Subsidiary Legislation made under s.58.

### Factories (Shipbuilding and Shiprepairing) Regulations, 1985

### LN. 1985/114

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Factories

# **1985/114** Factories (Shipbuilding and Shiprepairing) Regulations, 1985

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#### **PART I.** INTERPRETATION AND GENERAL.

Title.

1. These Regulations may be cited as the Factories (Shipbuilding and Shiprepairing) Regulations, 1985.

#### Application of Regulations.

2.(1) These Regulations shall apply to every dock, wharf, quay in Gibraltar (including any warehouse belonging to the owner of the dock, wharf or quay) and every other warehouse (not forming part of a factory) in or for the purpose of which mechanical power is used, as if it were a factory and as if the person having the actual use or occupation of it or any premises within it or forming part of it were the occupier of a factory.

(2) The Director of Labour and Social Security may (subject to such conditions as may be specified therein) by certificate in writing (which he may at his discretion revoke at any time) exempt from all or any of the requirements of these Regulations:

- (a) any premises or class or description of premises;
- (b) any class or description of machinery, plant, equipment, or appliances;
- (c) any class or description of ships or vessels; or
- (d) any particular work or any class or description of work;

if he is satisfied that the requirements in respect of which the exemption is granted are not necessary for the protection of persons employed, or not reasonably practicable. Where such exemption is granted a legible copy of the certificate, showing the conditions, if any, subject to which it has been granted, shall be kept posted in a position where it may be conveniently read by the persons employed.

(3) Save as expressly provided in Regulations 51, 52, 66 and 67 of these Regulations, the provisions of these Regulations shall be in addition to and not in substitution for or in diminution of other requirements imposed by or under the Act.

#### Interpretation.

3. In these Regulations, unless the context otherwise requires, the following expressions have the meanings hereby assigned to them, respectively, that is to say:-

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- "Abel closed test" means a test carried out with the apparatus specified and in the manner described in the Second Schedule to the Petroleum (Consolidation) Act 1928 of the United Kingdom;
- "approved" means approved for the time being by certificate of the Director of Labour and Social Security;
- "available for inspection" means available for inspection by any person using or proposing to use the machinery or plant, and by the Director of Labour and Social Security, or any inspector appointed under Section 77(1) of the Act;

"certificate of entry" means a certificate which:-

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- (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 oil-tank or oil-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 oil-tank or oil-tanks without wearing breathing apparatus may in his opinion be permitted.
- "harbour" includes a harbour properly so called, whether natural or artificial, piers, jetties and other works in or at which ships can obtain shelter, or ship and unship goods or passengers;
- "lead paint" means any paint, paste, spray, stopping, filling or other material used in painting which, when treated in the manner described in the Schedule 1 to these Regulations, yields to an aqueous solution of hydrochloric acid a quantity of soluble lead compound exceeding, when calculated as lead monoxide, five per cent of the dry weight of the portion taken for analysis;

"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 off-tank, compartment, space or other part of the vessel specified in the certificate, and found it to be free therefrom, and that having regard to all the circumstances of the case, including the likelihood or otherwise of the

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atmosphere becoming inflammable, the use of naked lights, fires, lamps, or heated rivets may in his opinion be permitted in the oil tank, compartment, space, or other part of the vessel specified in the certificate.

- "oil" means any liquid which has a flashpoint below 132° degrees Celsius (Abel closed test or Pensky-Martens closed test, whichever is appropriate) and also includes lubricating oil, liquid methane, liquid butane, and liquid propane;
- "oil-tank" means any tank or compartment in which oil is or has been, carried as cargo or for use as lubricating oil, as engine fuel, or boiler fuel, or as fuel for aircraft on board;
- "the operations" means, in relation to a ship or vessel, its construction, re-construction, repairing, refitting, painting and finishing, the scaling, scurfing or cleaning of its boilers (including combustion chambers or smoke boxes) and the cleaning of its bilges or oil fuel tank or any of its tanks last used for carrying oil. For the purpose of this definition the expression"oil" means oil of any description, whether or not oil within the meaning of the foregoing definition of that expression;

"the Act" means the Factories Act;

- "overall depth" means the vertical distance between the upper-most deck at the side of the vessel and the bottom of the keel, measured at the middle of the overall length;
- "Pensky-Martens closed test" means a test carried out with the apparatus specified and in the manner described in British Standard 2839:1957, as published by the British Standards Institution on 14 March 1957, including any approved revision thereof;
- "person employed" means a person employed in any of the operations;
- "public dry dock" means a dry dock which is available for hire;
- "ship" and "vessel" have the same meanings as in the Merchant Shipping Act<sup>2</sup>, except that neither expression shall include a caisson, dock gate or pontoon;
- "shipyard" means any yard or dock (including the precincts thereof) in which ships or vessels are constructed, reconstructed, repaired, refitted or finished;
- "stage" means any temporary platform on or from which persons employed perform work in connection with the operations, but does not include a boatswain's chair;

<sup>2</sup> **1935-09** 

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"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 connected with a stage;

"structure" in regulations 32, 35, 36 and 37 includes a vessel;

"tanker" means a vessel constructed or adapted for carrying a cargo of oil in bulk.

