a dry dock there is a gangway giving access from an altar of the dock to a vessel in the dock, fencing to a height of not less than two feet six inches at any point and by means of upper and lower rails, taut ropes or chains or by other equally safe means shall be provided and kept in position at the unprotected edge of that length of the altar which persons employed commonly use when passing between the gangway and the nearest flight of steps which gives access to ground level.

Protection of openings

25. (1) Subject to paragraph (2) of this Regulation, every side or edge of an opening in a deck or tank top in a vessel, being a side or edge accessible to any person employed, shall, except where and while the opening is securely covered or where the side or edge is protected by a coaming not less than two feet six inches in height, be provided with fencing to a height of not less than three feet above the side or edge, and such fencing shall be kept in position save when and to the extent that its absence is necessary for the access of persons or the movement of materials or other exigencies of traffic or working (whether or not for the purposes of those operations to which these Regulations apply).

(2) Paragraph (1) of this Regulation shall not apply :—

(a) to that part of an opening in a deck which is at the head of a stairway or ladderway intended to be used while the operations are being carried on, or

(b) while no person employed is on board the vessel.

Fall of articles from stages

26. Where persons employed are required to work on a stage adjacent to part of the structure of a vessel and other persons employed are at work on another stage directly beneath, the planks of the upper stage shall be in such a position that no article can fall between the planks, and the inside plank of that stage shall be placed as near as possible to the structure of the vessel.

Boxes for rivets, etc.

27. Boxes or other suitable receptacles for rivets, nuts and bolts shall be provided for the use of persons engaged in the bolting-up of the structure of the vessel or in riveting.

Throwing down materials and articles

28. Parts of staging, tools and other objects and material shall not be thrown down from a height where they are liable to cause injury to persons employed but shall be properly lowered; if proper lowering is not practicable conspicuous notices shall be posted to warn persons from working or passing underneath the place from which such articles or materials may fall, or the work shall be done under the direct supervision of a competent person in authority.

Loose articles or materials

29. No person employed shall leave any loose articles or materials lying about in any place from which they may fall on persons working or passing.

PART IV. RAISING AND LOWERING

Application of Part IV

30. The requirements of this part of these Regulations shall apply in the case of machinery or plant used in raising or lowering in or for the purposes of the operations or in any shipyard.

Operation of Part IV

31. In the case of a shipyard to which this part of these Regulations applies the requirements of this part of these Regulations shall modify and extend and accordingly be in substitution for the requirements of Section 23 (which relates to chains, ropes and lifting tackle) and of subsections (1), (2), (4), (5), (6) and (8) of Section 24 (which relates to cranes and other lifting machines) of the principal Act.

Interpretation

32. In this part of these Regulations "available for inspection" means available for inspection by any person using or proposing to use the machinery or plant and by any Inspector appointed under the principal Act.

Construction of lifting appliances

33. Every lifting appliance, including all parts and working gear thereof, whether fixed or moveable, and all plant or gear used for anchoring and fixing such an appliance, shall be of good construction, sound material, adequate strength and free from patent defect and shall be properly maintained.

Testing, examinations and marking of lifting appliances

34. (1) Every lifting appliance shall have been tested and thoroughly examined by a competent person and a certificate of such test and examination, in such form as may be prescribed, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load or safe working loads of the appliance, shall have been obtained and shall be available for inspection.

(2) Every lifting appliance shall have been thoroughly examined by a competent person within the immediately preceding period of fourteen months and since it has undergone any substantial alteration or repair and a report of the results of every such examination, in such form and containing such particulars as may be prescribed and signed by the person making the examination, shall be entered in or attached to the prescribed register and shall be available for inspection.

(3) There shall be plainly marked on every lifting appliance the safe working load or loads thereof, except that in the case of a jib crane so constructed that the safe working load may be varied by the raising or lowering of the jib there shall be attached thereto either an automatic indicator of safe working loads or a table indicating the safe working loads at corresponding inclinations of the jib or corresponding radii of the load.

