



LAWS OF FIJI

CHAPTER 99

FACTORIES ACT

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**AN ACT TO REGULATE THE CONDITIONS OF EMPLOYMENT IN
FACTORIES AND OTHER PLACES AND TO PROTECT THE HEALTH,
SAFETY AND WELFARE OF PERSONS EMPLOYED THEREIN**

*[1st February, 1972]

PART I-PRELIMINARY

Short title

1. This Act may be cited as the Factories Act.

PART II-INTERPRETATION AND APPLICATION

Meaning of "factory"

2.-(1) In this Act, unless the context otherwise requires-

"factory" means any premises in which, or within the close or curtilage or precincts of which, persons are employed in manual labour in any process for or incidental to any of the following purposes, namely:-

(a) the making of any article or of part of any article; or

(b) the altering, repairing, ornamenting, finishing, cleaning or washing, or the breaking up or demolition of an article; or

(c) the adapting for sale of any article,

premises in which, or within the close or curtilage or precincts of which, the work is carried on by way of trade or for the purposes of gain and to or over which the employer of the persons employed therein has the right of access or control; and

"factory" also includes the following premises in which persons are employed in manual labour:-

(i) any yard or any dock, including the precincts thereof, in which ships or vessels are constructed, reconstructed, repaired, refitted, finished or broken up;

(ii) any premises in which the business of sorting any article is carried on as a preliminary to the work carried on in any factory or incidentally to the purposes of any factory;

(iii) any premises in which the business of washing or filling bottles or containers or packing articles is carried on incidentally to the purpose of any factory;

(iv) any premises in which the business of booking, plaiting, lapping, making-up or packing of yarn or cloth is carried on;

(v) any laundry or kitchen carried on as an ancillary to another business or incidentally to the purposes of any public institution;

(vi) any premises in which the construction, reconstruction or repair of locomotives, vehicles or other plant for use for transport purposes is carried on as ancillary to a transport undertaking or other industrial or commercial undertaking, not being any premises used for the purpose of housing locomotives or vehicles where only cleaning, washing, running repairs or minor adjustments are carried out;

(Sections 42 (1) (d) and (h), section 43 (1) and section 44 (2) and (3) in force 1st July, 1976.)

- (vii) any premises in which printing by letterpress, lithography, photogravure or other similar process, or book-binding is carried on by way of trade or for purposes of gain or incidentally to another business so carried on;
- (viii) any premises in which the making, adaptation or repair of dresses, scenery or properties is carried on incidentally to the production, exhibition or presentation by way of trade or for purposes of gain of cinematograph films or theatrical performances, not being a stage or dressing-room of a theatre, in which only occasional adaptation or repairs are made;
- (ix) any premises in which the business of making or mending nets is carried on incidental to the fishing industry;
- (x) any premises in which mechanical power is used in connexion with the making or repair of articles of metal or wood incidentally to any business carried on by way of trade or for purposes of gain;
- (xi) any premises in which the production of cinematograph films is carried on by way of trade or for purposes of gain;
- (xii) any premises in which articles are made or prepared incidentally to the carrying on of building operations or works of engineering construction, not being premises in which such operations or works are being carried on;
- (xiii) any waterworks or other premises in which mechanical power is used for the purposes of or in connexion with a public water supply;
- (xiv) any sewerage works in which mechanical power is used and any pumping station used in connexion with any sewerage works;
- (xv) any irrigation works in which mechanical power is used and any pumping station used in connexion with any irrigation works;
- (xvi) any premises in which persons are regularly employed in or in connexion with the generation, transformation, conversion, switching, controlling, regulating, distribution or use of electrical energy by way of trade or for the purposes of gain, or incidentally to any other business so carried on.

(2) Any railway or tramway line or siding which is used in connexion with and for the purposes of a factory, shall be deemed to be part of the factory; and if any such railway or tramway line or siding is used in connexion with more than one factory belonging to different occupiers, the line or siding shall be deemed to be a separate factory.

(3) A part of a factory may, with the approval in writing of the chief inspector, be taken to be a separate factory and two or more factories may, with the like approval, be taken to be a single factory.

(4) Any workplace in which, with the permission of or under agreement with the owner or occupier, two or more persons carry on any work which would constitute the workplace a factory if the persons working therein were in the employment of the owner or occupier, shall be deemed to be a factory for the purposes of this Act, and, in the case of any such workplace the provisions of this Act shall apply as if the owner or occupier of the workplace were the occupier of the factory and the persons working therein were persons employed in the factory.

(5) Where a place situate within the close, curtilage or precincts forming a factory is solely used for some purpose other than the processes carried on in the factory, that place shall not be deemed to form part of the factory for the purposes of this Act, but shall, if it would

otherwise be a factory, be deemed to be a separate factory.

(6) Premises shall not be excluded from the definition of a factory by reason only that they are open air premises.

(7) Where the chief inspector, by certificate in writing, so directs, different branches or departments of work carried on in the same factory shall be deemed to be different factories for all or any of the purposes of this Act.

(8) Any premises belonging to or in the occupation of the Government or of any local authority, shall not be deemed not to be a factory, and building operations or works or engineering construction undertaken by or on behalf of the Government or any local authority, shall not be excluded from the operation of this Act by reason only that the work carried on thereat is not carried on by way of trade for purposes of gain.

Saving

3. Notwithstanding anything to the contrary in section 2-

(a) no premises in or adjacent to and belonging to any mine or quarry being premises in which the only process carried on is the getting, dressing or preparation for sale of minerals, clay, sand, slate or stone shall be deemed to be a factory; and

(b) no premises or place in which the preparation or sun-drying of copra is carried on except where such premises or place is within the close, curtilage or precincts of a factory in which copra is used in any process, shall solely by reason of the fact that such preparation or sun-drying of copra is carried on, be deemed to be a factory.

Interpretation

4.-(1) In this Act, unless the context otherwise requires-

"air receiver" means-

(a) any vessel, other than a pipe or coil, or an accessory fitting or part of a compressor, for containing compressed air and connected with an air compressing plant; or

(b) any fixed vessel for containing compressed air or compressed exhaust gases and used for the purpose of starting an internal combustion engine; or

(c) any fixed or portable vessel, not being part of a spray gun, used for the purpose of spraying by means of compressed air any paint, varnish, lacquer or similar materials; or

(d) any vessel in which oil is stored and from which it is forced by compressed air;

"approved" means certified in writing as approved by the Minister or the chief inspector as the case may be;

"authorised person" means a person appointed by the Minister under the provisions of subsection (2) of section 72 or a person certified in writing by the chief inspector as an authorised person to perform any particular function or duty;

"bodily injury" includes injury to health;

"building" includes its fixtures and fittings;

"building operation" means the construction, reconstruction, installation, alteration, repair or maintenance of a building or plant, including repointing, redecoration and external cleaning of the structure, the demolition of a building or plant and the preparation for, and laying the foundation of, an intended building or plant; and any premises in which articles are made or prepared incidentally to the carrying on of building operations being premises in which such operations are being carried on but does not include any operation which is a work of engineering construction within the meaning of this Act;

"chief inspector" means the chief inspector appointed under this Act, and includes a deputy chief inspector;

"child" means any person who has not attained the age of fifteen;

"class or description", in relation to factories, includes a group of factories described by reference to locality;

"contractor" includes any person and any employer of workmen.

"driving-belt" includes any driving strap or rope;

"full air conditioning" means such a mechanical device as shall control the humidity, air temperature and air movement so as to provide a reasonable working environment as far as is reasonably practicable;

"fume" includes gas or vapour;

"Government" includes any department thereof;

"harbour" includes harbours properly so called, whether natural or artificial, estuaries, navigable rivers, piers, jetties and other works in or at which ships can obtain shelter, or ship or unship goods or passengers;

"hoist or lift" means a lifting device with a platform or cage the direction of movement of which is restricted by a guide or guides;

"inspector" means, except where otherwise expressed, an inspector appointed under this Act;

"lifting machine" means a crane, crab, winch, pulley block, gin wheel, transporter or runway;

"lifting tackle" means chain slings, rope slings, rings, hooks, shackles and swivels;

"local authority" means a local authority constituted under the Public Health Act;

(Cap. 111)

"machine" includes any prime mover and any transmission machinery and

"machinery" shall be construed likewise;

"maintained" means maintained in an efficient state, in efficient working order, and in good repair;

"maximum permissible working pressure" in relation to any steam boiler means, except in subsections (4) and (5) of section 47, that specified in the report of the last examination under that section;

"mine" means a mine as defined in the Mining Act;

(Cap. 146.)

"noise" means the sum of any sound produced by the processes and any other sounds produced on the premises measured where the persons are employed;

"owner" means the person for the time being receiving the rents or profits of the premises in connexion with which the word is used, whether on his own account or as agent or trustee for any other person, or who could so receive the same if the premises were let;

"parent" means a parent or guardian of, or person having the legal custody of, or the control over a child or young person, and includes in relation to any child or young person, any person having direct benefit from his wages;

"pressure vessel" means any air receiver and any steam receiver;

"prime mover" means every engine, motor or other appliance which provides mechanical energy derived from steam, water, wind, electricity, the combustion of fuel or other source;

"process" includes the use of any locomotive;

"quarry" means a quarry as defined in the Quarries Act;

(Cap. 147.)

"safe working pressure" means in the case of a new steam receiver or air receiver that specified by the maker, and in the case of a steam receiver or air receiver which has been examined in accordance with the provisions of sections 49 and 50, that specified in the report of the last examination;

"sanitary conveniences" includes urinals, water closets, earth-closets, privies, ashpits, and any similar convenience;

"steam boiler" means any closed vessel in which for any purpose steam is generated under pressure greater than atmospheric pressure and includes any economizer used to heat water being fed to any such vessel and any superheater used for heating steam;

"steam container" means any vessel, other than a steam pipe or coil, constructed with a permanent outlet into the atmosphere or into a space where the pressure does not exceed atmospheric pressure, and through which steam is passed at atmospheric pressure, or at approximately that pressure, for the purpose of heating, boiling, drying, evaporating or other similar purposes;

"steam receiver" means any vessel or apparatus, other than a steam boiler, steam container, steam pipe or coil, or part of a prime mover, used for containing steam under pressure greater than atmospheric pressure;

"transmission machinery" means every shaft, wheel, pulley, system of fast and loose pulleys, coupling, clutch, driving belt or other device by which the motion of a prime mover is transmitted to or received by any machine or appliance;

"woman" means a female who has attained the age of eighteen;

"work of engineering construction" means the construction, reconstruction alteration, maintenance or repair including repointing, redecoration and cleaning, or demolition of any of the following other than a building, any road, railway, tramway, airfield, sea defence works, river works, dock, harbour, pier, canal, any inland, maritime, or aerial navigation works, any tunnel, aqueduct, bridge, viaduct, drain, sewer, sewage works, irrigation works, drainage works, well, waterworks, electricity works, gas works, telecommunications installation or pipeline and any other civil or construction engineering works of a similar nature to any of the foregoing works, and any premises in which articles are made or prepared incidentally to the carrying on of works of engineering construction being premises at which such works are being carried on;

"young person" means a person who has ceased to be a child but has not attained the age of eighteen.

(2) Every woman, young person, or child who works in a factory, whether for wages or not, either in a process or in cleaning any part of such factory used for any process or in cleaning or oiling any part of the machinery or plant, or in any other kind of work whatsoever incidental to or connected with the process, or connected with the article made or otherwise the subject of the process therein shall, save as is otherwise provided by this Act, be deemed to be employed therein for the purposes of this Act or of any proceedings thereunder,

(3) Every young person or child who works in a factory, whether for wages or not, in collecting, carrying or delivering goods, carrying messages or running errands shall be deemed to be employed in such factory for the purposes of this Act or of any proceedings thereunder.

(4) For the purposes of this Act, a learner or any apprentice shall be deemed to be a person employed.

Application of Act

5. Save as in this Act otherwise expressly provided, the provisions of this Act shall apply only to factories as defined in this Act, and shall, except where the context otherwise requires, apply to all such factories.

Exemption in the case of public emergency

6. In case of any public emergency the Minister may, by order, to the extent and during the period named in the order exempt from the application of this Act any factory or any building operations or works of engineering construction.

Power to apply provisions to premises not being factories

7.-(1) The Minister may by order apply all or any of the provisions of this Act to any of the following premises:-

shops, offices, premises other than a single private dwelling house in which steam boilers, pressure vessels, hoists or lifts are used, institutions, docks, wharves, quays (including any warehouses in connexion therewith), and other warehouses, ships on which work is being carried out in a yard, harbour or dock, electrical substations and fairgrounds.

(2) An order under this section may be made generally in respect of any class of premises aforesaid or may be made in respect of any particular premises specified in the order.

Responsibility where part of building is separate factory

8. Where a part of a building is let as a factory the Minister may by order declare which sections of the Act are to be the responsibility of the owner of the building and which, the responsibility of the occupier of the factory.

Building operations and works of engineering construction

9.-(1) Subject as hereinafter provided in this section those provisions of this Act referred to in paragraphs (a) to (c) inclusive shall apply to building operations and works of engineering

construction undertaken by way of trade or business or for the purpose of any agricultural, industrial, ecclesiastical or commercial undertaking and to any line or siding which is used in connection therewith and for the purposes thereof, that is to say-

- (a) the provisions of Parts I, II, V, VII, VIII and IX;
- (b) the provisions with respect to training and supervision, sanitary conveniences, washing facilities, drinking water, clothing, first-aid, safe means of access and safe place of employment, floors, passages and stairs, dangerous substances and storage;
- (c) the provisions with respect to electricity, corrosive liquids, lifting of heavy weights, noise, radiations and vibrations and protection of eyes.

(2) In addition to and without prejudice to the generality of the powers conferred by the provisions mentioned in subsection (1), the Minister may make regulations concerning the construction or use of any structure, framework, swinging stage, suspended scaffold, boatswain's chair or timbering of excavations used or intended to be used for the support or protection of workmen or other persons employed on the building operations or works of engineering construction.

(3) The provisions of this Act requiring general registers to be kept and copies of the approved abstract of this Act and of regulations or the approved abstract of such regulations to be kept posted up on the premises shall be deemed to be complied with as respects building operations or works of engineering construction if the register is kept at an office of the contractor undertaking the operations or works and the aforementioned copies are kept posted up at each office, yard or shop of the person undertaking the operations or works at which persons employed by him on the operations or works attend and in a position where they can easily be read by those persons.

(4) The provisions of this Act in their applications to building operations or works of engineering construction shall have effect as if any place where such operations or works are carried on were a factory and any contractor undertaking any such operations or works to which this Act applies were the occupier of a factory and with such other adaptations and modifications as may be made by **regulations** made by the Minister.

PART III-GENERAL REQUIREMENTS

Training and supervision

10.-(1) No employed person shall be permitted to work at any machine unless he has been sufficiently trained to work that class of machine or unless he works under the adequate supervision of a person who has a thorough knowledge of the working of the machine.

(2) Every person while being trained to work any machine shall be fully and carefully instructed as to the dangers arising in connexion with such machine and the precautions to be observed.

Structure of buildings

11.-(1) Where employed persons work in or pass through any part of a building, every part of that building that might endanger them shall be of sound construction and kept in a good state of repair.

(2) Every building shall, so far as is reasonably practicable, protect employed persons from the weather, have a water-tight roof, and there shall be no significant amounts of dampness passing through the walls or arising from the floor, which are liable to affect the safety of the building or the health of persons employed.

(3) Where any floors are liable to become wet to such an extent that the moisture is capable of being removed by drainage, effective means shall be provided and maintained for draining off the moisture.

Cleanliness

12.-(1) Every factory shall be kept in a clean state and free from effluvia arising from any drain, sanitary convenience or nuisance.

(2) Without prejudice to the generality of subsection (1)-

(a) no dirt, refuse or trade waste shall be allowed to accumulate except in proper receptacles;
(b) all floors, passages, gangways, stairways and doorways used by employed persons shall be cleaned at least once a week by washing, or, if it is effective and suitable by sweeping or some other method.

(3) Without prejudice to the generality of subsection (1), the following provisions shall apply as respects all inside walls and partitions and all ceilings or tops of rooms, and all walls, sides and tops of passages and stairways-

(a) where they have a smooth impervious surface, they shall at intervals not exceeding fourteen months be washed with hot water and soap or other suitable detergent or cleaned by such other method as may be approved by the chief inspector;
(b) where they are painted or varnished in such a manner as to produce over the whole of the treated surface a compact continuous film capable of being washed with hot water and soap or other suitable detergent or of being cleaned by such other method as may be approved by the chief inspector, walls and ceilings shall be repainted or revarnished as the case may be at intervals not exceeding seven years however so that, without prejudice to the foregoing, the whole or part of the surface shall be repainted or, as the case may be, revarnished as often as may be necessary to maintain over the whole surface a compact continuous film and shall at intervals not exceeding fourteen months be washed with hot water and soap or other suitable detergent or cleaned by such other method as may be approved by the chief inspector;
(c) in every other case, shall be whitewashed or colour-washed and the whitewashing or colour-washing shall be repeated at intervals not exceeding fourteen months.

(4) Where it appears to the Minister that in any class or description of factory or parts thereof any of the foregoing provisions of this section are not required for the purpose of keeping a

factory in a clean state, or are by reason of special circumstances inappropriate or inadequate for that purpose, he may, if he thinks fit, by order direct that those provisions shall not apply to factories, or parts of factories, of that class or description, or shall apply as varied by the order.

Overcrowding

13.-(1) No factory shall while work is carried on, be so overcrowded as to cause risk of injury to the health of the persons employed therein.

(2) Without prejudice to the generality of subsection (1) but subject to subsection (3), the number of persons employed at any one time in any workroom shall not be such that the amount of cubic space allowed for each is less than eleven cubic metres.

(3) In calculating the amount of cubic space in any room for the purposes of this section, no space more than four metres from the floor shall be taken into account and where a room contains a gallery, the gallery shall be treated for the purposes of this section as if it were partitioned off from the remainder of the room and formed a separate room.

(4) Every workroom shall be not less than 2.5 metres in height measured from the floor to the lowest part of the ceiling or where there is no ceiling, to the lowest part of the roofing material.

(5) There shall be posted in every workroom a notice specifying the number of persons who, having regard to the provisions of this section, may be employed in that room.

(6) If the chief inspector is satisfied that owing to the special conditions under which the work is carried on in any workroom in which explosive materials are manufactured or handled, the application of subsection (2) to that workroom would be inappropriate or unnecessary, he may by certificate exempt such workroom from that subsection subject to any conditions specified in the certificate.

Ventilation

14.-(1) Effective and suitable provision shall be made for securing and maintaining by the supply and circulation of fresh air in each workroom the adequate ventilation of the room and for rendering harmless, so far as practicable, all odours and contamination of the atmosphere that arises from human occupation of the room.

(2) Without prejudice to the generality of subsection (1), the circulation of fresh air shall provide an air movement at any point where any person has habitually to work of not less than 12 metres per minute:

Provided that where full air conditioning is provided and used in any workroom, the requirements of this subsection shall not apply.

(3) The chief inspector shall have power to exempt by certificate in writing, any class or description of premises where he considers the application of this section to be impracticable.

Lighting

15.-(1) Effective provision shall be made for securing and maintaining sufficient and suitable lighting whether natural or artificial in every part of a factory in which persons are working or passing.

(2) Without prejudice to the generality of subsection (1)-

(a) the illumination at the point where any person has regularly to work shall not be less than 160 lux;

(b) the general illumination over the interior parts of a factory where persons are regularly engaged shall not be less than 80 lux measured in the horizontal plane one metre above the floor.

(3) All glazed windows and skylights shall so far as practicable be kept clean on both the inner and outer surfaces and free from obstruction, but this provision shall not affect the whitewashing or shading of windows and skylights for the purposes of mitigating heat or glare.

Sanitary conveniences

16.-(1) Sufficient and suitable sanitary conveniences for the persons employed shall be provided, maintained and kept clean and effective provision shall be made for lighting the conveniences and where persons of both sexes are or are intended to be employed, except in the case of factories where the only persons employed are members of the same family dwelling there, such conveniences shall afford proper separate accommodation for persons of each sex.

(2) Every sanitary convenience shall be sufficiently ventilated and shall not communicate with any workroom except through the open air or through an intervening ventilated space.

(3) Without prejudice to the generality of subsection (1)-

(a) one suitable sanitary convenience shall be provided for every twenty females and any fraction of twenty shall be reckoned as twenty;

(b) one suitable sanitary convenience shall be provided for every twenty males, not being a convenience suitable only as a urinal, and any fraction of twenty shall be reckoned as twenty.

(4) In cases where persons of both sexes are employed the sanitary conveniences for each sex shall be so placed or so screened that they shall not be visible, even when the door of any convenience is open, from any place where persons of the other sex have to work or pass.

(5) It shall be the duty of every local authority to enforce the provisions of this section within its jurisdiction and any inspector who upon inspection, finds a factory to be in breach of this section shall give notice in writing to the appropriate local authority.

(6) If within one month after notice of an act or default is given by an inspector under this

section to a local authority proceedings are not taken for punishing or remedying the act or default, such inspector may take such proceedings for the punishment or remedying thereof as the local authority might have taken.

Washing facilities

17.-(1) There shall be provided and maintained for the use of employed persons adequate and suitable facilities for washing which shall include a supply of clean running hot and cold or warm water and, in addition soap and clean towels or other suitable means of cleaning or drying; and the facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.

(2) At least one wash basin shall be provided for every ten persons employed or where a trough is provided, at least two feet of trough for every ten persons employed.

(3) In any factory constructed or converted for use as a factory after the enactment of this Act the washing facilities referred to in subsection (1) shall be adjacent to the sanitary conveniences referred to in section 16.

(4) Each room which contains washing facilities shall be adequately lit and ventilated.

(5) The chief inspector shall have power to exempt by certificate in writing subject to such conditions as he thinks fit any factory where the provision of hot and cold or warm running water is not reasonably practicable.

Drinking water

18.-(1) There shall be provided and maintained at suitable points conveniently accessible to all persons employed an adequate supply of wholesome drinking water-

(a) from a public main; or

(b) from a source approved in writing by the health inspector for the area in which that source is. Such approval may only be withheld upon the ground of the unwholesomeness of the water.

(2) Where the supply of drinking water is not a supply of running water, it shall be contained in suitable vessels and shall be renewed at least daily, and all practicable steps shall be taken to preserve the water and vessels from contamination.

(3) A supply of drinking water provided under this section shall be clearly marked "drinking water" if so required by the chief inspector in such languages as he may specify.

(4) All supplies of harmful liquids which might be confused with drinking water or other beverages shall be clearly marked with their contents or marked with an approved warning sign.

(5) Except where the water is delivered in an upward jet from which employed persons can

conveniently drink or from a tap from which drinking vessels can be filled, a dipper or ladle shall be provided for filling drinking vessels.

Clothing

19.-(1) There shall be provided and maintained for the use of employed persons adequate and suitable accommodation for clothing not worn during working hours and such arrangements as are reasonably practicable shall be made for drying such clothing.

(2) If persons are employed to do work which necessitates their wearing special clothing and they do not take such special clothing home suitable places shall be provided for it to be hung up or otherwise accommodated and if it is reasonably practicable, for it to be dried.

Sitting facilities

20.-(1) Where any employed persons have in the course of their employment reasonable opportunity for sitting without detriment to their work, there shall be provided and maintained for their use suitable facilities for sitting sufficient to enable them to take advantage of those opportunities.

(2) Where a substantial proportion of any work can properly be done sitting-

(a) there shall be provided and maintained for each employed person doing that work a seat of a design, construction and dimensions suitable for him and the work, together with a backrest if practicable and a footrest on which he can readily and comfortably support his feet if he cannot do so without a footrest; and

(b) the arrangements shall be such that the seat including its footrest and, where fitted, its backrest shall have adequate support.

