

CHAPTER 441

THE FACTORIES ACT

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An Act to make further and better provision for the regulation of the conditions of employment in factories and other places as regards the safety, health and welfare of persons employed therein; to provide for the safety, examination and inspection of certain plant and machinery; and to provide for purposes incidental to or connected with the matters aforesaid.

[1st May, 1967]

PART I

PRELIMINARY

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

2. (1) Subject to the provisions of this section, the expression Definition of
"factory" means any premises in which, or within the close or curtilage "factory"
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 or assembling of any article or of part of any article;
 - (b) the altering, repairing, ornamenting, finishing, cleaning or
washing or the breaking-up or demolition of any article; or
 - (c) the adapting for sale of any article;
being premises in which, or within the close or curtilage or precincts of
which, the work is carried on by way of trade or for purposes of gain
and to or over which the employer of persons employed therein has the
right of access or control.

- (2) Whether or not such premises are factories by virtue of subsection
(1), the expression "factory" also includes the following premises in
which persons are employed in manual labour, that is to say:
 - (a) any premises in which the business of sorting any articles is
carried on as a preliminary to the work carried on in any factory or
incidentally to the purposes of any factory;
 - (b) any premises in which the business of washing or filling bottles
or containers or packing articles is carried on incidentally to the
purposes of any factory;
 - (c) any laundry carried on as ancillary to another business, or
incidentally to the purposes of any public institution;
 - (d) 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;

(e) any premises in which printing by letterpress, lithography, photogravure, or other similar process, or bookbinding is carried on by way of trade or for purposes of gain or incidentally to another business so carried on;

(f) 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;

(g) any premises in which persons are regularly employed in the generating, transforming or controlling of electrical energy for supply by way of trade or for supply for the purposes of any industrial or commercial undertaking;

(h) any premises in which mechanical power is used for the purposes of or in connection with a public water supply;

(i) any sewage works in which mechanical power is used and any pumping station used in connection with any sewage works; and

(j) any premises in which the refrigeration of any article is carried on by way of trade or for purposes of gain, except where such refrigeration is incidental to the conduct of a business engaged mainly in the sale of goods by retail.

(3) Any line or siding, not being part of a railway, which is used in connection with and for the purposes of a factory, shall be deemed to be part of the factory; and if any such line or siding is used in connection with more than one factory belonging to different occupiers, the line or siding shall be deemed to be a separate factory.

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

(5) 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 such 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 not being a tenement factory or part of a tenement factory, 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.

(6) 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 otherwise it would be a factory, be deemed to be a separate factory.

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

(8) Any premises belonging to or in occupation of the Republic or any local or other public authority shall not be deemed not to be a factory, and building operations or works of engineering construction undertaken by or on behalf of the Republic or any such 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 or for purposes of gain.

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

"article" includes any solid, liquid or gas, or any combination thereof;

"bodily injury" includes injury to health;

"boiler book" means a book kept in accordance with the provisions of subsection (11) of section *fifty-five*;

"building operation" means the construction, structural alteration, repair or maintenance of a building (including repainting, redecoration and external cleaning of the structure), the demolition of a building, and the preparation for and laying the foundation of an intended building, but does not include any operation which is a work of engineering construction within the meaning of this Act;

"child" means a person under the apparent age of fourteen years;

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

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"Commissioner" means the Labour Commissioner;

"competent person", in relation to any particular duty or function, means a person who has had adequate training and experience to enable him to perform that duty or function;

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

"electricity substation" means any premises, or part thereof, in which no person is regularly employed and in which electrical energy is transformed or converted to or from pressure above medium pressure if such premises or part thereof are large enough for a person to enter after the apparatus is in position;

"fume" includes gas and vapour;

"general register" means a register kept under the provisions of section *eighty-six*;

"harbour" includes any harbour properly so called, whether natural or artificial, and any estuary, navigable river, pier, jetty or other works in or at which craft can obtain shelter, or ship or unship goods or passengers;

"inspector" means the Chief Inspector of Factories or any other inspector appointed under the provisions of section *six*;

"machinery" includes any driving-belt;

"magistrate" means a magistrate empowered under the Subordinate Courts Act to hold a subordinate court of the first or second class;

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

"medium pressure" means a difference of electrical potential between any two conductors, or between a conductor and earth, in a system normally exceeding 250 volts but not exceeding 650 volts at the point where the electrical energy is used;

"occupier" means the person or persons in actual occupation of a factory, whether the owner or not;

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

"plant" includes any equipment, gear, machinery, apparatus or appliance, or any part thereof;

"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;

"railway" means any railway used for the purpose of public traffic, whether passenger, goods or other traffic, and includes any works of the railway company or railway authority connected with a railway;

"sanitary convenience" includes a privy, urinal, pail closet, pit closet, earth closet, chemical closet and water closet;

"standard specification" means a specification of construction approved from time to time by the British Standards Institution, and includes a specification which, in the opinion of the Commissioner, in any case, is equivalent to a specification approved by that Institution;

"tenement factory" means any premises where mechanical power from any prime mover within the close or curtilage of the premises is distributed for use in manufacturing processes to different parts of the same premises occupied by different persons in such manner that those parts constitute separate factories;

"transmission machinery" means every shaft, wheel, drum, 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;

"work of engineering construction" means the construction of any railway line or siding, otherwise than upon an existing railway, the construction of any road, and the construction, structural alteration, repair (including repointing and repainting) or demolition of any dock, harbour, inland navigation, tunnel, bridge, viaduct, waterworks, reservoir, pipeline (for whatever purpose required), aqueduct, sewer, sewage works or gasholder, and includes such other works as the Minister may by regulation specify;

"young person" means a person who has attained the apparent age of fourteen years but who has not attained the apparent age of eighteen years.

(2) A woman, child or young person who works in a factory, whether for wages or otherwise, either in a process or in cleaning any part of the 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) A young person who works in a factory, whether for wages or

otherwise, 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, an apprentice shall be deemed to be a person employed.

(As amended by Act No. 24 of 1975)

4. (1) Save as in this Act otherwise expressly provided, the provisions of this Act shall apply only to factories as defined by this Act but shall, except where the contrary intention appears, apply to all such factories. Application of Act

(2) The provisions of this Act shall apply to any factories belonging to or in occupation of the Republic and to building operations and works of engineering construction undertaken by or on behalf of the Republic.

PART II

ADMINISTRATION

5. The Commissioner may delegate to any other public officer in writing and subject to such restrictions, reservations, exceptions and conditions as he may think fit, all or any of the powers conferred upon him by or under this Act. Delegation of powers of Commissioner

6. (1) There shall be appointed as public officers a Chief Inspector of Appointment of Factories and such other inspectors as shall be necessary for the proper administration of this Act. inspectors

(2) Every inspector shall be furnished with a certificate of appointment in the prescribed form, and when visiting a factory or place to which any of the provisions of this Act apply shall, if required, produce such certificate to the occupier of or other person holding a responsible position of management at the factory or place.

(As amended by Act No. 24 of 1975)

- 7.** An inspector shall, for the purposes of this Act, have power-
- (a) to enter, inspect and examine, by day and night, any 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 which he has reasonable cause to believe to be a factory and any part of any building of which a factory forms part and in which he has reasonable cause to believe that explosive or highly inflammable materials are stored or used;
 - (b) to take with him a police officer if he has reasonable cause to apprehend any serious obstruction in the execution of his duty;
 - (c) to require the production of the registers, certificates, notices and documents required under the provisions of this Act to be kept and to inspect, examine and copy any of them;
 - (d) to make such examination and inquiry as may be necessary to ascertain whether the provisions of this Act are complied with in respect of any factory and of any persons employed therein;
 - (e) to require any person whom he finds in any factory to give such information as it is in his power to give as to who is the occupier of the factory;
 - (f) to examine, either alone or in the presence of any other person, as he thinks fit, with respect to matters under this Act, the occupier, or any 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 has been so examined:

Powers of inspectors

Provided that no person shall be required under this paragraph to answer any question or to give any evidence tending to incriminate himself;

- (g) in the case of an inspector who is a medical practitioner, to carry out such medical examinations as may be necessary for the purposes of his duties under this Act; and
- (h) to exercise such other powers as may be necessary for carrying this Act into effect.

8. The occupier of every factory and his agents and servants 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.

Duty to assist inspector

9. (1) No person shall obstruct an inspector in the execution of his duties under this Act. Obstructing inspector

(2) If any person wilfully delays an inspector in the exercise of any power under this Part, or fails to comply with the requisition of an inspector in pursuance of this Part, 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 obstruct an inspector in the execution of his duties under this Act.

(3) Any person who obstructs an inspector shall be guilty of an offence and liable on conviction to a fine not exceeding three hundred penalty units or to imprisonment for a period not exceeding one month.

(As amended by Act No. 13 of 1994)

10. (1) No inspector shall, save in the performance of his duty, publish or disclose to any person the details of any manufacturing, commercial or working process which may come to his knowledge in the course of his duties. Inspectors not to disclose information or source of complaints

(2) Unless authorised by the complainant, an inspector shall not divulge to any person the source of any complaint bringing to his notice any defect or breach of the provisions of this Act and shall give no intimation to any owner, occupier or employer or a representative of such owner, occupier or employer that a visit of inspection was made in consequence of the receipt of such a complaint.

(3) Any inspector who contravenes the provisions of subsection (1) or (2) shall be guilty of an offence.

PART III

REGISTRATION OF FACTORIES

- 11.** The Commissioner shall maintain a register of factories, in which he shall cause to be entered such particulars in relation to every factory as may be prescribed. Register of factories
- 12.** (1) Every person who on the commencement of this Act occupies a factory shall within three months thereafter apply to the Commissioner, by written notice containing the particulars prescribed under section *eleven*, for the registration of the factory. Registration of existing factories
- (2) Upon receipt of an application under subsection (1), the Commissioner shall cause the factory to be registered and shall issue to the occupier thereof a certificate of registration.
- 13.** (1) No person shall occupy or use as a factory any premises which were not so occupied or used on the commencement of this Act and in respect of which a certificate of registration under this section has not been issued. Registration of new factories existing
- (2) Upon written application supported by the particulars prescribed under section *eleven* being made to the Commissioner for the registration of any premises to which subsection (1) refers, the Commissioner shall-
- (a) if he is satisfied that the premises comply with the provisions of this Act or any orders or regulations made thereunder, cause the premises to be registered and a certificate of registration to be issued; or
- (b) if he is not so satisfied, refuse to register the premises and shall state in writing the grounds for such refusal.
- 14.** The occupier of any factory registered under this Part shall forthwith notify the Commissioner in writing of any material change in the particulars last notified in relation to that factory under section *twelve* or *thirteen*. Notification of change in registered particulars
- 15.** (1) No building shall be erected or converted for use as a factory and no extension shall be added to any existing factory save in Drawings of factories

accordance with drawings showing plans and sections of the proposed erection, conversion or addition which have been approved by the Commissioner under subsection (2).

(2) Upon written application supported by such particulars as may be prescribed being made to the Commissioner for the approval of any drawings described in subsection (1), the Commissioner shall-

(a) if he is satisfied the drawings provide for suitable premises for use as a factory of the type proposed, issue a certificate of approval of such drawings; or

(b) if he is not so satisfied, refuse to issue any certificate of approval of the drawings and shall state in writing the grounds for such refusal.

PART IV

APPEALS

16. (1) For the purpose of hearing and determining appeals in accordance with the provisions of this Part or any proceedings incidental thereto or connected therewith, there is hereby established an Appeals Board (hereinafter in this Part called "the Board").

Establishment of
Appeals Board

(2) The chairman and members of the Board shall be appointed from time to time by the Judicial Service Commission for such period as the said Commission may think fit.

17. (1) Any person aggrieved by a decision of the Commissioner under the provisions of section *thirteen* or *fifteen* may appeal to the Board therefrom.

Appeals to Board

(2) Every notice of appeal shall be in writing stating the grounds of the appeal and shall be lodged with the chairman of the Board who, on receipt of such notice, shall appoint a day and place for the hearing of the appeal and shall notify the parties accordingly.

(3) The procedure for the institution and hearing of appeals to the Board shall be in accordance with the provisions of this Part and any rules which may be made by the Chief Justice, by statutory instrument, under this section for the purpose of regulating such procedure.

(4) On the hearing and determination of any appeal under this Part-

(a) the Commissioner shall be a party to the proceedings;

(b) any party to the proceedings may appear in person or by counsel or any agent thereunto authorised by him in writing.

18. (1) The Board may confirm, vary or reverse the decision of the Commissioner with which the appeal is concerned. Powers of Board

(2) The Board shall not make any order as to costs unless it considers the decision of the Commissioner to have been unreasonable or the grounds of appeal to have been frivolous.

(3) Any decision by the Board under this Part shall be final and shall not be challenged in any proceedings whatsoever.

PART V

HEALTH: GENERAL PROVISIONS

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

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

(a) accumulations of dirt and refuse shall be removed daily from the floors and benches of workrooms, and from the staircases and passages;

(b) the floor of every workroom shall be cleaned at least once in

every week by washing or, if it is effective and suitable, by sweeping or other method;

(c) where any process is carried on in circumstances which render the floor liable to be wet to such an extent that the fluid is capable of being removed by drainage, effective means shall be provided and maintained for draining off the fluid;

(d) all inside walls and partitions, and all ceilings or tops of rooms, and all walls, sides and tops of passages and staircases shall-

(i) where they have a smooth impervious surface, at least once in every period of fourteen months be washed with hot water and soap or other suitable detergent or cleaned by other suitable method;

(ii) where they are kept painted in a prescribed manner or varnished, be repainted in a prescribed manner or revarnished at such intervals of not more than seven years as may be prescribed, and shall at least once in every period of fourteen months be washed with hot water and soap or other suitable detergent or cleaned by other suitable method;

(iii) in all other cases, be kept whitewashed or colourwashed and the whitewashing or colourwashing shall be repeated at least once in every period of fourteen months.

(3) Where it appears to the Commissioner that in any factory or class or description of factory or parts thereof any of the foregoing provisions of this section are by reason of special circumstances inappropriate or unnecessary, he may, if he thinks fit, by order direct that those provisions shall not apply to that factory or to factories or parts of factories of that class or description, or shall apply as varied in the order.