Construction of chains, ropes and lifting gear

35. Chains, ropes and lifting gear shall be of good construction, sound material, adequate strength and free from patent defect.

Testing and annealing of chains, etc.

36. (1) Chains, ropes and lifting gear, other than fibre ropes or fibre rope slings, shall have been tested and thoroughly examined by a competent person and a certificate of such test and examination, in such form as may be prescribed, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load of the chain, rope or gear, shall have been obtained and shall be available for inspection.

(2) A chain, ring, link, hook, shackle, swivel, eyebolt, or plate grab which has been lengthened, altered or repaired by welding shall not be used unless, since such lengthening, alteration or repair, it has been tested and thoroughly examined by a competent person and a certificate of such test and examination, in such form as may be prescribed, signed by the person making or responsible for the carrying out of the test and examination and specifying the safe working load, has been obtained and is available for inspection.

(3) Chains and lifting gear, other than rope slings or lifting gear of a class or description specified in the Second Schedule to these Regulations or exempted by certificate of the Chief Inspector upon the ground that it is made of such material or so constructed that it cannot be subjected to heat treatment without risk of damage, or that it has been subjected to some form of heat treatment (other than annealing) approved by him, shall be annealed at least once in every fourteen months or, in the case of chains, slings, rings, links, hooks, shackles, or swivels being chains, slings, rings, links, hooks, shackles or swivels of half-inch bar or smaller material, at least once in every six months, so, however, that chains and lifting gear not in regular use need be annealed only when necessary; and the prescribed particulars of the annealing or approved heat treatment shall be entered in the prescribed register and shall be available for inspection.

Periodic examination of chains, ropes, etc.

37. (1) Chains and lifting gear other than rope slings shall have been thoroughly examined by a competent person within the immediately preceding period of six months and reports of the results of such examinations, in such form and containing such particulars as may be prescribed and signed by the person making the examination of the chain or item of gear, shall be entered in or attached to the prescribed register and shall be available for inspection.

(2) Ropes and rope slings shall have been thoroughly examined by a competent person within the immediately preceding period of three months or, in the case of a wire rope or wire rope sling in which such an examination has disclosed that a wire of the rope has broken, one month, and reports of the results of such examinations, in such form and containing such particulars as may be prescribed and signed by the person making the examination of the rope or sling, shall be entered in or attached to the prescribed register and shall be available for inspection.

Marking of chains, ropes and lifting gear

38. Every chain, rope and item of lifting gear shall have its safe working load (or, in the case of a multiple sling, the safe working load at different angles of the legs) plainly marked thereon, unless:—

(a) in the case of a fibre rope or fibre rope sling its safe working load can be ascertained from a notice or notices so exhibited as to be easily read by any person concerned, or

(b) in the case of a wire rope or wire rope sling the rope or sling is marked with sufficient means of identification so that its safe working load can be ascertained from the certificate of test available in accordance with paragraph (1) or paragraph (2), as the case may be, of Regulation 36.

Splices in wire ropes

39. A thimble or loop splice made in any wire rope shall have at least three tucks with a whole strand of the rope and two tucks with one half of the wires cut out of each strand. The strands in all cases shall be tucked against the lay of the rope:

Provided that this Regulation shall not operate to prevent the use of another form of splice which can be shown to be as efficient as that laid down in this Regulation.

Load not to exceed safe working load

40. No lifting appliance or chain or rope or lifting gear shall be loaded beyond its safe working load except for the purpose of making a test of the appliance, chain, rope or gear, and then only to such extent as a competent person appointed to carry out the test may authorise.

Support of lifting appliances and lifting gear

41. Every lifting appliance and all lifting gear shall be adequately and suitably supported having regard to the purpose for which it is used.

Wire ropes with broken wires

42. No wire rope shall be used if in any length of eight diameters the total number of visible broken wires exceeds ten per cent of the total number of wires.

Knotted chains, etc.