(3) All employed persons shall be allowed to sit on the seats provided under subsections (1) or (2).

First-aid

21.-(1) There shall be provided and maintained so as to be readily accessible a first-aid box or cupboard of a standard prescribed by the Minister by order and where more than one hundred and fifty persons are employed an additional box or cupboard for every additional one hundred and fifty persons.

(2) For the purposes of subsection (1), the number of persons in a factory shall be taken to be the largest number of persons employed therein at any one time and any fraction of one hundred and fifty shall be reckoned as one hundred and fifty.

(3) Nothing except appliances or requisites for first-aid shall be kept in a first-aid box or cupboard.

(4) Each first-aid box and cupboard shall be placed under the charge of a responsible person who shall, in the case of a factory where more than fifty persons or more than such lower number of persons as the Minister may by order prescribe, are employed, be trained in first-aid treatment and the person in charge shall always be readily available during working hours.

(5) A notice shall be affixed in every workroom stating the name of the person in charge of the first-aid box or cupboard provided in respect of that room.

(6) If an ambulance room is provided at a factory and such arrangements are made as to ensure the immediate treatment there of all injuries occurring in such factory, the chief inspector may by certificate exempt such factory from the requirements of this section to such extent and subject to such conditions as he may specify in the certificate.

Meals in certain dangerous trades

22.-(1) Where in any room any poisonous substance is so used as to give rise to any dust or fume, no person shall be permitted to partake of food or drink in that room or to remain in that room during the intervals allowed in the course of a spell of continuous employment.

(2) Where in any room a process has been prescribed as a process which gives rise to siliceous dust or asbestos dust, no person shall be permitted to remain in that room during the intervals allowed to him for meals or rest other than intervals allowed in the course of a spell of continuous employment.

(3) Suitable provision shall be made for enabling the persons employed in any such room as is mentioned in subsections (1) and (2) to take their meals elsewhere in the factory.

(4) For the purposes of this section, employment should be deemed to be continuous unless interrupted by an interval of at least half an hour.

Removal of dust or fumes

23.-(1) In every factory in which, in connection with any process carried on, there is given off any dust or fume or other impurity of such a character as to such extent as to be likely to be injurious or offensive to the persons employed therein or any substantial quantity of dust of any kind, all practicable measures shall be taken to protect such persons against inhalation of the dust or fume or other impurity and to prevent its accumulating in any workroom, and in particular where the nature of the process makes it 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, so as to prevent its entering the air of any workroom.

(2) No stationary internal combustion engine shall be used unless-

(a) provision is made for conducting the exhaust gases from the engine into the open air; and

(b) the engine, except when used for the purpose of being tested, is so partitioned off from any workroom or part of a workroom in which persons are employed, other than persons attending to the engine, as to prevent any injurious fumes from the engine entering the air of the room or part of the room.

Safe means of access and safe places of employment

24.-(1) There shall so far as is reasonably practicable be provided and maintained wherever an employed person goes in the course of his employment safe access and passage and such access and passage and the place to which he goes or whether he remains at any time shall be safe at all times when he is there.

(2) Where any person has to Work at a place from which he will be liable to fall a distance of more than 2 metres, then, unless the place is one which affords secure foothold and, where necessary, secure hand-hold, means shall be provided, so far as is reasonably practicable, by fencing or otherwise, for ensuring his safety.

(3) Without prejudice to the generality of subsection (1), no person shall pass over or work on or from, material which would be liable to fracture if his weight were to be applied to it and so situated that if it were to be fractured he would be liable to fall a distance of more than 2 metres unless such one or more of all or any of the following, namely, suitable and sufficient crawling ladders, crawling boards and duckboards (which shall in any case be securely supported and, if necessary, secured so as to prevent slipping) as are necessary, are provided and so used that the weight of any person so passing or working is wholly or mainly supported by such ladders or boards unless his weight is supported by other fully safe and sufficient means.

(4) Where any person passes across or near or works on or near material of the kind and situated as specified in subsection (3), prominent warning notices shall be affixed at the approaches to the place where the material is situated.

(5) An crawling ladders, crawling boards and duckboards shall be soundly constructed and properly maintained.

Floors, stairs and passages

25.-(1) All floors, steps, stairs, passages and gangways shall be of sound construction and properly maintained and shall, so far as is reasonably practicable, be kept free from any obstruction and from any substance likely to cause persons to slip.

(2) For every staircase in a building or affording a means of exit from a building, a substantial hand-rail shall be provided and maintained, which, if the staircase has an open side, shall be on that side, and in the case of a staircase having two open sides or of a staircase which, owing to the nature of its construction or the condition of the surface of the steps or other special circumstances, is specially liable to cause accidents, such a hand-rail shall be provided and maintained on both sides.

(3) Any open side of a staircase shall also be guarded by the provision and maintenance of a

lower rail or other effective means.

(4) All openings in floors shall be securely fenced, except in so far as the nature of the work renders such fencing impracticable.

(5) All ladders shall be soundly constructed and properly maintained.

Dangerous substances

26.-(1) Every fixed vessel, structure, sump or pit of which the edge is less than 1 metre above the highest ground or platform from which a person might fall into it shall, if it contains any scalding, burning, corrosive or poisonous substance either be securely covered or be securely fenced to at least 1 metre above that ground or platform, or, where by reason of the nature of the work, neither secure covering nor secure fencing to that height is practicable, all practicable steps shall be taken by covering, fencing or other means to prevent any person from falling into the vessel, structure, sump or pit.

(2) Where any fixed vessel, structure, sump or pit contains any scalding, burning, corrosive or poisonous substance but is not securely covered, no ladder, stair or gangway shall be placed above, across or inside it which is not-

(a) at least 455 mm wide; and

(b) securely fenced on both sides to a height of at least one metre and securely fixed.

(3) Where any such vessels, structures, sumps or pits as are mentioned in subsection (2) adjoin, and the space between them clear of any surrounding brick or other work is less than 455 mm in width or is not securely fenced on both sides to a height of at least 1 metre, secure barriers shall be so placed as to prevent passage between them.

(4) For the purposes of this section a ladder, stair or gangway shall not be deemed to be securely fenced unless it is provided either with sheet fencing or with an upper and a lower rail and toe boards.

(5) The Minister may by order exempt from the requirements of this section any class of vessel, structure, sump or pit in the case of which he is satisfied that the requirements are unnecessary or inappropriate.

Wall openings

27.-(1) Every wall opening used for hoisting or lowering goods or materials, whether by mechanical power or otherwise, shall be securely fenced and shall be provided with a secure hand-hold on each side.

(2) The fencing shall be properly maintained and shall, except when the hoisting or lowering of goods or materials is being carried on at the opening be kept in position.

Storage

28.-(1) Storage and stacking of goods or materials including the creation of heaps, shall be done in such a way and in such a position as to prevent risk of injury to any person, resulting from the collapse or fall of either the goods or materials or their supporting structure.

(2) Where by reason of the quantity or nature of goods or materials, a risk of collapse or fall might arise through addition or removal, these operations shall be carried out by or under the supervision of a responsible person.

(3) Measures which are reasonably practicable by way of control, enclosure or otherwise shall be taken to ensure the security and safety of goods or materials which present a high risk of injury to any person through their flammability, explosiveness or toxicity.

Means of escape in case of fire

29.-(1) Every factory shall be provided with adequate means of escape in case of fire for the persons employed therein having regard to the circumstances of each case.

(2) There shall be at least two safe means of egress remotely separated from each other from any floor other than the ground floor.

(3) All means of escape as aforesaid shall be properly maintained and kept free from obstruction.

(4) In the case of any factory constructed or converted for use as a factory after 20th December, 1957, all doors affording a final means of exit from the factory for the persons employed therein shall except in the case of sliding doors be constructed to open outwards.

(5) In the case of any factory constructed or converted for use as a factory on or before 20th December, 1957, any door at the foot of a staircase affording a means of exit from that building, shall, except in the case of sliding doors, be constructed to open outwards.

(6) Any doors from any rooms in which more than 10 persons are employed shall, except in the case of sliding doors, be constructed to open outwards.

Instructions as to use of means of escape in case of fire

30. In every factory, effective steps shall be taken to ensure that all persons therein employed are familiar with the means of escape in case of fire, and with the routine to be followed in case of fire.

Safety provisions in case of fire

31.-(1) While any person is within a factory for the purpose of employment or meals, the doors of that factory, and of any room therein in which he is present, and any doors which

afford a means of exit for persons employed in the factory from any building or from any enclosure in which the factory is situated, shall not be locked or fastened in such manner that they cannot be easily and immediately opened from the inside.

(2) Every hoistway or liftway inside a building constructed after the commencement of this Act shall be completely enclosed with fire resisting materials, and all means of access to the hoist or lift shall be fitted with doors of fire resisting material except that any such hoistway or liftway which is not provided with a vent at the top shall be enclosed only by some material easily broken by fire.

(3) Every window, door or other exit affording means of escape in case of fire or giving access thereto, other than the means of exit in ordinary use, shall be distinctively and conspicuously marked by a notice printed in letters not less than 150 mm in size.

(4) In every building which is, forms part of or comprises a factory, effective means, capable of being operated without exposing any person to undue risk, shall be provided and maintained for giving warning in case of fire, which shall be distinctive and clearly audible throughout the building.

(5) The contents of any room in which a persons are employed shall be so arranged or disposed that there is a free passageway for all persons employed in the room to a means of escape in case of fire.

(6) The windows or other similar openings of every building which is, forms part of or comprises a factory which could afford a means of rescuing persons employed therein shall not be barred or otherwise secured as to prevent egress in an emergency while persons are employed in that building.

Prevention of fire

32. In every factory there shall be provided and maintained so as to be readily accessible, means for extinguishing fire which shall be adequate and suitable having regard to the circumstances of each case.

PART V-MACHINERY, PLANT AND EQUIPMENT

Construction and sale of machinery, plant or equipment

33.-(1) No machinery, plant or equipment shall be sold or let on hire after this Act has been in force for one year unless every part of that machinery, plant or equipment as supplied and sold for use in premises or on operations to which this Act applies, complies with the requirements of this Part or with any regulations made thereunder and shall comply with the approved standard.

(2) Any person who sells or lets on hire, or as agent of the seller or hirer causes or procures to be sold or let on hire, any machinery, plant or equipment which does not comply with the requirements of this section shall be guilty of an offence and liable on conviction to a fine of not less than forty dollars and not exceeding four hundred dollars.

Maintenance of machinery and apparatus

34. All parts and working gear whether fixed or movable, including the anchoring and fixing appliances, of all machinery and apparatus including lifting machines, used as or forming part of the equipment of any premises or operations to which this Act applies, and all foundations on or to which such appliances are anchored or fixed shall be of good construction, sound material, adequate strength, free from patent defect and shall be properly maintained, and shall where reasonably practicable comply with the approved standard.

Stability of machines

35. Unless any machine is inherently stable or arrangements are otherwise made to secure its stability, it shall be securely and properly affixed to a foundation or to the floor.

Dangerous machinery

36.-(1) In all premises and operations to which this Act applies every dangerous part of-

- (a) any machinery used;
- (b) any machinery in the course of installation;
- (c) any machinery wherever it is in the course of assembly construction or test prior to its being taken into use for the first time; and
- (d) any machinery being demonstrated or exhibited

shall be effectively guarded at all times when that part is moving and at all times when the part might be likely to endanger either the employed person operating the machine or any employed person.

(2) For the purpose of this section a moving part shall be regarded as dangerous-

- (a) if it is dangerous by itself; or
- (b) if it is dangerous in combination with any other part of the machine; or
- (c) if it is dangerous in combination with any material in the machine.

(3) The provisions of subsection (1) shall not apply where the dangerous part is in such a position as to be as safe as [if] it were effectively guarded.

Provisions as to unguarded machinery

37.-(1) In determining, for the purposes of the foregoing provisions of this Part whether any part of machinery is in such a position as to be as safe to every person employed on the premises as it would be if effectively guarded, the following provisions shall apply in a case where this section applies:-

(a) no account shall be taken of any person carrying out, while that part of machinery is in motion, an examination thereof or any lubrication or adjustment shown by the examination to be immediately necessary, if the examination, lubrication or adjustment can only be carried out while the part of machinery is in motion; and

(b) in the cases of any part of transmission machinery used in any such process as may be specified by the Minister by order, being a process where owing to the continuous nature thereof the stopping of that part would seriously interfere with the carrying on of the process, no account shall be taken of any person carrying out by such methods and in such circumstances as may be specified in the order, any lubrication or any mounting of belts.

(2) The provisions of this section only apply where the examination, lubrication or other operation is carried out by such males who have attained the age of eighteen as may be specified by the Minister by order, and all such other conditions as may be so specified are complied with.

Construction and maintenance of guards

38.-(1) All guards provided in pursuance of this Part shall be kept in position whilst the parts required to be guarded are moving, whatever the speed and whatever the purpose of movement except-

(a) to the extent that such parts are necessarily exposed and the motion is controlled by an inching device; or

(b) to the extent that the motion is by hand power and such power and such parts are necessarily exposed; and

(c) the machinery is isolated from any source of mechanical power; and

(d) the construction, overhaul, repair or setting of machinery is carried out by persons trained for that purpose.

(2) For the purposes of this section an inching device is one that gives a limited and predetermined amount of movement each time such device is actuated.

Safety devices

39.-(1) In every room or place there shall be provided an effective device for promptly cutting off from the power in that room or place each or every machine in that room or place including transmission machinery and sufficient and suitably located points of operation for such device shall be provided.

(2) No driving belt when not in use shall be allowed to rest or ride upon a revolving shaft which forms part of the transmission machinery.

(3) Suitable striking gear or other efficient mechanical appliances shall be provided and maintained and used to move driving belts to and from fast and loose pulleys which form part of the transmission machinery, and every such gear or appliances shall be so constructed placed and maintained as to prevent the driving belt from creeping back on to the fast pulley.

Self-acting machines

40. In every factory to which this section applies, no traversing part of any self-acting machine and no material carried thereon shall, if the space over which it runs is a space over which any person is liable to pass, whether in the course of his employment or otherwise, be allowed on its outward or inward traverse to run within a distance of 455 mm from any fixed structure which is not part of the machine.

Stock-bars

41. Any material which projects beyond the headstock of a lathe shall be effectively guarded unless it is in such a position as to be as safe to every employed person as it would be if effectively guarded.

Chains, ropes and lifting tackle

42.-(1) The following provisions shall be complied with as respects every chain, rope or lifting tackle used for the purpose of raising or lowering persons, goods or materials:-

- (a) no chain, rope or lifting tackle shall be used unless it is of good construction, sound material, adequate strength and free from patent defect and shall comply where reasonably practicable with the approved standard;
- (b) subject to the provisions of subsection (2), a table showing the safe working loads of every kind and size of chain, rope or lifting tackle in use, and, in the case of a multiple sling, the safe working load at different angles of the legs, shall be posted in the store in which such chains, ropes or lifting tackle are kept, and in prominent positions on the premises, and no chain, rope or lifting tackle not shown in the table shall be used;
- (c) no chain, rope or lifting tackle shall be used for any load exceeding its safe working load as shown by the table mentioned in paragraph (b) or marked as mentioned in subsection (2);
- (d) all chains, ropes and lifting tackle in use shall be thoroughly examined by an authorised person at intervals not exceeding six months or at such greater intervals as the Minister may by order prescribe;
- (e) no chain, rope or lifting tackle, except a fibre rope or fibre rope sling, shall be taken into use in any factory for the first time in that factory unless it has been tested and thoroughly examined by or on behalf of the manufacturer and a certificate of the test and examination specifying the safe working load and signed by the person making the test and examination has been obtained and is kept available for inspection;
- (f) every chain and lifting tackle except a rope sling shall, unless of a class or description 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 treatment other than annealing approved by him, be annealed at intervals not exceeding fourteen months or, in the case of chains or slings of 12 mm bar or smaller or, chains used in connection with molten slag, in every six months;
- (g) every chain, rope and lifting tackle shall bear a distinguishing mark or number sufficient to identify it;
- (h) an approved register containing the approved particulars shall be kept in respect of all such chains, ropes or lifting tackle, except fibre rope slings.

(2) Paragraph (b) of subsection (1) shall not apply to any lifting tackle if its safe working load or, in the case of a multiple sling, the safe working load at different angles of the legs is plainly marked upon it.

Cranes and other lifting machines

43.-(1) All parts and working gear, whether fixed or movable, including the anchoring and fixing appliances, of every lifting machine shall be thoroughly examined by an authorised person at intervals not exceeding fourteen months and a register shall be kept containing the approved particulars of every such examination; and where the examination shows that the lifting machine cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time, the person making the report of the examination shall within twenty-eight days of the completion of the examination send a copy of the report to the chief inspector.

(2) All rails on which a travelling crane moves and every track on which the carriage of a transporter or runway moves shall be of proper size and adequate strength and have an even running surface and any such rails or track shall be properly laid, adequately supported or suspended and properly maintained.

(3) There shall be plainly marked on every lifting machine its safe working load or loads, 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.

(4) No lifting machine shall, except for the purpose of a test, be loaded beyond the safe working load as marked or indicated under subsection (3).

(5) No lifting machine shall be taken into use in any factory for the first time in that factory unless it has been tested and all such parts and working gear of the machine as are specified in subsection (1) have been thoroughly examined by or on behalf of the manufacturer and a certificate of the test and examination specifying the safe working load or loads of the machine and signed by the person making the test and examination has been obtained and is kept available for inspection.

(6) If any person is employed or working on or near the wheel-track of an overhead travelling crane in any place where he would be liable to be struck by the crane, effective measures shall be taken by warning the driver of the crane or otherwise to ensure that the crane does not approach within 6 metres of that place.

(7) If any person is employed or working otherwise than mentioned in subsection (6) but in a place above floor level where he would be liable to be struck by an overhead travelling crane, or by any load carried by such a crane, effective measure shall be taken to warn him of the approach of the crane, unless his work is so connected with or dependent on the movements of the crane as to make a warning unnecessary.

(8) Every crane, crab and winch shall be provided with an efficient brake or brakes or other

safety device which will prevent the fall of the load when suspended, and by which the load can be effectively controlled whilst being lowered.

(9) On every lifting machine every lever, handle, switch or other device provided for controlling the operation of any part of the machine being a lever, handle, switch or other device whose accidental movement or displacement is liable to cause danger, shall, where practicable be provided with a suitable spring or other locking arrangement to prevent the accidental movement or displacement.

(10) Every lever, handle, switch or other device provided for controlling the operation of any part of a lifting machine shall have upon or adjacent to it clear markings to indicate its purpose and mode of operation.

(11) On every crane having a derricking jib operated through a clutch there shall be provided and properly maintained an effective interlocking arrangement between the derricking clutch and the pawl sustaining the derricking drum which shall ensure that the clutch cannot be disengaged until the pawl is in effective engagement with the derricking drum and the pawl cannot be disengaged unless the clutch is in effective engagement with the derricking drum:

Provided that nothing in this subsection shall apply where-

(a) the hoisting drum and the derricking drum are independently driven; or

(b) the mechanism driving the derricking drum is self locking.

(12) (a) The jib of a Scotch derrick crane shall not be erected between the back stays of the crane.

(b) No load which lies in the angle between the back stays of a Scotch derrick crane shall be moved by the crane.

(c) Appropriate measures shall be taken to prevent the foot of the king post of every Scotch derrick crane from being lifted out of its socket or support whilst in use.

(13) All parts and working gear, whether fixed or movable including the anchoring and fixing appliances of every lifting machine, shall be inspected at least once every week by the driver, if competent for the purpose, or other competent person and a report of the results of every such inspection, signed by the person carrying out the inspection, shall be made forthwith in the approved form and containing the approved particulars.

(14) A crane, crab or winch shall not be operated by a person under seventeen years of age nor shall such a person give signals to the operator of any such crane, crab or winch.

Hoists and lifts

44.-(1) Every hoist or lift shall be of good mechanical construction, sound material and adequate strength, and shall be properly maintained.

(2) Every hoist or lift shall be thoroughly examined by an authorised person at least once in every period of six months and a report of the result of every such examination in the approved form and containing the approved particulars shall be signed by the person making the examination and shall within twenty-eight days be entered in or attached to the general

register.

(3) Where the examination shows that the hoist or lift cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time, the person making the report shall with twenty-eight days of the completion of the examination send a copy of the report to the chief inspector.

(4) Every hoistway or liftway shall be efficiently protected by a substantial enclosure fitted with gates, and the enclosure shall be such as to prevent, when the gates are shut, any person falling down the way or coming into contact with any moving part of the hoist or lift.

(5) Any such gate shall be fitted with efficient interlocking or other devices to secure that the gate cannot be opened except when the cage or platform is at the landing and that the cage or platform cannot be moved away from the landing until the gate is closed.

(6) Every hoist or lift and every such enclosure as is mentioned in subsection (4) shall be so constructed as to prevent any part of any person or any goods carried in the hoist or lift from being trapped between any part of the hoist or lift and any fixed structure or between the counterbalance weight and any other moving part of the hoist or lift.

(7) There shall be marked conspicuously on every hoist or lift the maximum working load which it can safely carry, and no load greater than that shall be carried on any hoist or lift.

Passenger hoists

45. No person shall be carried by a hoist or lift unless it is provided with a cage and-

- (a) efficient automatic devices are provided and maintained to prevent the cage over-running;
- (b) every cage shall on each side from which access is afforded to a landing be fitted with a gate, and in connection with every such gate, efficient devices shall be provided to secure that, when persons or goods are in the cage, the cage cannot be raised or lowered unless the gate is closed, and will come to rest when the gate is opened.

Steam boilers attachments and construction

46.-(1) Subject to the provisions of subsection (3), every steam boiler, whether separate or one of a range-

- (a) shall have attached to it the devices mentioned in subsection (2);
- (b) shall be provided with means for attaching a test pressure gauge; and
- (c) shall, unless externally fired, be provided with a suitable fusible plug or an efficient low water alarm device, and where reasonably practicable both a suitable fusible plug and an efficient low water alarm shall be provided.

(2) The devices referred to in subsection (1) are-

- (a) a suitable safety valve separate from any stop valve, which shall be so adjusted as to prevent the boiler being worked at a pressure greater than the maximum permissible working pressure and shall be fixed directly to, or as close as practicable to, the boiler;
- (b) a suitable stop valve connecting the boiler to the steam pipe
- (c) a correct steam pressure gauge-connected to the steam space and easily visible by the boiler attendant which shall indicate the pressure of steam in the boiler and have marked on it in a distinctive colour the maximum permissible working pressure, such marking to be on the dial face;
- (d) at least one water gauge of transparent material or other type approved by the chief inspector to show the water level in the boiler and if the gauge is of the glass tubular type it shall have an efficient guard so provided so as not to obstruct the reading of the gauge;
- (e) where the boiler is one of two or more boilers, a plate bearing a distinctive number which shall be easily visible.

(3) Paragraph (b) of subsection (2) shall not apply to economisers and paragraph (c), (d) and (e) of that subsection and paragraph (b) and (c) of subsection (1) shall not apply to either economisers or superheaters.

(4) For the purposes of the foregoing provisions of this section a lever-valve shall not be deemed a suitable safety valve unless the weight is secured on the lever in the correct position.

(5) Every part of every steam boiler shall be of good construction, sound material and adequate strength and free from patent defect, and where reasonably practicable comply with an approved standard.

Steam boilers-maintenance, examinations and use

47.-(1) Every steam boiler and all its fittings and attachments shall be properly maintained.

(2) A steam boiler shall not be used in any factory or in any other place to which this Act applies unless it has been examined together with its fittings and attachments by an authorised person in such manner as the Minister may by order prescribe and no greater period than may be so prescribed has elapsed since the examination.