#### **Obligations under Regulations.**

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4.(1) It shall be the duty of every employer who is undertaking any of the operations to comply with such of the provisions of the following regulations as relate to any work, act or operation performed by him, that is to say:-

- (a) in so far as they affect any person employed by him:-
  - (i) regulations 6, 8(2), 11(1), 13, 14(1), (2),(3) and (5), 15, 17(1), (2), (3), (4) and (6), 18, 19(1), 20, 22 to 24, 25(2), 28(1), 47 to 50, 55(2), 59(1) and (2), 69(1) and (4), 73, 74, and 75;
  - (ii) regulations 11(2) and 16, except in so far as the person having the general management and control of a public dry dock is responsible under paragraph (5) of this regulation;
  - (iii) regulation 68(1), except in so far as the person having the general management and control of a public dry dock is responsible under paragraph (5) of this Regulation, or the person having the general management and control of a dock, wharf, or quay, is responsible under paragraph (6) of this regulation;
  - (iv) regulation 26, except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this regulation;
  - (v) regulation 69(2) and (3) except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this Regulation.
- (b) in so far as they affect any person whether or not a person employed by him-
  - (i) regulations 27, 29(1) and (2), 30(1), 52, 53(1), 63 to 65, 70 and 71; and

## Factories (Shipbuilding and Shiprepairing) Regulations, 1985/114

(ii) regulations 58 and 61, except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this regulation.

(2) It shall be the duty of the owner of any machinery, plant, equipment or appliance to which any of the provisions of regulations 66 and 67 applies to comply with those provisions; and in the case of any such machinery, plant, equipment, or appliance carried on board a ship not registered in Gibraltar, it shall also be the duty of the master or officer in charge of the ship to comply with those provisions. It shall be the duty of every employer not to use any machinery, plant, equipment or appliance which does not comply with those provisions.

- (3) (a) It shall be the duty of every person who installs or places in position any machinery, plant, equipment or appliance to which any of the provisions of regulations 54(1) and (2), 55(1)(a) and 56 applies to install or place in position such machinery, plant, equipment, or appliance in a manner which complies with those provisions;
  - (b) It shall be the duty of every person who works or uses any machinery, plant, equipment or appliance to which any of the provisions of regulations 54(1) and (2), 55, 56(1), (2), (3) and (4), 57 and 58(4) and (5) applies to work or use such machinery, plant, equipment or appliance 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 the provisions of regulations 7 and 8, regulation 9(2) in so far as it relates to hand-holds provided by him, regulations 17(5) and 25(1) and (except in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this regulation) regulations 9(1), 10, 12, 58 and 61.

- (5) In the case of a public dry dock-
  - (a) it shall be the duty of the person having the general management and control of the dock to comply as respects gangways, platforms, and stairways provided by him, with the provisions of regulations 7, 9(1) and 12, other than the provisions relating to use of such gangways, platforms and stairways, and to comply with the provisions of regulation 8(1), regulation 9(2) in so far as it relates to hand-holds provided by him, regulation 11(2) in so far as it relates to the sound construction of scases or floating platforms provided by him, regulation 16 in so far as it relates to the soundness of any material or appliance provided by him for the construction of staging, regulations 17(5) and 25(1) and regulation 68(1) in respect of lighting of approaches to the edge of the dock; and

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(b) it shall be the duty of every employer who is undertaking any of the operations to comply with such of the provisions of the following regulations as relate to any work, act, or operation performed by him, in so far as those provisions affect any person employed by him, that is to say, regulations 7, 9 and 12 (except, in the case of each of these Regulations, in so far as the person having the general management and control of the dock is responsible under subparagraph (a) of this paragraph and except, in the case of regulations 9 and 12, in so far as the shipowner or master or officer in charge is responsible under paragraph (7) of this regulation) and regulation 10.

(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 68(1) as respects the lighting of approaches to the edge of the dock, wharf or quay.