43. (1) No chain or wire rope shall be used when there is a knot tied in any part thereof under direct tension.
(2) No chain which is shortened or joined to another chain by means of bolts and nuts shall be used.

Precautions against damage to ropes and chains

44. (1) Appropriate steps shall be taken to prevent, so far as practicable, the use of chains or ropes for raising or lowering in circumstances in which they are in, or are liable to come into, contact with sharp edges of plant, materials or loads.
(2) A rope shall not be used for raising or lowering when reeved through a rivet hole.

Loads on lifting appliances

45. No load shall be left suspended from a lifting appliance while there is not a competent person in actual charge of the appliance.

Heavy loads

46. Where there is reason to believe that a load to be lifted or lowered on a lifting appliance weighs more than two tons, its weight shall be ascertained by means of an accurate weighing machine or by the estimation of a person competent for the purpose and shall be clearly marked on the load:

Provided that this Regulation shall not apply to any load lifted or lowered by a crane having either a fixed or derricking jib to which is fitted an approved type of indicator in good working order which:—

- (a) indicates clearly to the driver or person operating the crane when the load being carried approaches the safe working load of the crane for the radius of the jib at which the load is carried, and
(b) gives an efficient sound signal when the load moved is in excess of the safe working load of the crane at that radius.

PART V. PRECAUTIONS AGAINST ASPHYXIATION, INJURIOUS FUMES OR EXPLOSIONS

Interpretation

47. In this part of these Regulations:—

“Certificate of entry” means a certificate which:—

- (a) is given by a person who is a competent analyst and who is competent to give such certificates; and
(b) certifies that he has in an adequate and suitable manner tested the atmosphere in the tank or tanks specified in the certificate and found that having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere being or becoming dangerous, entry to the tank or tanks without wearing breathing apparatus need not in his opinion be prohibited.

“Naked light certificate” means a certificate which:—

- (a) is given by a person who is a competent analyst and who is competent to give such certificates; and
(b) certifies that he has in an adequate and suitable manner tested for the presence of inflammable vapour the tanks and other spaces specified in the certificate and found them to be free therefrom and that having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere becoming inflammable, the use of naked lights may in his opinion be permitted in parts of the vessel specified in the certificate.

“Oil” means crude petroleum, oil made from petroleum, or from coal, shale, peat or any other bituminous substance, and any other product of petroleum and includes, when carried in bulk in a tank, alcohol and acetone.

“Oil-tank” means any tank, compartment or space which contains or has contained any oil or any sludge, deposit or residue therefrom.

Ventilation of enclosed or confined spaces

48. (1) No person employed shall be allowed or required to enter or remain in any enclosed or confined space in a vessel unless either:—

- (a) he is ensured of a supply of air adequate for respiration and to render harmless any fumes; or
(b) he is wearing a suitable breathing apparatus.

(2) Without prejudice to paragraph (1) of this Regulation, effective and suitable provision shall be made for securing and maintaining by the circulation of fresh air the adequate ventilation of any enclosed or confined space to which this paragraph applies and for rendering harmless, so far as practicable, all fumes, dust and other impurities that may be injurious to health generated in the course of any process or work carried on therein.

(3) Paragraph (2) of this Regulation shall apply to any enclosed or confined space in which there is being carried on any of the following processes or work, namely :—

- (i) painting or bituminising or applying any other substance liable to give off injurious dust or fumes;
- (ii) cutting, welding or heating metal by means of any inflammable gas or vapour;
- (iii) electric welding; and
- (iv) riveting.

(4) Where in any enclosed or confined space in a vessel there is carried on the application or removal of paint with inflammable solvents or there is carried on any other process liable to produce inflammable gas or vapour, effective and suitable provision shall be made by adequate ventilation or by other means to prevent the formation of an inflammable atmosphere in the enclosed or confined space.

(5) Compressed oxygen shall not be used to ventilate any enclosed or confined space in a vessel.

Rivet fires

49. Rivet fires shall not be taken to or used in or remain in enclosed or partly enclosed places where there is not adequate natural ventilation to prevent the accumulation of fumes.