(3) A steam boiler, together with its fittings and attachments shall not be used after repairs have been carried out until an examination has been made in such manner as the Minister may by order prescribe and where such repairs are carried out to a steam boiler after it has been examined under subsection (2) then notwithstanding that the period set out in the order has not expired, the steam boiler shall not be used in any factory or in any other place to which this Act applies until the examination set out in the order has been made.

(4) A report of the result of every examination under this section in the approved form and containing the approved particulars (including the maximum permissible working pressure) shall as soon as practicable and in any case within twenty-eight days, after the completion of the examination be entered in or attached to the general register and the report shall be signed by the person making the examination, and if that person is an inspector of a boiler-inspecting company or association countersigned by the chief engineer of the company or association or

by such other responsible officer of the company or association as may be authorised in writing in that behalf of the chief engineer.

(5) No new steam boiler shall be taken into use unless there has been obtained from the manufacturer of the boiler or from a boiler-inspecting company or association a certificate specifying its maximum permissible working pressure and stating the nature of the tests to which the boiler and fittings have been submitted, and the certificate is kept available for inspection and the boiler is so marked as to enable it to be identified as the boiler to which the certificate relates.

(6) Where the report of any examination under this section specifies conditions for securing the safe working of a steam boiler, the boiler shall not be used except in accordance with these conditions.

(7) The person making the report of an examination under this section, or in the case of a boiler-inspecting company or association, the chief engineer thereof, shall within twenty-eight days after the completion of the examination send to the chief inspector a copy of the report in every case where the maximum permissible working pressure is reduced, or the examination shows that the boiler cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified period.

(8) If the person employed to make any such examination fails to make a thorough examination as required by this section or makes a report which is false or deficient in any material particulars, or if the chief engineer of any boiler-inspecting company or association permits any such report to be made, he shall be guilty of an offence and liable to a fine of not less than forty dollars and not exceeding two hundred dollars and if any such person or chief engineer fails to send to the chief inspector a copy of any report as required by subsection (7) he shall be guilty of an offence.

(9) If the chief inspector is not satisfied as to the thoroughness of the examination, he may require the boiler to be re-examined by a person nominated by him, and the occupier shall give the necessary facilities for the re-examination.

(10) If as a result of the re-examination it appears that the report of the examination was inadequate or inaccurate in any material particular, the report of the re-examination purporting to be signed by the person making it shall be admissible in evidence of the facts stated therein.

Steam boilers-restrictions on entry

48. No person shall enter or be 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 the entry of steam or hot water are closed and securely locked, and, where the boiler has a blow-off pipe in common with one or more other boilers or delivering into a common blow-off vessel or sump, the blow-off valve or tap on each such boiler is so constructed that it can only be opened by a key which cannot be removed until the valve or tap is closed and is the only key in use for that set of blow-off valves or taps.

Steam receivers and steam containers

49.-(1) Every steam receiver not so constructed and maintained as to withstand with safety the maximum permissible working pressure of the boiler or the maximum pressure which can be obtained in the pipe connecting the receiver with any other source of supply, shall be fitted with-

(a) a suitable reducing valve or other suitable automatic appliance to prevent the safe working pressure being exceeded;

(b) a suitable safety valve so adjusted as to permit the steam to escape as soon as the safe working pressure is exceeded, or a suitable appliance for cutting off automatically the supply of steam as soon as the safe working pressure is exceeded; and

(c) a correct steam pressure gauge, which must indicate the pressure of steam in the receiver and have marked on it in a distinctive colour the safe working pressure, such marking to be on the dial face;

(d) a suitable stop valve; and

(e) except where only one steam receiver is in use, a plate bearing a distinctive number which shall be easily visible.

(2) The safety valve and pressure gauge shall be fitted either on the steam receiver or on the supply pipe between the receiver and the reducing valve or other appliance to prevent the safe working pressure being exceeded.

(3) Where any set of receivers is supplied with steam through a single pipe and the reducing valve or other appliance required by paragraph (a) of subsection (1) is fitted at that pipe, the set shall be treated as one receiver for the purposes of paragraphs (a) to (c) of subsection (1) and for the purposes of subsection (2) if the set forms part of a single machine also for the purposes of paragraph (d) of subsection (1).

(4) Every part of every steam receiver shall be of good construction, sound material, adequate strength and free from patent defect, and comply with the approved standard where reasonably practicable.

(5) Every steam receiver and its fittings shall be properly maintained and shall be thoroughly examined by an authorised person, so far as the construction of the receiver permits, at least once in every period of twenty-six months.

(6) A report of the result of every such examination containing the approved particulars (including particulars of the safe working pressure) shall be entered in or attached to the general register.

(7) Where the examination shows that the steam receiver or its fittings cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time the person making the report of the examination shall within twenty-eight days of the completion of the examination send a copy of the report to the chief inspector.

(8) If the person employed to make any such examination fails to make a thorough examination as required by this section or makes a report which is false or deficient in any material particular, or if the chief engineer of any inspecting company or association permits any such report to be made, he shall be guilty of an offence and liable to a fine of not less than forty dollars and not exceeding two hundred dollars and if any such person or chief engineer fails to send to the chief inspector a copy of any report as required by subsection (7) he shall be guilty of an offence.

(9) If the chief inspector is not satisfied as to the thoroughness of the examination, he may require the receiver to be re-examined by a person nominated by him, and the occupier shall give the necessary facilities for the re-examination.

(10) If as a result of the re-examination it appears that the report of the examination was inadequate or inaccurate in any material particular, the report of the re-examination purporting to be signed by the person making it shall be admissible in evidence of the facts stated therein.

(11) Every steam container shall be so maintained as to ensure that the outlet is at all times kept open and free from obstruction.

Air receivers

50.-(1) Every air receiver-

- (a) shall have marked on it so as to be plainly visible the safe working pressure; and
- (b) if it is connected with an air compressing plant shall either be so constructed as to withstand with safety the maximum pressure that can be obtained in the compressor, or be fitted with a suitable reducing valve or other suitable appliance to prevent the safe working pressure of the receiver being exceeded; and
- (c) shall be fitted with a suitable safety valve so adjusted as to permit the air to escape as soon as the safe working pressure is exceeded; and
- (d) shall be fitted with a correct pressure gauge indicating the pressure in the receiver and have marked on it in a distinctive colour the safe working pressure, such marking to be on the dial face; and
- (e) shall be fitted with a suitable appliance for draining the receiver; and
- (f) shall be provided with a suitable manhole, handhole, or other means which will allow the interior to be thoroughly cleaned; and
- (g) in a case where more than one receiver is in use in the factory, shall bear a distinguishing mark which shall be easily visible.

(2) For the purpose of the provisions of subsection (1) relating to safety valves and pressure gauges any set of air receivers supplied with air through a single pipe may be treated as one receiver but, where a suitable reducing valve or other suitable appliance to prevent the safe working pressure being exceeded is required to be fitted, only if the valve or appliance is fitted on that pipe.

(3) Every air receiver and its fittings shall be of good construction, sound material, adequate

strength and free from patent defect, and where reasonably practicable comply with an approved standard.

(4) Every air receiver and its fittings shall be properly maintained and shall be thoroughly cleaned and examined by an authorised person at least once in every period of twenty-six months, except that in the case of a receiver of solid drawn construction-

(a) the person making any such examination may specify in writing a period exceeding twenty-six months but not exceeding four years within which the next examination is to be made; and

(b) if it is so constructed that the internal surface cannot be thoroughly examined a suitable hydraulic test of the receiver shall be carried out in lieu of internal examination.

(5) A report of the result of every such examination containing the approved particulars (including particulars of the safe working pressure) shall be entered in or attached to the general register.

(6) Where the examination shows that the air receiver or its fittings cannot continue to be used with safety unless certain repairs are carried out immediately or within a specified time the person making the report of the examination shall, within twenty-eight days of the completion of the examination send a copy of the report to the chief inspector.

(7) If the person employed to make any such examination fails to make a thorough examination as required by this section or makes a report which is false or deficient in any material particular, or if the chief engineer of any inspecting company or association permits any such report to be made, he shall be guilty of an offence and liable to a fine of not less than forty dollars and not exceeding two hundred dollars and if any such person or chief engineer fails to send to the chief inspector a copy of any report as required by subsection (6) he shall be guilty of an offence.

(8) If the chief inspector is not satisfied as to the thoroughness of the examination, he may require the receiver to be re-examined by a person nominated by him, and the occupier shall give the necessary facilities for the re-examination.

(9) If as a result of the re-examination it appears that the report of the examination was inadequate or inaccurate in any material particular, the report of the re-examination purporting to be signed by the person making it shall be admissible in evidence of the facts stated therein.

Exceptions as to steam boilers, steam receivers and containers and air receivers

51.-(1) The chief inspector may by certificate except from all or any of the provisions of section **46** to **50** any class or type of steam boiler, steam receiver, steam container or air receiver to which he is satisfied that the provisions cannot reasonably be applied.

(2) Any such exception may be unqualified or may be subject to such conditions as may be contained in the certificate.

(3) Nothing in sections 46 to 48 inclusive shall apply to the boiler of any ship if subject to periodic examination under any other written law.

Fees

52. The fees to be paid for the examinations required under sections **42, 43, 44, 47, 49** and **50** shall be such amounts as may be specified by the Minister by order.

Gas cylinders and acetylene generators

53.-(1) All cylinders for compressed, liquefied and dissolved gases and all generators for the production of acetylene together with their fittings and attachments shall be of good construction, sound material, adequate strength and free from patent defect and shall be properly maintained.

(2) 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 with 4.5 metres of any substantial source of heat other than the burner or blow-pipe operated from the cylinder or plant.

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

(4) Partly spent calcium carbide shall not be recharged into an acetylene generator.

(5) No person shall smoke or strike a light or take a naked light or a lamp in or into any acetylene generator house or shed or in or into dangerous proximity to any acetylene generating plant.

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

PART VI-PARTICULAR HAZARDS AND PARTICULAR CONDITIONS

Electricity

54.-(1) All electrical apparatus, fittings and conductors shall be sufficient in size and power for the work that they are called upon to do and so constructed, installed, protected, worked and maintained as to prevent danger so far as is reasonably practicable.

(2) Where any electrically charged overhead cable or apparatus is liable to be a source of danger to persons employed whether from the operation of a lifting machine or otherwise, all practicable precautions shall be taken to prevent such danger either by the provisions of adequate and suitably placed barriers or otherwise.

Precautions with respect to explosive or inflammable dust, gas, vapour or substance

55.-(1) Where, in connection with any grinding, sieving or other process giving rise to dust, there may escape dust of such a character and to such an extent as to be liable to explode on ignition, all practicable steps shall be taken to prevent such an explosion by enclosure of the plant used in the process, and by removal or prevention of accumulation of any dust that may escape in spite of the enclosure, and by exclusion or effective enclosure of possible sources of ignition.

(2) Where there is present in any plant used in any such process as aforesaid, dust of such a character and to such an extent as to be liable to explode on ignition, then, unless the plant is so constructed as to withstand the pressure likely to be produced by any such explosion, all practicable steps shall be taken to restrict the spread and effects of such an explosion by the provision, in connection with the plant, of chokes, baffles and vents, or other equally effective appliances.

(3) Where any part of a plant contains any explosive or inflammable gas or vapour under pressure greater than atmospheric pressure, that part shall not be opened, except in accordance with the following provisions:-

- (a) before the fastening of any joint of any pipe connected with the part of the plant or the fastening of the cover of any opening into the part is loosened, any flow of the gas or vapour into the part or into any such pipe shall be effectively stopped by a stop-valve or otherwise;
- (b) before any such fastening is removed, all practicable steps shall be taken to reduce the pressure of the gas or vapour in the pipe or part of the plant to atmospheric pressure;

and if any such fastening has been loosened or removed, no explosive or inflammable gas or vapour shall be allowed to enter the pipe or part of the plant until the fastening has been secured or, as the case may be, securely replaced; but nothing in this subsection applies to a plant installed in the open air.

(4) No plant, tank or vessel which contains or has contained any explosive or inflammable substance shall be subjected-

- (a) to any welding, brazing or soldering operation;
- (b) to any cutting operation which involves the application of heat; or
- (c) to any operation involving the application of heat for the purpose of taking apart or removing the plant, tank or vessel or any part thereof;

until all practicable steps have been taken to remove the substance and any fumes arising from it, or to render them non-explosive or non-inflammable; and if any plant, tank or vessel has been subjected to any such operation, no explosive or inflammable substance shall be allowed to enter the plant tank or vessel until the metal has cooled sufficiently to prevent any risk of igniting the substance.

(5) The chief inspector may by certificate grant, subject to any conditions specified in the certificate, exemption from compliance with any of the requirements of subsections (3) and (4) in any case where he is satisfied that compliance with such requirements is unnecessary or impracticable.

Dangerous fumes and lack of oxygen

56.-(1) The provisions of subsections (2) to (8) inclusive shall have effect where work in any factory has to be done inside any chamber, tank vat, pit, pipe, flue or similar confined space, in which dangerous fumes are liable to be present to such an extent as to involve risk of persons being overcome thereby.

(2) The confined space shall, unless there is other adequate means of egress, be provided with a manhole, which may be rectangular, oval or circular in shape, and shall be not less than 455 mm long and 405 mm wide, or, if circular, not less than 455 mm in diameter, or in the case of tank wagons and other mobile plant, not less than 405 mm long and 355 mm wide or, if circular, not less than 405 mm in diameter.

(3) Subject to the provisions of subsection (4), no person shall enter or remain in such confined space for any purpose unless he is wearing a suitable breathing apparatus and has been authorised to enter by a responsible person and, where practicable, he is wearing a belt with a rope securely attached and a person keeping watch outside and capable of pulling him out is holding the free end of the rope.

(4) Where a confined space has been certified by a responsible person as being, for a specified period, safe for entry without breathing apparatus and the period so specified has not expired, the provisions of subsection (3) shall not apply but no person shall enter or remain in such space unless he has been warned when that period will expire.

(5) A confined space may not be certified under the provisions of subsection (4) unless-

(a) effective steps have been taken to prevent any egress 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 paragraph (b) of any deposit or other material liable to give off dangerous fumes in insignificant quantities only.

(6) There shall be provided and kept readily available a sufficient supply of breathing apparatus of a type approved by the chief inspector, of belts and ropes, and of suitable reviving apparatus and oxygen, and the apparatus, belts and ropes 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.

(7) A sufficient number of the persons employed shall be trained and practised in the use of the apparatus mentioned in subsection (6) and in a method of restoring respiration.

(8) The chief inspector may by certificate grant, subject to any conditions specified in the certificate, exemption from compliance with any of the requirements of the foregoing provisions of this section in any case where he is satisfied that compliance with those

requirements is unnecessary or impracticable.

(9) No person shall enter or remain in any confined space in which the proportion of oxygen in the air is liable to have been substantially reduced unless either-

(a) he is wearing a suitable breathing apparatus; or

(b) the space has been and remains adequately ventilated and a responsible person has tested and certified it safe for entry without breathing apparatus.

(10) 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.

Prohibitions of use of white phosphorus in manufacture of matches

57.-(1) No person shall use white phosphorus in the manufacture of matches.

(2) For the purpose of this Part, "white phosphorus" means the substance usually known as white or yellow phosphorus.

Corrosive liquids

58. Where corrosive liquids are used there shall be provided for use in case of emergency-

(a) adequate and readily accessible means for drenching with water, employed persons who have become splashed with such liquids;

(b) sufficient and suitable means of flushing the eyes, conveniently situated and clearly indicated by a distinctive sign which is visible at all times.

Entry into spaces containing harmful liquids

59. No person shall enter a confined space where there is danger from harmful liquids, namely hot, scalding, corrosive, burning or toxic liquids or any other liquid liable to cause injury to health, unless effective steps have been taken by disconnection or isolation to prevent the entry of the harmful liquid into the confined space and the confined space has been made safe.

Lifting of heavy weights

60. A person shall not be employed to lift, carry or move any load so heavy as to be likely to cause injury to him.

Noise

61.-(1) Noise shall be reduced in any factory as far as is reasonably practicable.

(2) If it is not reasonably practicable to reduce the level of noise below 90 decibels, ear defenders shall be provided for all persons employed who are continuously exposed to noise levels above this figure.

Radiations and vibrations

62. No employed person shall be exposed to ionising radiations, lasers, microwaves, ultra-violet or infra-red light or ultrasonic vibrations more than is reasonably necessary for the purpose of his work.

Protecting of eyes

63. Suitable eye protection shall be provided for all employed persons where there are circumstances involving special danger to their eyes.

Laundries

64. In every laundry-

- (a) effective steps shall be taken by means of a fan or otherwise to regulate the temperature in every ironing room and to carry away the steam in every washhouse;
- (b) all stoves for heating irons shall be so separated from any ironing room or ironing table as to protect the workers from the heat thereof.

PART VII-NOTICES, RECORDS AND DUTIES

Notice of occupation

65.-(1) Subject to the provisions of subsection (3), every person who begins to occupy or to use any premises as a factory shall, not less than one month before he does so, serve on the chief inspector, a written notice stating the name of the occupier or the title of the firm, the postal address of the factory, the nature of the work, whether mechanical power is to be used, and, if so, its nature, the name of the local authority within whose area the factory is situated and such other particulars as may be prescribed.

(2) Subject to the provisions of subsection (3), not less than one month before the date on which mechanical power is first used in a factory, the occupier shall serve on the chief inspector a written notice stating the nature of the mechanical power.

(3) A person may begin to occupy, or to use any premises as a factory, and mechanical power may be first used in a factory, less than one month after the notice required by the foregoing provisions of this section has been served, if the chief inspector gives written permission and a person may also begin to occupy a factory less than one month after the notice has been served or before serving the notice, if he takes over from another person without changing the nature of the work and the notice is served as soon as practicable and any case within one

month of his taking over.

(4) If a person begins to occupy, or to use any premises, as a factory before he is entitled to do so under the foregoing provisions of this section, or if a person entitled thereunder to occupy a factory before giving notice fails to give the required notice within the time allowed he shall be guilty of an offence and liable on conviction to a fine of not less than five dollars and not exceeding eighty dollars for the first day and not less than five dollars and not exceeding twenty dollars for each subsequent day during which he occupies the factory, or uses the premises as a factory as aforesaid or during which he fails to give the notice after the expiration of the time allowed, as the case may be.

Posting of abstract of Act

66.-(1) Subject to the provisions of subsection (2), there shall be kept posted at the principal entrances of a factory at which employed persons enter-

- (a) the approved abstract of this Act;
- (b) every notice and document required by this Act to be posted in the factory.

(2) An inspector may direct that all or any of the documents mentioned in subsection (1) shall be posted in such parts of the factory either in addition to or in substitution for the principal entrances, as he may direct.

(3) All such documents shall be posted in such characters and in such positions as to be conveniently read by the persons employed in the factory and, if a form has been prescribed for any document, it shall be posted in that form.

(4) If any person pulls down, injures or defaces any abstract, notice, **regulations** or other document posted in pursuance of this Act, he shall be guilty of an offence and liable to a fine of not less than five dollars and not exceeding twenty dollars.

Provisions as to regulations

67.-(1) Printed copies of all regulations for the time being in force in any factory or the approved abstract of such regulations shall be kept posted in the factory in such characters and in such positions as to be conveniently read by the persons employed in the factory.

(2) A printed copy of all such regulations shall be given by the occupier to any person affected thereby on his application.

General Registers

68.-(1) There shall be kept in every factory or in such place outside the factory as may be

approved by the chief inspector, a register in the prescribed form called the general register, and there shall be entered in or attached to that register-

- (a) the prescribed particulars as to the washing, white-washing or colour washing, painting or varnishing, of the factory; and
- (b) the prescribed particulars as to every accident and case of industrial disease occurring in the factory of which notice is required to be sent to the Permanent Secretary for Labour; and
- (c) all reports and particulars required by any other provision of this Act to be entered in or attached to the **general** register; and
- (d) such other matters as may be prescribed.

(2) Every occupier of a factory shall send to an inspector such extracts from the general register as the inspector may from time to time require for the purpose of the execution of his duties under this Act.

Preservation of registers and records

69. The general register and every other register or record kept in pursuance of this Act shall be preserved and shall be kept available for inspection by any inspector for at least two years or such other period as may be prescribed for any class or description of register or record after the date of the last entry in the register or record.

Duties of persons employed

70.-(1) No person employed in a factory or in any other place to which any of the provisions of this Act apply shall wilfully interfere with or misuse any means, appliance, convenience or other thing provided in pursuance of this Act for securing the health, safety or welfare of the persons employed in such factory or place, and where any means or appliance for securing health or safety is provided for the use of any such person under this Act, he shall use the means or appliance.

(2) No person employed in a factory or in any other place to which any provisions of this Act apply shall wilfully and without reasonable cause do anything likely to endanger himself or others.

Registration of factories

71. The chief inspector shall keep a register of factories in which he shall cause to be entered such particulars as are required to be entered under this Act in relation to every factory as he may consider necessary or desirable.

PART VIII-ADMINISTRATION, OFFENCES, PENALTIES AND LEGAL PROCEEDINGS

Appointment of inspectors

72.-(1) The chief inspector shall, subject to the directions of the Minister, be responsible for the administration of this Act.

(2) The Minister may appoint such inspectors, under whatever title he may from time to time determine and such other officers as he thinks necessary for the execution of this Act and may appoint a chief inspector, and may regulate the cases and manner in which the inspectors or any of them are to execute and perform the powers and duties of inspection under this Act and may remove such inspectors and other officers.

Powers of inspectors

73.-(1) An inspector shall, for the purpose of the carrying out of the provisions of this Act, have power-

(a) to take photographs;

(b) to enter, inspect and examine, by day or by night, a factory, and every part thereof, when he has reasonable cause to believe that any person is employed therein, and to enter, inspect and examine by day, any place in which he has reasonable cause to believe that explosive or highly inflammable materials are stored or used;

(c) to take with him a police officer if he has reasonable cause to suspect the existence of any serious obstruction in the execution of his duty;

(d) to require the production of the registers, certificates, notices and documents, directed to be kept in pursuance of this Act and to inspect, examine and copy any of them;

(e) to make such examination and inquiry as may be necessary to ascertain whether the provisions of this Act are complied with, so far as respects a factory and any persons employed in a factory;

(f) to require any person whom he finds in a factory to give such information as it is in his power to give as to who is the occupier of the factory;

(g) to examine, either alone or in the presence of any other person as he thinks fit, with respect to matters under this Act, every person whom he finds in a factory or whom he has reasonable cause to believe to be or to have been within the preceding three months employed in a factory, and to require every such person to be so examined and to sign a declaration of the truth of the matters respecting which he is so examined so however, that no one shall be required under this provision to answer any question or to give any evidence tending to incriminate himself;

(h) in the case of an inspector who is a duly registered medical practitioner, to carry out such medical examinations as may be necessary for the purposes of his duties under this Act;

(i) to exercise such other powers as may be necessary for carrying this Act into effect.

(2) An inspector if so authorised in writing by the Minister may, although he may not be a qualified barrister and solicitor, prosecute, conduct or defend in any legal proceedings arising under this Act or in the discharge of his duties as an inspector.

(3) Where the chief inspector is of the opinion that the employment of any child or young person in a factory or in any particular process or kind of work in factory is prejudicial to his health or the health of any other person, he may serve written notice thereof on the occupier of the factory requiring that the employment of that child or young person in the factory or in

the process or kind of work, as the case may be, be discontinued after the period named therein, not being less than one nor more than seven days after the service of the notice and the occupier shall not continue after the period named in the notice to employ that child or young person, unless, after the service of the notice, the child or young person has been examined by a duly registered medical practitioner, and certified by him to be fit for employment in the factory or in the process or kind of work as the case may be.