20. (1) A factory shall not, while work is carried on, be so overcrowded as to cause risk of injury to the health of the persons employed therein.

Overcrowding

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

(3) In calculating for the purposes of this section the amount of cubic

space in any room, 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 not be less than three metres in height measured from the floor to the lowest point of the ceiling or, where there is no ceiling, to the lowest point of the roofing material.

(As amended by No. 20 of 1974)

21. Effective and suitable provision shall be made, by natural or artificial means, for securing and maintaining by the circulation of fresh air in each workroom the adequate ventilation of the room, and for rendering harmless, so far as practicable, all such fumes, dust and other impurities generated in the course of any process or work carried on in the factory as may be injurious to health.

General

ventilation

22. (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.

Lighting

(2) All glazed windows and skylights used for lighting of workrooms shall, so far as practicable, be kept clean on both the inner and outer surfaces and free from obstruction:

Provided that this subsection shall not affect the whitewashing or shading of windows and skylights for the purpose of mitigating glare or heat.

23. Sufficient and suitable sanitary conveniences for the persons employed in the factory 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, the conveniences shall afford proper separate accommodation for each sex.

Sanitary

conveniences

24. The provisions of section *twenty-three* shall, in such areas of Zambia as the Minister may by order direct, be enforced by such local authority as may be specified in such order.

Enforcement of

provisions of

section 23 by

local authority

25. Where an inspector finds any act or default in relation to any drain, sanitary convenience, water supply, nuisance or other matter in a factory which is liable to be dealt with by a local authority by reason of any order made under section *twenty-four* or under any written law relating to public health, he shall give notice thereof in writing to the local authority.

Duty of inspector as to sanitary defects remediable by local authority

26. (1) Where it appears to the Minister-

Medical supervision

(a) that in any factory or class or description of factory-

(i) cases of illness have occurred which he has reason to believe may be due to the nature of a process or other conditions of work; or

(ii) by reason of changes in any process or in the substances used in any process, or by reason of the introduction of any new process or new substance for use in a process, there may be risk of injury to the health of persons employed in that process; or

(iii) young persons are or are about to be employed in work which may cause risk of injury to their health; or

(b) that there may be risk of injury to the health of persons employed in a factory-

(i) from any substance or material brought to the factory to be used or handled therein; or

(ii) from any change in the conditions of work or other conditions in the factory;

he may make regulations requiring such reasonable arrangements to be made for the medical supervision (not including medical treatment other than first-aid treatment and medical treatment of a preventive character) of the persons, or any class of the persons, employed at that factory or class or description of factory as may be specified in the regulations.

(2) Where the Minister proposes to exercise his powers under this section in relation to a particular factory and for a limited period, he may exercise those powers by order instead of by regulations, and any such order shall, subject to subsection (3), cease to have effect at the expiration of such period as may be specified in the order.

(3) The Minister may by subsequent order or orders extend the said period, but if the occupier of the factory by notice in writing to him objects to any such extension, the original order shall cease to have effect as from one month after the service of the notice, without prejudice to the making of regulations in relation to the factory.

PART VI

SAFETY: GENERAL PROVISIONS

27. (1) Every flywheel directly connected to any prime mover and every moving part of any prime mover, except such prime movers as are mentioned in subsection (3), shall be securely fenced, whether the flywheel or prime mover is situated in an engine-house or not. Prime movers

(2) The head and tail race of every water wheel and of every water turbine shall be securely fenced.

(3) Every part of any electric generator, motor and rotary converter, and every flywheel directly connected thereto, shall be securely fenced unless it is in such a position or of such construction as to be as safe to every person employed or working on the premises as it would be if securely fenced.

28. (1) Every part of any transmission machinery shall be securely fenced unless it is in such a position or of such construction as to be as safe to every person employed or working on the premises as it would be if securely fenced. Transmission machinery

(2) Efficient devices or appliances shall be provided and maintained in every room or place where work is carried on by which the power can promptly be cut off from the transmission machinery in that room or place.

(3) Every machine intended to be driven by mechanical power shall be provided with an efficient starting and stopping appliance, the control of which shall be in such a position as to be readily and

conveniently operated by the person operating the machine.

(4) 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.

(5) Suitable striking gear or other efficient mechanical appliance 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 any 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.

(6) The Commissioner may, subject to any conditions therein specified, issue a certificate of exemption from compliance with any of the requirements of subsections (2), (4) and (5) in any case where he is satisfied that compliance with the requirement is unnecessary or impracticable.

29. (1) Every dangerous part of any machinery, other than prime movers and transmission machinery, shall be securely fenced unless it is in such a position or of such construction as to be as safe to every person employed or working on the premises as it would be if securely fenced.

Other machinery

(2) Any part of a stock-bar which projects beyond the head-stock of a lathe shall be securely fenced unless it is in such a position as to be as safe to every person employed or working on the premises as it would be if securely fenced.

(3) Where the Commissioner is satisfied that there is available and suitable for use in connection with machinery of any class any type or description of safety device, he may by order direct that that type or description of device shall be provided for use, either instead of or in addition to any fencing, in connection with such class of machinery as may be specified in the order.

30. (1) Subject to the provisions of subsection (2), in determining, for the purposes of the foregoing provisions of this Part, whether any part of machinery is in such a position or of such construction as to be as safe to every person employed or working on the premises as it

Provisions as to unfenced machinery

would be if securely fenced-

(a) no account shall be taken of any person carrying out, while the part of machinery is in motion, an examination thereof or any lubrication or adjustment shown by such 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 case of any part of transmission machinery used in any process with respect to which the Commissioner has certified in writing that owing to the continuous nature of such process the stopping of that part would seriously interfere with the carrying on of the process in such factory, no account shall be taken of any person carrying out, by such methods and in such circumstances and subject to such conditions as may be specified in the certificate, any lubrication or any mounting or shipping of belts.

(2) Subsection (1) shall only apply where-

(a) the examination, lubrication or other operation is carried out by a male person who-

(i) has attained the apparent age of eighteen years;

(ii) has been appointed by the occupier of the factory, by prescribed certificate attached to the general register, to carry out such examination, lubrication or other operation, and has been furnished by the occupier with a signed copy of such certificate;

(iii) has been sufficiently trained for the purposes of the work entailed by, and is acquainted with the dangers of moving machinery arising in connection with, such examination, lubrication or other operation; and

(iv) has been provided by the occupier with and is wearing a close-fitting single-piece garment in good repair, which is fastened by means having no exposed loose ends and has no external pockets other than a hip-pocket;

(b) another person, instructed as to the steps to be taken in case of emergency, is immediately available within sight or hearing of any person carrying out such examination, lubrication or other operation; and

(c) any ladder in use for the carrying out of such examination, lubrication or other operation is securely fixed or lashed or is firmly

held by a person standing at the foot of the ladder.

31. All fencing and other safeguards provided in pursuance of the foregoing provisions of this Part shall be of substantial construction, and constantly maintained and kept in position while the parts required to be fenced or safeguarded are in motion or use, except when any such parts are necessarily exposed for examination and for any lubrication or adjustment shown by such examination to be immediately necessary and all conditions imposed by or under section *thirty* are complied with.

32. (1) Every prime mover and other machine, being a machine intended to be driven by mechanical power, shall be so constructed that the following parts of such prime mover or machine are securely fenced or are in such a position or are of such construction as to be as safe as they would be if they were securely fenced:

All revolving shafts (including journal ends), flywheels, couplings, toothed gearing, friction gearing, belt and pulley drives, chain and sprocket drives, cams, crank arms and slide blocks and all projecting screws, bolts or keys on any moving part:

Provided that the foregoing requirements shall not apply to a pulley, coupling or other part of a prime mover or machine intended for connecting to the prime mover or machine means of transmitting motion from the prime mover or from or to the machine, as the case may be, other than means of transmitting motion from the prime mover to the machine where the prime mover and machine are constructed as a combined unit appliance.

(2) Every prime mover and other machine, being a machine intended to be driven by mechanical power, shall be so constructed that every lever, handle, switch or other device whose accidental movement or displacement is liable to cause danger, shall, where practicable (unless it is so placed or the appliance is so constructed as to prevent accidental movement or displacement) be provided with a suitable spring or other locking or shrouding arrangement to prevent the accidental movement or displacement.

(3) Any person who, after the expiry of a period of two years from the commencement of this Act, sells or lets on hire, or as agent of the seller

or hirer causes or procures to be sold or let on hire, for use in a factory in Zambia, any prime mover, or other machine intended to be driven by mechanical power, which does not comply with the requirements of subsections (1) and (2) shall be guilty of an offence and liable to a fine not exceeding one thousand five hundred penalty units.

(4) Nothing in this section shall be deemed to relieve the occupier of a factory of any responsibility placed on him under this Act in relation to any machinery used in that factory.

(5) The Minister may by regulations extend the provisions of subsection (3) to plant which does not comply with such requirements of this Act or of any regulations made thereunder as may be specified in the regulations, and any regulations made under this subsection may relate to plant in a specified process.

(6) An offence under subsection (3) or (5) shall, where necessary for the purpose of conferring jurisdiction on any court to entertain proceedings for the offence, be deemed to have been committed in the place where the machine or, as the case may be, the plant, is for the time being.

(As amended by Act No. 13 of 1994)

33. (1) Every fixed vessel, structure, sump or pit of which the edge is Vessels less than one metre above the highest ground or platform from which a containing person might fall into it shall, if it contains any scalding, corrosive or dangerous poisonous liquid, or any molten metal, either be securely covered or be substances securely fenced to at least one 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) Every such vessel, structure, sump or pit as is mentioned in subsection (1) shall be clearly indicated by a warning notice bearing in red letters in English and in at least one vernacular language commonly used by the employees in the factory, the word "DANGER".

(3) Where any fixed vessel, structure, sump or pit contains any scalding, corrosive or poisonous liquid or any molten metal, but is not

securely covered, no ladder, stair or gangway shall be placed above, across or inside it which is not-

- (a) at least five hundred millimetres wide; and
- (b) securely fenced on both sides to a height of at least one metre and securely fixed.

(4) Where any vessels, structures, sumps or pits adjoin and one or more of them contains any scalding, corrosive or poisonous liquid or any molten metal, and the space between them, clear of any surrounding brick or other work, is less than five hundred millimetres in width or is not securely fenced on both sides to a height of at least one metre, secure barriers shall be so placed as to prevent passage between them.

(5) For the purposes of this section, a ladder, stair or gangway shall not be deemed to be securely fenced unless it is provided with sheet fencing or with an upper and a lower rail and toe-boards, or, where appropriate, with suitable safety hoops or cages.

(6) The Minister may by regulations extend any of the provisions of this section so as to make them applicable-

- (a) to a vessel or structure which is not fixed; or
- (b) to a vessel, structure, sump or pit containing a substance which is not a liquid; and, in relation to any substance which is not a liquid, the expression "scalding", in a provision extended under paragraph (b), shall be taken to mean "likely to cause burns"

(7) 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.

(As amended by No. 20 of 1974)

34. (1) No traversing part of any self-acting machine and no material Self-acting carried thereon shall, if the space over which it runs is a space over machines 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 five hundred millimetres from any fixed structure not being part of the machine.

(2) All practical steps shall be taken by instructions to the person in charge of the machine and otherwise to ensure that no person employed shall be in the space between any traversing part of a self-acting spinning mule and any fixed part of the machine towards which the traversing part moves on the inward run, except when the machine is stopped with the traversing part on the outward run.

(As amended by No. 20 of 1974)

35. No person shall be employed at any machine or in any process, being a machine or process liable to cause bodily injury, unless he has been fully instructed as to the dangers likely to arise in connection therewith and the precautions to be observed, and-

Training and supervision of inexperienced workers

(a) has received a sufficient training in work at the machine or in the process; or

(b) is under adequate supervision by a person who has a thorough knowledge and experience of the machine or process.

36. (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.

Floors, steps, stairs, passages and gangways

(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 and shall, where liable to slip, be properly secured or fitted with effective devices to prevent skidding, or be firmly held by a person stationed at the foot of the ladder.

37. (1) There shall, so far as is reasonably practicable, be provided and maintained safe means of access to and egress from every place at which any person has at any time to work, and every such place shall, so far as is reasonably practicable, be made and kept safe for any person working there. Safe means of access and safe place of employment

(2) Sufficient clear and unobstructed space shall be maintained at every machine while in motion to enable work to be carried on without unnecessary risk to any person.

(3) Where any person has to work at a place from which he will be liable to fall a distance exceeding two metres then, unless the place is one which affords secure foothold and, where necessary, secure handhold, means shall be provided, so far as is reasonably practicable, by fencing or otherwise, for ensuring his safety.

(As amended by No. 20 of 1974)

38. (1) The provisions of subsections (2) to (7) shall have effect where work in any factory has to be done inside any chamber, tank, tank-wagon, vat, pit, pipe, flue, or other confined space in which dangerous fumes are liable to be present to such an extent as to involve risk of persons being overcome thereby. Precautions in places where dangerous fumes are liable to be present

(2) The confined space shall be provided with adequate means of egress.

(3) Subject to subsection (4), no person shall enter or remain in the 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 the 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 aforementioned provisions of this section shall not apply, but no person shall enter or remain in the space unless he has been warned when that period will expire.

(5) A confined space shall not be certified under subsection (4) unless-

(a) effective steps have been taken to prevent any ingress of dangerous fumes;

(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 suitable breathing apparatus, of belts and ropes, and of suitable reviving apparatus and oxygen, and the apparatus and belts and ropes shall be maintained and shall be thoroughly examined by a competent person at least once a month.

(7) A sufficient number of 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 Commissioner 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 as 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.

39. (1) Where, in connection with any grinding, sieving or other process giving rise to dust, there may escape dust of such 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. Precautions with respect to explosive or inflammable dust, gas, vapour or substance

(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 as aforesaid 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:

Provided that this subsection shall not apply to 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 of it;

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 Commissioner 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 the requirement is unnecessary or impracticable.