Placing of gas cylinders and acetylene generators

50. An acetylene generating plant or a cylinder which contains or has contained oxygen or any inflammable gas or vapour under pressure shall not be installed or placed within fifteen feet of any boiler, furnace or other source of heat.

Further provision as to acetylene generators

51. (1) The requirements of this Regulation shall apply in the case of acetylene generating plant in a shipyard or used for the purposes of the operations.

(2) (a) If acetylene generating plant is installed or placed in an enclosed or partly enclosed place effective and suitable provision shall be made for securing and maintaining the adequate ventilation of that place so as to prevent, so far as practicable, any dangerous accumulation of gas.

(b) Any person attending or operating any such plant shall have been fully instructed in its working and a copy of the maker's instructions for that type of plant shall be constantly available for his use.

(c) The charging and cleaning of such plant shall so far as practicable be done during daylight.

(d) Partially spent calcium carbide shall not be re-charged into an acetylene generator.

(3) No person shall smoke or strike a light or take a naked light or a lamp, other than a properly enclosed electric lamp, in or into any acetylene generator house or shed or in or into dangerous proximity to any acetylene generating plant in the open air or on board a vessel :

Provided that this paragraph shall not apply as respects a generator in the open air on board a vessel which, since it was last charged, has been thoroughly cleansed and freed from any calcium carbide and acetylene gas.

(4) A prominent notice prohibiting smoking, naked lights and lamps other than properly enclosed electric lamps shall be exhibited on or near every acetylene generating plant whilst it is or is being charged or is being cleaned.

Construction of plant for cutting, welding or heating metal

52. (1) Pipes or hoses for the supply of oxygen or any inflammable gas or vapour to any apparatus for cutting, welding or heating metal shall be of sound material and be properly maintained.

(2) Such pipes or hoses shall be securely attached to the apparatus and other connections by means of suitable clips or other equally effective appliances.

(3) Efficient reducing and regulating valves for reducing the pressure of the gases shall be provided and maintained in connection with all cylinders containing oxygen or any inflammable gas or vapour under pressure while the gases or vapours from such cylinders are being used in any process of cutting, welding or heating metal.

(4) Where acetylene gas is used for cutting, welding or heating metal :—

(a) a properly constructed and efficient back-pressure valve shall be provided and maintained in the acetylene supply pipe between each burner or blow-pipe and the acetylene generator from which it is supplied, and shall be placed as near as practicable to the burner or blow-pipe; and

(b) the valve shall be examined on each day by every person who uses the burner or blow-pipe on that day.

(5) The operating valves of burners or blow-pipes to which oxygen or any inflammable gas or vapour is supplied for the purpose of cutting, welding or heating metal shall be so constructed that they cannot be opened accidentally.

Precautions after use of apparatus for cutting, welding or heating metal

53. (1) In the case of apparatus on board a vessel and used for cutting, welding or heating metal with the aid of oxygen or any inflammable gas or vapour supplied under pressure, the precautions in the following paragraphs of this Regulation shall be taken when such use ceases for the day or for a substantial period and the apparatus is to be left on board, but need not be taken when such use is discontinued merely during a meal interval or during short interruptions of work.

(2) Supply valves of cylinders, generators and gas mains shall be securely closed.

(3) Moveable pipes or hoses used for conveying oxygen or inflammable gas or vapour shall be disconnected from burners or blow-pipes and from cylinders, generators or gas mains as the case may be, and such disconnection shall not be done below the weather deck of a vessel or in the vicinity of any hatch opening.

(4) Pressure reducing valves or regulators shall be removed.

(5) Valve protecting caps shall be fitted to cylinders.

Naked lights on oil-carrying vessels

54. (1) Subject to Regulation 60 of these Regulations, the requirements of this Regulation shall apply in a shipyard and to any ship which is elsewhere than in a shipyard and on which the operations are being or are immediately about to be undertaken.