(7) In shall be the duty of the shipowner and of the master or officer in charge of a ship or vessel–

- (a) to comply with such of the provisions of regulations 9(1), 10 and 12 as relate to any means of access provided by him, regulation 58 in so far as it relates to any work, act or operation performed by him, and regulation 61 in so far as it relates to a naked light certificate or a certificate of entry obtained by him; and
- (b) where the control of the ship or vessel apart from the operations remains with the shipowner or master or officer in charge-
  - to provide the protection specified in regulation 26 in so far as it concems those hatches or openings which are not required to be used for the purposes of the operations (but if such protection be removed by or at the request of an employer who is undertaking any of the operations, that employer shall be responsible for its replacement as soon as practicable); and
  - (ii) to comply with the provisions of regulation 68(2) and regulation 69(2) and(3); and
- (c) not to remove any fencing provided in compliance with regulation 26 at openings used or created in the course of the operations, save as permitted by that regulation.

(8) It shall be the duty of every person employed to comply with such of the provisions of regulations 14(4), 19(2), 28(2), 29(3), 30(2), 47(2), 53(2), 54(3), 55(2), 56(4)(b), 58(3), 68(6), 69(4), 71 and 74(2), as expressly impose a duty on him. It shall further be the duty of every

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person employed if he discovers any defect in any machinery, plant, equipment or appliance, to report such defect without unreasonable delay to his employer or foreman, or to a person appointed by the employer under regulation 80.

(9) For the purposes of the provisions in this regulation which impose upon an employer a duty to comply with the requirements of certain specified regulations in so far as they affect any person employed by him, the requirements of those regulations, other than regulations 47 to 50, 58, 59, 64, and 69, shall be deemed not to affect any person employed if and so long as his presence in any place is not in the course of performing any work on behalf of his employer or is not expressly or impliedly authorised or permitted by his employer.

#### **Display of Regulations.**

5. Every employer who employs persons in the operations shall ensure that a printed copy of these Regulations or of the prescribed abstract of these Regulations is kept posted in such characters and in such positions as to be conveniently read by the persons employed.

#### **PART II.** MEANS OF ACCESS AND STAGING.

#### Safe access in general.

6. Without prejudice to the other provisions 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 work in connection with the operations, which means of access shall be sufficient having regard to the number of persons employed and shall, so far as is reasonably practicable, be kept clear of substances likely to make a foothold or handhold insecure and of any obstruction.

#### 7. to 10. Revoked

#### Vessels used for access or as a working place.

11.(1) 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.

(2) Scows and floating platforms used for the purpose of the operations shall be of sound construction and properly maintained, and shall not be overcrowded.

12. to 24. Revoked

#### PART III.

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#### Revoked

25. to 30. Revoked

#### PART IV. Revoked

31. to 46. Revoked

#### PART V.

#### PRECAUTIONS AGAINST ASPHYXIATION, INJURIOUS FUMES OR EXPLOSIONS.

#### Ventilation of confined spaces.

47.(1) All reasonably practicable steps shall be taken to secure and maintain the adequate ventilation of any confined space in which persons are employed.

(2) Compressed oxygen shall not be used to ventilate any confined space in a vessel and no person employed shall use compressed oxygen for this purpose.

#### Precautions against inflammable gas or vapour.

48. Where in any confined space in any part of a vessel inflammable solvents are used in the application or removal of paint 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 confined space.

#### Precautions against shortage of oxygen.

49. No person shall enter or remain in any confined space in a vessel, being a confined space in which there is reason to apprehend that the proportion of oxygen in the air is so low as to involve risk of persons being overcome, unless either–

- (a) the space has been and remains adequately ventilated and a responsible person has tested it and certified that it is safe for entry without breathing apparatus; or
- (b) he is wearing a breathing apparatus of a type approved for the purpose of this regulation.

#### Precautions against dangerous fumes.

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50.(1) No person shall enter or remain in any confined space in any part of a vessel, being a confined space in which there is reason to apprehend the presence of any dangerous fumes to such extent as to involve risk of persons being overcome thereby, unless he is wearing a breathing apparatus of a type approved for the purpose of this regulation, or a responsible person has certified the space as being, for a specified period, safe for entry without breathing apparatus, and the period so specified has not expired; but no person shall enter or remain in the space without breathing apparatus unless he has been warned when the period so specified will expire.