40. (1) In every factory there shall be provided and maintained appropriate means for fighting fire, which shall be so placed as to be readily available for use, and persons trained in the correct use of such means shall be present during all working periods. Prevention and fighting of fire

(2) The Minister may by regulations prescribe for any class or description of factory or part thereof specified means for fighting fire, and any such regulations may provide for the testing or examination of the means so specified and for the recording of particulars of the tests

or examinations and of any defects found and action taken to remedy the defects.

(3) The Minister may make regulations requiring means to be provided in any class or description of factory for notifying the fire brigade in case of fire and requiring employed persons to be made familiar with their use.

(4) Regulations made under this section may provide, as regards any of their provisions, that some other person or persons shall be responsible for a contravention thereof instead of or as well as the occupier.

(5) Any requirement imposed by regulations made under subsection (2) may be so imposed either in substitution for or without prejudice to the general requirements of subsection (1).

(6) The Minister may by order grant exemption from the requirements of subsection (1) and any such order may apply to any particular factory or part of a factory or any class or description of factory.

(7) All stocks of highly inflammable substances shall be kept either in a fire-resisting store or in a safe place outside any occupied building:

Provided that no such store as aforesaid shall be so situated as to endanger the means of escape from the factory or from any part thereof in the event of a fire occurring in the store.

(8) No fire, flame, open light or other agency likely to ignite any volatile inflammable substance shall be permitted in any part of a factory in which such substance is used or is likely to be present.

(9) No person shall be allowed to smoke in any part of a factory where any volatile inflammable substance is used, and a notice prohibiting smoking shall be posted in a conspicuous place in every such part of the premises.

41. (1) Every factory shall be provided with adequate means of Means of escape

escape in case of fire for the persons employed therein, and all such means shall be properly maintained and kept free from obstruction.

and warning in case of fire

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

(3) Where any person is within a factory for the purpose of employment or meals, the doors of the factory, and of any room therein in which the person is, 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 a manner that they cannot be easily and immediately opened from the inside.

(4) Any doors opening on to any staircase or corridor from any room in which more than ten persons are employed, and in the case of any factory constructed or converted for use as a factory after the commencement of this Act, all other doors affording a means of exit from the factory for persons employed therein, shall, except in the case of sliding doors, be constructed to open outwards.

(5) In any factory constructed or converted for use as a factory before the commencement of this Act in which more than ten persons are employed in the same building above the ground floor, any door, which is not kept continuously open, at the foot of a staircase affording a means of exit from the building, shall, except in the case of sliding doors, be constructed to open outwards.

(6) Doors giving access to stairways shall not open immediately on to a flight of stairs, but on to a landing of adequate width.

(7) 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 red letters of adequate size.

(8) 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 materials:

Provided that any such hoistway or liftway which is not provided with a vent at the top shall be enclosed at the top only by some material easily broken by fire.

(9) The Commissioner may by certificate grant, subject to any conditions specified in the certificate, exemption from compliance with any of the requirements of subsection (8) in any case where he is satisfied that compliance with those requirements is inappropriate or undesirable.

(10) Where in any factory more than twenty persons are employed in the same building or explosive or highly inflammable materials are stored or used in any building in which persons are employed, 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 clearly audible throughout the building or, where the factory is part only of the building, in every part of the building which is used for the purposes of the factory.

(11) The Minister may by regulations apply the provisions of subsection (10) to any class or description of factory.

(12) The Minister may by order grant exemption from or modify the requirements of subsection (10) in any case where it appears to him that those requirements are unnecessary or, as the case may be, would, unless modified, be unreasonable; and any such order may apply to any particular factory or part of a factory or any class or description of factory.

42. (1) There shall be tested and examined at least once in every period of three months and whenever an inspector so requires every means for giving warning in case of fire which is required to be provided by or under this Act.

Testing and
examination of
fire warning

(2) The Minister may by regulations provide that, in relation to any class or description of appliance or in relation to any class or description of factory, subsection (1) shall have effect with the substitution for the period of three months of such period as may be

specified in the regulations.

(3) The Minister may by regulations prescribe the nature of the test or examination to be carried out in pursuance of this section.

(4) There shall be entered in or attached to the general register the date of every test or examination carried out in pursuance of this section and particulars of any defect found and the date and particulars of any action taken to remedy any such defect.

43. (1) Where in any factory more than twenty persons are employed Fire drills in the same building above the first floor or more than six metres above the ground level, or explosive or highly inflammable materials are stored or used in any building where persons are employed, effective steps shall be taken to ensure that all the persons employed are familiar with the means of escape in case of fire and their use and with the routine to be followed in case of fire.

(2) The Minister may by regulations apply the provisions of subsection (1) to any class or description of factory.

(3) The Minister may make regulations as to the steps to be taken for the purposes of subsection (1) in factories to which that subsection applies, or any class or description thereof.

(As amended by No. 20 of 1974)

44. The Minister may make regulations as to the means of escape in Regulations for case of fire to be provided in factories or any class or description of means of escape factory.

45. (1) The Minister may make regulations as to the measures to be Regulations for taken to reduce the risk of fire breaking out in any factory or of any fire prevention such fire or smoke therefrom spreading in any factory, and such regulations may, among other things, prescribe requirements as to the internal construction of a factory and the materials used in the construction.

(2) Regulations made under this section may provide, as regards any of their provisions, that some other person or persons shall be

responsible for a contravention thereof instead of or as well as the occupier.

46. Where it appears to the Minister that, in view of the number and nature of accidents occurring in any factory or class or description of factory, special provision ought to be made at that factory or at factories of that class or description to secure the safety of persons employed therein, he may make regulations requiring the occupier to make such reasonable provision by arrangements for special supervision in regard to safety, investigation of the circumstances and causes of accidents, and otherwise as may be specified in the regulations.

Regulations for special safety arrangements for the prevention of accidents

PART VII

SAFETY: LIFTING MACHINERY

47. (1) Every hoist and lift shall be of good mechanical construction, sound material and adequate strength, and consistent with a relevant standard specification, and shall, together with all gates, interlocking or other devices required by this section to be fitted, be properly maintained.

Hoists and lifts

(2) Every hoist or lift shall be thoroughly examined by a competent person at least once in every period of six months, and a report of the result of every such examination in the prescribed form shall be signed by the person making the examination and shall, within fourteen days, be entered in or attached to the general register.

(3) Every hoistway or liftway shall be efficiently protected by a suitable enclosure fitted with gates, being such an enclosure 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.

(4) Any such gate as aforesaid 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.

(5) If, in the case of a hoist or lift constructed or reconstructed before the commencement of this Act, it is not reasonably practicable to fit it with such devices as are mentioned in subsection (4), it shall be sufficient if the gate-

(a) is provided with such arrangements as will secure the objects of that subsection so far as is reasonably practicable; and

(b) is kept closed and fastened except when the cage or platform is at rest at the landing.

(6) Every hoist or lift and every such enclosure as is mentioned in subsection (3) shall be so constructed as to prevent any part of any person or any goods carried in the hoist or lift 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 in a conspicuous place on every hoist or lift the maximum working load which it can safely carry and no load greater than the maximum working load shall be carried on any hoist or lift.

48. (1) The following additional requirements shall apply to hoists and lifts used for carrying persons whether together with goods or otherwise: Hoists and lifts used for carrying persons

(a) efficient automatic devices shall be provided and maintained to prevent the cage or platform overrunning;

(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; and

(c) there shall be marked in a conspicuous place on every such hoist or lift the maximum number of persons which the hoist or lift is designed to carry.

(2) In the case of a hoist or lift constructed or reconstructed before the

commencement of this Act in connection with which it is not reasonably practicable to provide such devices as are mentioned in paragraph (b) of subsection (1), it shall be sufficient if-

(a) such arrangements are provided as will secure the objects of that paragraph so far as is reasonably practicable; and

(b) the gate is kept closed and fastened except where the cage is at rest or empty.

(3) In the case of a hoist or lift used as mentioned in subsection (1) which was constructed after the commencement of this Act, where the platform or cage is suspended by rope or chain, there shall be at least two ropes or chains separately connected with the platform or cage, each rope or chain and its attachments being capable of carrying the whole weight of the platform or cage and its maximum working load, and efficient devices shall be provided and maintained which will support the platform or cage with its maximum working load in the event of a breakage of the ropes or chains or any of their attachments.

49. Every teagle opening or similar doorway used for hoisting or lowering goods, materials, or plant, whether by mechanical power or otherwise, shall be securely fenced and shall be provided with a secure hand-hold on each side of the opening or doorway, and such fencing shall be properly maintained and shall, except when the hoisting of goods, materials, or plant is being carried on at the opening or doorway, be kept in position. Teagle openings and similar doorways

50. (1) For the purposes of sections *forty-seven* and *forty-eight*, no lifting machine or appliance shall be deemed to be a hoist or lift unless it has a platform or cage the direction of movement of which is restricted by a guide or guides. Hoists and lifts: supplementary provisions and exceptions

(2) Subsections (3) to (7) of section *forty-seven* and section *forty-eight* shall not apply in the case of a continuous hoist or lift, and in such a case subsection (2) of section *forty-seven* shall have effect as if for the reference to six months there were substituted a reference to twelve months.

(3) Subsections (4) and (5) of section *forty-seven* and section *forty-eight* shall not apply in the case of a hoist or lift not connected

with mechanical power; and in such a case-

(a) subsection (2) of section *forty-seven* shall have effect as if for the reference to six months there were substituted a reference to twelve months; and

(b) any gates to be fitted under subsection (3) of section *forty-seven* shall be kept closed and fastened except when the cage or platform is at rest at the landing.

(4) If it is shown to the satisfaction of the Commissioner that it would be unreasonable in the special circumstances of the case to enforce any requirement of this section or of section *forty-seven*, *forty-eight* or *forty-nine* in respect of any particular hoist, lift, hoistway, liftway or teagle opening or similar doorway, he may by certificate grant exemption from compliance with such requirement.

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

(a) no chain, rope or lifting tackle shall be used unless it is of good construction, sound material, adequate strength, suitable quality and free from patent defect;

(b) 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 prominently displayed 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, save for the purpose of testing, be used for any load exceeding the safe working load;

(d) all chains, ropes and lifting tackle in use shall be thoroughly examined by a competent person at least once in every period of six months, or at such greater intervals as the Commissioner may by order direct;

(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 a

competent person 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:

Provided that the provisions of this paragraph shall not apply to any chain, rope or lifting tackle in respect of which there has been obtained, and is kept available for inspection, a certificate of test and thorough examination issued by the manufacturer of the chain, rope or lifting tackle.

(2) Paragraph (b) of subsection (1) shall not apply in relation 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 on it.

(3) An inspector may, in writing addressed to the occupier, direct that wrought iron chains or lifting tackle in use in any factory be annealed or otherwise treated by heat at such specified intervals as he considers necessary.

(4) In this section, "lifting tackle" means chain slings, rope slings or similar gear, and rings, links, hooks, plate clamps, shackles, swivels or eye bolts.

52. (1) All parts and working gear, whether fixed or movable, including the anchoring and fixing appliances, of every lifting machine shall be of good mechanical construction, sound material, adequate strength and free from patent defect, and shall be properly maintained. Cranes and other lifting machines

(2) All such parts and gear shall be thoroughly examined by a competent person at least once in every period of fourteen months.

(3) 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.

(4) There shall be plainly marked on every lifting machine the safe working load or loads thereof:

Provided that, in the case of a jib crane so constructed that the safe working load thereof may be varied by the raising and 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.

(5) No lifting machine shall, except for the purpose of a test, be loaded beyond the safe working load.

(6) 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 a competent person, 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:

Provided that the provisions of this subsection shall not apply to any lifting machine in respect of which there has been obtained, and is kept available for inspection, a certificate of test and thorough examination issued by the manufacturer of the machine.

(7) 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 to ensure that the crane does not approach within six metres of that place.

(8) If any person is employed or working otherwise than mentioned in subsection (7) 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 measures 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.

(9) In this section, "lifting machine" means a crane, crab, winch,

teagle, pulley block, gin wheel, transporter or runway.

(As amended by No. 20 of 1974)

53. A register, containing the prescribed particulars, shall be kept in Register of respect of all chains, ropes or lifting tackle (except fibre rope slings) to chains, ropes and which section *fifty-one* applies, and in respect of all lifting machines to lifting tackle and which section *fifty-two* applies. lifting machines

PART VIII

SAFETY: STEAM BOILERS, ETC.

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

Steam boilers:
attachments and
construction

(a) shall have attached to it the devices mentioned in subsection (2);

(b) shall be provided with means for attaching a test pressure gauge;

(c) shall, unless the subject of a written exemption by an inspector, be provided with a suitable fusible plug or an efficient low-water alarm; and

(d) shall have at least one reliable feed apparatus capable of maintaining an ample supply of water to the boiler:

Provided that-

(i) where the feed apparatus is an injector, a second means of feeding consisting of a power or hand-pump shall be fitted; and

(ii) for the purposes of this paragraph, two or more boilers combined for joint working shall be deemed to be one boiler.

(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 fixed directly to, or as close as practicable to, such boiler, and 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 in bars, and have marked on it in a distinctive colour the maximum permissible working pressure;

(d) at least one water gauge of transparent material or other type approved by the Commissioner to show the water level in the boiler, together, if the gauge is of the glass tubular type and the working pressure of the boiler normally exceeds 2,500 bars, with an efficient guard 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 with respect to economisers, and paragraphs (c), (d) and (e) of that subsection and paragraphs (b) and (c) of subsection (1) shall not apply with respect 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 consistent with a relevant standard specification.

(As amended by No. 20 of 1974)

55. (1) Every steam boiler attendant shall be properly instructed as to his duties. Steam boilers:
maintenance,
examination and
use

(2) Every steam boiler and all its fittings and attachments shall be properly maintained.

(3) Every steam boiler and all its fittings and attachments shall be thoroughly examined by an inspector or other person authorized by the Commissioner at intervals not exceeding eighteen months and also as soon as practicable after any extensive repairs.