(2) Without prejudice to Regulation 59 hereof, no naked light, fire or lamp other than a lamp of a safety type approved for the purpose, and no matches or apparatus of any kind for producing a light or spark, and no heated rivet, shall be permitted :—

(a) in any part of a vessel being a vessel which has been carrying oil as cargo or as fuel for any machinery or plant with which the vessel is or has been equipped or for aircraft on board unless, since oil was last so carried, a naked light certificate has been obtained and is in force in respect of that part of the vessel; or

(b) in or near any oil-tank on board a vessel unless, since the tank last contained oil, a naked light certificate has been obtained and is in force in respect of that oil-tank; or

(c) in or near any oil-tank on board a vessel in which the oil last contained was a liquid having a flash point of less than 73 degrees Fahrenheit (Abel closed test), unless a naked light certificate has been obtained previously on the same day and is in force in respect of that oil-tank or a competent analyst has certified that daily naked light certificates are unnecessary:

Provided that heated rivets may be permitted in any place if expressly so authorised by a competent analyst who certifies that after adequate and suitable testing he is satisfied that the place is free from inflammable vapour, so, however, that, unless a naked light certificate is in force in respect of that place, heated rivets shall where practicable be passed through tubes.

(3) Save (in the case of heated rivets) as permitted under the proviso to paragraph (2) of this Regulation, no person shall introduce or have a naked light or a fire or a heated rivet or a lamp other than a safety lamp as aforesaid, or any matches or apparatus as aforesaid, into or in any place where naked lights are prohibited by this Regulation.

Entering oil-tanks

55. Subject to Regulation 60 of these Regulations, no person other than an analyst entering with a view to issuing a certificate of entry shall, unless he is wearing a breathing apparatus, be allowed or required to enter or remain in an oil-tank for any purpose connected with the operations unless, since the tank last contained oil, a certificate of entry has been obtained and is in force in respect of the tank.

Duration of certificates

56. Any naked light certificate or certificate of entry may be issued subject to a condition that it shall not remain in force after a time specified in the certificate.

Posting of certificates

57. Every employer or shipowner for whom a naked light certificate or a certificate of entry is obtained shall see that the certificate or a duplicate thereof is posted as soon as may be and remains posted in a conspicuous place where it can easily be read by all persons concerned.

Cleaning of oil-tanks

58. (1) Before a test for inflammable vapour is carried out with a view to the issue of a naked light certificate for the purposes of Regulation 54 of these Regulations in respect of an oil-tank to which this Regulation applies, the oil-tank shall, since oil was last introduced into the tank, have been cleaned and ventilated in accordance with paragraph (2) of this Regulation.

(2) The said cleaning and ventilation shall be carried out as follows:—

(a) all residual oil and any sludge or deposit in the tank shall be removed therefrom;

(b) the tank shall be thoroughly steamed or otherwise treated in such manner and for such period as will ensure the vaporisation of all volatile oil;

(c) after the tank has been so steamed or otherwise treated:—

(i) all covers of manholes and other openings therein shall be removed and it shall be thoroughly ventilated by mechanical or other efficient means so as to ensure the removal of all oil vapour; and

(ii) the interior surfaces, if any deposit remains thereon, shall be washed or scraped down.

(3) Where any person is employed in the cleaning of an oil tank in which the oil last contained was a liquid having a flash point of less than 73 degrees Fahrenheit (Abel closed test), then (whether or not the cleaning is for the purposes of the foregoing paragraphs of this Regulation) there shall be provided in close proximity and so as to be readily available a set or sets of suitable breathing apparatus for the person or persons for the time being employed in the cleaning of that tank. Where the number of such persons exceeds ten, there shall be at least one such set for every ten such persons, and in dividing by ten for the purpose of finding the minimum number of sets required any remainder shall be counted as ten.

Further provision as to work in oil-tanks

59. If during the course of work in any oil-tank any pipe or joint in the tank is opened or broken or any other event occurs so that there is a risk of oil vapour entering or arising in the tank to a dangerous extent, work in the tank shall be suspended and thereafter any certificate of entry or naked light certificate previously issued in respect of that tank shall no longer be in force.