- (2) A space shall not be certified under paragraph (1) of this regulation unless-
  - (a) effective steps have been taken to prevent any ingress of dangerous fumes; and
  - (b) any sludge or other deposit liable to give off dangerous fumes has been removed and the space contains no other material liable to give off dangerous fumes; and
  - (c) the space has been adequately ventilated and tested for dangerous fumes and has a supply of air adequate for respiration;

but no account shall be taken for the purposes of subparagraph (b) of this paragraph of this regulation of any deposit or other material liable to give off dangerous fumes in insignificant quantities only.

(3) Where any person is employed in any confined space to which paragraph (1) of this regulation applies, there shall be provided and kept readily available–

- (a) not less than two sets of breathing apparatus of a type approved for the purpose of this regulation on board the vessel; and
- (b) not less than two additional sets of such apparatus off the vessel; and
- (c) a lamp or torch of a safety type approved for the purpose of this regulation with each set of breathing apparatus; and
- (d) not less than two belts and ropes suitable for the purpose of rescue.

The apparatus, belts, ropes, lamps and torches shall be maintained and shall be thoroughly examined, at least once a month or at such other intervals as may be prescribed, by a competent person; and a report on every such examination, signed by the person making the examination and containing the prescribed particulars, shall be kept available for inspection.

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(4) A sufficient number of the persons employed shall be trained and practised in the use of the apparatus mentioned in the preceding paragraph of this regulation and in a method of restoring respiration.

#### Application of regulations 49 and 50.

51. In the case of a shipyard, the provisions of regulations 49 and 50 shall, with respect to the operations carried out in confined spaces formed by the structure of any ship or vessel, or of part of any ship or vessel, under construction or repair, be in substitution for the provisions of sections 12 and 32 of the Act (which relate to precautions in places where dangerous fumes are liable to be present).

#### Removal of dust or fumes.

52.(1) Where in connection with any process carried on on board, in or on the outside of a vessel or part of a vessel there is given off any dust or fume or other impurity of such a character and to such extent as to be likely to be injurious to the persons employed, all practicable measures shall be taken to protect the persons employed against inhalation of the dust or fume or other impurity, and particularly, where practicable, exhaust appliances shall be provided and maintained, as near as possible to the point of origin of the dust or fume or other impurity, to protect such persons against such inhalation.

(2) In the case of a shipyard the provisions of this regulation shall, with respect to the operations carried on on board, in or on the outside of a vessel or part of a vessel, be in substitution for the provisions of sections 32 and 33 of the Act (which relate to the removal of dust or fumes).

#### Rivet fires.

53.(1) Rivet fires shall not be taken into or used in or remain in any confined space on board or in a vessel unless there is adequate ventilation to prevent the accumulation of fumes.

(2) No person employed shall move a rivet fire into any confined space on board or in a vessel unless he has been authorised by his employer to move the fire into that space.

#### Placing of gas cylinders and acetylene generators.

54.(1) No cylinder which contains or has contained oxygen or any inflammable gas or vapour under pressure and no acetylene generating plant, shall be installed or placed within 5 metres of any substantial source of heat (including any boiler or furnace when alight) other than the burner or blow pipe operated from the cylinder or plant.

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(2) No such cylinder and no such plant shall be taken below the weather deck in the case of a vessel undergoing repair, or below the topmost completed deck in the case of a vessel under construction, unless it is installed or placed in a part of the vessel which is adequately ventilated to prevent any dangerous concentration of gas or fumes.

(3) It shall be the duty of the persons employed to comply with the foregoing provisions of this regulation.

#### Further provisions as to acetylene generators.

55.(1) The following provisions shall be observed as respects any acetylene generating plant-

- (a) no such plant shall be installed or placed in any confined space unless effective and suitable provision is made for securing and maintaining the adequate ventilation of that space 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) partly spent calcium carbide shall not be re-charged into an acetylene generator.

(2) No person (whether or not a person employed) shall smoke or strike a light or take a naked light or 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 respect to a generator in the open air or on board a vessel which, since it was last charged, has been thoroughly cleaned and freed from any calcium carbide and acetylene gas.

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

#### Construction of plant for cutting, welding or heating metal.

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56.(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 good construction and 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 values 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 and flame arrester shall be provided and maintained in the acetylene supply pipe between each burner or blow pipe and the acetylene generator, cylinder or container from which it is supplied, and shall be placed as near as practicable to the burner or blow pipe, except that these requirements shall not apply where an acetylene cylinder serves only one burner or blow pipe; and
  - (b) any hydraulic valve provided in pursuance of the preceding subparagraph shall be inspected on each day by every person who uses the burner or blow-pipe on that day, and it shall he the duty of every person employed who uses the burner or blow-pipe to inspect the hydraulic valve accordingly.