(4) The occupier of a factory shall notify an inspector in writing whenever-

(a) general retubing, renewal of furnaces or flues, affixing of new rivets, plates or patches, replacement of stays or gussets, the building up of wasted areas by any welding process or any other such major repairs are to be executed to a steam boiler;

(b) major repairs as described in paragraph (a) have been executed to a steam boiler;

(c) he ceases permanently to use a steam boiler;

(d) a steam boiler is to be removed from his factory for use elsewhere or is to be resited within the factory; and

(e) a steam boiler is damaged.

(5) Any examination carried out in accordance with the requirements of subsection (3) shall include-

(a) an examination of the boiler when it is cold which shall not be carried out until the interior and exterior of the boiler have been prepared in such manner as the person who is to make the examination may require; and

(b) except in the case of an economiser or superheater, an examination when the boiler is under normal steam pressure which examination may, with the approval of the person carrying out the examination when cold, be carried out by some other person.

(6) The examination under pressure in accordance with paragraph (b) of subsection (5) shall be made on the first occasion when steam is raised after the examination when cold, or as soon as possible thereafter, and the person making such examination shall ensure that the safety-valve is so adjusted as to prevent the boiler being worked at a pressure greater than the maximum permissible working pressure.

(7) A report in the prescribed form of every examination made under the provisions of subsection (3) shall, as soon as practicable after the completion of the examination, be attached to or entered in the boiler book, and each such report shall be signed by the person making the examination.

(8) No steam boiler which has previously been used shall be taken into use in any factory for the first time in that factory until it has been examined and reported upon in accordance with the provisions of this section.

(9) No new steam boiler shall be taken into use until an inspector has been supplied with-

(a) the manufacturer's complete specifications which shall include full details of the chemical composition and physical properties of the material of all rivets, plates, sections, tubes, bars and electrodes used for pressure parts;

(b) dimensioned drawings of the complete boiler, showing the thickness of plates, details of all rivetting, the thickness of plates and the position and extent of all welds; and

(c) the manufacturer's test certificate.

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

(11) In respect of every steam boiler in a factory, the occupier of such factory shall keep a boiler book in the prescribed form in which shall be entered-

- (a) the dates on which such boiler is brought into and taken out of commission;
- (b) the dates on which such boiler is cleaned, examined or tested; and
- (c) the dates and details of any alterations or repairs to such boiler.

(12) This section shall not apply to any steam boiler which belongs to and is used by Zambia Railways or to the boiler of any ship.

56. No person shall enter or be in any steam boiler which is one of a range of two or more steam boilers unless-

Steam boilers:
restriction on
entry

- (a) all inlets through which steam or hot water might otherwise enter such boiler from any other part of the range are disconnected from that part; or
- (b) all valves or taps controlling such entry are closed and securely locked, and, where such boiler has a blow-off pipe in common with one or more other steam boilers or 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.

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

Steam receivers
and steam
containers

- (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;
- (c) a correct steam pressure gauge, which shall indicate the

pressure of steam in the receiver in bars; and

(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 required by the provisions of subsection (1) shall be fitted either on the steam receiver or on the supply pipe between the receiver and the reducing valve or other appliance provided to prevent the safe working pressure being exceeded.

(3) For the purposes of the provisions of subsection (1), except paragraph (e) thereof, any set of receivers supplied with steam through a single pipe and forming part of a single machine may be treated as one receiver, and for the purpose of the said subsection except paragraphs (d) and (e) thereof, any other set of receivers supplied with steam through a single pipe may be treated as one receiver:

Provided that this subsection shall not apply to any such set of receivers unless the reducing valve or other appliance provided to prevent the safe working pressure being exceeded is fitted on the said single pipe.

(4) Every part of every steam receiver shall be of good construction, sound material, adequate strength and free from patent defect and consistent with a relevant standard specification.

(5) Every steam receiver and its fittings shall be properly maintained and shall be thoroughly examined by an inspector or other person authorised by the Commissioner, so far as the construction of the receiver permits, at intervals not exceeding three years.

(6) The examination specified in subsection (5) shall not be carried out until the interior and exterior of the steam receiver have been prepared in such manner as the person who is to make the examination may require.

(7) A report in the prescribed form of the result of every examination

made under the provisions of this section (including particulars of the safe working pressure) shall, as soon as practicable after the completion of the examination, be attached to or entered in the boiler book and each such report shall be signed by the person making the examination.

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

(As amended by No. 20 of 1974)

58. (1) Every air receiver-

Air receivers

(a) shall have marked upon it so as to be plainly visible the safe working pressure;

(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 from 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;

(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;

(d) shall be fitted with a correct pressure gauge indicating the pressure in the receiver in bars;

(e) shall be fitted with a suitable appliance for draining the receiver;

(f) shall be provided with a suitable manhole, handhole, or other means which will allow the interior of the receiver to be thoroughly cleaned and inspected; and

(g) in any case where more than one receiver is in use in any factory, shall bear a distinguishing mark which shall be easily visible.

(2) For the purposes 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:

Provided that, where a suitable reducing valve or other suitable appliance to prevent the safe working pressure being exceeded is required to be fitted, this subsection shall not apply unless the valve or appliance is fitted on the said single pipe.

(3) Every air receiver and its fittings shall be of sound construction consistent with a relevant standard specification and be properly maintained.

(4) Every air receiver shall be thoroughly examined at intervals not exceeding three years:

Provided that, 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) The examination specified in subsection (4) shall not be carried out until the interior and exterior of the air receiver have been prepared in such manner as the person who is to make the examination may require.

(6) Every examination and test mentioned in subsection (4) shall be carried out by an inspector or other person authorised by the Commissioner and a report in the prescribed form of the result of every such examination and test (including particulars of the safe working pressure) shall be entered in or attached to the general register and the report shall be signed by the person making the examination or test.

(As amended by No. 20 of 1974)

59. No steam receiver or air receiver shall be taken into use until an inspector has been notified in writing of the make, type, year of manufacture and safe working pressure of such receiver, and, in the case of a steam receiver or air receiver which has previously been used, the full name and address of the former user. Notification before use of steam or air receivers

60. No modification to any pressure part of any steam boiler, steam receiver or air receiver not in accordance with instructions from the manufacturer shall be made until an inspector has been notified in Notification of proposed modifications to

writing of the proposed modification.

pressure parts

61. The Commissioner may by certificate except from any of the provisions of this Part any class or type of steam boiler, steam receiver, steam container or air receiver to which he is satisfied that such provision cannot reasonably be applied. Any such exception may be unqualified or may be subject to such conditions as may be contained in the certificate.

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

62. In this Part, unless the context otherwise requires-

Interpretation of terms in Part VIII

"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;

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

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

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

Provided that the provisions of paragraph (e) of subsection (1) of section *fifty-eight* shall not apply to any such vessel as is mentioned in paragraph (c) or (d) of this definition;

"maximum permissible working pressure" means, in the case of a new steam boiler, that specified in the certificate referred to in subsection (9) of section *fifty-five* and, in the case of a steam boiler which has been examined in accordance with the provisions of the said section, that specified in the report of the last examination;

"safe working pressure" means-

(a) in the case of a new steam receiver, that specified by the maker and, in the case of a steam receiver which has been examined in accordance with the provisions of section *fifty-seven*, that specified in the report of the last examination; and

(b) in the case of a new air receiver, that specified by the maker or that determined by an inspector from the maker's test certificate and dimension sheet for that air receiver and, in the case of an air receiver which has been examined in accordance with the provisions of section *fifty-eight*, that specified in the report of the last examination;

"steam boiler" means any closed vessel in which for any purpose steam is generated under pressure greater than atmospheric pressure, and includes any economiser used to heat water 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 purpose;

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

PART IX

WELFARE: GENERAL PROVISIONS

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

(2) A supply of drinking water which is not laid on shall be contained in suitable vessels, and shall be renewed at least once in each working day, and all practicable steps shall be taken to preserve the water and vessels from contamination; and a drinking water supply, whether laid

on or not, shall be clearly marked "DRINKING WATER" in English and in at least one vernacular language commonly used by the employees of the factory.

64. (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 soap and suitable means of cleaning or drying; and the facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.

Washing
facilities

(2) The Commissioner may, by certificate, exempt from any of the requirements of subsection (1) any factory where, by reason of the difficulty of obtaining an adequate supply of water, or of the fact that accommodation is restricted and adequate and suitable washing facilities are otherwise conveniently available, or by reason of such other special circumstances as may be specified in the certificate, the application of the requirement would in his opinion be unreasonable.

65. (1) There shall be provided and maintained for the use of employed persons adequate and suitable accommodation for clothing not worn during working hours.

Accommodation
for clothing and
change rooms

(2) Where protective clothing is provided in pursuance of section *seventy-one*, a suitable place or places shall be provided for the storage of such protective clothing.

(3) Adequate change rooms shall be provided and maintained for the use of employed persons in any factory in which the Minister considers such rooms necessary and by order so directs.

66. (1) Where any employed persons have in the course of their employment reasonable opportunities 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.

Facilities for
sitting

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

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

(b) the arrangements shall be such that the seat is adequately and properly supported while in use for the purpose for which it is provided.

(3) For the purposes of subsection (2), the dimensions of a seat which is adjustable shall be taken to be its dimensions as for the time being adjusted.

67. (1) There shall be provided and maintained so as to be readily accessible a first-aid box or cupboard containing such equipment as may be prescribed and, where more than one hundred persons are employed, an additional box or cupboard for every additional hundred persons. First-aid

(2) For the purposes of subsection (1), the number of persons employed 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 shall be reckoned as one hundred.

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

(4) Each first-aid box or cupboard shall be under the charge of a responsible person who shall, in the case of a factory where more than fifty persons or such similar number as may be prescribed, 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 and the location of the first-aid box or cupboard provided in respect of that room.

(6) For the purposes of subsection (4), a person shall not be deemed to

be trained in first-aid treatment unless he satisfies the prescribed conditions.

(7) Where a contravention of subsection (4) is committed through a failure to comply with so much thereof as requires the person in charge of a first-aid box or cupboard to be trained in first-aid treatment, it shall be a defence in any proceedings for the contravention to prove that the accused made all reasonable efforts to secure compliance but was unable to do so.

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

(9) Every first-aid box or cupboard shall be plainly marked "FIRST-AID".

68. (1) Where it appears to the Minister that, owing to the conditions Welfare and circumstances of employment or the nature of the processes carried regulations 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 them, he may make regulations requiring such reasonable steps to be taken in connection therewith as may be specified in such regulations, either in addition to, or in substitution for, or by way of extension or variation of, any of the foregoing provisions of this Part.

(2) This section applies to the matters dealt with in this Part; 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) Regulations under this section may be made for a particular factory or for factories of any class or description and may impose duties on owners and employed persons as well as on occupiers.

(4) The Minister may by regulations extend the matters to which this

section applies so as to include other matters affecting the welfare of employed persons or any class of them.

PART X

HEALTH, SAFETY AND WELFARE: SPECIAL PROVISIONS AND REGULATIONS

69. (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 and to such extent as to be likely to be injurious or offensive to the persons employed, or any substantial quantity of dust of any kind, all practicable measures shall be taken to protect the persons employed 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 it entering the air of any workroom.

Removal of and prevention of inhalation of dust or fumes

(2) No stationary internal combustion engine shall be used in any room unless provision is made for conducting the exhaust gases from the engine into the open air.

70. Where in any room any poisonous or other injurious 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.

Meals in certain dangerous trades

71. (1) Where in any factory persons are subject to excessive exposure to any poisonous or other injurious or offensive substance or to any heat, cold or wet, suitable protective clothing and appliances shall be provided and maintained for the use of such persons.

Protective clothing, appliances and screening

(2) Suitable goggles or effective screens shall be provided to protect the eyes of persons employed in the dry grinding of metals, in the welding or cutting of metals by means of an electrical, oxy-acetylene or similar process or in any other process likely to entail injury to the eyes.

(3) Where in any factory electric arc welding is carried on, effective provision shall be made, by screening or otherwise, to prevent any person being exposed to the electric arc flash.

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

Lifting excessive weights

(2) The Minister may make regulations prescribing 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.

73. Where an inspector is of opinion that the employment of any young person in a factory or in any particular process or kind of work in a factory is prejudicial to the health of such young person or to the health of other persons, he may serve written notice on the occupier of the factory requiring that the employment of such young person in the factory or in the process or kind of work, as the case may be, be discontinued after such period as may be specified therein, not being less than one nor more than seven days after the serving of the notice, and if such occupier continues after the period specified in the notice to employ such young person he shall be guilty of an offence unless, after the service of the notice, such young person has been examined by a medical practitioner and certified by such practitioner to be fit for employment in the factory or in the process or kind of work, as the case may be.

Power of inspector to require certificate of fitness for work

74. (1) Where the Minister is satisfied that any manufacture, plant, 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.

Power to make regulations for safety and health

(2) Regulations made under this section 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, plant, process or description of manual labour;

(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 Part V, VI, VII, VIII or this Part, being provisions imposing requirements as to safety and health; and may impose duties on owners, employed persons and other persons, as well as on occupiers.

(3) Regulations made under this section may apply to all factories or to any specified class or description of factory and may provide for the exemption of any special class or description of factory either absolutely or subject to conditions.

75. (1) An inspector may, at any time after informing the occupier or, if the occupier is not readily available, a foreman or other responsible person in the factory, take for analysis sufficient samples of any material or substance used or intended to be used in a factory, being a material or substance in respect of which he suspects a contravention of any regulation made under section *seventy-four*, or which he thinks is likely or may prove on analysis to be likely to cause bodily injury to the persons employed. Power to take samples

(2) The occupier or the foreman or other responsible person may, at the time when a sample is taken under this section, 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;

(b) to retain one part for future comparison;

(c) to submit one part to the analyst;

and any analysis under this section shall, if so required, be carried out by a Government department.

(3) A certificate purporting to be a certificate by a Government chemist 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.

(4) It shall not be lawful for any person, except in so far as is necessary for the purposes of a prosecution for an offence under this Act, to publish or disclose to any person the results of an analysis made under this section, and if any person acts in contravention of this subsection he shall be guilty of an offence.

PART XI

NOTIFICATION AND INVESTIGATION OF ACCIDENTS, DANGEROUS OCCURRENCES AND INDUSTRIAL DISEASES

76. (1) Where an accident in a factory-

Notice of accidents

(a) causes loss of life to a person employed in that factory; or

(b) disables any such person for more than three days from earning full wages for the work for which he was employed;

the occupier shall forthwith send written notice of the accident in the prescribed form to an inspector.