(4) An inspector may at any time after informing the occupier or, if the occupier is not readily available a foreman or other person in charge in the factory, take sufficient samples of any substance or object used or intended to be used in a factory being a substance or object in respect of which he suspects a contravention of this Act has occurred, is occurring or is likely to occur or which he thinks in the case of a substance may prove on analysis to be likely to cause bodily injury to the persons employed.

(5) The occupier, the foreman or other such person aforesaid may, at the time when a sample of a substance is taken under the provisions of this section, and on providing the necessary appliances, require the inspector to divide the sample into three parts, to mark and seal or fasten up each part in such manner as its nature permits and-

(a) to deliver one part to the occupier, or the foreman or other responsible person aforesaid;
(b) to retain one part for future comparison;
(c) to submit one part to an analyst and any analysis under the provisions of this section shall, if so requested, be carried out by the Government Analyst.

(6) A certificate purporting to be a certificate by the Government Analyst as to the result of an analysis of a sample under this section shall in any proceedings under this Act be admissible as evidence of the matters stated therein, but either party may require the person by whom the analysis was made to be called as a witness.

(7) It shall not be lawful for any person except in so far as is necessary for the purpose of a prosecution for an offence under this Act to publish or disclose to any person the results of any analysis made under this section, and if any person acts in contravention of the provisions of this subsection, he shall upon conviction be liable to a fine of not less than forty dollars and not exceeding four hundred dollars.

Certificates of appointment of inspector

74. Every inspector shall be furnished with a certificate of his appointment, and when visiting a factory or place to which any of the provisions of this Act apply shall, if required, produce the said certificate to the occupier of, or other person holding a responsible position of management at the factory.

Penalty for disclosure of trade secrets

75. If any person who, in pursuance of powers conferred by this Act enters or is admitted into any factory or place, discloses without the permission of the occupier, to any person, any information obtained by him in a factory or place with regard to any manufacturing process

or trade secret, he shall, unless such disclosure was made in the performance of his duty, be guilty of an offence and liable to a fine of not less than forty dollars and not exceeding four hundred dollars.

Duty to furnish means for inspectors

76. The occupier of every factory, his agents and employees shall furnish the means required by an inspector as necessary for an entry, inspection, examination, inquiry, the taking of samples, or otherwise for the exercise of his powers under this Act in relation to that factory.

Issue and revocation of certificates

77. Any certificate issued under or for the purposes of this Act by the chief inspector may be issued for a limited period or without limit of period and may be varied or revoked by the chief inspector issuing the same, or any successor to him in office.

Power of chief inspector to make orders

78.-(1) If, in the opinion of the chief inspector, the use of any factory or any part thereof or of any machinery, plant, appliance or fitting therein or any process or work therein involves imminent danger of grave bodily injury, he may serve on the occupier of the factory an order in writing prohibiting the use thereof until such danger is removed to the satisfaction of the chief inspector.

(2) Any person aggrieved by an order as aforesaid may by complaint to a magistrate's court apply for the order to be set aside or varied and upon such application, the chief inspector shall be entitled to be heard and the order shall continue to have effect unless and until it is set aside or varied by the court.

(3) In the event of a failure of the occupier of any factory to comply with an order lawfully given under subsection (1), the occupier shall be guilty of an offence and upon conviction shall, without prejudice to any other penalty, be liable to a fine of not less than sixty dollars and not exceeding six hundred dollars.

Power of court to make orders

79.-(1) Where a magistrate's court is satisfied on complaint by an inspector that any premises which are or are part of or are intended to be used as a factory are in such condition or are so constructed or placed, that any process or work carried on therein, or intended to be carried on therein, cannot be so carried on with due regard to the safety, health and welfare of the persons employed, the court may by order prohibit the use thereof for the purpose of that process or work, and in the case of premises which are intended for use as a factory, the court may make such an order if satisfied on complaint by an inspector that the process or work cannot be carried on therein without contravention to this Act; but any such order may be revoked or varied on the application by way of complaint of the occupier or owner of the premises.

(2) Where a magistrate's court is satisfied on complaint by an inspector that the carrying on of any process or work may involve any risk of bodily injury, the court may, by order prohibit such process or work, either indefinitely, or until such steps have been taken as may be

specified in that order to enable the process or work to be carried on with due regard to the safety, health and welfare of the persons employed, but any such order may be revoked or varied on the application by way of complaint of the occupier or owner of the premises.

(3) On any application for the revocation or variation of an order under the preceding subsections of this section, an inspector shall be entitled to be heard.

Offences, penalties and legal proceedings

80.-(1) In the event of any contravention in or in connection with or in relation to a factory of the provisions of this Act, the occupier or, if the contravention is one in respect of which the owner is by or under this Act made responsible, the owner, of the factory shall, subject as hereinafter in this Act provided, be guilty of an offence.

(2) In the event of a contravention by an employed person of the provisions of this Act with respect to duties of persons employed that person shall be guilty of an offence and the occupier or owner, as the case may be, shall not be guilty of an offence in respect of that contravention unless it is proved that he failed to take all reasonable steps to prevent the contravention, but this subsection shall not be taken as affecting any liability of the occupier or owner in respect of the same matters by virtue of some provision other than the provisions or provision aforesaid.

(3) If the occupier of a factory avails himself of any special exception allowed by or under this Act, and fails to comply with any of the conditions attached to the exception, he shall be deemed to have contravened the provisions of this Act.

(4) If any persons are employed in a factory otherwise than in accordance with the provisions of this Act, there shall be deemed to be a separate contravention in respect of each person so employed.

(5) Where an offence under this Act committed by a company, co-operative society or other body of persons is proved to have been committed with the consent or connivance of, or to have been facilitated by any neglect on the part of any director, chairman, manager, secretary or other officer of the company, co-operative society or other body of persons, he, as well as the company, co-operative society or other body of persons, shall be deemed to be guilty of an offence and shall be liable to be proceeded against and punished accordingly.

Provisions regarding continuing offences

81.-(1) It is hereby declared that where the contravention of any provision of this Act is a continuing offence-

(a) the recommencement of such offence after any interval constitutes a fresh offence;
(b) a prosecution may be instituted, and the person accused may be convicted and sentenced from time to time in relation to any portion of the period during which the offence continues to be committed not being a portion of such period in relation to which the person accused has been previously convicted and sentenced for the offence.

(2) Where any offence is committed under this Act by reason of a failure to make an

examination, enter a report, or do any other thing, at or within a time specified by this Act, the offence shall be deemed to continue until the examination is made, or the report entered, or the other thing done, as the case may be.

Fines for offences for which no express penalty provided

82.-(1) Subject to the following provisions of this Act any person convicted of an offence under this Act for which no express penalty is provided by this Act shall be liable upon conviction-

(a) if he is an employed person to a fine of not less than five dollars and not exceeding fifty dollars;

(b) in any other case, to a fine of not less than twenty dollars and not exceeding two hundred dollars; and if the contravention in respect of which he is convicted is continued after the conviction he shall, subject to the provisions of section **81**, be guilty of a further offence and liable on conviction to a fine of not less than five dollars and not exceeding fifty dollars for each day on which the contravention is continued.

(2) In relation to a contravention which in the opinion of the court was likely to cause the death of, or bodily injury to, any person, the provisions of subsection (1) shall have effect as if for the references in paragraphs (a) and (b) to five dollars, fifty dollars, twenty dollars and two hundred dollars, there were respectively substituted references to fifteen dollars, one hundred and fifty dollars, sixty dollars and six hundred dollars.

(3) The whole or any part of the fine may be applied for the benefit of the injured person or his family or otherwise, as the court may determine.

Fine for offence by parent

83. If a young person or child is employed in any factory in contravention of the provisions of this Act, the parent of that young person or child shall be guilty of an offence and liable to a fine of not less than five dollars and not exceeding fifty dollars unless it appears to the court that the contravention occurred without the consent, connivance, or wilful default of the parent.

Forgery of certificates, false entries and false declarations

84. If any person-

(a) forges or counterfeits any certificate required by, under or for the purposes of this Act;

(b) gives or signs any such certificate knowing it to be false in any material particular;

(c) knowingly utters or makes use of any such certificate so forged, counterfeited, or false as aforesaid;

(d) knowingly utters or makes use of as applying to any person any such certificate which does not so apply;

(e) personates any person named in any such certificate;

(f) falsely pretends to be an inspector;

(g) wilfully makes a false entry in any register, notice, certificate or document required by, under or for the purposes of this Act to be kept or served or sent;

- (h) wilfully makes or signs a false declaration required by, under or for the purposes of this Act;
- (i) knowingly makes use of any such false entry or declaration as aforesaid,

he shall, without prejudice to any other penalty, be guilty of an offence under this Act, and liable on conviction to a fine of not less than forty dollars and not exceeding four hundred dollars.

Obstruction of an inspector

85.-(1) If any person wilfully delays an inspector in the exercise of any power under this Act, or fails to comply with the requisition of an inspector in pursuance of this Act, or to produce any register, certificate, notice or document which he is required by or in pursuance of this Act to produce or wilfully withholds any information as to who is the occupier of any factory or conceals or prevents, or attempts to conceal or prevent, a person from appearing before or being examined by an inspector, that person shall be deemed to have obstructed an inspector in the execution of his duties under this Act.

(2) Where an inspector is obstructed in the execution of his powers or duties under this Act, the person obstructing him shall be guilty of an offence, and liable on conviction to a fine of not less than five dollars and not exceeding fifty dollars and where an inspector is so obstructed in a factory, the occupier of that factory shall be guilty of an offence.

Power of person primarily liable to exempt him self from liability

86.-(1) Where the occupier or owner of a factory is charged with an offence under this Act, he shall be entitled upon information duly laid by him and on giving to the prosecution not less than three days' notice in writing of his intention to have any other person whom he charges as the actual offender brought before the court at the time appointed for hearing the charge, and if, after the commission of the offence has been proved, the occupier or owner of the factory proves to the satisfaction of the court-

- (a) that he has used all due diligence to enforce the execution of this Act and of any relevant order or **regulation** made thereunder; and
- (b) that the said other person had committed the offence in question without his consent, connivance or wilful default,

that other person shall be liable to conviction for the offence and the occupier or owner shall not be guilty of the offence, and the other person if so convicted shall, in the discretion of the court, be also liable to pay any costs incidental to the proceedings.

(2) The prosecution shall have the right in any such case to cross-examine the occupier or owner if he gives evidence and any witnesses called by him in support of his charge, and to call rebutting evidence.

(3) When it appears to the satisfaction of an inspector at the time of discovering an apparent offence-

- (a) that the occupier or owner, as the case may be, of the factory has used all due diligence to enforce the execution of this Act; and
- (b) by what person the offence has been committed; and
- (c) that it has been committed without the consent, connivance or wilful default of the occupier or owner and in contravention of his orders,

the inspector shall proceed against the person whom he believes to be the actual offender without first proceeding against the occupier or owner of the factory.

Proceedings against persons other than occupiers or owners

87. Where, under this Act, any person is substituted for the occupier or owner with respect to any provisions of this Act, any order, summons, notice, or proceeding, which for the purpose of any of those provisions is by or under this Act required or authorised to be served on or taken in relation to the occupier or owner, is hereby required or authorised as the case may be, to be served on or taken in relation to that person.

Owner of machine liable in certain cases instead of occupier

88. Where in a factory the owner or hirer of a machine or implement moved by mechanical power is some person other than the occupier of the factory, the owner or hirer shall, so far as respects any offence under this Act committed in relation to a person who is employed in or about or in connexion with that machine or implement, and is in the employment or pay of the owner or hirer, be deemed to be the occupier of the factory.

Examination where authorised person not available

89.-(1) In respect of any periodical examination required by this Act to be carried out by an authorised person, in the event of that examination not being done within the specified period by reason of the occupier or owner not having been able to arrange for an authorised person to carry out that examination, he shall forthwith notify the chief inspector by registered post of the circumstances and shall give particulars of the machinery or plant concerned and of the last examination carried out as required by this Act and by whom it was carried out.

(2) Thereafter and until thirty days after the chief inspector has notified the occupier or owner, as the case may be, of an authorised person who has agreed to carry out the said examination within the next thirty days, the occupier or owner, as the case may be, shall not be guilty of an offence by reason only of the contravention of the particular provision requiring that examination.

Prosecution of offences

90.-(1) In any proceedings under this Act it shall be sufficient in the information to allege that the factory is a factory within the meaning of this Act and to state the name of the ostensible occupier of the factory, or, where the occupier is a firm, the title of the firm.

(2) Where, with respect to or in consequence of any accident in a factory a report is made by any authority appointed to hold a formal investigation under any law, or an inquest is held, and it appears from the report, or from the proceedings at the inquest, that any of the provisions of this Act were not complied with at or before the time of the accident, proceedings against any person liable to be proceeded against in respect of such non-compliance may be commenced at any time within three months after the magistrate holding the inquest has set out his findings.

(3) Where a proceeding is taken before a court with respect to an offence under this Act alleged to be committed in or with reference to a factory, no person shall be qualified to act as a member of the court who is the occupier or owner of the factory, or the husband, wife, parent, son, daughter, brother or sister of the occupier or owner of the factory, or a person engaged in, or an officer of any association of persons engaged in, the same trade or occupation as any person charged with the offence.

Special provisions as to evidence

91.-(1) If a person is found in a factory at any time at which work is going on or the machinery is in action, except during the intervals for meals or rest, he shall, until the contrary is proved, be deemed for the purposes of this Act to have been employed in the factory: Provided that this subsection shall not apply to a factory in which the only persons employed therein are members of the same family dwelling there.

(2) Where in any proceedings under this Act with respect to a child or young person it appears to the court that that child or young person is apparently of or below the age alleged by the informant, the onus shall be upon the defendant to prove that the child or young person is not of or below that age.

(3) Where any entry is required by this Act to be made in the **general** register or in any other register or record, the entry made by the occupier of a factory or on his behalf shall be admissible as evidence of the facts therein stated, and the fact that any entry so required with respect to the observance of any provision of this Act has not been made, shall be admissible as evidence that that provision has not been observed.

Service and sending of documents, etc.

92.-(1) Any document, including any summons or order, required or authorised to be served under this Act may be served-

(a) on any person by delivering it to him, or by leaving it at, or sending it by post to, his residence;

(b) on any firm by delivering it to any partner of the firm, or by leaving it at, or sending it by post to, the office of the firm;

(c) on the owner or occupier of a factory, including any such owner or occupier who is a limited company, in any such manner as aforesaid, or by delivering it, or a true copy thereof, to any person apparently not under the age of sixteen years, at the factory.

(2) Any such document may be addressed for the purpose of the service thereof on the occupier of a factory, to "the occupier" at the proper postal address of the factory, without further name or description.

(3) The foregoing provisions of this section shall apply with the necessary modifications to documents required or authorised under this Act to be sent to any person, firm, owner or occupier and to the sending, addressing, and delivery of such documents.

Power of court to modify agreements

93. If by reason of an agreement between the owner and the occupier of premises the whole or any part of which has been let as a factory the said owner or occupier is prevented from carrying out any structural or other alterations in the premises which are necessary to enable him to comply with the provisions of this Act or in order to conform with any standard or requirement imposed by or under this Act, he may apply, in accordance with rules of court, to the Supreme Court, and the court, after hearing the parties and any witnesses whom they desire to call, may make such an order setting aside or modifying the terms of the agreement as the court considers just and equitable in the circumstances of the case.

Power of court to apportion expenses

94. Where in any premises the whole or any part of which has been let as a factory, any structural or other alterations are required in order to comply with the provisions of this Act and the owner or occupier as the case may be alleges that the whole or part of the expenses of the alterations ought to be borne by the occupier or owner, the occupier or owner may apply, in accordance with rules of court, to the Supreme Court, and the court, after hearing the parties and any witnesses whom they may desire to call, may make such an order concerning the expenses or their apportionment as the court considers just and equitable in the circumstances of the case, regard being had to the terms of any contract between the parties, or in the alternative the court may at the request of the owner or occupier determine the lease.

Publications

95. In any proceedings under this Act, any document, booklet or other publication purporting to be published by or under the authority of any organisation, institute or association whose standards have been approved for the purposes of this Act shall, unless the contrary is proved, be deemed to have been published by the said organisation, institute or association and to be admissible in evidence of the matters appearing on and in such document, booklet or publication.

Procedure for approval

96. Any declaration of approval or disapproval purporting to be under the hand of the Minister or the chief inspector shall be published in the Gazette.

Act to bind Crown

97. This Act shall bind the Crown.

PART IX-REGULATIONS FOR WELFARE, SAFETY AND HEALTH

Welfare regulations

98.-(1) Where it appears to the Minister that owing to the conditions and circumstances of employment or the nature of the processes carried on, provision requires to be made in relation to any of the matters to which this section applies for securing the welfare of the persons employed or any class of persons, he may make regulations requiring such reasonable steps to be taken in connection therewith as may be specified in the regulations either in addition to, or in substitution for, or by way of extension or variation of, any of the provisions of Part III.

(2) This section applies to the matters dealt with in the provisions of Part III, to arrangements for preparing or heating, and taking meals, to the supply of protective clothing, to ambulance and first-aid arrangements, to the supply and use of seats in workrooms, to rest rooms, and to arrangements for the supervision of persons employed.

(3) This section does not apply to factories in which the only persons employed are members of the same family dwelling there.

(4) Any regulations under this section may-

(a) be made for a particular factory or for factories of any class or description;

(b) be made contingent in respect of particular requirements upon application being made by a specified number or proportion of the employed persons concerned, and prescribe the manner in which the views of the persons employed are to be ascertained;

(c) provide for the employed persons concerned being associated in the management of the arrangements, accommodation or other facilities for which provision is made, in any case where a portion of the cost is contributed by the persons employed but no contribution shall be required from the persons employed in any factory, except for the purpose of providing additional or special benefits which, in the opinion of the Minister, could not reasonably be required to be provided by the employer alone, and unless two-thirds at least of the employed persons affected in that factory, on their views ascertained in the prescribed manner, assent.

(5) Any regulations made under this section may impose duties on owners and, so far as relates to the use of any facilities provided, on employed persons.

Safety and health regulations

99.-(1) Where the Minister is satisfied that any manufacture, machinery, plant, equipment, appliance, process or description of manual labour is of such a nature as to cause risk of bodily injury to the persons employed or any class of those persons he may, subject to the provisions of this Act, make such regulations as appear to him to be reasonably practicable and to meet the necessity of the case.

(2) Regulations so made may, among other things-

(a) prohibit the employment of or modify or limit the hours of employment of, all persons or any class of persons in connection with any manufacture, machinery, plant, process, or description of manual labour; or

- (b) prohibit, limit or control the use of any material or process; or
- (c) modify or extend with respect to any class or description of factory, any provisions of Parts III to VI inclusive;
- (d) may impose duties on owners, employed persons and other persons, as well as on occupiers.

(3) Where it appears to the Minister that in any factory or class or description of factory-

- (a) cases of illness have occurred which there is reason to believe may be due to the nature of a process or other conditions of work; or
- (b) there may be risk of injury to the health of persons employed in a factory by reason of any process or from any substance or material used or handled in the factory or brought to the factory to be used,

he may make such regulations requiring the medical supervision or the medical examination of the persons, or any class of persons, employed at that factory or class or description of factory as may be specified in the regulations.

(4) The Minister may make regulations to prescribe the type of training for any class or description of machine referred to in section 10.

(5) The Minister may make regulations in respect of electrical apparatus and equipment.

(6) The Minister may make regulations to prescribe the maximum weights which may be lifted, carried or moved by persons employed in factories and any such regulations may relate either to persons generally or to any class of persons or to persons employed in any class or description of factory or in any process.

(7) The Minister may make regulations in respect of the formal investigation and notification of accidents and cases of occupational disease and the formal investigation and notification of any class of explosion, fire, collapse of buildings or parts thereof, accidents to machinery or plant or equipment, or other occurrence in a factory, whether death or disablement is caused or not.

(8) The Minister may make regulations for factories in general or any class or description of factories requiring such factories to have a certificate from the chief inspector that the means of escape in case of fire are satisfactory.

(9) Regulations so made may apply to all factories or to any specified class or description of factory, and may provide for the exemption of any specified class or description of factory either absolutely or subject to conditions.

Controlled by Ministry for Labour, Industrial Relations and Immigration

FACTORIES

SECTION 7-FACTORIES (APPLICATION OF PROVISIONS) ORDERS

*Legal Notices Nos. 18 of 1972, 15 of 1974,
81 of 1976, 73 of 1984*

Made by the Minister

1. The provisions of Parts I, II, VII, VIII and IX of the Act and the provisions of sections 46,47,48,49,50,51,52 and subsection (10) of section 56 shall apply to any premises other than a single private dwelling house in which steam boilers or pressure vessels are used as if any person occupying such premises and having the right of access or control were the occupier of a factory.

2. The provisions of Parts I, II, VII, VIII, and IX of the Act and the provisions of sections 42,43, 44, 45 and 52 shall apply to any premises other than a single private dwelling house in which chains, ropes, lifting tackle, cranes, other lifting machines, hoists, lifts and passenger hoists are used as if any person occupying such premises and having the right of access or control were the occupier of a factory.

3. The provisions of the Act shall apply-

(a) to every dock, wharf or quay (including any warehouses in connection therewith) as if it were a factory; and as if the person having the actual use or occupation of it or of any premises within it or forming part of it, were the occupier of a factory; and

(b) to the processes of loading, unloading and fuelling of any ship in any yard, harbour or dock, and to all machinery or plant used in those processes, as if the processes were carried on in a factory and the machinery or plant were machinery or plant in a factory, and the person who carries on those processes were the occupier of a factory.

4. The provisions of the Act shall apply to fairgrounds.

SECTION 21-FACTORIES (FIRST-AID) ORDER

Legal Notices Nos. 164 of 1973, 72 of 1978

Made by the Minister

Short title

1. This Order may be cited as the Factories (First-Aid) Order

Contents and marking of first-aid boxes or Clipboards

2.-(1) Each first-aid box or cupboard in any factory shall contain the equipment and materials- specified in relation to that factory in the Schedule.

(2) Each first-aid box or cupboard shall be marked plainly with the words "First-Aid".

SCHEDULE

Contents of First-Aid Boxes or Cupboards

Items	Quantities	
	Up to 50 Employees	Over 50 Employees
1. Adhesive Plaster (25 mm in width).....	4.5m	9m
2. 30 g packet of absorbent sterilized cotton wool	4	8
3. Safety Pins.....	6	12
4. Rubber bandage or pressure bandage	1	1
5. Triangular bandages of unbleached calico, not less than 1.4 m long by 1 m wide.....	2	4
6. Bandages individually wrapped 25 mm wide.....	6	12
7. Bandages individually wrapped 50 mm wide.....	3	6
8. Bandages individually wrapped 75 mm wide.....	3	6
9. Gauze enclosed in sealed wrapper.....	1 m	2 m
10. Adhesive wound dressing of assorted sizes each dressing put up in an individual sealed pack.....	12	24

—

SECTION 47-STEAM BOILERS (EXAMINATION) ORDER

Legal Notice Nos. 11 of 1972, 72 of 1978

Short title

1. This Order may be cited as the Steam Boilers (Examination) Order.

Manner of examination

2.-(1) The manner in which a steam boiler shall be examined as required by subsection (2) of section 47 of the Act-

- (a) before it is used in any factory; and
- (b) thereafter before the expiry of each relevant period prescribed by paragraph 3,

shall be that specified in this paragraph.

(2) In the first instance the boiler shall be thoroughly examined by a competent person when it is cold after the interior and exterior have been prepared in the manner described in the Appendix and shall be thoroughly examined by a competent person when it is under normal steam pressure, and each part of the examination may be made by a different person. The examination under steam pressure shall be made on the first occasion when steam is raised after the examination of the boiler when cold or as soon as possible thereafter, and the person making the examination shall see that the safety valve is so adjusted as to prevent the boiler being worked at a pressure greater than the maximum permissible working pressure to be specified in the report of the examination pursuant to subsection (4) of section 47 of the Act.