(5) The operating values 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, or the operating mechanism shall be so protected, that the values cannot be opened accidentally.

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

57.(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 specified 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 short interruptions of work. The requirements in paragraphs (3) and (4) of this regulation shall not apply during any meal break or interval.

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

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(3) Moveable pipes or hoses used for conveying oxygen or inflammable gas or vapour shall, in the case of a vessel undergoing construction, be brought to the topmost completed deck, or, in the case of a vessel undergoing repair to a weather deck or in either case to some other place of safety which is adequately ventilated to prevent any dangerous concentration of gas or fumes:

Provided that where, owing to the nature of the work, it is impracticable to comply with the foregoing requirements of this paragraph, the pipes or hoses shall be disconnected from cylinders, generators or gas mains, as the circumstances may require.

(4) When cylinders or acetylene generating plant have been taken below deck as permitted by paragraph (2) of regulation 54, such cylinders or acetylene generating plant shall be brought to a weather deck, or, in the case of a vessel undergoing construction, to the topmost completed deck.

#### Naked lights on oil carrying vessels.

58.(1) Subject to the provisions of paragraph (2) of this regulation, and to the provisions of regulation 65, and without prejudice to the provisions of regulations 63 and 64, no naked light or fire or lamp (other than a safety lamp of a type approved for the purpose of this regulation) and no heated rivet–

(a) shall be permitted to be applied to, or to be in, any part of a tanker unless, since oil was last carried in that tanker, a naked light certificate has been obtained and is in force in respect of those parts of the tanker for which, in the opinion of a competent analyst, a naked light certificate is necessary:

Provided that a naked light, fire, lamp or heated rivet of a kind specified in writing by a competent analyst may be applied to or be in, any part of the tanker so specified;

- (b) shall be permitted-
  - to be in any oil tank on board or in a vessel in which oil-tank the oil last carried was oil having a flash point of less than 23 degrees Celsius (Abel closed test) or was liquid methane, liquid propane or liquid butane, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil tank, and of any oil tank, compartment or space thereto;

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- to be applied to the outer surface of any oil tank on board or in a vessel in which oil tank the oil last carried was such oil as aforesaid, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that oil tank;
- (iii) to be applied to the outer surface of or to be in, any compartment or space adjacent to an oil tank on board or in a vessel in which oil tank the oil last carried was such oil as aforesaid, unless a naked light certificate has previously been obtained on the same day and is in force in respect of that compartment or space:

Provided that where in any such case referred to in paragraph (i), (ii) or (iii) of this subparagraph a competent analyst has certified that daily naked light certificates are unnecessary or are necessary only to a specified extent, such a daily certificate need not be obtained or, as the case may be, need only be obtained to the specified extent;

- (c) shall be permitted to be applied to the outer surface of or to be in, any oil-tank on board or in a vessel unless, since oil was last carried in that oil-tank, a naked light certificate has been obtained and is in force in respect of that oil-tank;
- (d) shall be permitted to be applied to the outer surface of or to be in, any compartment or space adjacent to an oil-tank on board or in a vessel unless, since oil was last carried as cargo in that oil-tank, a naked light certificate has been obtained and is in force in respect of that compartment or space.

(2) Notwithstanding anything in paragraph (1) of this regulation, heated rivets may be permitted in any place without a naked light certificate being in force in respect of that place if expressly so authorised by a competent analyst who certifies that after adequate and suitable testing he is satisfied having regard to all the circumstances of the case, including the likelihood or otherwise of the atmosphere becoming inflammable, that the place is sufficiently free from inflammable vapour; but such heated rivets shall, where practicable, be passed through tubes.

(3) No person (whether or not a person employed) shall introduce, have or apply a naked light, fire or lamp (other than a safety lamp of a type approved for the purpose of this regulation) or any heated rivet into, in or to any place where they are prohibited by this regulation.

(4) In this regulation the expression" competent analyst" means an analyst who is competent to give a naked light certificate.

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#### Entering oil-tanks.

59.(1) No person (other than an analyst entering with a view to issuing a certificate of entry) shall, unless he is wearing a breathing apparatus of a type approved for the purpose of this regulation, enter or remain in an oil-tank on board or in a vessel unless, since the oil tank last contained oil, a certificate of entry has been obtained and is in force in respect of the tank.