(2) Where an accident causing disablement is notified under this section, and after notification thereof results in the death of the person disabled, the occupier of the factory shall as soon as the death comes to his knowledge send notice in writing of such death to an inspector.

(3) Where any accident to which this section applies occurs to a person employed and the occupier of the factory is not the actual employer of the person killed or injured, the actual employer shall, if he fails to report the accident to the occupier immediately, be guilty of an offence.

77. The provisions of section *seventy-six* requiring notice of an accident occurring in a factory to be given to an inspector shall extend

Notification of dangerous

and apply to the classes of occurrences specified in the First Schedule whether death or disablement is caused or not. occurrences

78. (1) Written notice of every case of any disease specified in the Second Schedule occurring in a factory shall forthwith be sent by the occupier to an inspector in the prescribed form; and the provisions of this Act with respect to the notification of accidents shall apply to any such case in like manner as to any such accident as is mentioned in those provisions. Industrial diseases

(2) Every medical practitioner who attends any patient whom he believes to be suffering from any disease specified in the Second Schedule contracted as a result of his employment in a factory shall forthwith report the matter to an inspector, and shall be entitled in respect of every report sent in pursuance of this section to a fee of four fee units.

(3) If, in contravention of the provisions of this section, any medical practitioner fails to send any report in accordance with the requirements thereof, he shall be guilty of an offence and liable on conviction to a fine not exceeding sixty penalty units.

(As amended by Act No. 13 of 1994)

79. The Minister may by regulations-

(a) apply the provisions of section *seventy-six* to any dangerous occurrence not specified in the First Schedule;

(b) apply the provisions of section *seventy-eight* to any disease not specified in the Second Schedule.

Regulations extending scope of sections 76 and 78

PART XII

SPECIAL APPLICATIONS AND EXTENSIONS

80. The Minister may by regulations allocate to the owners instead of the occupiers of tenement factories the responsibility for the contravention of any provision of this Act which but for this section would lie with such occupiers. Tenement factories

81. (1) Where a part of a building is let off as a separate factory but is not part of a tenement factory- Parts of buildings let off as separate factories

(a) the provisions of this Act specified in paragraphs (a) and (b) of subsection (2) shall apply to any part of the building used for the purposes of the factory but not comprised therein;

(b) subject to subsections (4) and (5), the owner of the building shall be responsible for any contravention of the provisions specified in the said paragraph (a) as so applying; and

(c) subject to subsection (5), the owner of the building shall be responsible, instead of the occupier, for any contravention as respects the factory, of the provisions specified in paragraph (c) of subsection (2).

(2) The said provisions are-

(a) the provisions of Part V with respect to cleanliness and lighting, the provisions of Part VI with respect to prime movers, transmission machinery, the construction and maintenance of floors, passages and stairs, the keeping free from obstruction and slippery substances of floors, steps, stairs, passages and gangways, the provisions of Part VII with respect to hoists and lifts, chains, ropes and lifting tackle, cranes and other lifting machines and the provisions of Part VIII with respect to steam boilers, steam receivers and steam containers, and air receivers;

(b) the provisions of Part XIV with respect to the power of a subordinate court of the first or second class to make orders as to dangerous conditions and practices or as to safety of factory premises; and

(c) the provisions of Part V with respect to sanitary conveniences and the provisions of Part VII with respect to hoists and lifts.

(3) For the purposes of the provisions applied by the foregoing provisions of this section, lifting machines attached to the outside of the building, and chains, ropes and lifting tackle used in connection with those machines, shall be treated as being in the building, but any lifting

machine not used for the purposes of the factory, and any chains, ropes or lifting tackle not used in connection with a lifting machine so used, shall be disregarded.

(4) For any contravention (whether as respects the factory or otherwise) of the provisions of Part VII or VIII with respect to chains, ropes and lifting tackle, cranes and other lifting machines, steam boilers, steam receivers and steam containers, and air receivers-

(a) the occupier of the factory shall be responsible if it is a contravention with respect to any plant belonging to or supplied by him; and

(b) the owner of the building shall be responsible in any other case; except that the owner shall not be responsible for a contravention of those provisions in so far as they relate to matters outside his control, and for any such contravention as respects the factory the occupier shall be responsible.

(5) The owner shall be responsible by virtue of this section-

(a) for the cleanliness of sanitary conveniences only when used in common by several tenants; and

(b) for a contravention of the provisions relating to hoists and lifts only so far as those provisions relate to matters within his control.

(6) Any reference in the provisions applied by the foregoing provisions of this section to the general register shall, in relation to matters in respect of which the owner of the building is responsible, be construed as a reference to a register to be kept by him, and subsection (3) of section *ninety-eight* shall apply in relation to that register as if the owner were the occupier of the factory.

82. (1) Save as otherwise in this section provided, provisions of this Act specified in subsection (2) shall apply to building operations and works of engineering construction undertaken by way of trade or business, or for the purpose of any industrial or commercial undertaking, and to any line or siding which is used in connection therewith and for the purposes thereof and is not part of a railway or tramway.

Building operations and works of engineering construction

(2) The said provisions are-

- (a) Part I;
- (b) Part II;
- (c) sections *twenty-three, twenty-four* and *twenty-five*;
- (d) Part VIII;
- (e) sections *sixty-eight, seventy-four, seventy-five* and *seventy-seven*;
- (f) Part XIII; and
- (g) Part XIV.

(3) No order made under the provisions of this Act with respect to the power of a court to make orders as to dangerous conditions and practices and no special regulations made under Part X shall operate so as to interfere with the design of any works of engineering construction or with the adoption in the execution of those works of any method not inconsistent with the safety of the works or of the persons employed, prescribed in the specification or in any signed plans issued, or written directions given by the consulting engineer or the engineer in charge.

(4) The provisions of this Act in their application to building operations or to works of engineering construction shall have effect as if any place where such works are carried on were a factory and any person 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.

(5) The provisions of this Act requiring general registers to be kept and copies of the prescribed abstract of this Act and of regulations or the prescribed abstract of such regulations to be kept posted up on the premises shall be deemed to be complied with as respects building operations and works of engineering construction if the general register

is kept at an office of the person undertaking the operations or works and copies of the abstract of this Act and of the regulations or abstract thereof 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 such persons.

(6) The application of this Act to any building operations or works of engineering construction by virtue of the foregoing shall not be excluded by reason of the fact that they are undertaken on premises to which the Act applies apart from those provisions; and nothing in this section shall be taken as prejudicing the application of this Act to these premises apart from this section.

83. (1) The application of the provisions of this Act in relation to- Mines

(a) premises forming part of a mine;

(b) premises which, though not forming part of a mine, are occupied by the owner of a mine and used solely for the purpose of the provision or supply for or to a single mine or jointly for or to more than one mine, of services or electricity; and

(c) machinery or apparatus situated partly in a mine and partly in a factory; Cap. 213

shall be in accordance with the provisions of section *one hundred and thirty-one* of the Mines and Minerals Act.

(2) For the purposes of this section, "mine" shall have the meaning given to it in the Mines and Minerals Act.

84. The Minister may by statutory order, subject to such conditions as may be specified in the order, extend the application of all or any of the provisions of this Act to any of the following classes of premises, processes or operations, that is to say: Power to extend application of provisions of Act

(a) any premises (not being premises forming part of a factory) in which a hoist or lift is used;

(b) any premises (not being premises forming part of a factory) in which a steam boiler is used;

(c) warehouses not forming part of a factory;

- (d) docks, wharves and quays, including warehouses used in connection therewith;
- (e) any work carried out in a harbour or wet dock in constructing, reconstructing, repairing, refitting, painting, finishing or breaking up a ship or in scaling, scurfing or cleaning boilers (including combustion chambers and smoke boxes) in a ship, or in cleaning oil fuel tanks or bilges in a ship or any tank in a ship last used for oil of any description carried as cargo;
- (f) electricity substations.

PART XIII

MISCELLANEOUS

85. There shall be kept posted in a prominent position in every factory-

Posting of
abstract of Act,
regulations and
notices

- (a) such abstract of this Act as may be prescribed;
- (b) a notice of the address of the nearest inspector and labour officer;
- (c) printed copies of any regulations which are for the time being in force in the factory, or such abstract of such regulations as may be prescribed; and
- (d) every other notice and document required by this Act to be posted in the factory.

86. (1) The occupier of every factory shall cause to be kept a register General register in the prescribed form called the general register, and there shall be entered in or attached to that register-

- (a) the certificate of registration of the factory;
- (b) every other certificate issued in respect of the factory by the Commissioner under the provisions of this Act;
- (c) the prescribed particulars as to the washing, whitewashing or colourwashing, painting or varnishing, of the factory;
- (d) the prescribed particulars as to every accident, case of industrial

disease or dangerous occurrence occurring in the factory of which notice is required to be sent to an inspector;

(e) all reports and particulars required by any other provisions of this Act to be entered in or attached to the general register; and

(f) such other matters as may be prescribed.

(2) The 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.

87. (1) The occupier of every factory shall, if so required by the Commissioner by notice in writing or in the *Gazette*, send to the Commissioner, at such intervals and on or before such days as may be specified in the notice, a correct return- Periodical return
of persons
employed

(a) showing with respect to such day or days, or such period as may be specified in the notice, the number of persons employed in the factory; and

(b) giving such particulars as to such other matters as may be specified in the notice.

(2) The Commissioner may, for the purpose of facilitating the rendering of returns by occupiers under the provisions of this section, arrange for the consolidation of these returns with any other returns required from occupiers under the provisions of any other law for the time being in force.

88. 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 after the date of the last entry in the register or record. Preservation of
registers and
records

89. (1) No person employed in a factory 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 and, where any means or appliance for securing health or safety is provided for the use of any such person Duties of persons
employed

under this Act, he shall use that means or appliance.

(2) No person employed in a factory shall wilfully and without reasonable cause do anything likely to endanger himself or any other person.

90. Save as otherwise expressly provided in any written law, the occupier of a factory shall not, in respect of anything to be done or provided by him in pursuance of this Act, make any deduction from the wages sum contracted to be paid by him to any person employed, or receive or allow any person in his employment to receive any payment from any such person. Prohibition of deductions from the wages

PART XIV

OFFENCES, PENALTIES AND LEGAL PROCEEDINGS

91. (1) In the event of any contravention in or in connection with or in relation to a factory of the provisions of this Act or of any order, regulation or lawful requirement made thereunder, 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 to the following provisions of this Part, be guilty of an offence. Offences

(2) In the event of a contravention by an employed person of the provisions of section *eighty-nine*, that person shall be guilty of an offence and the owner or occupier, as the case may be, shall not be guilty of an offence by reason only of the contravention of the provisions of the said section, unless it is proved that he failed to take all reasonable steps to prevent such 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 aforesaid.

(3) If the owner or 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 the offence and shall be liable to be proceeded against and punished accordingly.

92. (1) Subject to the following provisions of this Part, any person guilty of an offence under this Act for which no express penalty is provided shall be liable- General penalty

(a) if he is an employed person, to a fine not exceeding three hundred penalty units;

(b) in any other case, to a fine not exceeding one thousand five hundred penalty units;

and if the contravention in respect of which he was convicted is continued after the conviction, he shall (subject to the provisions of section *ninety-nine*) be guilty of a further offence and liable in respect thereof to a fine not exceeding three hundred penalty units for each day on which the contravention is so continued.

(2) In relation to a contravention which was likely to cause the death of, or bodily injury to, any person, subsection (1) shall have effect as if for the references in paragraphs (a) and (b) to three hundred penalty units and one thousand five hundred penalty units there were respectively substituted references to one thousand two hundred penalty units and six thousand penalty units.

(As amended by Act No. 13 of 1994)

93. (1) Where an act or default for which any person is liable under this Act is in fact the act or default of some other person, that other Penalty on person actually

person shall be guilty of an offence and liable, subject to subsection (2), committing an offence for which other person is primarily liable to the like fine as if he were the first-mentioned person.

(2) The fine that may be imposed under subsection (1) on an employed person where the offence is one for which no express penalty is provided by this Act shall be that specified in section *ninety-two* in relation to employed persons, notwithstanding that the person primarily liable is not an employed person.

94. (1) A person charged with an offence under the provisions of this Act 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 first-mentioned person proves to the satisfaction of the court-

(a) that he had 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 convicted of such offence, and the first-mentioned person shall not be guilty of the offence, and the person 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 first-mentioned person if he gives evidence and any witnesses called by him in support of his charge, and to call rebutting evidence.

(3) When it is made to appear to the satisfaction of an inspector at the time of discovering an offence-

(a) that the person who would be proceeded against apart from this subsection has used all due diligence to enforce the execution of this Act;

(b) by what person the offence has been committed; and

(c) that such offence has been committed without the consent, connivance or wilful default of the first-mentioned person 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 first-mentioned person.

95. Where, under this Act, any person is substituted for another 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 that other person, is hereby required or authorised, as the case may be, to be served on or taken in relation to the first-mentioned person.

Proceedings
against persons
not primarily
liable

96. 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, such 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 connection with that machine or implement, and is in the employment or pay of such owner or hirer, be deemed to be the occupier of the factory.

Owner of
machine liable in
certain cases
instead of
occupier

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

Prosecution of
offences

(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 written law, or a coroner's inquest is held and it appears from such report or from the proceedings at such inquest that any of the provisions of this Act, or any orders or regulations made thereunder, were contravened at or before the time of the accident, proceedings against any person liable to be proceeded against in respect of such contravention may be commenced at any time within three months after the making of such report or the conclusion of such inquest.

(3) 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 or any order or regulation made thereunder, the offence shall be deemed to continue until the examination is made, or the report entered, or other thing done, as the case may be.

98. (1) If a person is found in a factory at any time at which work is going on or the machinery is in motion, 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 then employed in such factory: Special provisions as to evidence

Provided that this subsection shall not apply to a factory in which the only persons employed are members of the same family dwelling there.

(2) Where in any proceedings under this Act with respect to a young person it appears to the court that such young person is apparently of or below the age alleged by the prosecutor, it shall lie on the accused to prove that the young person is not of or below that age.