Exceptions from Regulations 54 to 59

60. (1) Regulations 54 to 59 shall not apply to a vessel:—

(a) if, during the period of three years immediately preceding the commencement thereon of any of the operations, no oil other than oil having a flash point over 150 degrees Fahrenheit (Pensky-Martens closed test) has been carried aboard that vessel as cargo or as fuel for any machinery or plant with which the vessel is or has been equipped or for aircraft on board, and

(b) if, immediately before the commencement of the operations, every person undertaking them has obtained a certificate, signed by the owner of the vessel or his representative, that no oil other than such oil as aforesaid has been so carried at any time within the immediately preceding period of three years.

(2) Regulation 54 shall not apply to any part of a vessel (not being the inside of an oil-tank) where naked lights were allowed when the vessel was in service afloat unless and until there has since been opened any oil-tank on the vessel except an oil-tank which, having been cleaned and ventilated in the manner described in paragraph (2) of Regulation 58 of these Regulations, has not subsequently been used for containing oil.

(3) Regulation 58 and the requirements of paragraph (2) (b) of Regulation 54 as to naked light certificates shall not apply to an oil-tank in which the

only oil is oil having a flash point over 150 degrees Fahrenheit (Pensky-Martens closed test) and in which only minor repairs are to be carried out; but in connection with the repairs in any such case adequate areas of the interior surfaces in the immediate neighbourhood of the part to be repaired shall be freed from oil or sludge and appropriate special precautions shall be taken for preventing and extinguishing fire.

PART VI. MISCELLANEOUS SAFETY PROVISIONS

Fencing of machinery

61. Every dangerous part of any machinery, being machinery in a place or part of a ship to which Part II of the principal Act does not apply and to which any person employed has access while the machinery is in motion, shall be securely fenced unless it is in such a position or of such construction as to be as safe to every person employed as it would be if securely fenced:

Provided that this Regulation shall not require machinery on a ship to be so fenced as to impede the working of the ship or fenced so as to contravene any requirement of the Merchant Shipping Acts which applies for the time being on the ship.

Air Receivers

62. Without prejudice to the application of Sections 31 and 32 of the principal Act to air receivers to which those sections would apply apart from this Regulation, those sections of the principal Act shall apply to air receivers used for the purposes of the operations:

Provided that this Regulation shall not extend to fixed air receivers permanently installed in a ship.

Lighting

63. (1) All parts of a vessel where the operations are being carried on, and all approaches to such parts and to places to which a person employed may be required to proceed in the course of his employment, shall be sufficiently and suitably lighted, so, however, that due regard shall be had to the safety of the vessel and cargo and of the navigation of other vessels and to any local statutory requirements as to the lighting of the harbour or dock.

(2) Portable lamps (including hand lamps carried by persons employed) used for the purposes of the operations shall be maintained in an efficient state, in efficient working order and in good repair; and in the case of lamps in which liquid fuel is used the lamp shall have a properly fitting screw lid or stopper and be so constructed as to prevent, so far as practicable, the development of leaks.

(3) Petroleum spirit or naphtha shall not be used in lamps used for lighting and only paraffin or another liquid having a flash point over 100 degrees Fahrenheit (Abel closed test) shall be so used.

Work in boilers, etc.

64. (1) No work shall be permitted in any boiler-furnace or boiler-flue until it has been sufficiently cooled by ventilation or otherwise to make work safe for the persons employed.

(2) No person shall be allowed or required to enter or remain in any steam boiler which is one of a range of two or more steam boilers unless:—

- (a) all inlets through which steam or hot water might otherwise enter the boiler from any other part of the range are disconnected from that part, or
- (b) all valves or taps controlling such entry are closed and securely locked.

Hatch beams

65. The hatch beams of any hatch in use for raising or lowering for the purpose of the operations shall, if not removed, be adequately secured to prevent their displacement.