(2) Without prejudice to paragraph (1) of this regulation, no person (other than an analyst entering as aforesaid) shall be allowed or required to enter or remain in an oil-tank on board or in a vessel in which oil-tank the oil last carried was oil having a flashpoint of less than 23 degrees Celsius (Abel closed test) unless, since the oil tank last contained oil, an analyst has certified that the atmosphere is sufficiently free from inflammable mixture.

(3) It shall be the duty of the persons employed to comply with the foregoing provisions of this regulation.

(4) The provisions of this regulation are without prejudice to the requirements of regulations 49 and 50.

#### **Duration of certificates.**

60. 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.

61. Every employer or shipowner for whom a naked light certificate or a certificate of entry is obtained shall ensure that the certificate or a duplicate thereof is posted as soon as may be and remains posted in a position where it may be conveniently read by all persons concerned.

#### Cleaning of oil-tanks.

62.(1) Subject to the provision of regulation 65, 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 58 in respect of an oil-tank on board or in a vessel, that oil-tank shall, since oil was last introduced into the tank, be cleaned and ventilated in accordance with paragraph (2) of this regulation.

- (2) The said cleaning and ventilation shall be carried out by the following methods-
  - (a) the oil tank shall be treated in such manner and for such period as will ensure the vaporisation of all volatile oil;

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- (b) all residual oil and any sludge or other deposit in the oil tank shall be removed therefrom;
- (c) after the oil tank has been so cleaned-
  - (i) all covers of manholes and other openings therein shall be removed and it shall be thoroughly ventilated by mechanical or other efficient means with a view to the removal of all oil vapour; and then
  - (ii) the interior surfaces, if any deposit remains thereon, shall be washed or scraped down.

#### Invalidation of certificates.

63.(1) If during the course of work in, or to the outer surface of, any part of a tanker or aircraft carrier any pipe or tank joint is opened or broken or any other event occurs so that there is a risk of oil vapour entering or arising in that part of the tanker or aircraft carrier, that work shall be suspended and thereafter any certificate of entry previously issued in respect of any oil tank in that part and any naked light certificate previously issued in respect of that part shall be no longer in force.

(2) If (in the case of a vessel other than a tanker or aircraft carrier) during the course of a work in any oil tank or in any compartment or space adjacent thereto any pipe or tank joint is opened or broken or any other event occurs so that there is a risk of oil vapour entering or arising in the oil-tank or in any compartment or space adjacent thereto, work in the oil-tank and in the compartments and spaces adjacent thereto shall be suspended and thereafter any certificate of entry previously issued in respect of the oil-tank and any naked light certificate previously issued in respect of the oil-tank or space adjacent thereto shall be no longer in force.

#### Provisions as to work in other compartments or spaces.

64.(1) Without prejudice to the other provisions of these Regulations, if the presence of oil in such quantity and in such position as to be likely to give rise to fire or explosion is detected in any part of a vessel, being a part to which this regulation applies and in which repairs of the following kind are to be or are being undertaken, that is to say repairs involving the use of a naked light, fire, or lamp (other than a safety lamp of a type approved for the purpose of regulation 58) or of a heated rivet, such repairs shall not be started or continued until a naked light certificate has been issued or, as the case may be, re-issued in respect of that part of the vessel.

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(2) This regulation shall apply to bilges, shaft tunnels, pump rooms, lamp room, and to compartments and spaces other than those to which paragraph (1)(d) of regulation 58 applies.

#### **Exceptions from Regulations 58 and 62.**

65.(1) The provisions of paragraph (1)(c) and (1)(d) of regulation 58 as to naked light certificates and the provisions of regulation 62 as to the cleaning and ventilation of oil-tanks shall not apply in the case of minor repairs to be carried out–

- (a) to the outer surface of an oil-tank on board or in a vessel; or
- (b) in or to the outer surface of any compartment or space adjacent to any such oiltank,

in cases where the only oil last carried was oil having a flashpoint of 66 degrees Celsius or above (Pensky-Martens closed test):

Provided that adequate areas of the interior and exterior surfaces of the oil tank or, as the case may be, of the compartment or space adjacent thereto, in the immediate neighbourhood of the part to be repaired shall be freed from oil or sludge; so, however, that in respect of repairs to be carried out to the outer surface of an oil tank below the level of any oil in that tank only the exterior surface of that oil tank need be so freed.

In every case to which the paragraph applies appropriate special precautions shall be taken for preventing and extinguishing fire.