(3) Where any entry is required by this Act or by any order or regulation made thereunder 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, as against him, 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 or of any order or regulation made thereunder has not been made, shall be admissible as evidence that the provision has not been observed.

99. Where the occupier or owner of a factory is convicted of an offence under this Act, the court may, in addition to or in lieu of a fine, order him, within such time as may be specified in the order, to take such steps as may be so specified for remedying the matters in respect of which the contravention occurred, and may, on application, enlarge the time so specified, and where such an order is made, the occupier or owner shall not be liable under this Act in respect of the continuation of the contravention during the time allowed by the court, but if, after the expiration of that time as originally specified or enlarged by subsequent order, the order is not complied with, the occupier or owner, as the case may be, shall be liable to a fine not exceeding three hundred penalty units for each day on which the non-compliance continues. Power of court to order cause of contravention to be remedied

(As amended by Act No. 13 of 1994)

100. (1) Any document or order required or authorised to be served under this Act may be served- Service, etc., of documents

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

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

(c) on the owner or occupier of a factory in any such manner as aforesaid, or by delivering it, or a true copy thereof, to the manager, foreman or other responsible person at the factory.

(2) Any document mentioned in subsection (1) 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.

101. 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 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 any order or regulations made thereunder, or in order to conform with any standard or requirement imposed by or under this Act, he may apply, in accordance with any rules of court which may be made by the High Court in that behalf, to the High Court, and that Court, after hearing the parties and any witnesses whom it may desire to call, may make such an order setting aside or modifying the terms of the agreement as the Court may consider just and equitable in the circumstances of the case. Power of High Court to modify agreements

102. Where, in any premises the whole or 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 or any order or regulation made thereunder, or in order to conform with any standard or requirement Power of High Court to apportion expenses

imposed by or under this Act, and the owner or occupier alleges that the whole or part of the expenses of the alterations ought to be borne by the occupier or owner, as the case may be, such owner or occupier may apply, in accordance with any rules of court which may be made by the High Court in that behalf, to the High Court, and that Court, after hearing the parties and any witnesses whom it 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.

103. (1) If in the opinion of the Chief Inspector of Factories any building, part of a building, machine, plant, matter, thing or practice in a factory is dangerous or defective so as to constitute a threat to health or safety of any person, the Chief Inspector of Factories-

Powers of Chief Inspector of Factories in relation to dangerous or defective factory

(a) shall send a written notice to the owner or occupier of the factory requiring such building, part of the building, machine, plant, matter, thing or practice to be vacated, repaired, removed, remedied or stopped, as the case may be, either forthwith or within such time as may be specified in such notice;

(b) may order work in such factory to be suspended until the requirements of the notice given under paragraph (a) have been complied with to the satisfaction of the Chief Inspector of Factories.

(2) Any owner or occupier of a factory who receives a notice or order given under subsection (1) shall comply therewith unless he intends to object thereto under subsection (3), in which case, he shall cease to use the building, part of the building, machine, plant, matter, thing or practice to which the notice or order relates and shall forthwith withdraw all persons from the danger or defect until the case has been determined by the Commissioner in accordance with subsection (3):

Provided that the Chief Inspector of Factories may, if he is of the opinion that there is no immediate danger to any person, grant written permission for work in such factory to continue for such period and upon such conditions as he may specify in such permission.

(3) Any owner or occupier of a factory who feels aggrieved by a notice or order given under subsection (1) may, immediately upon receipt of such notice or order, submit his objection thereto in writing to the Commissioner who shall thereupon determine the case and communicate his decision in writing.

(4) Any owner or occupier of a factory who is aggrieved by a decision of the Commissioner given under subsection (3) may, not later than seven days from the date of the receipt of such decision, request the Commissioner in writing to refer the case to the Minister and the Commissioner shall refer the case to the Minister whose decision thereon shall be given in writing and be final.

(5) Pending a decision by the Minister under subsection (4), the owner or occupier of the factory concerned shall not use the factory or any part, machine or plant thereof or any matter, thing or practice therein unless the prior written permission of the Commissioner has been granted.

(6) Any owner or occupier of a factory who, save as is provided in this section, fails to comply with any notice, order or decision given under this section shall be guilty of an offence and shall be liable upon conviction to a fine not exceeding six thousand penalty units and, in the case of a continuing offence, to a further fine not exceeding one thousand five hundred penalty units for each day or part thereof during which such offence is continued.

(As amended by Act No. 24 of 1975 and Act No. 13 of 1994)

PART XV

GENERAL

104. Any regulations made under the provisions of this Act may prescribe penalties for the contravention thereof not exceeding the penalties specified in section *ninety-two*. Penalties

105. The Minister may, by statutory instrument, make regulations- Regulations
(a) prescribing anything which under any provision of this Act is to

be or may be prescribed; and

(b) prescribing the fees to be paid and the method of payment of such fees in respect of any examination or test carried out under the provisions of this Act by any inspector.

FIRST SCHEDULE

(Section 77)

DANGEROUS OCCURRENCES

The following occurrences, if accidental, are scheduled for the purposes of section 77:

1. Bursting of a revolving vessel, wheel, grindstone or grinding wheel moved by mechanical power.
2. Collapse or failure of a crane, derrick, winch, hoist, or other appliance used in raising or lowering persons, goods, material, plant or any part thereof, or the overturning of a crane.
3. Explosion or fire due to ignition of dust, gas or vapour.
4. Electrical short circuit or failure of electrical machinery, attended by explosion or fire, or any damage to an underground electrical system caused by excavation or otherwise.
5. Explosion or fire affecting any room in which persons are employed and causing suspension of ordinary work.
6. Explosion of a receiver or container used for the storage at a pressure greater than atmospheric pressure of any gas or gases (including air) or any liquid or solid resulting from the compression of gas.
7. Explosion from a steam boiler or steam receiver.

SECOND SCHEDULE

(Section 78)

INDUSTRIAL DISEASES

1. Lead poisoning
2. Phosphorus poisoning
3. Arsenical poisoning
4. Mercurial poisoning
5. Anthrax

6. Carbon bisulphide poisoning
7. Aniline poisoning
8. Chronic benzene poisoning
9. Manganese poisoning
10. Compressed air illness
11. Cyanide poisoning
12. Toxic jaundice: that is, jaundice due to tetrachlorethane or nitro- or amido-derivatives of benzene or other poisonous substance.
13. Epitheliomatous-ulceration: that is, ulceration due to tar, pitch, bitumen, mineral oil or paraffin, or any compound, product or residue of any of these substances.
14. Chrome ulceration: that is, ulceration due to chronic acid or bichromate of potassium, sodium or ammonium or any preparation of any of these substances occurring in a factory.
15. Toxic anaemia: that is, pathological manifestations due to-
 - (a) radium or any other radio-active substances; or
 - (b) X-rays.

SUBSIDIARY LEGISLATION

SECTION 17-THE FACTORIES (APPEALS TO THE BOARD) RULES *Rules by the Chief Justice*

*Statutory
Instruments
382 of 1968*

1. These Rules may be cited as the Factories (Appeals to the Board) Title Rules.
2. On any appeal under section *seventeen* of the Act, the parties may adduce evidence.
3. The Board may in its discretion receive evidence on affidavit either in addition to or in substitution for oral evidence.

Affidavit

THE CONSTRUCTION (SAFETY AND HEALTH) REGULATIONS

ARRANGEMENT OF REGULATIONS

PART I

PRELIMINARY

Regulation

1. Title and application
2. Interpretation
3. Notice of commencement of construction work
4. Exemption

PART II

SCAFFOLDS AND MEANS OF ACCESS

5. Provision of scaffolds and means of access
6. Supervision of work and inspection of materials
7. Construction of scaffolds
8. Support and stability of scaffolds
9. Travelling scaffolds
10. Gear for suspension of scaffolds
11. Maintenance of scaffolds
12. Cantilever, jib, etc., scaffolds
13. Suspended scaffolds
14. Skips, buckets, boatswain's chairs, etc.
15. Trestle scaffolds
16. Ladder scaffolds
17. Inspection of scaffolds
18. Scaffolds used by workmen of more than one employer
19. Overloading of scaffolds

PART III

WORKING PLATFORMS, WORKING PLACES, GANGWAYS ETC.

20. Working platforms
21. Boards and planks in working platforms, etc.

22. Guard-rails and toe-boards at working places
23. Construction of gangways and runs

Regulation

24. Guard-rails, etc., for gangways, etc.
25. Platforms, etc., to be unobstructed
26. Ladders and step-ladders
27. Communication ladders
28. Openings left in roofs, walls, floors, etc.
29. Sloping roofs and fragile materials
30. Lighting of working places

PART IV

LIFTING MACHINERY

31. Construction and maintenance
32. Support, anchoring and stability
33. Travelling or slewing motion
34. Erection and dismantling
35. Drums and pulleys
36. Brakes and controls
37. Restriction on use of cranes
38. Marking of safe working load
39. Load not to exceed safe working load
40. Precautions when raising or lowering
41. Testing and thorough examination
42. Weekly inspections
43. Thorough examinations
44. Testing of anchorage or ballasting
45. Safe means of access
46. Operation and signalling

PART V

HOISTS

47. Safety of hoistways
48. Hoists used only for goods, plant or material
49. Safety devices
50. Hoists carrying persons
51. Winches
52. Safe working load of hoists

PART VI

LIFTING TACKLE AND PLANT

Regulation

53. Construction, testing, examination, safe working load
54. Hooks
55. Slings
56. Secureness of loads
57. Carriage of persons
58. Records and exceptions

PART VII

EXCAVATIONS, SHAFTS AND TUNNELS

59. Inspection of excavations, etc.
60. Inspection and supervision of timbering
61. Excavations which reduce stability
62. Fencing of excavations
63. Safeguarding edges of excavations
64. Open face excavations
65. Means of entry and exit
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PART VIII

DEMOLITION

68. Avoidance of danger from electric cables, fire and water

- 69. Overloading of floors, etc.
- 70. Removal of steelwork
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PART IX

TRANSPORT

- 73. Rails and rail tracks
- 74. Maintenance of locomotives, etc.
- 75. Clearance

Regulation

- 76. Gantries
- 77. Warning of movement
- 78. Riding on vehicles
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- 80. Mechanically propelled vehicles and trailers
- 81. Inclined tracks
- 82. Vehicles near edge of excavation, etc.

PART X

HEALTH

- 83. First-aid, ambulance and ambulance room
- 84. Drinking water
- 85. Shelters, accommodation for clothing, accommodation for meals
- 86. Sanitary conveniences
- 87. Inhalation of dust or fumes
- 88. Protection of eyes
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- 90. Lead compounds and other poisonous substances

PART XI

MISCELLANEOUS

91. Projecting nails and loose material
92. Construction of temporary structures
93. Avoidance of danger from collapse of structure
94. Prevention of drowning
95. Safety nets, sheets and belts
96. Generation of steam, smoke and vapour
97. Protection from falling material
98. Returns
99. Guarding of machinery
100. Electricity
101. Duties of contractors and employers of workmen
102. Duties of persons employed
103. Notice of accidents

Regulation

104. Mining operations and premises
105. Penalties

FIRST SCHEDULE-Inspection of scaffolds

SECOND SCHEDULE-Ambulance room equipment

SECTIONS 68, 74 AND 82-THE CONSTRUCTION (SAFETY AND HEALTH) REGULATIONS

Regulations by the Minister

*Statutory Instrument
420 of 1967
90 of 1974*

PART I

PRELIMINARY

1. These Regulations may be cited as the Construction (Safety and Health) Regulations, and shall apply- Title and application
 - (a) to building operations;
 - (b) to works of engineering construction;as defined in section *three* of the Act, and 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 local or other public authority.

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

"construction work" means any building operation or work of engineering construction;

"employer" means any person who, in connection with any construction work, employs or provides employment for or permits any other person in any manner whatsoever to assist in or about any construction work;

"hoist" means a lifting machine, whether worked by mechanical power or not, with a platform, carriage, cage, skip, bucket or other receptacle, the direction of movement of which is restricted by a guide or guides;

"ladder" does not include a step-ladder;

"ladder scaffold" means a scaffold with a working platform which is supported directly or by means of a crutch or bracket on a rung or rungs of a ladder;

"lifting machine" means a crab, winch, pulley block or gin wheel used for raising or lowering, and a hoist, crane, sheer legs, excavator, drag line, piling frame, aerial cableway, aerial ropeway or overhead runway;

"lifting tackle" means chain slings, rope slings or similar gear, and rings, links, hooks, plate clamps, shackles, swivels or eye bolts;

"scaffold" means any temporary structure on or from which persons perform work in connection with any construction work, and any temporary structure which enables persons to obtain access to or 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 machine or a structure used merely to support such a machine or to support machinery or plant;

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

"trestle scaffold" includes a scaffold in which the supports for the platform are step-ladders, tripods or similar movable contrivances;

"working platform" includes a working stage;

"workman" means any person who is employed or permitted to assist in any manner whatsoever in or about any construction work;

"work of engineering construction", as defined in section *three* of the Act, is hereby extended to include-

the construction, structural alteration or repair (including repointing and repainting) or the demolition of all or any of the following:

- (a) any steel or reinforced concrete structure other than a building;
- (b) any airfield;
- (c) any lake defence works or river works; and
- (d) any other civil or constructional engineering works of a similar nature to any of the foregoing works.

3. (1) Any person undertaking any construction work which he has reasonable grounds for believing will not be completed within a period of less than six weeks shall, immediately upon the commencement thereof, give to the Commissioner written notice stating the name and address of such person, the place and nature of the construction work, and whether or not any mechanical power is to be used therein and, if so, its nature: Notice of commencement of construction work

Provided that no such notice shall be required in the case of any construction work which is to be undertaken upon a site where other construction work, in respect of which such a notice has been given, is in progress.

(2) Notwithstanding the provisions of sub-regulation (1), the Commissioner may, by statutory order, require the giving of notice in respect of any class of construction work as may be specified in such order, even though the work is to be completed within a period of less than six weeks.