Jumped-up bolts

66. Bolts which have been jumped-up and re-screwed shall not be used for securing plates on the sides of a vessel.

PART VII. PROTECTIVE WEAR

Hand Protection

67. Adequate protection for the hands shall be available for all persons employed when engaged in transporting or stacking plates or in handling plates at the machines or when using cutting or welding apparatus to which oxygen or any inflammable gas or vapour is supplied under pressure.

Protection in connection with cutting or welding

68. (1) Suitable goggles fitted with tinted eye-pieces shall be provided and maintained for all persons employed when using cutting or welding apparatus to which oxygen or any inflammable gas or vapour is supplied under pressure.

(2) There shall be provided and maintained for the use of all persons employed when engaged in the process of electric welding:—

(a) suitable helmets or suitable head-shields or suitable hand-shields to protect the eyes and face from hot metal and from rays likely to be injurious, and

(b) suitable gauntlets to protect the hands and forearms from hot metal and from rays likely to be injurious.

(3) There shall be provided and maintained for the use of all other persons employed in the vicinity of any place where electric arc welding is in progress or having to pass near to any such place suitable goggles having opaque side-shields to protect the eyes from rays likely to be injurious:

Provided that the requirement of this paragraph shall not apply where and when effective protection is afforded by screening.

Eye protection for other processes

69. Suitable goggles or effective screens shall be provided to protect the eyes of all persons employed in any of the following processes:—

(a) the cutting out or cutting off (not including drilling or punching back) of cold rivets or bolts from boilers or other plant or from ships;

(b) the chipping, scaling or scurfing of boilers or ships' plates.

Respirators

70. Respirators bearing Home Office Certification Mark No. 584042, or other respirators of an approved type, shall be provided and maintained for the use of every person employed in any of the following kinds of work:—

(a) the manipulation, application (either by means of a spray or otherwise), taking down or removal of asbestos;

(b) the cleaning of sacks or other containers which have contained asbestos;

(c) any work which he has to perform in the vicinity of a place where work of a kind mentioned in either of the two foregoing sub-paragraphs is carried on;

(d) the scaling, scurfing or cleaning of boilers, combustion chambers or smoke boxes, where his work exposes him to dust of such a character and to such an extent as to be likely to be injurious or offensive to persons employed in such work.

PART VIII. MISCELLANEOUS HEALTH AND WELFARE PROVISIONS

Prohibition of employment of young persons in certain processes

71. No young person shall be employed in :—

(a) the manipulation, application (either by means of a spray or otherwise), taking down or removal of asbestos, or

(b) the cleaning of sacks or other containers which have contained asbestos.

Lead paint

72. Lead paint shall not be applied in the form of a spray in the interior painting of any ship or vessel.

First-aid, ambulances and ambulance rooms

73. (1) In every shipyard there shall be provided and maintained a sufficient number of :—

(a) suitably constructed sling stretchers or other similar appliances for raising injured persons, and

(b) carrying or wheel stretchers;

and the stretchers or other appliances so provided shall be kept readily available.

(2) In every shipyard at which the total number of persons normally employed exceeds 50, there shall be provided and maintained a suitably constructed ambulance carriage for the purpose of the removal of serious cases of accident or sickness, unless arrangements have been made for obtaining such a carriage when required from a hospital or other place distant not more than two miles and in telephonic communication therewith.

(3) In every shipyard, other than a public dry dock, in which the total number of persons normally employed exceeds 500, and in every shipyard which is situated more than two miles from a hospital and in which more than 100 persons are normally employed, there shall be provided and kept in good repair and in a clean and orderly condition an ambulance room which shall :—

(a) be a separate room used only for the purpose of treatment and rest;

(b) be at least nine feet wide at its narrowest part and have a floor space of not less than 100 square feet;

(c) be provided with ample means of natural and artificial lighting and be suitably ventilated;

(d) have hard, impervious and smooth walls and floor; and

(e) contain at least :—

(i) a glazed sink with hot and cold water always available;

(ii) a table with smooth top;

(iii) means for sterilising instruments;

(iv) a supply of suitable dressings, bandages and splints;

(v) a couch;

(vi) a stretcher;

(vii) blankets and hot-water bottles; and

(viii) a footbath.