(2) The provisions of paragraphs (1)(a) and (1)(c)(iii) of regulation 58 as to naked light certificates shall not apply in the case of minor repairs involving the application of a naked light to the outer surface only of the hull of a tanker in which the only oil last carried as cargo was liquid methane, liquid propane or liquid butanem being liquid methane, liquid propane or liquid butanem being liquid methane, liquid propane or liquid butanem being liquid methane, liquid propane or liquid butane at atmospheric pressure, provided that a naked light certificate has previously been obtained on the same day and is in force in respect of the space between the hull and any oil-tank on board, and the space is adequately and continuously ventilated by mechanical means so as to ensure that an inflammable concentration of gas or vapour cannot be formed in it during the period for which the naked light certificate is in force.

(3) The provisions of paragraph (1)(a) of regulation 58 shall not apply to any part of a tanker where naked lights were allowed when the vessel was in service afloat:

Provided that the said paragraph (1)(a) shall apply whilst any oil tank in the tanker is open, except an oil tank in respect of which a naked light certificate is in force.

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(4) The provisions of paragraph (1)(a) of regulation 58 shall not apply in the case of tankers in which the only oil last carried was oil used for the purpose of a basin trial or a trial trip.

#### **PART VI.** MISCELLANEOUS SAFETY PROVISIONS.

#### Fencing of machinery.

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66.(1) All motors, gear-wheels, chain and friction gearing and shafting, being motors, gear wheels, chain and friction gearing and shafting on a vessel which are used for the purpose of the operations shall (unless it can be shown that by their position and construction they are equally safe to every person employed as they would be if securely fenced) be securely fenced so far as is practicable, but without infringing any requirements imposed by or under the Merchant Shipping Act in respect of life saving appliances.

(2) Every dangerous part of every machinery used for the purpose of the operations to which the preceding paragraph of this regulation does not apply, being machinery in a place, or part of a vessel, to which sections 21 and 22 of the Act do not apply, 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.

(3) Nothing in this regulation shall require any part of the machinery on a vessel which is used for the purpose of the operations to be fenced during an examination of that part or during any lubrication, adjustment or repair shown by such examination to be immediately necessary, being an examination, lubrication, adjustment or repair which is carried out by a competent person who has attained the age of 18 years, and which it is necessary to carry out while the part of the machinery is in motion.

#### Air receivers.

67. The provisions of section 36 of the Act (which relates to air receivers) shall apply to air receivers used for the purpose of the operations (other than fixed air receivers permanently installed in a ship).

#### Lighting.

68.(1) All parts of a vessel and all other places 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.

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(2) Where in a harbour or wet dock the control of a ship apart from the operations remains with the shipowner the ship's permanent lighting shall be maintained in operation by him to the extent that it may be required for the purpose of lighting-

- (a) the ship; and
- (b) the means of access to the ship where that access is provided by the shipowner:

Provided that if the shipowner has given written notice to every contractor undertaking any of the operations for which the ship's permanent lighting is required that for a specified period (for reasons connected with the management or working of the ship or the use, repair or maintenance of its equipment) the permanent lighting will not be maintained in operation by him or will be maintained in operation by him only to a specified extent, the foregoing provisions of this paragraph shall for that period not apply or, as the case may be, shall for that period apply only to the extent that the permanent lighting is maintained in operation.

In this paragraph-

"contractor" means a person who has contracted with the shipowner or his agent to carry out any of the operations; and

"shipowner" means the shipowner or master or officer in charge.

(3) No person shall be held not to have complied with the foregoing provisions of this regulation by reason only of a failure of the electricity supply, provided that in the case of such failure alternative means of lighting, which shall be sufficient and suitable in the circumstances, shall be provided as soon as practicable.

(4) 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.

(5) Petroleum spirit or naphtha shall not be used in lamps used for lighting and only paraffin or another liquid having a flash point over 38 degrees Celsius (Abel closed test or Pensky-Martens closed test, whichever is appropriate) shall be so used.

(6) No person (whether or not a person employed) shall, unless duly authorised or in case of necessity, interfere with or remove any means of lighting provided in pursuance of this regulation.

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#### Work in boilers, etc.

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

(2) Before any person employed enters any steam boiler which is one of a range of two or more steam boilers-

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

(3) While persons employed remain in any steam boiler to which paragraph (2) of this regulation applies all such inlets as are referred to in that paragraph shall remain disconnected or all such valves or taps as are therein referred to shall remain closed and securely locked.

(4) No person employed shall be allowed or required to enter or remain in, and no person shall enter or remain in, any steam boiler to which paragraph (2) of this reguation applies unless the provisions of that paragraph are being complied with.

#### Hatch beams.

70. The hatch beams of any hatch in use for the operations shall, if not removed, be adequately secured to prevent their displacement.