(3) Any notice given under the provisions of this regulation shall be given to the Commissioner through the inspector in the District in which the construction work concerned is to be carried out or, if no such inspector has been appointed, to the Commissioner direct.

4. If the Commissioner is satisfied that, in the case of any particular Exemption class or description of plant or of any special description or method of work, the application of any requirement of these Regulations is, in any class or description of circumstances, not necessary in the interests of safety or not reasonably practicable, he may by certificate in writing (which he may at his discretion revoke at any time) grant an exemption from that requirement, subject to such conditions as may be specified in the certificate.

PART II

SCAFFOLDS AND MEANS OF ACCESS

5. Suitable and sufficient scaffolds shall be provided and erected for Provision of all construction work which cannot safely be done on or from the scaffolds and ground, or from part of a permanent structure, or from a ladder, or from means of access other available means of support, and sufficient safe means of access shall be provided, so far as is reasonably practicable, to every place at which any person has at any time to work.

6. (1) No scaffold shall be erected, or be substantially added to or altered or be dismantled, otherwise than under the immediate Supervision of a competent person, and so far as possible by competent workmen possessing adequate experience of such work. work and inspection of materials

(2) All materials for use in any scaffold shall be inspected by a competent person on each occasion before being taken into use.

7. (1) Every scaffold 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. Construction of scaffolds

(2) Sufficient material shall be provided for and shall be used in the construction of scaffolds.

(3) Timber used for the construction of scaffolds shall be of suitable quality, be in good condition, have the bark completely stripped off, and not be painted or treated in any way so that defects cannot easily be seen.

(4) Metal parts used for scaffolds shall be of suitable quality and be in good condition and free from corrosion or other patent defect likely to affect their strength materially.

8. (1) Every scaffold shall be securely supported or suspended and shall where necessary be sufficiently and properly strutted or braced to ensure stability. Support and stability of scaffolds

(2) All structures and appliances used as supports for scaffolds shall be of sound construction, have a firm footing or be firmly supported, and shall where necessary be sufficiently and properly strutted or braced to ensure stability.

(3) Standards and uprights of scaffolds shall be, where practicable, vertical or slightly inclined towards the building or structure and be sufficiently close to ensure stability. Displacement of the foot of any standard shall be prevented by sinking into the ground or by placing the standard on a suitable plank or base plate, or by other adequate arrangements to prevent slipping.

(4) No part of a building or structure shall be used as support for part of a scaffold unless it is sufficiently strong and stable to afford safe support.

(5) Putlogs shall be straight or approximately straight. Putlogs having

one end supported by a wall shall have a flat supporting surface at that end. Distances between putlogs shall be fixed with due regard to the nature of the platform and the load it will bear.

- 9.** Any travelling scaffold or scaffold which can be moved on wheels or skids shall, unless it is a suspended or slung scaffold, be- Travelling scaffolds
- (a) constructed with due regard to stability and, if necessary for stability, adequately weighted at the base;
 - (b) used only on a firm and even surface, not so sloping as to involve risk of instability of the scaffold or any load thereon;
 - (c) adequately secured to prevent movement when any person is working upon it;
 - (d) moved only by the application of force at or near the base.

- 10.** (1) Chains, ropes and lifting gear used for the suspension of scaffolds shall be of sound material, adequate strength and suitable quality, and in good condition. Gear for suspension of scaffolds

(2) No rope other than a wire rope shall be used for the suspension of a scaffold:

Provided that this sub-regulation shall not apply in the case of a suspended scaffold which is raised or lowered otherwise than by means of winches, nor in the case of equipment used in lieu of a suspended scaffold in accordance with the provisions of regulation 14.

(3) Chains, ropes and metal tubes used for the suspension of a scaffold, other than a suspended scaffold, shall be properly and securely fastened to safe anchorage points and to the scaffold ledgers or other main supporting members, and shall be so positioned as to ensure stability of the scaffold, and shall be approximately vertical and be kept taut.

(4) Every scaffold suspended by means of ropes or chains shall be secured so as to prevent undue horizontal movement while it is used as a working platform.

- 11.** All scaffolds shall be properly maintained and every part shall Maintenance of

be kept so fixed, secured or placed in position as to prevent, so far as is practicable, accidental displacement.

12. (1) No cantilever or jib scaffold shall be used unless it is adequately supported, fixed and anchored on the opposite side of the support, has outriggers of adequate length and cross-section, and is, where necessary, sufficiently strutted or braced to ensure rigidity and stability.

Cantilever, jib, etc., scaffolds

(2) No figure or bracket scaffold supported or held by dogs, spikes or similar fixings liable to pull out of the stonework or brickwork in which they are gripped or fixed shall be used.

13. No suspended scaffold shall be used unless it complies with the following requirements:

Suspended scaffolds

(a) the platform shall be at least 500 millimetres wide and of adequate strength:

(b) the outriggers or other means of support are properly constructed, of adequate length and strength and properly installed and secured:

(c) the platform shall be provided with a suitable guardrail and toe-board or other efficient means to prevent the fall of persons or articles from the platform.

(As amended by S.I.No. 90 of 1974)

14. (1) A skip, bucket, basket, boatswain's chair or similar equipment shall not be used in lieu of a suspended scaffold, except in special circumstances where the work to be performed therefrom is of such short duration as to make the use of a suspended scaffold unreasonable, or where the use of a suspended scaffold is not reasonably practicable, and such equipment shall only be so used under the supervision of a responsible person.

Skips, buckets, boatswain's chairs, etc.

(2) No equipment as is mentioned in sub-regulation (1) shall be used in lieu of a suspended scaffold unless-

(a) the equipment, including all the suspension ropes or chains and their means of support, are of good construction, sound material, adequate strength and free from patent defect, and the ropes or chains are securely attached; and

(b) suitable measures are taken to prevent spinning or tipping and to prevent any occupant from falling therefrom.

(3) No skip, bucket or basket shall be used in lieu of a suspended scaffold unless it is-

(a) at least 800 millimetres deep; and

(b) either constructed wholly of suitable metal or carried by two strong bands of suitable metal which are properly fastened and continue round the sides and bottom.

(As amended by S.I. No. 90 of 1974)

15. (1) No trestle scaffold shall be used-

Trestle scaffolds

(a) if constructed with more than three tiers; or

(b) if it has a working platform more than 4,500 metres above the ground or floor or other surface upon which the scaffold is erected.

(2) No trestle scaffold shall be erected on a scaffold platform unless-

(a) the width of the platform is such as to leave sufficient clear space for the transport of materials; and

(b) the trestles or uprights are firmly attached to the platform and adequately braced to prevent displacement.

(3) No trestle scaffold shall be erected on a suspended scaffold.

(As amended by S.I. No. 90 of 1974)

16. Ladder scaffolds shall be of adequate strength and used only for Ladder scaffolds light work.

17. Scaffolds in use, together with all fittings and connections, shall be inspected at least once a week by a competent person deputed by the scaffolds

employer, and a record in the form set out in the First Schedule shall be kept of all such inspections.

18. Where a scaffold or part thereof is to be used by or on behalf of an employer, other than the employer for whose workmen it was first erected, the first-mentioned employer shall, before such use, and without prejudice to any other obligations imposed upon him, 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 its construction are sound, and that the safeguards required by these Regulations are in position. Scaffolds used by workmen of more than one employer

19. Scaffolds shall not be overloaded and materials shall not be kept thereon unless needed within a reasonable time. Overloading of scaffolds

PART III

WORKING PLATFORMS, WORKING PLACES, GANGWAYS, ETC.

20. (1) Every working platform from which a person is liable to fall more than 2 metres shall be- Working platforms

(a) closely boarded, planked or plated;

(b) at least 500 millimetres wide if the platform is used as a footing only and not for the deposit of any material;

(c) at least 1 metre wide if the platform is used for the deposit of material;

(d) at least 1,250 metres wide if the platform is used for the support of any higher platform:

Provided that-

(i) the requirements of paragraphs (b) and (c) shall not apply in the case of a platform of a suspended scaffold, or in the case of a platform

not less than 500 millimetres wide being the platform of a ladder scaffold or of a trestle scaffold where the work is of such a light nature and the material required for the work is such that a platform less than 1 metre wide can be used with safety, and the platform is not used for the support of any higher platform;

(ii) the requirements of paragraphs (b) and (c) shall not apply in the case of a platform of a scaffold which has to be placed in a confined space, where these requirements are impracticable and the platform is as wide as practicable.

(2) No working platform resting on bearers let into a wall at one end and without other support shall be used unless the bearers are of adequate strength, pass through the wall and are securely fastened on the other side.

(3) Loose bricks, drainpipes, fuel drums or other unsuitable material shall not be used for the construction or support of scaffolds save that bricks or small blocks may, if they provide a firm support, be used to support a platform not more than two feet above the ground or floor.

(As amended by S.I. No. 90 of 1974)

21. (1) All boards or planks forming part of a working platform, gangway or run shall be of such thickness and so supported as to prevent undue or unequal sagging and also so supported or secured as to prevent tipping or spreading.

Boards and planks in working platforms, etc.

(2) Suitable measures such as the provision of adequate bevelled pieces shall be taken to reduce to a minimum the risk of tripping and to facilitate the movement of barrows where boards or planks which form part of a working platform, gangway or run overlap each other or are not of reasonably uniform thickness where they meet each other or, owing to warping or for some other reason, do not provide an even surface.

22. (1) Subject to the provision of sub-regulations (3), (4) and (5), every side of a working platform or working place, being a side thereof from which a person is liable to fall a distance of more than 2 metres, shall be provided with a suitable guard-rail or guard-rails of adequate strength, to a height of at least 1 metre above the platform or place and above any raised standing place on the platform or place, and with

Guard-rails and toe-boards at working places

toe-boards up to a sufficient height, being in no case less than 205 millimetres, and so placed as to prevent so far as possible the fall of persons, materials and tools from such platform or place.

(2) The guard-rails and toe-boards used on a working platform or working place 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 700 millimetres.

(3) It shall not be necessary to have a guard-rail up to 1 metre above the platform or place where this is impracticable on account of the nature or special circumstances of the work-

(a) if there is a guard-rail up to a height of at least 700 millimetres;
or

(b) if, where a guard-rail up to a height of 700 millimetres is impracticable, secure handholds are provided for persons endangered by the absence of a guard-rail up to that height.

(4) Guard-rails and toe-boards required by sub-regulations (1) and (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.

(5) The requirements of sub-regulations (1) and (2) shall not apply-

(a) in respect of toe-boards, to the platform of a ladder scaffold or a trestle scaffold, or where and so far as the provision of a toe-board is impracticable on account of the nature or special circumstances of the work;

(b) in respect of guard-rails, to the platform of a ladder scaffold if a secure handhold is provided for the full length of such platform, nor to the platform of a trestle scaffold when the platform is supported on folding trestles or step-ladders;

(c) to a platform provided with suitable guard-rails which is on a sloping surface;

(d) to a temporary platform which is used only by erectors of structural steelwork or ironwork for the purposes of bolting-up, rivetting or welding work of such short duration as to make the

provision of a platform with guard-rails and toe-boards unreasonable, so long as-

- (i) the platform is at least 1 metre wide; and
- (ii) there is adequate handhold; and
- (iii) the platform is not used for the deposit of tools or materials otherwise than in boxes or receptacles suitable to prevent the fall of the tools or materials from the platform.

(As amended by S.I. No. 90 of 1974)

23. (1) Every gangway or run from any part of which a person is liable to fall a distance of more than 2 metres shall-

Construction of
gangways and
runs

- (a) be closely boarded, planked or plated:

Provided that this paragraph shall not apply to a gangway or run which is part of the fixed equipment of a structure and the boards, plates or planks of which are so secured as to prevent their moving and so placed that the space between adjacent boards, plates or planks does not exceed 25 millimetres, and there is no risk of persons below such gangway or run being struck by tools or other objects falling through such gangway or run;

- (b) be at least 500 millimetres wide.

(2) No gangway, run or working platform shall be used for the passage of materials unless it affords a clear passage-way which is adequate in width for the passage of the materials without the removal of the guard-rails or toe-boards and in any case is not less than 700 millimetres wide.

(3) No gangway or run shall be used the slope of which exceeds one vertical to three horizontal.

(4) Where the slope of any gangway or run renders additional foothold necessary, and in every case where the slope exceeds one vertical to four 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 they may be interrupted over a width of not more than 100 millimetres to facilitate the movement of barrows.

(As amended by S.I. No. 90 of 1974)

24. All gangways, runs and stairs from which a person is liable to fall a distance of more than 2 metres shall be provided with- Guard-rails, etc., for gangways, etc.

(a) suitable guard-rails of adequate strength to a height of at least 1 metre above the gangway, run or stair;

(b) except in the case of stairs, toe-boards up to a sufficient height, being in no case less than 205 millimetres and so placed as to prevent so far as possible the fall of persons, materials and tools; the space between any such toe-board and the lowest guard-rail above it shall not exceed 700 millimetres:

Provided that the provisions of this regulation shall not apply to a temporary gangway which is used only by erectors of structural steelwork or ironwork for the purposes of bolting-up, rivetting or welding work of such short duration as to make the provision of a gangway with guard-rails and toe-boards unreasonable.

(As amended by S.I. No. 90 of 1974)

25. (1) Every platform, gangway, run or stair shall be kept free from any unnecessary obstruction, or projections, material or rubbish and from any projecting nails. Platforms, etc., to be unobstructed

(2) If any platform, gangway, run or stair becomes slippery, appropriate steps shall, as soon as is reasonably practicable, be taken to remedy the defect.

26. (1) Every ladder and step-ladder shall be of good construction, sound material and adequate strength for the purpose for which is it used. Ladders and step-ladders

(2) Ladders or step-ladders shall have a level and firm footing and shall not stand on loose bricks or other loose packing.

building or structure, or in a working platform, gangway or run, through which any person is liable to fall a distance of more than 2 metres, shall be provided with suitable guard-rails and toe-boards or coverings to prevent the fall of persons or materials or articles through the opening, except where and when access is required for workmen or for the movement of materials, or for the completion of the building or permanent filling in of the opening.

roofs, walls,
floors, etc.