(4) The ambulance room provided in pursuance of paragraph (3) of this Regulation shall be placed under the charge of a qualified nurse or other person trained in first-aid, who shall always be readily available during working hours and shall keep a record of the cases of accident and sickness treated at the room.

PART IX. TRAINING AND SUPERVISION

Young persons

74. (1) No young person shall, until he has been employed in a shipyard or shipyards for at least six months, be employed, in connection with the construction of a ship, on a stage from which he is liable to fall a distance of more than six feet six inches or on the ship where he is liable to fall more than that distance.

(2) Any young person who has not been employed in a shipyard or shipyards for at least twelve months shall, when employed in the construction or reconstruction of a ship, be placed as far as practicable under the charge of an experienced workman.

Safety Supervision

75. (1) In the case of every shipyard other than a public dry dock a person or persons experienced in the work of such yards shall be appointed to exercise general supervision of the observance of these Regulations and to promote the safe conduct of the work generally; and when the number of persons normally employed in the shipyard exceeds 500, at least one of the persons so appointed shall be employed exclusively on those duties.

(2) Every employer of workmen who undertakes the operations and who normally employs more than 50 persons in the operations at any one time shall specifically appoint in writing one or more persons experienced in the conditions and circumstances of the work and suitably qualified for the purpose, to be specially charged with the duties of :—

(a) advising the employer as to the observance of the safety requirements of these Regulations and as to other safety matters;

(b) supervising the observance of these Regulations and promoting the safe conduct of the work generally in so far as these matters affect workmen employed by the employer; and

(c) co-operating with persons similarly appointed by other employers undertaking the operations at the same place;

and appropriate steps by the posting of notices or otherwise shall be taken by the employer for the purpose of informing workmen concerned of the name or names of the person or persons appointed in pursuance of this paragraph.

(3) The foregoing paragraphs of this Regulation shall not be construed as preventing two or more employers from jointly appointing the same person or persons to perform some or all of the aforesaid duties for those employers, whether for a particular shipyard or other place where the operations are undertaken or for a group of such places.

(4) The duties assigned to a person appointed under this Regulation by the employer or employers appointing him, including any duties other than those mentioned in this Regulation, shall not be such as to prevent him from discharging with reasonable efficiency the duties assigned to him for the purpose of this Regulation.

Dated this.....day of.....19.....

Minister of Labour and National Service.

FIRST SCHEDULE

MANNER IN WHICH, FOR THE PURPOSE OF THE DEFINITION OF "LEAD PAINT", MATERIAL IS TO BE TREATED WITH A VIEW TO ASCERTAINING THE PERCENTAGE OF COMPOUND OF LEAD PRESENT.

(Regulation 3 (2))

The material is to be treated with suitable solvents to remove the oil, varnish and other media, and the residue to be dried at 100 degrees centigrade and thoroughly mixed. A weighed quantity of this extracted, dried and mixed material is to be continuously shaken for one hour, at the common temperature, with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This solution is thereafter to be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate is then to be precipitated as lead sulphide and weighed as lead sulphate.

SECOND SCHEDULE

CHAINS AND LIFTING GEAR EXCEPTED UNDER REGULATION 36(3) (AS TO HEAT TREATMENT).

- (1) Chains made of malleable cast iron.
- (2) Plate link chains.
- (3) Chains, rings, links, hooks, shackles, swivels and eyebolts made of steel or of any non-ferrous metal.
- (4) Pitched chains working on sprocket or pocketed wheels.
- (5) Rings, links, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks or weighing machines.
- (6) Hooks, eyebolts and swivels having screw-threaded parts or ball-bearings or other case-hardened parts.
- (7) Socket shackles secured to wire ropes by white metal capping.
- (8) Bordeaux connections.

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