#### Jumped-up bolts.

71. Bolts which have been jumped up and re-screwed shall not be used for securing plates on the sides of vessels, and no person employed shall use such bolts for this purpose.

#### **PART VII.** PROTECTIVE PROVISIONS.

#### Hand protection.

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

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#### Protection in connection with cutting or welding.

73.(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 handshields 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 firearms from hot metal and from rays likely to be injurious.

(3) When electric welding is in progress at any place and persons other than those engaged in that process are employed in a position when the rays are likely to be injurious to their eyes, screens shall, where practicable, be provided at that place for the protection of those persons by screening, suitable goggles shall be provided for their use.

#### Eye protection for other processes.

74. Suitable goggles or protective 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 of cold rivets or bolts from boilers or other plant or from ships;
- (b) the chipping, scaling or scruffing of boilers or ships' plates;
- (c) drilling by means of portable machine tools;
- (d) dry grinding of metals.

#### Protection against dust.

75.(1) Breathing apparatus of a type approved for the purpose of this regulation shall be provided and maintained for the use of every person employed in any of the following kinds of work–

(a) the application of asbestos by means of a spray;

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- (b) the breaking down for removal of asbestos lagging;
- (c) the cleaning of sacks or other containers which have contained asbestos;
- (d) the cutting of material containing asbestos by means of portable power driven saws;
- (e) 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.

(2) It shall be the duty of the persons employed in any of the kinds of work specified in this regulation to use the breathing apparatus provided for their use in pursuance of this regulation.

#### **PART VIII.** MISCELLANEOUS HEALTH AND WELFARE PROVISIONS.

#### Prohibition of employment of young persons in certain processes.

76. No young person shall be employed in-

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- (a) the application of asbestos by means of a spray; or
- (b) the breaking down for removal of asbestos lagging; or
- (c) the cleaning of sacks or other containers which have contained asbestos; or
- (d) the cutting of material containing asbestos by means of portable power driven saws; or
- (e) 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.

#### Lead paint.

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

#### Stretchers, ambulances and ambulance rooms, etc.

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78.(1) In every shipyard there shall be provided and kept readily available-

- (a) a sufficient number of suitably constructed sling stretchers or other similar appliances for raising injured persons; and
- (b) a sufficient number of carrying or wheel stretchers; and
- (c) a sufficient supply of suitable reviving apparatus and oxygen,

and the stretchers, appliances and apparatus so provided shall be properly maintained.

(2) In every shipyard there shall always be readily available during working hours a responsible person or responsible persons whose duty it is to summon an ambulance or other means of transport if needed in cases of accident or illness. Legible copies of a notice indicating that persons or, as the case may be, those persons shall be affixed in prominent positions in every shipyard.

(3) In every shipyard other than a public dry dock in which the number of persons employed normally exceeds five hundred there shall be provided and maintained in good order and clean condition are properly constructed ambulance room containing at least the equipment specified in the Schedule 3 to these Regulations. The room shall be used only for the purpose of treatment and rest and shall be in the charge of a suitably qualified person who shall always be readily available during working hours, and a record shall be kept of all cases of accident or sickness treated at the room.

#### Young persons.

79.(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 operations in a shipyard on a stage from which, or in any part of a ship where, he is liable to fall a distance of more than two metres, or into water in which there is a risk of drowning.

(2) Any young person under the age of 16 years shall, when employed in the operations in a shipyard, be placed under the charge of an experienced workman.

#### Safety supervision.

80.(1) In the case of every shipyard other than a public dry dock, being a shipyard where the number of persons employed regularly or from time to time exceeds five hundred, a person experienced in the work of such yards shall be appointed and employed exclusively to exercise general supervision of the observance of these Regulations and to promote the safe conduct of the work generally.

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(2) 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.

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#### **SCHEDULE 1**

**Regulation 3** 

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

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 Celsius and thoroughly mixed.

A weighted quantity of this extracted, dried and mixed material is to be continuously shaken for one hour, at the common temperature, with one thousand 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.

**SCHEDULE 2** 

Revoked

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#### **SCHEDULE 3**

Regulation 78

#### EQUIPMENT OF AMBULANCE ROOMS

- 1. A glazed sink with hot and cold water available during working hours.
- 2. A table with smooth top.
- 3. Means for sterilising instruments.
- 4. A supply of suitable dressings, bandages and splints.
- 5. A couch.
- 6. A stretcher.
- 7. Blankets and hot-water bottles.
- 8. A foot-bath.