(3) The examination of the boiler in the manner specified in sub-paragraph (2) may, at the discretion of the person making the examination, include all or any one or more of the following, that is to say, hammer testing, drilling, lifting, proving a clear waterway through tubes, withdrawal of sample tubes for determination of thickness, examination, testing or measurement by means of ultrasonic, radiographic, magnetic or electronic devices or of tube calibration gauges, steam trial and hydraulic testing.

Intervals between examinations

3.-(1) For the purposes of subsection (2) of section 47 of the Act, the prescribed period shall be as follows:-

- (a) in a case where a stationary steam boiler after being used, or installed in one factory is to be used in another factory, a period which expires after it has been installed and before it is used in the second of these factories;
- (b) in a case where a steam boiler of a kind specified in sub-paragraph (2) is taken into use in any factory for the first time in that factory (whether or not in the circumstances specified in sub-paragraph (a)) a period which expires not more than 14 months after the date when it was so taken into use; and
- (c) in all other cases-
 - (i) 26 months as respects a steam boiler of a kind specified in sub-paragraph (2); and
 - (ii) 14 months as respects any other steam boiler.

(2) Sub-paragraph (b) and sub-paragraph (i) of sub-paragraph (c) of paragraph (1) apply to a steam boiler of any of the following kinds in the case of which a period of 21 years has not expired since it was first taken into use:-

(a) a water tube boiler of which the drums and any headers are of fusion welded or solid forged construction which has an evaporative capacity of not less than 22.5 tonnes of steam per hour;

(b) a boiler in a group of water tube boilers of which the drums and any headers are of fusion welded or solid forged construction being a group in which-

(c) each boiler has an evaporative capacity of not less than 11.25 tonnes of steam per hour; and

(d) the total evaporative capacity of all the boilers is not less than 45 tonnes of steam per hour; and

(e) a boiler which is a waste heat boiler or heat exchanger with fusion welded longitudinal and circumferential seams, or a super-heater of fusion welded construction, and which is an integral part of a continuous flow installation in a chemical or oil refinery processing plant.

Examination of boilers after repair

4. Where at any time there is carried out to any steam boiler the repair of a defect which, in the opinion of a competent person, will affect its safe working, that boiler shall be examined by a competent person in such a manner as will enable that person to satisfy himself that the repair has been properly carried out.

APPENDIX

(1) In addition to the steps required to be taken under paragraph (2), the preparation of the interior and exterior of a boiler for its thorough examination when cold in pursuance of sub-paragraph (2) of paragraph 2 of the foregoing Order, shall, according as the person making the examination may require, consist of all or any one or more of the following:-

(a) the opening out, cleaning and scaling of the boiler; including the removal of doors from manholes, mudholes and handholes;

(b) the removal of firebars;

(c) in the case of shell type boilers, the dismantling of fire bridges (if made of brick) and all furnace protective brickwork;

(d) the opening out for cleaning and inspection of fittings including the pressure parts of automatic controls; and

(e) in the case of water tube boilers, the removal of drum internal fittings.

(2) All brickwork, baffles and coverings must be removed for the purpose of the thorough examination to the extent required by the person making the examination, but in any case

these parts must be removed to the extent necessary to expose headers, seams of shells and drums not less frequently than once in every six years.

**SECTION 52-CRANES, LIFTS, HOISTS, CHAINS, ROPES AND LIFTING
TACKLE (FEES) ORDER**

TABLE OF PROVISIONS

PARAGRAPH

1. Short title
2. Fees
3. Certificate for less than maximum period

Legal Notices Nos. 180 of 1976, 72 of 1978, 81 of 1983

Short title

1. This Order may be cited as the Cranes, Lifts, Hoists, Chains, Ropes and Lifting Tackle (Fees) Order.

Fees

2. The fees to be paid for each examination or inspection of any crane, lift, hoists, chain, rope or item of lifting tackle shall be as follows:-

(a) Lift or Hoist Inspections- \$

(i) For each lift, or hoist certified for the carriage of passengers or goods up to 1st floor	6.00
(ii) For each lift or hoist certified for the carriage of passengers or goods more than 2nd floor but not exceeding 4th floor.....	12.00
(iii) For each lift or hoist certified for the carriage of passengers or goods more than 4th floor but not exceeding 6 th floor	24.00
(iv) For each lift or hoist certified for the carriage of passengers or goods exceeding 6th floor but not exceeding 8th floor.....	37.50
(v) Exceeding 8th floor.....	52.50
(vi) For each lift or hoist not certified for the carriage of passengers of which the car has a floor area not exceeding and a height not exceeding 1m and which is operated the landing only.....	11.25

(b) Cranes-

Manual Travelling

Travelling

Diesel Travelling Electric

PortalGoliath Crane Structure

Electric Goliath

Electric Semi-Goliath

Electric Telfer

Electric Transporter

Electric Container

Manual Overhead

Electric Overhead

Diesel Electric Mobile

Diesel Mobile Incorporating-Lorry

Diesel Mobile Incorporating-Chassis

Diesel Mobile

Diesel Travelling (Crawler)

Hydraulic

Manual Incorporating Lorry

Electric Cantilever

Electric fixed Crane on Tower

Electric Derrick

Manual Pillar

Manual Wall

Tower

(i) For each crane lifting capacity	\$
not exceeding 1 tonne.....	4.50
exceeding 1 tonne but not exceeding 5 tonnes.....	9.00
exceeding 5 tonnes but not exceeding 10 tonnes.....	13.50
exceeding 10 tonnes but not exceeding 15 tonnes.....	22.50
exceeding 15 tonnes but not exceeding 20 tonnes.....	37.50
exceeding 20 tonnes.....	52.50

(ii) For each steam crane the appropriate boiler inspection fee be payable in addition to the fee prescribed for the inspection of the crane.

(c) Winding engines driven by power other than steam-

(i) For each unit of aggregate horse power not exceeding 50 units 1.12 cents per unit

(ii) For each unit of horse power over 50 units0.06 cents per unit

Provided that the total charge for the inspection of a winding engine driven by power other than steam shall not less than \$4.50 or more than \$15.00.

(d) For each wire rope, lifting capacity-

exceeding 1 tonne 4.50

exceeding 1 tonne but not exceeding 5 tonnes..... 9.00

exceeding 5 tonnes but not exceeding 10 tonnes.....13.50

exceeding 10 tonnes but not exceeding 15 tonnes.....22.50

exceeding 15 tonnes but not exceeding 20 tonnes.....37.50

exceeding 20 tonnes.....52.50

(e) For each chain sling, lifting capacity-

exceeding 1 tonne..... 4.50

exceeding 1 tonne but not exceeding 5 tonnes..... 9.00

exceeding 5 tonnes but not exceeding 10 tonnes.....13.50

exceeding 10 tonnes but not exceeding 15 tonnes.....22.50

exceeding 15 tonnes but not exceeding 20 tonnes.....37.50

exceeding 20 tonnes.....52.50

(f) For each chain block, pull-lift, mini-lift, lifting capacity-

exceeding 1 tonne..... 6.00

exceeding 1 tonne but not exceeding 5 tonnes..... 9.00

exceeding 5 tonnes but not exceeding 10 tonnes.....12.00

exceeding 10 tonnes but not exceeding 15 tonnes.....22.50

exceeding 15 tonnes but not exceeding 20 tonnes.....37.50

exceeding 20 tonnes.....52.50

(g) For each rope block fibre sling, lifting capacity-

exceeding 1 tonne..... 6.00

exceeding 1 tonne but not exceeding 5 tonnes..... 10.50

exceeding 5 tonnes but not exceeding 15 tonnes..... 15.00

exceeding 15 tonnes but not exceeding 20 tonnes .. 26.25

exceeding 20 tonnes..... 37.50

(h) Miscellaneous-

(i) Lifting tackle, shackles, eyebolts, swivel rings, hooks, lifting cradle, lifting plate, lifting clamp links, scissors grips, girder clips, lifting beam-

exceeding 1 tonne..... 6.00

exceeding 1 tonne but not exceeding 5 tonnes..... 9.00

exceeding 5 tonnes but not exceeding 10 tonnes..... 13.50

exceeding 10 tonnes but not exceeding 15 tonnes..... 22.50

exceeding 15 tonnes but not exceeding 20 tonnes..... 37.50

exceeding 20 tonnes..... 52.50

(i) Lift Installations-

(i) Passenger or goods lift (basic fee)..... 150.00

Additional fee for each 15 m increment of travel or part

thereof beyond the first 15 m..... 37.50

(ii) Service lift (basic fee)..... 60.00

Additional fee for each 15 m increment of travel or part thereof beyond the first 15 m.....	22.50
(iii) Inclined passenger lift for private use only.....	18.75
(iv) Inclined passenger lift for public use only.....	56.25
<i>(j) Run-way Tracks-</i>	
not exceeding 3 m.....	6.00
exceeding 3 m but not exceeding 7m.....	9.00
exceeding 7 m but not exceeding 10 m	15.00
exceeding 10 m but not exceeding 15 m.....	24.00
exceeding 15 m but not exceeding 20 m.....	33.75
exceeding 20 m.....	45.00
<i>(k) Geared on ungeared trolley, lifting capacity-</i>	
not exceeding 1 tonne.....	6.00
exceeding 1 tonne but not exceeding 5 tonnes.....	9.00
exceeding 5 tonnes but not exceeding 10 tonnes.....	13.50
exceeding 10 tonnes but not exceeding 15 tonnes.....	22.50
exceeding 15 tonnes but not exceeding 20 tonnes.....	37.50
exceeding 20 tonnes.....	52.50
<i>(l) Manually operated screw or hydraulic jacks, lifting capacity-</i>	
not exceeding 5 tonnes	3.00
exceeding 5 tonnes but not exceeding 10 tonnes.....	5.00
exceeding 10 tonnes but not exceeding 15 tonnes.....	8.00
exceeding 15 tonnes but not exceeding 20 tonnes.....	12.00
in excess of 20 tonnes.....	15.00

(m) Inspection on Sundays and public holidays-

Where the owner or occupier specifically requests that an inspection of a crane, lift, hoist, chain, rope or item of lifting tackle be made on a Sunday or public holiday the fee to be charged in respect of an inspection so made shall be double the fee otherwise applicable and in addition the owner or occupier shall reimburse the Inspector's travelling expenses.

(Substituted by Legal Notice 81 of 1983.)

Certificate for less than maximum period

3. If a certificate is granted for a shorter period than the maximum period permitted by the relevant section of the Act, and the Chief Inspector of Factories certifies that the certificate is granted for that shorter period in order to meet his convenience, the prescribed fee in that case shall be reduced by an amount bearing the same proportion to the full amount as the period not covered by the certificate bears to maximum period.

**SECTION 52-STEAM BOILERS AND PRESSURE VESSELS (FEES)
ORDER**

PARAGRAPH

1. Short title
2. Interpretation
3. Fees

Legal Notices Nos. 241 of 1974, 72 of 1978, 82 of 1983

Short title

1. This Order may be cited as the Steam Boilers and Pressure Vessels (Fees) Order.

Interpretation

2. In this Order, unless the context otherwise requires-

"pressure vessel" means any steam receiver or any air receiver.

Fees

3. The fees to be paid for each examination or inspection of steam boilers and pressure vessels shall be as follows:-

(a) Locomotive, traction engine and road roller boilers thoroughly examined when cold-
Each

(i) Not exceeding 7 m² heating surface..... \$39.00

(ii) Exceeding 7 m² heating surface \$54.00

(b) Boilers (other than locomotive, traction engine or road roller boilers), thoroughly examined when cold and having a heating surface-

(i) Not exceeding 2m²18.00

(ii) Exceeding 2m² but not exceeding 5m²27.00

(iii) Exceeding 5m² but not exceeding 15m² 9.00

(iv) Exceeding 15m² but not exceeding 75m²54.00

(v) Exceeding 75m² but not exceeding 250m² 63.00

(vi) Exceeding 250m² but not exceeding 500m² 81.00

(vii) Exceeding 500m² – additional \$3 per 100m² of heating surface or part thereof up to 1,000m² and \$1 per 100m² or thereof thereafter (heating surface includes econo- and super-heater).

(c) All boilers thoroughly examined when under normal pressure ...	54.00
(d) Steam jacked pans-	
(i) Having an internal diameter not exceeding 1m.....	15.00
(ii) Having an internal diameter exceeding 1m but not exceeding 1.5 m.....	18.00
(iii) Having an internal diameter exceeding 1.5m.....	21.00
(e) Pressure vessels (other than those referred to in items (d) and (f) having an internal cubic capacity-	
(i) Not exceeding 0.05m ³	15.00
(ii) additional such pressure vessel inspected in the premises on the same day.....	13.50
(ii) Exceeding 0.05m ³ and not exceeding 1.5m.....	18.00
(iv) Exceeding 1.5m ³ and not exceeding 3m ³	21.00
(v) Exceeding 3m ³ and not exceeding 15m ³	33.00
(vi) Exceeding 15m ³ An additional \$1 per 3m ³ or part thereof. The fees payable in respect of digesters and dry renderers shall be 50 per cent in excess of the fees otherwise applicable.	
(f) Pressure vessels (glass or enamel lined) having a maximum allowable safe working pressure not exceeding 200 KPa.....	9.00
(g) Multiple inspection-	
Where three or more boilers, or three or more pressure vessels each having a cubic capacity exceeding 0.05m ³ , are inspected in the same premises on the same day the above fees shall be reduced by 20 per cent or by such other percentage as may be determined by the chief inspector upon the written application of the owner or occupier.	
(h) Pipe systems-	
An additional fee of \$18 per hour or part thereof may be charged for the inspection of steam pipe systems used in connection with a boiler.	
(i) Inspections on Sundays and public holidays-	
Where the owner or occupier specifically requests that an inspection of a boiler or pressure vessel be made on a Sunday or public holiday the fee to be charged in respect of an inspection so made shall be double the fee otherwise applicable and in addition the owner or occupier shall reimburse the Inspector's travelling expenses.	

(Substituted by Legal Notice 82 of 1983.)

SECTION 68—FACTORIES (GENERAL REGISTER) ORDER

TABLE OF PROVISIONS

PARAGRAPH

1. Short title

2. **General** Register

Schedule-Form of **General** Register

Legal Notice No. 136 of 1968

Short title

1. This Order may be cited as the Factories (**General** Register) Order.

General Register

2. The **general** register kept by the occupier of a factory shall be in the form set out

Pages: S-11, S-11A and S11-B - Forms

SECTIONS 98 AND 99—WOOD PRESERVATIVE REGULATIONS

Legal Notice No. 1 of 1972

Short title

1. These Regulations may be cited as the Wood Preservative Regulations.

Application

2.—(1) These Regulations shall apply to all factories and to any premises, places, processes, buildings, operations or works to which the provisions of Part IX of the Act with respect to regulations for health and welfare apply, where timber is treated with wood preservatives.

(2) Regulations 4, 12 and 13 (3) and (4) shall only apply where the wood preservative being used contains pentachlorophenol or its salts.

(3) Regulations 4, 6 and 7 shall only apply where wood preservation is carried on by the dipping of timber, into a vessel containing a wood preservative.

(4) The chief inspector may by certificate exempt from the requirements of these Regulations seems in his opinion unreasonable and may revoke such a certificate.

Interpretation

3. In these Regulations unless the context otherwise requires-

"approved" means certified as approved by the chief inspector;

"dipping tank" means a vessel containing a wood preservative solution into which timber is manually or mechanically dipped;

"mixing tank" means a vessel, other than a dipping tank, where wood preservative solutions are made up and is used solely for that purpose;

"protective clothing" means waterproof aprons, boots, gauntlets and eye shields; wood preservative" means any liquid, liquid solution or substance or mixture of substances used to preserve timber or act as a fungicide_includes a substance or mixture of substances with arsenic, boron, chromium, copper, fluorine, mercury, tin or zinc in their composition either as elements or in chemical compounds and pentachlorophenol and its salts.

Duties of occupiers mixing

4.-(1) Mixing of the wood preservative shall not be carried out except in a mixing tank containing water and in such a way as to ensure that the resultant solution does not contain more than two parts by weight of wood preservative to one hundred parts by weight of water.

(2) The solution of wood preservative in the mixing or dipping tanks shall be renewed at least once every month.

(3) No bags or other similar containers of solid wood preservative shall be opened unless immersed in the water in the mixing tank.

Disposal of bags, etc.

5. Used bags, drums or other containers which have held wood preservative shall be destroyed or made unserviceable forthwith or placed in a store or other suitable place which is kept locked and the key of which is in the charge of a responsible person.

Transfer

6. The solution from the mixing tank shall so far as is reasonably practicable be transferred to the dipping tank by mechanical means such as to reduce to a minimum the risk of contact of an employed person with the solution.

Handling

7. Where reasonably practicable mechanical handling shall be used at a dipping tank.

Women, young persons and children

8. No woman, young person or child shall be employed at a mixing or dipping tank or in any other process involving contact with wood preservative.

Protective clothing

9.-(1) Protective clothing shall be provided and kept in good condition for all persons employed-

(a) in the issuing of wood preservatives;

(b) at any mixing or dipping tank;

(c) in handling timber where they are liable to come into contact with liquid wood preservative.

(2) All protective clothing while in use shall be washed thoroughly at least twice a week.

(3) Approved dust respirators shall be provided for all persons liable to inhale dust given off from any wood preservative.

Welfare facilities

10.-(1) There shall be provided and maintained for the use of persons referred to in regulation 9-

(a) suitable accommodation for storage of clothing not required by such persons while at work, with adequate facilities for drying such clothing if wet,

(b) a suitable place, separate from the accommodation referred to in paragraph (a) for the storage of protective clothing referred to in regulation 9 with adequate facilities for drying such protective clothing if wet,

(c) an adequate and suitable messroom.

(2) Nothing in this regulation shall apply where the manipulation or use of wood preservatives does not exceed one hour on any day.

Cautionary placard

11. An official cautionary placard as to the effects of wood preservatives shall be affixed in such a position as to be easily read by the persons employed.

Inspection for sores, cuts, etc.

12.-(1) The occupier shall arrange for an inspection of the hands and forearms of all persons referred to in regulation 9 to be made at the premises once every week by a responsible person.

(2) Any person referred to in regulation 9 with a rash, sores or cuts in his hands or forearms must immediately be suspended from work at the processes referred to in regulation 9 and sent for medical treatment.

(3) Any person referred to in regulation 9 who complains of illness shall be sent for medical treatment.

Duties of persons employed

13.-(1) Every person employed in the processes referred to in regulation 9 shall wear the protective clothing provided and shall at the end of each day's work deposit such protective clothing in the place provided for the storage thereof.

(2) Every person employed in the processes referred to in regulation 9 shall use the mess room provided in pursuance of regulation 10.

(3) Every person employed in the processes referred to in regulation 9 shall present himself for the inspections required under regulation 12 and submit to such inspections.

(4) Every person referred to in regulation 12 shall where applicable seek the medical treatment required by that regulation.

SECTIONS 98 and 99-LEAD PROCESSES REGULATIONS

Regulations 29th Dec., 1971

Made by the Minister

Short title and application

1.-(1) These Regulations may be cited as the Lead Processes Regulations, and they shall apply-

- (a) to all factories;
- (b) to all premises, places, processes, operations, and works to which the provisions of Part IX of the Act with respect to regulations for health and welfare apply.

(2) The Chief Inspector may by certificate exempt from the requirements of these Regulations any process to which the application of these Regulations seems unreasonable and may revoke such a certificate.

Interpretation

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

"lead process" means any of the following processes:-

- (a) the manufacture or repair of electric accumulators or parts thereof;
- (b) the melting, casting, pasting or burning of lead or of any material containing lead;
- (c) the trimming, filing, buffing, cutting, polishing or any other abrading of lead or any material containing lead;
- (d) the repair or assembling or the breaking up of any article which contains any lead or lead product;
- (e) any process involving the manufacture of any lead product, where any of the said processes may give rise to fumes or dust from lead or lead compounds;
- (f) the blending of motor spirit with tetraethyl lead;

without prejudice to the preceding paragraphs, any process involving the mixing, crushing, sifting, or spraying of any lead product, or involving any movement or manipulation of lead products;

"medical practitioner" means a duly qualified medical practitioner appointed by written certificate of the chief inspector;

"suspension" means suspension from employment in any lead process by written certificate attached to the general register signed by the medical practitioner who shall have power of suspension as regards all persons employed in any such process.

Employment

3. No person under 18 years of age shall be employed in any lead process:

Provided that nothing in this regulation shall affect male young persons employed in washing of formed pasted or Plante plates and subsequent brushing or racking thereof while in a wet state, or casting of small parts, who were so employed at the commencement of these Regulations.

Separation

4. All lead processes shall be carried out in such a manner and under such conditions as to secure effectual separation from one another and from any other process.

Space

5. In every room in which a lead process is carried on, there shall be at least 14m^3 of air space for each person employed therein, and in computing this air space no height over 4m shall be taken into account.

Ventilation

6. Every workroom shall be provided with inlets and outlets of adequate size so placed and used as to secure and maintain efficient ventilation in all parts of the room.

Distances

7. In every pasting room the distance between the centre of the working position of any paster and that of the paster working nearest to him shall not be less than 1.5m.

Floors

8. The floor of every room in which a lead process is carried on shall be-

- (a) of cement or similar material so as to be smooth and impervious to water;
- (b) maintained in sound condition;
- (c) kept free from materials, plant, or other obstruction not required for, or produced in, the process carried on in the room; and
- (d) in all such rooms other than grid casting shops shall be-cleansed throughout daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room; and
- (e) in grid casting shops shall be-cleansed throughout daily;
- (f) in addition, where manipulation of raw oxide of lead or pasting is carried on, shall be-
 - (i) kept constantly moist while work is being done;
 - (ii) provided with suitable and adequate arrangements for drainage;
 - (iii) thoroughly washed daily by means of a hosepipe.

Work benches

9. The work-benches at which any lead process is carried on shall-

- (a) have a smooth surface and be maintained in sound condition;
- (b) be kept free from all materials or plant not required for, or produced in, the process carried on thereat;
- (c) all such work-benches other than those in grid casting shops shall-be cleansed daily either being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on thereat;
- (d) all such work-benches in grid casting shops, shall-be cleansed daily;
- (e) every work-bench used for pasting shall-
 - (i) be covered throughout with sheet lead or other impervious material;
 - (ii) be provided with raised edges;
 - (iii) be kept constantly moist while pasting is being carried on.

Exhaust draught

10. The following processes shall not be carried on without the use of an efficient exhaust draught:-

- (a) melting of lead or materials containing lead;
- (b) manipulation, mixing, crushing or sifting of any lead product unless done in enclosed apparatus so as to prevent the escape of dust into the workroom;
- (c) pasting, casting, or the breaking up of any article containing lead or lead product;
- (d) trimming, bushing, filing or any other abrading or cutting of any material containing lead;
- (e) lead burning, other than-
 - (i) "tacking" in the formation room;
 - (ii) chemical burning for the making of lead linings for cell cases necessarily carried on in such a manner that the application of efficient exhaust is impracticable.
- (f) spraying of any lead product.

Such exhaust draught shall be effected by mechanical means and shall operate on the dust or fume given off as nearly as may be at its point of origin, so as to prevent it entering the area of any room in which persons work:

Provided that at pots containing molten lead the exhaust draught may be effected by natural means, but if so effected shall not be deemed to be efficient unless it produces through the working opening over the pot an average inward air velocity measured across the plane of the opening of at least 36m per minute.

Products of combustion

11. The products of combustion produced in the heating of any melting pot shall not be allowed to escape into a room in which persons work.

Dross containers

12. A suitable receptacle with tightly fitting cover shall be provided and used for dross as it is removed from every melting pot. Such receptacle shall be kept covered while in the workroom, except when dross is being deposited therein.

Waste containers

13. A suitable receptacle shall be provided in every workroom in which old plates and waste material which may give rise to dust shall be deposited.

Prohibition of spraying

14. Lead paint shall not be applied in the form of a spray in the interior painting of any buildings or any ships.

Drying rooms

15.-(1) The racks or shelves provided in any drying room shall not be more than 2.4m from the floor nor more than 0.6m in width:

Provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 1.2m.

(2) Such racks or shelves shall be cleansed only after being thoroughly damped unless an efficient suction cleaning apparatus is used for this purpose.

Medical examinations

16.-(1) Every person employed in a lead process shall be examined by a medical practitioner within the seven days preceding or following the date of his first employment in such process and thereafter shall be examined by a medical practitioner once in every calendar month, or at such other intervals as may be specified in writing by the chief inspector, on a day of which due notice shall be given to all concerned.

(2) For the purpose of this regulation employment means first employment in a lead process in the factory and also re-employment therein in a lead process following any cessation of employment in such process for a period exceeding three calendar months.

(3) No person after suspension shall be employed in a lead process without written sanction from the medical practitioner entered in or attached to the general register.

Protective clothing

17.-(1) Protective clothing shall be provided and maintained in good repair for all persons employed in-

- (a) manipulation of raw oxide of lead;
- (b) pasting;
- (c) the formation room.

(2) Such protective clothing shall consist of an overall, an apron made of material impervious to water and suitable footwear; and, also, as regards persons employed in the manipulation of raw oxide of lead or in pasting, head coverings.

(3) The overalls and head coverings provided for the persons employed in the manipulation of raw oxide of lead or in pasting shall be washed or renewed at least twice a week.

Medical examination

18.-(1) Every person employed in a lead process shall present himself at the appointed time for examination by the medical practitioner in pursuance of paragraph (1) of regulation 16.

(2) No person after suspension, shall work in a lead process without written sanction from the medical practitioner entered in or attached to the **General Register**.

Eating, drinking and smoking

19. No person shall introduce, keep, prepare or partake of any food or drink, nor make use of tobacco in any place in which a lead process is carried on.

Dressing

20. Every person when dressing shall immediately deposit the dress in the receptacle provided under regulation 12.

SECTIONS 98 AND 99-DOCK REGULATIONS

Regulations 10th January, 1974

Made by the Minister

Short title

1. These Regulations may be cited as the Dock Regulations .

Application

2. These Regulations shall apply-

(a) to the processes of loading, unloading, moving, or handling of goods in, on or at any dock, wharf or quay and the processes of loading, unloading and fuelling of any ship in any yard, harbour or dock; and

(b) to any related employment.

Obligations under Regulations

3. Every employer shall comply with such of the requirements of these Regulations as affect any workmen employed by him:

Provided that the said requirements shall not be deemed to affect any workman if he is present in any place for any purpose other than to perform any work on behalf of his employer.

Interpretation

4. In these **Regulations**, unless the context otherwise requires-

"barge" means an unpowered flat bottom, shallow draft vessel including scows and lighters;

"employee" means any workman engaged in the processes or in related employment;

"employer" means an employer, any of whose workmen are employed, in whole or in part in any of the processes or in any related employment;

"processes" means any of the processes referred to in **regulation 2**;

"related employment" means any work performed incidental to or in conjunction with the processes including, but not restricted to, securing cargo, rigging and employment as a porter, checker or watchman.

Gangways

5. If a ship other than a barge is lying at a wharf or quay for the purpose of loading or unloading or fuelling there shall be safe means of access for the use of employees at such times as they have to pass from the ship to the shore or from the shore to the ship as follows:-

(a) where reasonably practicable, the ship's accommodation ladder or a gangway or a similar construction not less than 550mm wide, properly secured, and fenced throughout on each side to a clear height of 1m 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-

(c) nothing in this **regulation** shall apply to cargo stages or cargo gangways if other proper means of access is provided;

(d) as regards any sailing vessel not exceeding 250 tonnes nett registered tonnage and any steam vessel not exceeding 150 tonnes 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 appliances.

Gear certification

6. The employer shall not permit the use of any ship's cargo handling gear until he has ascertained that the ship has a current and valid cargo gear register and certificates indicating that the cargo gear has been tested, examined and annealed in accordance with the requirements of International Labour Organisation, Convention No. 32, Protection against Accidents (Dockers) Convention (Revised), 1932.

Jacob's ladders

7.-(1) Jacob's ladders shall be of the double rung or flat tread type and shall be properly maintained and secured.

(2) A Jacob's ladder shall either hang without slack from its lashings or be pulled up entirely.

Ladders in cargo spaces

8.-(1) There shall be at least one and not more than two safe and accessible ladders for each gang working in a hatch.

(2) When any fixed ladder is visibly unsafe, the employer shall prohibit its use by employees.

(3) Straight ladders of adequate strength and suitably secured against shifting or slipping shall be provided as necessary when fixed hold ladders do not meet the requirements of paragraph (1), except that when conditions are such that a straight ladder cannot be used, Jacob's ladders meeting the requirements of regulation 7 may be used.

(4) When cargo is stowed within 100mm of the back of ladder rungs, the ladder shall be deemed "unsafe" for the purpose of this regulation.

Beams

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

Hatch coverings

10.-(1) No cargo shall be loaded or unloaded by a fall or sling at any intermediate deck unless either the hatch at that deck is safely covered or a secured landing platform of a width not less than that of one section of hatch coverings has been placed across the hatch.

(2) Cargo shall not be landed on or handled over a covered hatch or between deck unless all beams are in place under the hatch covers.

(3) Missing, broken, split, or poorly fitting hatch covers that would jeopardize the safety of employees shall be reported at once to the officer in charge of the ship.

Pending replacement or repairs by the ship, work shall not be performed in the section containing the unsafe covers or in adjacent sections unless the flooring is made safe.

(4) When the hatch covers and beams are not of uniform size, they shall be placed only in the hatch, deck, and section in which they fit properly.

Skeleton decks

11. No cargo shall be worked on a skeleton deck, or other superstructure unless temporary flooring is provided, when necessary, to make a safe working surface.

Open hatches

12. Open weather deck hatches around which employees must work which are not protected to a height of 600 mm by coamings, shall be guarded by taut lines at a height of 1m above the deck except on the side on which cargo is being worked.

Ships cargo gear general

13.-(1) The working load for each set of gear shall not exceed the safe working load for that gear as marked on the boom. In the absence of markings of the safe working load on the boom, the safe working load for each set of gear as specified by the cargo gear register shall not be exceeded.

(2) Cargo handling gear, any part of which is visibly unsafe, shall not be used until such part is made safe.

Winches

14. Cranes and winches shall be provided with such means as will reduce to a minimum the risk of the accidental descent of a load while being raised or lowered; in particular the lever controlling the link motion reversing gear of a crane or winch shall be provided with a suitable spring or other locking arrangements.

Pallets

15.-(1) Pallets shall be of such material and construction and so maintained as safely to support and carry loads being handled on them. Fastenings shall be bolts and nuts, drive screws (helically threaded nails) or annular threaded nails.

(2) Loaded pallets which on visual examination do not meet the requirements of this section, shall be placed on pallets meeting the requirements before being hoisted into or out of the vessel.

Slings

16.-(1) Loads shall be safely slung before being hoisted. Loose dunnage or debris hanging or protruding from loads shall be removed.

(2) Loads of lumber, pipe, dunnage and other pieces, the top layer of which is not bound by the sling, shall be slung in such a manner as to prevent sliders. Double slings shall be used on unstrapped dunnage, except when, due to the size of hatch or deep tank openings, it is impracticable to use them.

(3) Case hooks shall not be used for handling cases into or out of the vessel, unless the cases are specifically designed to be handled by this means.

(4) Bales of cotton, wool, cork, wood pulp, gunny bags or other similar articles shall not be hoisted into or out of the vessel by their straps unless the straps are of sufficient strength to support the weight of the bale, and two hooks, each in a separate strap, are used.

Protective clothing

17.-(1) When employees are handling cargo which, due to ruptured, leaking or inadequate containers, may cause burns, skin irritation or be otherwise injurious to health, they shall be protected by suitable protective clothing.

(2) Protective clothing which has been previously worn shall be cleaned and disinfected before it is issued by the employer to another employee.

Foot protection

18.-(1) The employer shall arrange, through such means as may be practicable, safety shoes to be readily available to all employees, and shall encourage their use.

SECTION 99-SAWMILLING AND WOODWORKING MACHINERY

REGULATIONS

Regulations *24th Dec. 1971*

Made by the Minister

Short title

1. These Regulations may be cited as the Sawmilling and Woodworking Machinery Regulations.

Application and operation of Regulations

2. These Regulations shall apply-

- (a) to all factories,
(b) to all premises, places, processes, operations and works to which the provisions of Part IX of the Act, with respect to Regulations for safety apply.

These Regulations shall be in substitution for the requirements imposed by or under the Act only as far as they relate to dangerous parts specified in these Regulations.

The chief inspector if satisfied in respect of any factory or other place to which these Regulations apply that owing to the special conditions of the work or otherwise, any of the requirements of the Regulations can be suspended or relaxed may by certificate in writing authorise such suspension or relaxation for such period and on such conditions as he may think fit. Any such certificate may be revoked at any time.

These Regulations shall also apply to the machines specified in regulation 3 if used on wood products, fibre-board, plastics and other materials.

Interpretation

3. In these Regulations unless the context otherwise requires-

"mill" means a band saw used for reducing logs to rough edge lumber or timber;

"saw" means a machine for sawing timber or lumber equipped with one or more endless steel bands with a series of notches or teeth on one or both edges and running over a pair of wheels or pulleys that are either mounted one above the other or mounted horizontally, but does not include a band mill;

"circular mill" means a circular saw usually known as a log breaking down saw used for reducing logs to rough edge lumber or timber;

"circular saw" means a circular saw working in a bench, including a rack bench, for the purpose of ripping, deep cutting or cross cutting, but does not include a circular mill, resaw mill, or swing saw which is moved towards the wood;

"planing machine" means a machine for smoothing or surfacing the sides and edges of wood stock and reducing it to the required thickness and width as it is being carried on or over horizontal tables past cutting knives fastened in cutter heads in rotating cylinders or on rotating spindles mounted on sliding frames;

"resaw mill" means a circular saw usually known as a breast bench saw used to rip saw boards, cants, planks, slabs timber and other mill products into two or more pieces;

"spindle moulding machine" means a machine for cutting and shaping the edges of wooden stock pushed against cutting knives which are mounted on one or more revolving vertical spindles projecting above the tables;

"swing saw" includes a pendulum saw or other saw that is moved towards the wood;

"woodworking machine" means any band mill, band saw, circular mill, circular saw, grooving and tenoning machine, lathe, planing machine, resaw mill, spindle moulding machine or swing saw operating on wood, wood products, fibre board, plastics and other materials.

Circular saws

4.-(1) Every circular saw shall be fenced as follows:-

- (a) the part of the saw below the bench table shall be protected by two plates of metal or other suitable material, one on each side of the saw and such plates shall extend from the axis of the saw outwards to a distance of not less than 50mm beyond the teeth of the saw;
- (b) behind and in a direct line with the saw there shall be a riving knife, which shall have a smooth surface, shall be strong, rigid, and easily adjustable, and shall also conform to the following conditions:-
- (c) the edge of the knife nearer the saw shall form an arc of a circle having a radius of the largest saw used on the bench;
- (d) the knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time and at the level of the bench table the distance between the front edge of the knife and teeth of the saw shall not exceed 12 mm;
- (e) for a saw of a diameter of less than 600mm the knife shall extend upwards from the bench table to within 25mm of the top of the saw, and for a saw of a diameter of 600mm or over shall extend upwards from the bench table to a height of at least 230mm;
- (f) the top of the saw shall be covered by a strong and easily adjustable guard, with a flange at either side of the saw. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.

(2) A suitable push-stick shall be kept available for use at the bench of every circular saw which is fed by hand, to enable the work to be carried on without unnecessary risk.

Planing machines

5.-(1) Planing machines, with vertical heads shall be provided with guards which may be exhaust hoods, so arranged as to enclose the whole revolving heads except a slot of sufficient width for the application of the material to be planed.

(2) No planing machine, which is not mechanically fed, shall be used for overhand planing unless it is fitted with a cylindrical cutter block.

(3) Every planing machine used for overhead planing shall be provided with a "bridge" guard capable of covering the full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.

(4) The feed roller of every planing machine used for thicknessing, except the combined machine for overhand planing and thicknessing, shall be provided with an efficient guard.

(5) Push blocks, fitted with handles shall be provided when pieces less than 450mm in length are machined on hand fed planing machines.

Spindle moulding machines

6.-(1) The cutter of every spindle moulding machine shall when practicable be provided with the most efficient guard having regard to the nature of the work which is being performed.

(2) For such work as cannot be performed with an efficient guard for the cutter the wood

being worked at a spindle moulding machine, shall, if practicable, be held in a jig or holder of such construction as to reduce as far as possible the risk of accident to the worker.

(3) A suitable "spike" or push-stick shall be kept available for use at the bench of every spindle moulding machine.

(4) The cutters of any spindle moulding machine shall be of such a design and so locked in position as to prevent them from flying out of the heads.

Band saws and band mills

7. Every band saw and band mill shall be guarded as follows:-

(a) both sides of the bottom pulley shall be completely encased by sheet metal or other suitable material;

(b) the front of the top pulley shall be covered with sheet metal or other suitable material;

(c) all portions of the blade shall be enclosed or otherwise securely guarded, except the portion of the blade necessarily exposed for the work.

Swing saws

8. Swing saws shall-

(a) be enclosed when in a non-operating position in such a manner as to prevent accidental contact by any person with the moving parts of the saw;

(b) be provided with limiting devices where necessary to prevent the saw moving beyond the edge of the bench nearest the operator;

(c) when the saw is released by the operator at any point of its travel, either remain at that point or return automatically to its non-operating position;

(d) be provided with means to prevent the saw rebounding;

(e) where operated manually, be provided with operation hand grips;

(f) where operated by foot (unless there is guard permanently fixed between the operator and the saw) have the pedal so placed that the operator is not exposed to the line of travel of the saw;

(g) be provided with a strong peripheral guard fitted with side members and so arranged to cover as much of the saw blade as permitted by the sawing operation.

Lathes

9.-(1) Cutting heads of wood turning lathes shall be guarded as far as practicable.

(2) All automatic wood turning lathes shall be equipped with guards which enclose the cutter blades completely except at the parts where the stock is being cut.

(3) Lathes used for turning long pieces of wood stock held only between two centres shall be

provided with guards extending over the tops of the lathes so designed as to prevent the work pieces from being thrown out of the machines if they should become loose.

Grooving and tenoning machines

10. The cutting heads and knives of grooving and tenoning machines shall be provided with guards securely fastened to the machine and constructed of sheet steel or other suitable material.

Log carriages for band mills and circular mills

11.-(1) Where log decks for band mills or circular mills are equipped with power operated devices that turn the logs upward and toward the carriage knees, the knees shall be equipped with curved extensions to prevent logs from being thrown over the knees.

(2) Where steam engines are used exclusively for driving band or circular mill log carriages-

(a) the main steam pipe shall be equipped, as close to the engine as conditions permit, with a quick closing valve so weighted or otherwise actuated that it will close automatically when released by the sawyer; and

(b) a device for releasing the stop valve in the main steam pipe shall be provided within easy reach and control of the sawyer.

Live rolls

12. No spiked live rolls shall be used for band mills and circular- mills.

Circular mills

13.-(1) The top half of the upper saw of a double circular mill shall be covered by a strong and rigid hood guard.

(2) The top of the saw of a single circular mill shall be covered by a strong and easily adjustable guard with a flange on either side of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.

(3) Behind and in direct line with the saw of a single circular mill and behind and in direct line with the lower saw of a double circular mill there shall be a riving knife which shall not be less than 125mm wide at the level of the log deck, shall have a smooth surface, shall be strong, rigid, and easily adjustable and shall conform to the following conditions:-

(a) the edge of the knife nearer the single or lower saw shall form an arc of a circle having a radius not exceeding the radius of the largest single or lower saw used;

(b) the knife shall be maintained as close as practicable to the single or lower saw, having regard to the nature of the work being done at the time and at the level of the log deck the distance between the front edge of the knife and teeth of the saw shall not exceed 50mm:

(c) for a single or lower saw of a diameter of less than 600mm the knife shall extend upwards from the level of the log deck to within 25mm of the top of that saw, and for a single or lower

saw of a diameter of 600mm or over shall extend upwards from the level of the log deck to a height of not less than three-quarters of the height of the saw blade above the log deck.

(4) The lower half of the saw on single circular mills and the bottom half of the lower saw of double circular mills shall be protected by two plates of metal or other suitable material one on each side of the saw; such plates shall extend from the axis of the saw outwards to a distance of not less than 150mm beyond the teeth of the saw.

(5) Double circular mills shall be provided with screens of wire mesh or other suitable devices, so placed as to protect the sawyer from flying particles.

Resaw mills

14.-(1) The top of the saw of a resaw mill shall be covered by a strong and easily adjustable guard with a flange on either side of the guard. The guard shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw. The provisions of this paragraph shall come into operation at the expiration of twelve months after the commencement of these Regulations.

(2) Behind and in direct line with the saw of a resaw mill there shall be a riving knife which shall be not less than 75mm wide at the bench level, shall have a smooth surface, shall be strong, rigid and easily adjustable and shall conform with the following conditions:-

(a) the edge of the knife nearer the saw shall form an arc of a circle having a radius not exceeding the radius of the largest saw used on the bench;

(b) the knife shall be maintained as close as practicable to the saw, having regard to the nature of the work being done at the time and at the level the bench the distance between the front edge of the knife and teeth the saw shall not exceed 25mm;

(c) for a saw of a diameter of less than 600mm the knife shall extend upwards from the bench to within 25mm of the top of that saw, and for saw of a diameter of 600mm or over shall extend upwards from the to a height of not less than three-quarters of the height of the saw above the table.

(3) The lower half of the saw on resaw mills shall be protected by two plates of metal or other suitable material one on each side of the saw; such plates shall extend from the axis of the saw outwards to a distance of not less than 75mm beyond the teeth of the saw.

Maintenance of guards

15. The guards and other appliances required by these Regulations shall be maintained in an efficient state and shall be constantly kept in position while the machinery is in motion, except when, owing to the nature of the work being done the use of the guards or appliances is rendered impracticable. The guards shall be so adjusted as to enable the work to be carried on without unnecessary risk.

Duties of persons employed

16. Every person employed on a woodworking machine shall-

(a) use and maintain in proper adjustment the guards provided in accordance with these

Regulations ;

(b) use the "spikes" or push-sticks, push blocks and holders provided in compliance with

regulations 4, 5 and 6,

except when, owing to the nature of the work being done, the use of the guards or appliances is rendered impracticable.

SECTION 99-HIGHLY INFLAMMABLE LIQUIDS REGULATIONS

Regulations 24th December, 1970

Made by the Minister

Short title

1. These Regulations may be cited as the Highly Inflammable Liquids Regulations.

Application

2.-(1) These Regulations shall apply-

(a) to all factories;

(b) to any premises, places, buildings, operations or works to which the provisions of Part IX of the Act apply.

(2) The chief inspector may by certificate, subject to such conditions, as he thinks fit, exempt from the requirements of these Regulations any process to which the application of these Regulations seems unreasonable and may revoke such a certificate.

Interpretation

3. In these Regulations, unless the context otherwise requires-

"resisting structure" means any building, part of a building, structure, cabinet or enclosure which is constructed in conformity with a specification for fire resisting structures being a

specification approved for the time being for the purposes of these **Regulations** by certificate of the chief inspector;

"highly inflammable liquid" means any liquified hydrocarbon gas and any liquid, liquid solution, emulsion or suspension which, when tested by the Abel closed cup method gives off an inflammable vapour at a temperature of less than 32°C;

"hydrocarbon gas" means a hydrocarbon gas which at a pressure of 760 millimetres of mercury can only be liquified at temperatures below 0°C.

Storage

4.-(1) All highly inflammable liquids when not in use shall be kept either-

(a) in suitably closed vessels kept in a suitably placed storeroom which shall be a fire resisting structure:

Provided that notwithstanding anything contained in any specification approved for the

purposes of the definition of "fire resisting structure" contained in **regulation** (3), provision may be made in the structure of a storeroom for pressure relief in the case of explosion;

(b) in suitably closed vessels kept in a safe position in the open air at least 10 m from any occupied building; or

(c) in the fixed storage tanks in safe positions at least 3 m from any occupied building:

Provided that nothing in this **regulation** shall apply to a factory where the aggregate quantity of highly inflammable liquids does not exceed 50l that such highly inflammable liquids are in closed vessels each of which contains not more than 25l and that such vessels are kept in a suitably placed cupboard or bin being a cupboard or bin which is a fire resisting structure or which is made of sheet steel.

(2) Vessels and tanks used for storing highly inflammable liquids shall have no openings other than those necessary for charging, discharging, dipping and venting.

(3) All openings (other than those for venting) in vessels and tanks used for storing highly inflammable liquids shall be kept securely closed except as necessary for charging, discharging and dipping.

(4) Wherever highly inflammable liquids are stored, all practicable steps shall be taken to ensure that any highly inflammable liquid which leaks, is spilt or otherwise escapes from its immediate container, shall be contained or immediately drained off to a suitable or to a safe place.

Marking of vessels and tanks

5. Every vessel and tank used for storing highly inflammable liquid shall be clearly and boldly marked "Highly inflammable liquid" unless such vessel or tank has been labelled in pursuance of the Petroleum Regulations.

Precautions against spills and leaks

6.-(1) Highly inflammable liquids shall, where it is reasonably practicable so to do, be distributed in factories through pipe-lines pumps or other installations which are in each case permanent. Where distribution of highly inflammable liquids in factories through such pipe-lines, pumps or other installations is not reasonably practicable, they shall be distributed in vessels from which liquid does not leak and as far as reasonably practicable cannot be spilled.

(2) The quantity of any highly inflammable liquid present at any one time in any workplace, plant, apparatus, or process vessel shall be as small a quantity of liquid as is reasonably practicable having regard to the operations or processes in which the highly inflammable liquid is being used.

(3) All vessels containing any highly inflammable liquid shall be kept securely closed except as necessary for charging, discharging and dipping:

Provided that while any highly inflammable liquid is being used in any operations or processes it shall not be necessary to keep securely closed as aforesaid any vessel which is so designed or placed as to avoid as far as practicable the risk of spilling.

(4) Where in any process or operation any highly inflammable liquid is liable to be spilled or to leak, all reasonably practicable steps shall be taken to ensure that any highly inflammable liquid which is spilt or has leaked shall be contained or immediately drained off to a suitable container or to a safe place.

(5) Any vessel which has contained any highly inflammable liquid, other than a fixed process vessel or a fixed storage vessel, shall, when its contents have been expended, be removed without delay to a safe place outside the building or to a suitably placed storeroom being a storeroom which is a fire resisting structure:

Provided that notwithstanding anything contained in any specification approved for the purposes of the definition of "fire resisting structure" contained in regulation 3, provision may be made in the structure of a storeroom for pressure relief in the case of explosion.

(6) All such empty vessels shall be kept in such a storeroom as aforesaid until next required for use or disposal, except where they are in constant use.

Sources of ignition

1.-(1) No fire, flame, open light or other means likely to ignite any highly inflammable liquid or the vapours therefrom shall be present in any place where there is liable to be a dangerous concentration of vapour from any highly inflammable liquid.

(2) Where any cellulose nitrate is present in any highly inflammable liquid, all practicable steps shall be taken to prevent the deposit of any solid residue resulting there from on any surface which is liable to attain a temperature of 82°C.

Vapours

8.-(1) Where any highly inflammable liquid is present in any workroom, steps shall be taken to prevent so far as is reasonably practicable the escape of vapours from any such highly inflammable liquid into the general atmosphere of that or any other workroom.

(2) Where a dangerous concentration of inflammable vapours from any highly inflammable liquid is liable to be present in the general atmosphere of any workroom then (unless the source of such vapours is confined within a cabinet or other effective enclosure which, in either case, is adequately ventilated by mechanical means and is a fire resisting structure) the workroom shall-

(a) have adequate exhaust ventilation provided by mechanical means; and

(b) be a fire resisting structure: -

Provided that notwithstanding anything contained in any specification approved for the purposes of the definition of "fire resisting structure" contained in regulation 3, provision may be made in the structure of a workroom for pressure relief in the case of explosion.

(3) All vent pipes and breather valves of vessels and tanks containing highly inflammable liquids shall discharge to a safe place and, where necessary, shall be provided with a suitable wire gauze or a suitable flame arrester.

Means of escape in case of fire

9.-(1) Adequate and suitable means of escape in case of fire which shall include not less than two safe exits shall be provided and maintained from every room in which any highly inflammable liquid is manufactured or used:

Provided that only one safe exit shall be required from any room in respect of which-

(a) the total quantities of highly inflammable liquids used in such room in any one day do not exceed 2l;

(b) the total quantities of highly inflammable liquids present in such room at any one time do not exceed 1l; and

(c) such highly inflammable liquids are kept in containers each holding not more than 100 ml of liquid and such containers are so designed or so placed as to prevent the spilling of liquid.

(2) All doors (other than sliding doors) affording a means of exit from any room in which any highly inflammable liquid is manufactured or used shall be constructed so as to open outwards from the room.

(3) Where a door affording a means of exit from such a room as aforesaid opens on to a staircase, lobby or corridor, the door shall be so constructed and maintained as to be self-closing.

Removal of solid residue

10.-(1) Whenever as a result of evaporation of any highly inflammable liquid, a deposit of any inflammable solid residue is left on any wall, partition, door, window, ceiling, top, plant or apparatus, effective steps shall be taken as often as is necessary to prevent danger to remove all such residues as aforesaid and deposit them in a safe place.

(2) No removal of any such residue containing cellulose nitrate shall be effected by scraping with an iron or steel implement.

Disposal of cotton waste and other material

11. Cotton waste or other material which is contaminated with any highly inflammable liquid or which has been used in such a manner as to render the cotton waste or other material liable to spontaneous combustion shall be deposited without delay in a metal container having a cover or be removed without delay to a safe place.

Smoking

12. No person shall smoke in any workplace or storeroom in which, any highly inflammable liquid is present.

Prohibition of disposal of highly inflammable liquids on fires

13. No highly inflammable liquid shall be disposed of on a fire.

Notices

14. Notices with the words "Danger-No Smoking-No Naked Lights" printed in conspicuous lettering not less than 150 mm in size shall be affixed in suitable positions where they may be easily read by all employees.

Earthing

15. No decanting or processing of electrically excitable liquids shall be carried out unless the relevant machines, apparatus, storage tanks and piping concerned are earthed.

Duties of persons employed

16. It shall be the duty of every person employed in a factory or premises to which these **Regulations** apply to comply with the requirements of such Regulations as relate to the doing or refraining from an act by him and to the use by him of any plant, equipment or appliance

and to co-operate in carrying out these Regulations. If a person employed as aforesaid discovers any defect in such plant, equipment or appliance he shall report such defect without delay to the occupier, manager or other responsible person.

FIRE RESISTING STRUCTURES

REGULATION 3-CERTIFICATE OF APPROVAL

Notice 22nd October, 1971

Made by the Chief Inspector

1. Storerooms shall be so constructed that the bottom forms a liquid-tight sump of a capacity at least equal to 25 per cent of the total storage capacity of the storeroom but not less than that of the largest container therein. The storerooms shall be adequately vented to the outside air near the top and not more than one inch above the top level of the sump. Every vent shall be covered by wire gauze of not less than 1mm mesh and securely attached.
2. Storerooms, and cabinets, enclosures or workrooms as specified in regulation 8 (2) of the Highly Inflammable Liquids Regulations shall be provided with sides, top, bottom, and tight fitting doors constructed of fire resisting materials.
3. "Fire resisting materials" means-
 - (a) concrete not less than 100mm in thickness; or
 - (b) efficiently jointed concrete blocks, with their voids filled with concrete, not less than 75mm in thickness; or
 - (c) sheet iron or sheet steel not less than 1.22mm in thickness; or
 - (d) except for storerooms-
 - (i) sacau, vesi, rosa-rosa, or yasiyasi not less than 50mm in finished thickness; or
 - (ii) wood securely and completely covered on both sides with compressed asbestos not less than 5mm; or
 - (iii) glass not less than 6mm in thickness in the centre of which wire mesh is embedded.

SECTION 99-CHROMIUM PLATING REGULATIONS

Regulations 24th December, 1970

Made by the Minister

Short title

1. These Regulations may be cited as the Chromium Plating Regulations.

Application

2. These Regulations shall apply to all factories or parts thereof in which the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds is carried on.

Exceptions

3. Where it is proved to the satisfaction of the chief inspector that by reason of exceptional circumstances in any factory subject to these Regulations, or by reason of the infrequency of a process, or for other reasons, all or any of the requirements of the **Regulations** are not necessary for the protection of persons employed in such factories, he may by certificate in writing (which he may in his discretion revoke) exempt such factory from all or any of the provisions of the same, subject to such conditions as he may by such certificate prescribe.

Interpretation

4. In these Regulations, unless the context otherwise requires-

"bath" means any vessel used for an electrolytic chromium process or for any process subsequent thereto;

"electrolytic chromium process" means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds;

"employed" means employed in any process involving contact with liquid from a bath;

"occupier" means the occupier of premises at or in which electrolytic chromium processes are carried out;

"suspension" means suspension from employment in any process involving contact with liquid from any bath by written certificate signed by a registered medical practitioner who shall have power of suspension as regards all persons employed in any such process.

Duties of occupiers

5. The occupier shall-

(a) at every vessel in which an electrolytic chromium process is carried on ensure that an efficient exhaust draught is provided by mechanical means which shall operate on the vapour or spray given off as near as may be at the point of origin, so as to prevent it entering into any room in which persons work;

(b) ensure that the floors of every room containing a bath shall be rendered even and impervious to water, maintained in a sound condition, and washed down daily;

(c) provide and maintain in good condition for the use of all persons employed, aprons with bibs, and, for the use of those working at a bath, loose-fitting rubber gloves of suitable length, and rubber boots or other waterproof footwear. The aprons and bibs shall be of sufficient length and suitable material which in the case of persons working at a bath shall be rubber, leather or some other impermeable material;

(d) provide and maintain for the use of all persons employed, suitable accommodation for the storage and adequate arrangements for the drying of the protective clothing required by the provisions of paragraph (c).

Medical examinations

6.-(1) Every person employed shall be examined by a registered medical practitioner at such intervals as may be specified in writing by the chief inspector, on a day of which due notice shall be given to all concerned and such examinations shall normally be made at the factory.

(2) No person after suspension shall be employed without written sanction from a registered medical practitioner entered in or attached to the general register.

Young persons

7. No young person under the age of eighteen years shall be allowed to work at a bath.

Official cautionary placard

8. The occupier shall see that an official cautionary placard as to the effects of chrome on the skin is affixed in the factory in such a position as to be easily read by all persons employed, and shall arrange for inspection of the hands and forearms of all persons employed to be made twice a week by a responsible person and for a record of such inspections to be kept in the **general** register.

Duties of persons employed

9.-(1) No person employed shall misuse or without the concurrence of the occupier or responsible person in charge interfere with any appliance provided in pursuance of these

Regulations

(2) Every person employed shall wear the protective clothing provided under the provision of paragraph (c) of regulation 5.

(3) Every person employed shall present himself at the appointed time for examination by a registered medical practitioner in accordance with the provisions of paragraph (1) of regulation 6.

(4) No person after suspension shall work in any process involving contact with liquid from any bath without written sanction from a registered medical practitioner, entered in or attached to the general register.

SECTION 99-SHIPBUILDING AND SHIP-REPAIRING REGULATIONS

Regulations 24th December, 1970

Made by the Minister

Short title

1. These Regulations may be cited as the Shipbuilding and Ship-repairing Regulations

Application

2.-(1) These Regulations shall apply to any yard or any dock (including the precincts thereof) in which ships or vessels are constructed, reconstructed, repaired, refitted, finished or broken up.

(2) The chief inspector 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 shipyard or wet dock or any class or description of shipyard or wet dock;
- (b) any class or description of machinery, plant, equipment or appliances;
- (c) any class or description of ship; or
- (d) any particular work or any class or description of work,

if he is satisfied that the requirements in respect of which such 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.

Interpretation

3. In these Regulations, unless the context otherwise requires-

"operations" means in relation to a ship, its construction, reconstruction, 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 tanks or any of its tanks last used for carrying oil;

"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;

"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.

Duties of employers

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

Safe access in general

5. 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 to 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 foothold or handhold insecure and of any obstruction.

General access to ships in a shipyard

6. All main gangways giving general access to a vessel in a shipyard, whether from the ground or from a wharf or quay, 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 1m by strongly constructed upper and lower hand-rails and by a secure toe-board projecting at least 150mm above the floor;
and

(c) be of good construction, sound material and adequate strength; and

(d) be stable and, wherever practicable, of permanent construction; and

(e) be kept in position as long as required.

Access to dry dock

7.-(1) 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 or in the middle with a substantial hand-rail. In the case of an open side, secure fencing to a height of at least 1m shall be provided by means of upper and lower rails, taut ropes or chains, or by other equally safe means. For the purposes of this paragraph, a flight of steps which is divided into two by a chute for materials, with no space between either side of the chute and the steps, shall be deemed to be one flight of steps.

(2) Such hand-rails and fencing as aforesaid shall be kept in position save when and to the extent to which their absence is necessary (whether or not for the purposes of the operations) for the access of persons, or for the movement of materials or vessels or for traffic or working, or for repair, but hand-rails or fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

Access to vessels at wharf or quay or in dry dock

8.-(1) If a ship is lying at a wharf or quay, or is in a dry dock for the purpose of undergoing any operation other than its construction or reconstruction, there shall be provided means of access for the use of persons employed at such times as they have to pass to, or from the ship or to the wharf, quay or dock side, as follows:-

(a) where reasonably practicable, one or more ship's accommodation ladders or one or more soundly constructed gangways or similar constructions or a combination of any such ladders, gangways or constructions, being ladders, gangways and constructions not less than 550mm wide, properly secured and fenced throughout on each side to a clear height of 1m by means of upper and lower rails, taut ropes or chains or by other equally safe means, except that in the case of a ship's accommodation ladder, such fencing may be on one side only if the other side is properly protected by the ship's side;

(b) in other cases, one or more ladders of sound material and adequate length which shall be properly secured to prevent them from slipping.

(2) Where at any dry dock there is a gangway giving access from an altar of the dock to a vessel which is in the dock for the purpose of undergoing any operations, and the edge of the altar is unfenced, adequate handholds shall be available for any 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.

Access between vessels

9.-(1) If a ship is alongside any vessel and persons employed have to pass from the 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, or includes, a rope 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 step of the ladder is not more than 300mm below the gunwale or top of the bulwark where the ladder gives immediate access to the vessel, and
- (b) at least one adequate and secure handhold is available 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 rope ladder.

Vessels used for access or as a working place

10.-(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.

Access to and from bulwarks

11. Where there is a gangway leading on to a bulwark 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 bulwark on to the deck which shall either be attached to the end of the firstmentioned 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

12.-(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 athwartship across or along uncovered deck-beams, or across or along floors, sufficient planks shall be provided on those deck-beams or on those floors for the purpose of access to or from places of work, and sufficient and suitable portable ladders shall be provided so as to give access either from the ground or outer bottom plating to the top of the floor.

(3) Without prejudice to any other provision in these Regulations requiring a greater width, no footway or passageway constructed of planks shall be less than 430mm wide.

Ladders

13.-(1) Subject to the provisions of the paragraphs (2) and (3), every ladder which affords a means of access, communication or support to a person or persons employed shall-

- (a) be soundly constructed and properly maintained; and
- (b) be of adequate strength for the purpose for which it is used; and
- (c) be securely fixed either-
 - (i) as near its upper resting place as possible; or
 - (ii) where this is impracticable, at its base, or where such fixing is impracticable a person shall be stationed at the base of the ladder when in use to prevent it from slipping; and
 - (ii) unless there is other adequate handhold, extend to a height of at least 1m 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 this is impracticable to the greatest practicable height.

(2) Requirements (c) and (d) of paragraph (a) shall not apply to fixed ladders of a ship or to rope ladders. Effective measures by means of roping off or other similar means shall be taken to prevent the use of fixed ladders of a ship which do not comply with requirements (a) and (b) of that paragraph.

(3) Requirement (c) of paragraph (1) shall not apply in the case of a small portable ladder carried from place to place in the course of his work by a person employed.

(4) Any person employed who removes any ladder and sets it up in a new position shall, as regards that ladder, comply with requirement (c) of paragraph (1).

(5) Rope ladders shall provide adequate foothold and, so far as is reasonably practicable, suitable provision shall be made for preventing such ladders from twisting.

Lashing of ladders

14.-(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 any 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 protected that a person using the ladder is not liable to come into contact with it so as to suffer injury.

Material for staging

15.-(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 upright and thwart shall be kept so fixed, secured or placed in position as to prevent, so far as is reasonably practicable, accidental displacement.

(2) All planks forming stages shall be securely fastened to prevent them from slipping unless they extend 450mm or more beyond the inside edge of the thwart or support on which they

rest.

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

(4) All staging used in connection with any operation shall be inspected before use, and thereafter at regular and frequent intervals, by a competent person.

(5) All dry dock altars and shoring sills on or from which persons perform work in connection with operations shall be of sound construction and properly maintained.

(6) All parts of stages, all parts of footways or passageways constructed of planks, and all parts of dry dock altars or shoring sills, being on or from which persons perform work in connection with operations, shall so far as is reasonably practicable, be kept clear of all substances likely to make foothold or handhold insecure.

Uprights used for hoisting block

17.-(1) If any upright forming part of staging is used as a fixing for a pulley block for hoisting material-

(a) it shall 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 pulley block to the upright.

(2) No upright forming part of staging shall be used as an anchorage for a lead pulley block, unless the upright is not likely to be displaced by such use.

Support of stages on planks

18.-(1) Planks supported on the rungs of ladders shall not be used to support stages.

(2) It shall be the duty of persons employed to comply with paragraph (1).

Suspended stages

19.-(1) Stages suspended by ropes or chains shall be secured as far as possible so as to prevent them from swinging.

(2) A fibre rope, or a rope made of 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.

(3) Chains, ropes, blocks and other gear used for the suspension of stages shall be of sound material, adequate strength and suitable quality and in good condition.

(4) Appropriate steps shall be taken to prevent ropes or chains used for supporting a stage from coming into contact with sharp edges of any part of a vessel.

Boatswains' chairs

20.-(1) Boatswains' chairs and chains, ropes or other gear used for their suspension shall be of sound material, adequate strength and suitable quality and the chains, ropes or other gear shall be securely attached.

(2) Suitable measures shall be taken to prevent where possible the spinning of a boatswain's chair, to prevent the tipping of a boatswain's chair and to prevent any occupant falling therefrom.

Rising stages

21. All planks forming a rising stage at the bow end of a vessel shall be securely fastened to prevent them from slipping.

Width of stages

22. Without prejudice to the other provisions of these **Regulations** all stages shall be of sufficient width as is reasonable in all the circumstances of the case to secure the safety of the persons working thereon.

Stages from which a person is liable to fall

23.-(1) This **regulation** applies to stages from which a person is liable to fall a distance of more than 2m or into water in which there is a risk of drowning.

(2) Every stage to which this **regulation** applies-

- (a) shall, so far as is reasonably practicable, be closely boarded, planked or plated;
- (b) shall be so constructed or placed that a person is not liable to fall as
- (c) aforesaid through a gap in the staging not being a gap necessary and no larger than necessary having regard to the nature of the work being carried on;
- (d) shall be at least 430mm wide.

(3) Every side of a stage to which this **regulation** applies shall-

(a) if it is not a side immediately adjacent to any part of a vessel, be fenced, subject to the provisions of this **regulation**, with a guard rail or guard rails to a height of at least 1m above the stage, which rail or rails shall be so placed as to prevent, so far as practicable, the fall of persons from the stage or from any raised standing place on the stage; or

(b) if it is a side immediately adjacent to any part of a vessel, be placed as near as practicable to that part having regard to the nature of the work being carried on and to the nature of the structure of the vessel.

(4) In the case of stages which are suspended by ropes or chains, and which are used solely for painting, the fencing required by sub-paragraph (a) of paragraph (3) may be provided by means of a taut guard rope or taut guard ropes.

(5) No side of a stage or, as the case may be, no part of the side of a stage need be fenced in pursuance of sub-paragraph (a) of paragraph (3) in cases where, and so long as, the nature of the work being carried on makes the fencing of that side or, as the case may be, that part, impracticable.

(6) Guard rails provided in pursuance of sub-paragraph (a) of paragraph (3) may be removed for the time and to the extent necessary for the access of persons or for the movement of materials, but guard rails removed for either of these purposes shall be replaced as soon as practicable.

(7) Where it is not reasonably practicable to comply with the provisions of sub-paragraph (a) of paragraph (3), the stage shall be in cases where the limitations of space make this possible be at least 635mm wide and, in other cases, as wide as those limitations permit.

Fencing of dry docks

24.-(1) Fencing shall be provided at or near the edges of a dry dock at ground level, including edges above flights of steps and chutes for materials. The height of such fencing shall at no point be less than 1m or, in the case of fencing which was placed in such position before the commencement of these **Regulations**, 760mm.

(2) Such fencing as aforesaid shall be kept in position save when and to the extent to which its absence is necessary (whether or not for the purposes of any operations) for the access of persons, or for traffic or working, or for repair, but fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

Protection of openings

25.-(1) Every side or edge of an opening in a deck or tank top of a vessel, being a side or edge which may be a source of danger to persons employed, shall, except where and while the opening is securely covered or where the side or edge is protected to a height of not less than 760mm by a coaming or other part of the vessel, be provided with fencing to a height of not less than 1m above the side or edge, and such fencing shall be kept in position save when and to the extent to which its absence is necessary, whether or not for the purposes of the operations, for the access of persons, or for the movement of materials, or for traffic or

working, or for repair, but fencing removed for any of these purposes shall be kept readily available and shall be replaced as soon as practicable.

(2) Paragraph (1) shall not apply-

(a) to that part of an opening in a deck or tank top which is at the head of a stairway or ladder-way intended to be used while the operations are being carried on; or

(b) to parts of a deck or tank top which are intended to be plated, except such parts where the plating has necessarily to be delayed so that the opening may be used for the purposes of the operations.

Fall of articles from stages

26. Where persons employed are at work outside a vessel on a stage adjacent to or part of the structure of the vessel and other persons employed are at work directly beneath that stage, the planks of the stage shall be in such a position that no article liable to cause injury to the persons employed can fall between the planks, and the inside plank of the stage shall be placed as near as practicable to the structure of the vessel having regard to the nature of the work being carried on.

Boxes for rivets, etc.

27.-(1) Boxes or other suitable receptacles for rivets, nuts, bolts and welding rods shall be provided for the use of persons employed.

(2) It shall be the duty of persons employed to use, so far as practicable, the boxes or other suitable receptacles so provided.

Throwing down materials and articles

28.-(1) Subject to the provisions of paragraph (2), parts of staging, tools and other articles and materials shall not be thrown down from a height where they are liable to cause injury to persons employed but shall be properly lowered.

(2) When the work to be done necessarily involves the throwing down from a height of articles or materials, conspicuous notices shall be posted to warn persons from working or passing underneath the place from which articles or materials may fall, or the work shall be done under the direct supervision of a competent person in authority.

(3) No person employed shall throw down any articles or materials from a height except in accordance with the requirements of this regulation .

Loose articles or materials

29.-(1) So far as practicable, steps shall be taken to minimise the risk arising from loose articles or materials being left lying about in any place from which they may fall on persons working or passing underneath.

(2) It shall be the duty of persons employed to comply with paragraph (1).

SECTION 99-FACTORIES (PROTECTION OF EYES) ORDER

*Order 25th Nov., 1957
[in force 20th Dec., 1957]*

Made by the Governor in Council

1. This Order may be cited as the Factories (Protection of Eyes) Order.
2. The following processes are processes requiring the provision of suitable goggles or effective screens to protect the eyes of the persons employed in those processes-
 - (a) dry grinding of metals, or articles of metal, applied by hand to a revolving wheel or disc driven by mechanical power;
 - (b) turning (external or internal) of non-ferrous metals, or of cast iron, or of articles of such metals or such iron where the work is done dry, other than precision turning where the use of goggles or a screen would seriously interfere with the work, or turning by means of hand tools;
 - (c) welding or cutting of metals by means of an electrical, oxy-acetylene or similar process;
 - (d) the following processes when carried on by means of hand tools or other portable tools-
 - (i) fettling of metal castings involving the removal of metal;
 - (ii) cutting out or cutting off (not including drilling or punching back) of cold rivets or bolts from boilers or other plant or from hips;
 - (iii) chipping or scaling of boilers or ships' plates;
 - (iv) breaking or dressing of stone, concrete or slag.
3. In respect of sub-paragraphs (a) and (b) of paragraph 2, protection shall, where practicable, consist of hardened glass screens or screens of other approved material attached to the grinding machine or lathe as the case may be in such a manner as to interpose between the process and the operator. Where due to the exigency of the process the provision of a screen is impracticable goggles of an approved type shall be provided for the use of persons engaged in the process.
4. It shall be the duty of persons engaged in the process to wear the goggles provided.

5. In respect of sub-paragraphs (c) and (d) of paragraph 2 in addition to the provision of suitable goggles or effective screens for the protection of persons engaged in the process, effective measures shall be taken to protect passers by from risk of injury to the eyes.

6. For the purpose of this Order, "approved" means approved by the chief inspector.

SECTION 99-FACTORIES (ELECTRICITY) REGULATIONS

Regulation 20th April, 1971

Made by the Minister

Short title

1. These Regulations may be cited as the Factories (Electricity) Regulations .

Interpretation

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

"apparatus" means electrical apparatus and includes all apparatus, machines, consuming devices and fittings in which conductors are used, or of which they form a part;

"approved instrument" means an instrument approved by the Fiji Electricity Authority;

"appropriate form" means a form approved by the Minister for use in any particular case pursuant to these Regulations;

"approved standard" means to the standard laid down by the Standards Association of Australia Wiring Rules known as S.A.A. Wiring Rules A.S. C.C.I. Part I-1969 as amended from time to time;

"circuit" means an electrical circuit forming a system or part of a system;

"conductor" means an electrical conductor arranged to be electrically connected to a system;

"covered with insulating material" means adequately covered with insulating material of such quality and thickness that there is no danger and complying with the approved standard;

"danger" means danger to health or danger to life or limb to persons employed, from shock, burn, or other injury due to electrical energy or from fire attendant upon the generation, transformation, distribution or use of electrical energy;

"earthed" means connected to the general mass of earth in such a manner as will ensure at all times an immediate and safe discharge of electrical energy without danger;

"live" applied to a system or any part of a system means that a voltage exists between any conductor and earth or between any two conductors in the system;

voltage" means a voltage in a system normally not exceeding 250 volts where electrical energy is used;

"supply" where used as a noun means the supply of energy at or from a public installation;

"substation" means any premises or enclosure or part thereof where electrical energy is received for transformation, conversion, storage or distribution and includes any apparatus therein;

"system" means an electrical system in which all the conductors and apparatus are electrically or magnetically connected;

"voltage" means the difference of electrical potential measured in volts between any two conductors or between a conductor and earth as read by an approved instrument.

Application

3. These Regulations shall apply to the generation, transformation, conversion, switching, controlling, regulating, distribution, and use of electrical energy in any factory and in premises, places, buildings, operations or work to which the provisions of the Act have been applied.

Relationship with Cap. 180

4. For the avoidance of doubt, it is declared that the provisions of these Regulations are in addition to and not in derogation of the provisions contained in the Electricity Act or any regulations made thereunder which are for the time being in force.

Exemptions

5. Nothing in these Regulations shall apply to any process or apparatus used exclusively for electro-chemical or electro-thermal or testing or research purposes if such process is so worked and such apparatus is so constructed and protected and such special precautions are taken as may be necessary to prevent danger.

Exemption by Minister

6. The Minister may by order exempt from the application of these Regulations or any part thereof any premises to which any regulations under any other written law as to the generation, transformation or use of electricity apply or, if he is satisfied that safety is otherwise secured or in the event of emergency or other special circumstances, any apparatus to which these Regulations would otherwise apply.

Non-application to service lines, etc.

7. Nothing in these Regulations shall apply to any service lines or apparatus on the supply side of the terminals of any consumer or to any chamber containing such service lines or apparatus, where the supply is given from outside by or with the authority of the Fiji Electricity Authority:

Provided that nothing in this regulation shall be deemed to authorise the exposure of any live metal so that it may be touched by any person.

Apparatus and conductors

8. All apparatus and conductors shall be sufficient in size and power for the work they are called upon to do and so constructed, installed, protected, worked and maintained as to prevent danger, so far as is reasonably practicable.

Conductors

9. All conductors shall be either covered with insulating material and further efficiently protected where necessary to prevent danger, or shall be so placed and safeguarded as to prevent danger.

Switches, etc.

10. Every switch, switch fuse, circuit-breaker, and isolating link shall be-

- (a) so constructed, placed or protected as to prevent danger;
- (b) so constructed and adjusted as accurately to make and to maintain good contact;
- (c) provided with an efficient handle or other means of working, insulated from the system, and so arranged that no person can inadvertently touch live metal;
- (d) so constructed or arranged that it cannot accidentally fall or move into contact when left out of contact.

Circuit-breakers, etc.

11.-(1) Every switch intended to be used for breaking a circuit and every circuit-breaker shall be so constructed that it cannot with proper care be left in partial contact. This applies to each pole of double-pole or multiple switches or circuit-breakers.

(2) Every switch intended to be used for breaking a circuit and every circuit-breaker shall be so constructed that an arc cannot accidentally be maintained.

Fuses, etc.

12.-(1) Every fuse and every automatic circuit-breaker used instead thereof shall be so constructed and arranged as to interrupt the current effectively before it so exceeds the working rate as to involve danger and shall be so constructed, guarded or placed as to prevent danger from overheating or from arcing or the scattering of hot metal or other substance when it comes into operation. Every fuse shall be either of such construction or so protected by a switch that the fusible metal therein may be readily renewed without danger.

Electrical joints and connections

13. Every electrical joint and connection shall be of proper construction as regards conductivity, insulation, mechanical strength and protection.

Cut-off

14. Efficient means, suitably located, shall be provided for cutting off all voltage from every part of a system, as may be necessary to prevent danger and shall comply with the approved standard.

Disconnection of motors, etc.

15.-(1) Every motor, converter and transformer shall be protected by efficient means suitably placed, and so connected that all voltage may thereby be cut off from the motor, converter or transformer as the case may be, and from all apparatus in connection therewith, provided that where one point of the system is connected to earth, there shall be no obligation to disconnect on that side of the system which is connected to earth.

(2) All means referred to in paragraph (1) shall comply with the approved standard.

Switches for motors

16.-(1) Every electrical motor shall be controlled by an efficient switch or switches for starting and stopping, so placed as to be easily worked by the person in charge of such motor.

(2) In every place in which machines are being driven by an electric motor, there shall be means at hand for either switching off such motor or stopping such machines to prevent danger.

Portable apparatus

17.-(1) Every flexible wire for portable apparatus, for alternating currents or for voltage above 115 volts direct current, shall be connected to the system by a properly constructed connection.

(2) In all cases where a person handling portable apparatus for alternating current, or voltage above 115 volts direct current, might be liable to receive an electric shock through a conducting floor or conducting work, or otherwise, if the metal work of the portable apparatus became charged, such metal work must be efficiently earthed, and any flexible metallic covering of the conductors shall be efficiently earthed and shall not be the only earth connection for the metal of the apparatus.

(3) No lamp-holder shall be in metallic connection with the guard or other metal work of a portable lamp.

(4) In the circumstances in which paragraphs (2) and (3) apply and in any place where the voltage exceeds low voltage, the portable apparatus and its flexible wire shall be controlled by efficient means suitably located and capable of cutting off the voltage, and the metal work shall be efficiently earthed independently of any flexible metallic cover of the conductors, and any such flexible covering shall be independently earthed.

(5) All means referred to in paragraph (2) shall comply with the approved standard.

Protection of apparatus

18.-(1) All conductors and apparatus exposed to weather, dampness, corrosion, inflammable surroundings or explosive atmosphere, or used in any process or for any special purpose other than for lighting or power, shall be so constructed or protected, and such special precautions shall be taken, as may be necessary adequately to prevent danger in view of such exposure or use.

Treatment of shocked persons

19. Instructions as to the treatment of persons suffering from electric shock in the appropriate form shall be affixed in all premises where electrical energy is generated, transformed or used above low voltage, and in such premises, or classes of premises, in which electrical energy is generated, transformed, or used at low voltage, as the Minister may direct.

Approved standard

20. All apparatus, conductors, switches, switch fuses, circuit-breakers, isolating links, fuses, electrical joints, connections, electrical motors, converters and transformers to which these Regulations apply shall at all times and in all respects comply with the approved standard.

Non-application of certain regulations

21. Notwithstanding anything hereinbefore contained, the provisions of regulations 9, 10 and II shall not apply-

(a) to any system in which the voltage does not exceed 115 volts direct or 32 volts alternating;

(b) in any public supply generating station, to any system in which the voltage between such system and earth does not exceed low voltage;

(c) in any above-ground substation for public supply, to any system not exceeding low voltage, unless the Minister, because of special circumstances, gives notice to the occupier of the premises in which such system, station or substation is situated that all or any of the provisions of such regulations shall apply thereto.

**REGULATION 6-PORTABLE ELECTRICAL APPARATUS
EXEMPTION ORDER**

Order 20th April 1971

Made by the Minister

Short title

1. This Order may be cited as the Portable Electrical Apparatus Exemption Order.

Interpretation

2.-(1) In this Order, unless the context otherwise requires-

"all-insulated tool" means an electrically driven tool in which all metal parts (except any chuck or other tool-holder, name plate, screw, rivet and other small part which is isolated from all other metal parts by reinforced insulation or by insulation no less effective than reinforced insulation) are covered with insulating material in the form of a durable and substantial continuous enclosure of insulating material;

"double-insulated cables" means cables with double insulation of the approved standard;

"double insulated tool" means an electrically driven tool of which all the metal work which a person may handle is, where practicable, so separated from the conductors by double insulation of the approved standard as to prevent such metal work from becoming electrically charged or, where in the case of any such metal work such double insulation is impracticable, of which that metal work is so separated as aforesaid by reinforced insulation.

(2) Reference in this Order to a British Standard shall be construed as a reference to the British Standard of the number specified which is current at the date of the making of this Order and reference in this Order to an Australian or New Zealand Standard shall be construed in a similar manner.

Exemption

3.-(1) Subject to the conditions set out in paragraph 4 and except as provided in sub-paragraph (3), all-insulated tools and double-insulated tools are hereby exempted from the requirements of regulation 17 of the Factories (Electricity) Regulations as to the efficient earthing of metalwork of portable apparatus.

(2) Subject to the conditions set out in paragraph 4 and to the provisions of sub-paragraph (3), where a single portable apparatus only is supplied at low voltage through double-insulated cables from the unearthed secondary windings of an isolating transformer, the exposed metal work of the portable apparatus need not be earthed.

(3) The exemption granted by this Order shall not apply to any flexible metal covering of conductors.

Conditions

4.-(1) The conditions referred to in sub-paragraphs (1) and (2) of paragraph 3 are-

- (a) that the apparatus or isolating transformer shall be clearly and indelibly marked on the outside with the name or trade mark of the maker and his model or type reference;
- (b) that the apparatus or isolating transformer shall be clearly and indelibly marked on the outside so as to certify-
- (c) that the apparatus or isolating transformer complies with, in the case of the apparatus, British Standard 2769, 1964 or Australian Standard c100 and, in the case of an isolating transformer, with Australian Standard cl67 Ap. or New Zealand Standard NZ51379;
- (d) that the apparatus or isolating transformer has been subjected by the maker to a routine test in accordance with the said Standard;
- (e) that the insulation of the apparatus or isolating transformer shall be maintained so as to prevent danger.

Offence

5. Any person who sells or lets on hire, or as agent of the seller or hirer causes or procures to be sold or let on hire, any apparatus or any isolating transformer in contravention of any of the provisions of this Order shall be guilty of an offence and shall be liable upon conviction to a fine not exceeding two hundred dollars.

Exemption by certificate

6. The chief inspector may by certificate exempt any class or description of apparatus or isolating transformer from so much of the provisions of this Order as may be indicated in such certificate for such period and on such conditions as he may think fit.

SECTION 99-CONSTRUCTION REGULATIONS

Made by the Governor in Council

PART I-PRELIMINARY

Short title

1. These Regulations may be cited as the Construction Regulations .

Interpretation

2. In these **Regulations**, unless the context otherwise requires-

"scaffold" means any temporarily provided structure on or from which persons perform work in connection with operations or works to which these Regulations apply, and any temporarily provided structure which enables materials to be taken to any place at which such work is performed, and includes any working platform, gangway, run, ladder or step-ladder

(other than an independent ladder or step-ladder which does not form part of such a structure) together with any guard-rail, toe-board or other safeguards and all fixings, but does not include a lifting appliance or a structure used merely to support other plant or equipment; "trestle scaffold" includes a scaffold in which the supports for the platform are any self-supporting split heads, folding step-ladders, tripods or similar movable contrivances; "working platform" includes a working stage

Application

3.-(1) These **Regulations** apply-

- (a) to all building operations; and
- (b) to all works of engineering construction,

undertaken by way of trade or business, or for the purpose of any industrial or commercial undertaking or by or on behalf of the Government or any town, or other local authority, and to any line or siding which is used in connection therewith and for the purposes thereof.

(2) The chief inspector may (subject to such conditions, if any, as may be specified therein) by certificate in writing (which he may in his discretion revoke at any time) exempt from all or any of the requirements of these Regulations-

- (a) any particular plant or equipment or any class or description of plant or equipment; or
- (b) 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 are not reasonably practicable.

Obligations under Regulations

4.-(1) Every contractor shall comply with such of the requirements of these Regulations as affect any workmen employed by him:

Provided that the said requirements shall not be deemed to affect any workman if he is present in any place for any purpose other than to perform any work on behalf of his employer.

(2) Any place in which with the permission of or under agreement with the head contractor two or more persons carry on any work which would constitute the place a building operation or work of engineering construction if the persons working therein were in the employment of the said contractor, shall be deemed to be a building operation or work of engineering construction for the purposes of these Regulations and the provisions of these Regulations shall apply as if persons were employed by the head contractor.

PART II-EXCAVATION

Timbering

5. An adequate supply of suitable timber or other material shall be provided and used to prevent, so far as is reasonably practicable in the course of the work, danger to any person employed from a fall from a height exceeding 1.25 m of earth, rock or other material forming the side of, or adjacent to, any excavation or earthworks.

Adjacent buildings

6. No excavation or earthwork which is likely to affect the stability of any building shall be started or continued unless adequate steps are taken before or during the work to prevent danger to any person employed from the collapse of the building or the fall of any part of it.

Barriers

7. Every accessible part of an excavation near to which employed persons are working and into or down a side of which a person is liable to fall a distance of more than 2m shall be provided with a suitable barrier placed as close as is reasonably practicable to the edge or shall be securely covered:

Provided that the foregoing requirement shall not apply to any part of an excavation, while, and to the extent to which, the absence of such barrier and covering is necessary for the access of persons or for the movement of plant or equipment or materials or while and to the extent to which it has not yet been practicable to erect such barrier or covering since the formation of that part of the excavation.

Loading edges of excavations

8.-(1) Material shall not be placed or stacked near the edge of any excavation so as to endanger persons working below.

(2) No load shall be placed or moved near the edge of any excavation, where it is likely to cause a collapse of the side of the excavation and thereby endanger any person.

(3) Where any vehicle is used for tipping material into any excavation or pit or over the edge of any embankment or earthwork adequate measures shall be taken where necessary so as to prevent such vehicle from over-running the edge of such excavation, pit, embankment or earthwork.

Inspection

9. Every excavation which is more than 1.25m deep shall be inspected by a competent person at least once every seven days that it is open and there shall be a further inspection whenever a change in weather or other conditions is likely to have affected the stability of the sides.

PART III-DEMOLITION

Supervision

10. The demolition of a building and the operations incidental thereto shall only be carried out under the direct supervision of a competent person experienced in such work.

No overloading

11. No roof, floor or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

PART IV-SCAFFOLDS AND MEANS OF ACCESS

Provision of scaffolds and means of access

12. Suitable and sufficient scaffolds shall be provided for all work that cannot safely be done from the ground or from part of the building, or from a ladder or other available means of support and sufficient safe means of access shall so far as is reasonably practicable be provided to every place at which any person has at any time to work.

Competent supervision

13. No scaffold shall be erected or be substantially added to or altered or be dismantled except under the immediate supervision of a competent person and so far as possible by competent workmen possessing adequate experience of such work and all material for any scaffold shall be inspected by a competent person on each occasion before being taken into use.

Construction and material

14.-(1) Every scaffold and means of access 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, shall be properly supported and shall where necessary, be sufficiently and properly strutted or braced to ensure stability and unless designed as independent structures shall be rigidly connected to a part of the building which is of sufficient strength to afford safe support.

(2) Eaves, gutter shall not be used to support scaffolds.

Maintenance and use

15. All scaffolds, working platforms, gangways, runs and stairs shall-

- (a) be properly maintained;
- (b) be inspected by a competent person at least once in every seven working days after erection, alteration or extension, and after exposure to weather likely to affect their strength or stability or to have displaced any part;
- (c) not be overloaded;
- (d) be kept free from any unnecessary obstruction and from projecting nails.

Clearance of passage-ways

16. A clear passage-way at least 430 mm wide shall be left between one side of any working platform and any fixed obstruction or deposited materials.

Scaffolds used by workmen of more than one employer

17. Where a scaffold or part of a scaffold is to be used by or on behalf of an employer other than the employer of whose workmen it was first erected, the first- mentioned employer shall, before such use, and without prejudice to any other obligations imposed upon him by these Regulations, take express steps, either personally or by a competent agent, to satisfy himself that the scaffold or part thereof is stable, that the materials used in this construction are sound and that the safeguards required by these Regulations are in position.

Platforms

18. The distance between two consecutive putlogs or other supports on which a platform rests shall be fixed with due regard to the expected load and the nature of the platform flooring. The distance with single planking shall not exceed 1m with planks 32mm in thickness, 1.5m with planks 38mm in thickness, or 2.5m with planks 50mm in thickness.

Widths of working platforms

19. Every working platform from which a person is liable to fall more than 2m shall be-

(a) at least 635mm wide if the platform is used as a working platform only and not for the deposit of any material.

(b) at least 865mm wide if the platform is used for the deposit of material.

Construction of working platforms, gangways and runs

20.-(1) Every working platform, gangway and run from any part of which a person is liable to fall a distance of more than 2 m shall be closely boarded, planked or plated:

Provided that this requirement shall not apply to-

(a) a platform, gangway or run consisting of open metal work having interstices none of which exceeds 4 000mm² in area, if there is no risk of persons below any such platform, gangway or run being struck by materials or articles falling through the platform, gangway or run; or

(b) a platform, gangway or run, the boards, planks or plates of which are so secured as to prevent their moving and so placed that the space between adjacent boards, planks or plates does not exceed 25mm if there is no risk of persons below any such platform, gangway or run being struck by materials or articles falling through the platform.

(2) No gangway or run shall be used the slope of which exceeds 1 vertical to 1½ horizontal.

(3) Where the slope of a gangway or run renders additional foothold necessary, and in every

case where the slope is more than 1 vertical to 4 horizontal there shall be provided proper stepping laths which shall-

- (a) be placed at suitable intervals; and
- (b) be the full width of the gangway or run, except that where necessary they may be interrupted over widths of not more than 230mm to facilitate the movement of barrows.

Working platforms at ends of walls

21. Where work has to be done at the end of a wall the working platform shall, wherever practicable, extend at least 600mm beyond the end of the wall.

Guard-rails and toe-boards

22.-(1) Every side of a working platform, gangway, run and stair being a side thereof from which a person is liable to fall a distance of more than 2m, shall be provided with a guard-rail or guard-rails of adequate strength, to a height of at least 1m above the platform or place and above any raised standing place on the platform, and with toe-boards (except in the case of stairs) up to a sufficient height being in no case less than 200 mm and so placed as to prevent so far as possible the fall of persons, materials and tools from such platform or place.

(2) All guard-rails and toe-boards shall be placed on the inside of the uprights, and the space between any toe-board and the lowest guard-rail above it shall not exceed 680mm.

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

Trestle scaffolds

23. No trestle scaffold shall be used-

- (a) if constructed with more than three tiers; or
- (b) if it has a working platform more than 5m above the ground or floor or other surface upon which the scaffold is erected.

Boards and planks in working platforms, gangways and runs

24.-(1) Every board or plank forming part of a working platform gangway or run shall be-

- (a) of a thickness which is such as to afford adequate security having regard to the distance between the putlogs or other supports; and
- (b) not less than 200mm wide, or, in the case of boards or planks exceeding 50mm in thickness, not less than 150mm wide.

(2) No board or plank which forms part of a working platform, gangway or run shall project beyond its end support to a distance exceeding four times the thickness of the board or plank unless it is effectively secured to prevent tipping, or to a distance which, having regard to the

thickness and strength of the plank, renders the projecting part of the plank an unsafe support for any weight liable to be upon it.

Ladders and step-ladders

25.-(1) Every ladder and step-ladder shall be of good construction, sound material and adequate strength for the purpose for which it is used.

(2) Where a ladder is used as a means of communication or as a working place the ladder shall rise, or adequate handhold shall be provided, to a height of at least 1m above the place of landing or the highest rung to be reached by the feet of any person on the ladder as the case may be except in the case of a crawling ladder used on a roof.

(3) Ladders or step-ladders shall not stand on loose blocks or bricks or other loose packing but shall be placed so that both uprights rest evenly on the base.

(4) Every ladder shall so far as is practicable be securely fixed so that it can move neither from its top nor from its bottom points of rest and if it cannot be so fixed at the base, a person shall be stationed at the base of the ladder whenever it is in use to prevent it slipping.

(5) No ladder shall be used which has a missing or defective rung, or of which any rung depends for its support solely on nails, spikes or other similar fixings.

Sloping roofs

26.-(1) In this regulation, "sloping roof" means a roof or part of a roof being a roof or part having a pitch of more than 10 degrees which is covered either wholly or partly and-

(a) which is in the course of construction, maintenance, repair or demolition; or
(b) which is used as a means of access to or egress from operations or works on a roof or part of a roof being operations or works to which these Regulations apply.

(2) Except as provided in paragraphs (6) and (7), where any sloping roof has-

(a) a pitch of more than 30 degrees; or
(b) a pitch of 30 degrees or less and a surface on or from which a person is by reason of the nature or condition of the surface or of the weather liable to slip or fall to such an extent that he is liable to fall from the edge of the roof;

work thereon or therefrom shall only be carried out by workmen who are suitable for such work and the requirements of paragraphs (3) and (4) shall be complied with.

(3) Where any sloping roof is used as a means of access to or egress from operations or works on a roof or a part of a roof being operations or works to which these Regulations apply, sufficient and suitable crawling ladders or crawling boards shall be provided on the sloping roof.

(4) Where any work is done on or from any sloping roof sufficient and suitable crawling ladders or crawling boards shall be provided on that sloping roof and (except where the work is not extensive) either-

(a) a barrier shall be provided at the lower edge of the sloping roof, other than the upper surface of a tank or similar structure of metal construction, of such a design and so constructed as to prevent any person falling from that edge; or

(b) the work shall be done from a securely supported working platform not less than 430mm wide which complies with the requirements of regulation 22.

(5) Crawling ladders and crawling boards provided in pursuance of paragraph (3) or (4) shall be-

(a) of good construction, suitable and sound material, adequate strength for the purposes for which they are used, free from patent defect and properly maintained;

(b) properly supported;

(c) securely fixed or anchored to the sloping surface or over the roof ridge or securely fixed in some other effective way so as, in every case, to prevent slipping.

(6) The provision of crawling ladders or crawling boards shall not be required in the case of any sloping roof where the handhold and foothold afforded by the battens or other similar members of the structure are such that the said sloping roof is as safe for every person thereon as it would be if the said provision had been made.

(7) The provisions of sub-paragraphs (a) and (b) of paragraph (4) shall apply only in the case of any sloping roof from the eaves of which a person is liable to fall a distance of more than 2m.

(8) Suitable and sufficient means shall be provided to prevent the fall of materials or articles from a sloping roof.

PART V-MISCELLANEOUS

Drowning

27. Where work is carried on near to any place where there is a risk of drowning the contractor shall supply and maintain in good order and available for immediate use sufficient and suitable equipment for rescue purposes.

High winds

28. When a warning has been issued that the advent of winds exceeding 50 knots is expected,

the contractor or person responsible for scaffolding, tools, plant, loose materials or other things used in building operations shall forthwith take all reasonable precautions to prevent such scaffolding, tools, plant, loose materials or things from becoming flying debris and thus endangering the safety of any person.

Registers and records

29. The results of the inspections required under **regulations** 9, 13 and 15 shall be kept in the form specified by the Minister and shall be readily available for inspection.

SECTION 99-STEAM BOILER AND PRESSURE VESSELS (REPORTS)

REGULATIONS

Regulations 25th July, 1978

Made by the Minister

Short title

1. These Regulations may be cited as the Steam Boiler and Pressure Vessels (Reports) Regulations.

Steam boilers

2. A report of the result of every examination of a steam boiler under section 47 of the Act shall be in the form and contain the following particulars:-

(a) in the case of an examination when cold of a steam boiler other than a steam tube oven or a steam tube hotplate, the form and particulars set out in Part I of the Schedule;

(b) in the case of an examination under normal steam pressure of a steam boiler other than an economiser or a superheater, the form and particulars set out in Part II of the Schedule.

Pressure vessels

3. A report of the result of every examination and test required to be made under sections **49** or **50** of the Act of every steam receiver and every steam container and every air receiver to which the said sections apply shall contain the following particulars:-

(a) in the case of any steam receiver, steam container and air receiver which is not of such solid drawn construction that it cannot be thoroughly examined internally, the particulars specified in Part III of the Schedule;

(b) in the case of any such steam receiver, steam container or air receiver which is of a kind specified in paragraph (a) and which is to be additionally examined under normal pressure, the particulars specified in Part III and Part IV of the Schedule; and
(c) in the case of any such air receiver which is of solid drawn construction and which cannot be thoroughly examined internally, the particulars specified in Part III of the Schedule.

SCHEDULE

**PART I
FACTORY INSPECTORATE**

[SCHEDULES (PARTS I - IV) not included]