(As amended by S.I. No. 90 of 1974)

29. (1) Where any person is employed in connection with any construction work to which these Regulations apply, on a sloping roof without adequate footholds or handholds and having a pitch of more than 10 degrees, suitable and sufficient crawling ladders or duck-boards shall be provided and used, and such ladders or duck-boards shall be secured to prevent their slipping,

Sloping roofs and
fragile materials

(2) Where all the work cannot be done from secured crawling ladders or duck-boards and where the sloping roof has a pitch of more than 30 degrees or the covering of the roof has a slippery surface, and where a person is liable to fall a vertical distance of more than 2 metres from the edges or the eaves, a parapet or barrier shall be provided at the lower edges or eaves of the roof, so as to prevent any person falling off the roof.

(3) Without prejudice to the foregoing provisions, no person shall pass across, or work on or from material which is liable to fracture and is so situated that he would be liable to fall a distance of more than 2 metres, unless suitable and sufficient ladders, crawling ladders or duck-boards are provided, secured, and used.

(4) Prominent warning notices shall, except where the material is glass, be affixed at the approaches to fragile material.

(As amended by S.I. No. 90 of 1974)

30. Every working place and approach thereto connected with any construction work shall be adequately lighted.

Lighting of
working places

PART IV

LIFTING MACHINERY

31. (1) Every lifting machine and every part thereof including all working gear and all other plant or equipment used for anchoring or fixing such machinery shall be of good mechanical construction, sound material, adequate strength and free from patent defect, and shall be properly maintained. Construction and maintenance

(2) No crane which has any timber structural member shall be used.

(3) Every part of the framework of every crab or winch, including the bearers, shall be of metal.

(4) Every platform for the person or persons driving or operating a crane, or for any signaller, shall be-

(a) of sufficient area for the persons employed thereon;

(b) close planked or plated;

(c) provided with safe means of access;

(d) provided with guard-rails and toe-boards where necessary to prevent danger.

(5) Every travelling jib crane on rails shall be provided with guards to remove any loose material from the track.

(6) The rail track on which a travelling crane moves shall be of sound construction, properly laid, maintained in good condition, as level as far as practicable, and provided with effective stops at the ends.

(7) Every travelling crane shall be fitted with effective brakes.

(8) Every travelling crane shall be fitted with an effective whistle or other warning device.

32. (1) Every lifting machine shall be adequately and securely supported.

Support,
anchoring and
stability

(2) The anchoring or fixing arrangements of every lifting machine shall be adequate and secure.

(3) Every temporary attachment or connection of a rope, chain or other plant or equipment used in the erection or dismantling of any lifting machine shall be adequate and secure.

(4) No mobile lifting machine shall be used on a soft or uneven surface or on a slope in circumstances in which the stability of the machine is likely to be affected, unless adequate precautions are taken to ensure its stability.

(5) No fixed crane shall be used unless it is securely anchored or adequately weighted by suitable ballast properly placed on the crane structure so as to ensure stability.

(6) Where the stability of a crane is secured by means of removable weights, a diagram or notice indicating the position and amount of such weights shall be affixed on the crane where it can readily be seen.

33. On every stage, gantry or other place where a lifting machine having a travelling or slewing motion is used, an unobstructed passageway not less than 610 millimetres wide shall be maintained between any part of the machine liable so to move and any guard-rails, fencing or nearby fixtures:

Travelling or
slewing motion

Provided that if at any time it is impracticable to maintain such a passage-way at any place or point, all reasonable steps shall be taken to prevent the access of any person to such place or point at any time.

(As amended by S.I. No. 90 of 1974)

34. (1) A crane shall not be erected or dismantled except under the supervision of a competent person.

Erection and
dismantling

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

(3) Effective measures shall be taken to prevent the foot of the king post of any scotch derrick crane from being lifted out of its socket or support whilst in use.

35. (1) Every drum or pulley round which the chain or wire rope of any lifting machine is carried shall be of suitable diameter and construction for the chain or rope used. Drums and pulleys

(2) Every chain or rope which terminates at the winding drum of a lifting machine shall be properly secured thereto, and at least two turns of such chain or rope shall remain on the drum in every operating position of the machine.

36. (1) 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. Brakes and controls

(2) On every lifting machine, every lever, handle or wheel provided for controlling the operation of any part of the machine shall, where practicable, be provided with a suitable locking device to prevent accidental movement or displacement of the lever, handle or wheel, unless it is so placed or constructed as to prevent such accidental movement or displacement, or unless the machine is so constructed that such accidental movement or displacement will not affect the machine in a manner liable to cause danger.

(3) Every lever, handle, wheel, 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:

Provided that this sub-regulation shall not apply to rotating handles for raising or lowering the load in the case of a winch or non-derricking jib crane not operated by mechanical power.

(4) The rotating handle of any hand operated crane shall be removed when lowering the load on the brake.

(5) Every machine used for raising and suspending a pile driving hammer which operates by gravity shall be provided with adequate means of control, including efficient brakes and there shall be suitable scotches or stops for every such hammer.

(6) 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 unless the pawl is in effective engagement with the derricking drum, and the pawl cannot be disengaged unless the clutch is in effective engagement with the derricking drum:

Provided that this sub-regulation shall not apply to any crane in which-

- (i) the hoisting drum and the derricking drum are independently driven; or
- (ii) the mechanism driving the derricking drum is self-locking.

37. (1) Without prejudice to sub-regulation (2), the hoisting mechanism of a crane shall not be used for any purpose other than raising or lowering a load vertically, unless no undue stress is imposed on any part of the crane structure or mechanism, and the stability of the crane is not thereby endangered and unless such use is supervised by a competent person.

Restriction on
use of cranes

(2) A crane with a derricking jib shall not be used with the jib at a radius exceeding the maximum radius at which the jib may be worked and which is required to be plainly marked upon the crane by regulation 38.

38. (1) The safe working load or safe working loads and a means of identification shall be plainly marked upon every crane, crab or winch and upon every pulley block, gin wheel, sheer legs or derrick pole or

Marking of safe
working load

mast used in the raising or lowering of any load.

(2) Every crane with a derricking jib shall have plainly marked upon it the safe working loads at various radii of the jib, and the maximum radius at which the jib may be worked, and be fitted with an accurate indicator clearly visible to the driver, showing the radius of the jib at any time and the safe working load corresponding to that radius.

39. A crane, crab, winch, pulley block, gin wheel, sheer legs, derrick pole, mast or any part of such machine shall not be loaded beyond the safe working load, provided that for the purpose of making tests of any such machine the safe working load may be exceeded by such amount as a competent person appointed to carry out the tests may authorise. Load not to exceed safe working load

40. (1) Where there is lifted on a crane, crab, winch (other than a piling winch), sheer legs or aerial cableway, a load which is equal to or slightly less than the relevant safe working load and which is not already sustained wholly by the machine, the lifting shall be halted after the load has been raised a short distance and before the operation is proceeded with. Precautions when raising or lowering

(2) Where more than one lifting machine is required to raise or lower one load-

(a) the plant or equipment used shall be so arranged and fixed that no such lifting machine shall at any time be loaded beyond its safe working load or be rendered unstable in the raising or lowering of the load; and

(b) a competent person shall be specially appointed to supervise the operation.

41. No crane, crab, winch, hoist, pulley block, gin wheel or sheer legs shall be used for the first time unless it has been tested and thoroughly examined by a competent person or certified by the manufacturer of the machine. A certificate of the test and examination specifying the safe working load or loads shall be kept available for inspection. Testing and thorough examination

42. Every lifting machine and all plant or gear used for anchoring or fixing such machine shall, as far as the construction permits, be inspected for patent defects by a competent person at least once in every week. Weekly inspections

43. No lifting machine shall be used unless it has been thoroughly examined by a competent person within the previous fourteen months, or, in the case of a hoist, within the previous six months, and following any substantial alteration or repair. Thorough examinations

44. (1) The whole of the appliances for the anchorage or ballasting of a crane shall be examined by a competent person on each occasion before the crane is erected. Testing of anchorage or ballasting

(2) After each erection of a crane on a construction site and after each removal of a crane about or to such a site, or any adjustment to any member of a crane, being a removal or adjustment which involves changes in the arrangements for anchoring or ballasting the crane, the security of the anchorage or the adequacy of the ballasting, as the case may be, shall, before the crane is taken into use, be tested by a competent person, by the imposition either-

(a) of a load of twenty-five per centum above the maximum load to be lifted by the crane as erected at the positions where there is the maximum pull on each anchorage; or

(b) of a less load arrangement to provide an equivalent test of the anchorage or ballasting arrangements.

45. Where any person engaged on the examination, repair or lubrication of any lifting machine is liable to fall a distance of more than 2 metres there shall, so far as is reasonably practicable, be provided and maintained safe means of access to the place at which the person has to work, with, where necessary, adequate footholds and handholds. Safe means of access

(As amended by S.I. No. 90 of 1974)

46. (1) A lifting machine shall not be operated except by a person trained and competent to operate that machine, except that it shall be permissible for such machine to be operated by a person who is under Operation and signalling

the direct supervision of a qualified person for the purpose of training.

(2) Where the person operating a lifting machine (other than a hoist subject to Part V) has not a clear and unrestricted view of the load, or, where there is no load, of the point of attachment for a load, and of its vicinity, throughout the operation, except at any place where such a view is not necessary for safe working, there shall be-

(a) appointed and suitably stationed one or more competent persons as may be necessary to give the necessary signals to the operator; or

(b) effective apparatus or devices provided and used to give sound, light or colour signals to the operator.

(3) Every signal for the movement or stopping of a lifting machine or its load, as required by subsection (2), shall be of a distinctive character and such that the person to whom it is given is able to see or hear it easily.

(4) Devices or apparatus used for giving sound, light or colour signals shall be efficient and properly maintained and signal wires shall be adequately protected from accidental interference.

PART V

HOISTS

47. Accessible parts of the hoistway of every hoist shall be efficiently protected to prevent any person falling down the hoistway or hoistways coming into contact with any moving part of the hoist or falling from a hoist platform at rest at a landing or loading place. Safety of

48. (1) The installation arrangements of every hoist shall at any one time be such that it can be operated from only one position. Hoists used only
for goods, plant
or material

(2) If the person operating a hoist has not a clear and unrestricted view of the platform, carriage, cage, skip, bucket or other receptacle

throughout its travel, except at points where such view is not necessary for safe working, then effective arrangements shall be made for signals for operating the hoist to be given to him from each landing place at which the hoist is used and to enable him to stop the platform, carriage, cage, skip, bucket or other receptacle at the appropriate level.

(3) No person shall ride upon the platform or in the receptacle of a hoist intended only for the carriage of goods, materials, plant or equipment, and there shall be a readily legible notice on the platform or receptacle or at each landing place at which the hoist is used stating that the carriage of persons is prohibited.

49. (1) In connection with every hoist there shall be provided and maintained efficient devices which will support the platform, carriage, cage, skip, bucket or other receptacle together with its safe working load in the event of failure of the hoist rope or ropes or any part of the hoisting gear. Safety devices

(2) In connection with every hoist there shall be provided and maintained efficient automatic devices which will ensure that the platform, carriage, cage, skip, bucket or other receptacle does not overrun the highest point to which it is for the time being constructed to travel.

50. (1) Every hoist used for carrying persons shall be provided with a cage which is so constructed as to prevent any person carried from falling out, or from being trapped between any part of the cage and any fixed structure or any moving part of the hoist, or from being struck by articles or material falling down the hoistway. Hoists carrying persons

(2) Every cage of a hoist used for carrying persons shall be suspended by means of at least two ropes, each rope and its attachments being such as to carry with safety the whole weight of the cage and its safe working load.

(3) In connection with every hoist used for carrying persons, there shall be provided suitable efficient automatic devices which will ensure that the cage comes to rest at a point above the lowest point to which the cage can travel.

(4) Every hoist in which any person is being carried shall be operated from the cage of the hoist only.

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

52. The safe working load shall be plainly marked on every hoist platform, carriage, cage, skip, bucket or other receptacle. In the case of a hoist used for carrying persons, the maximum number of persons to be carried at any one time shall also be so marked, and a greater number of persons shall not be so carried. Safe working load of hoists

PART VI

LIFTING TACKLE AND PLANT

53. (1) The following provisions shall be complied with as respects every chain, rope or lifting tackle used in raising or lowering or as means of suspension: Construction, testing, examination, safe working load

(a) no chain, rope or lifting tackle shall be used unless it is of good construction, sound material, adequate strength, suitable quality and free from patent defect;

(b) 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 loads at different angles of the legs shall be posted in the store in which the chains, ropes or lifting tackle are kept and in prominent positions on the site of the construction work, or, alternatively, in relation to any lifting tackle, the safe working load thereof, or, in the case of a multiple sling, the safe working load at different angles of the legs, shall be plainly marked upon it;

(c) no chain, rope or lifting tackle shall be used for any load

exceeding the safe working load, except for the purpose of making tests;

(d) the safe working load of any chain, rope or lifting tackle shall be that determined by a competent person or by the makers thereof in so far as such information from the makers is available;

(e) all chains, ropes and lifting tackle in use shall be thoroughly examined by a competent person at least once in every period of six months.

54. Every hook used for raising or lowering or as means of suspension shall be of such design as to reduce as far as possible the risk of displacement of the sling or load from the hook. Hooks

55. (1) Every chain sling or rope sling used for raising or lowering on a lifting machine shall be securely attached to the machine, and the method of attachment shall not be a method likely to result in any damage to any part of the sling or to any lifting tackle supporting it. Slings

(2) No double or multiple sling shall be used for raising or lowering if-

(a) the upper ends of the sling legs are not connected by means of a shackle, ring or link of adequate strength: or

(b) the safe working load of any sling leg is exceeded as a result of the angle between the sling legs.

(3) Adequate precautions shall be taken by the use of suitable packing or otherwise to prevent the edges of the load from coming into contact with any sling, rope or chain, so as to cause danger.

56. (1) Every part of the load shall be securely suspended or supported whilst being raised or lowered and shall be adequately secured to prevent danger from slipping or displacement. Secureness of loads

(2) Where by reason of the nature or position of the operation a load is liable, whilst being moved on a lifting machine or lifting tackle, to

come into contact with any object so that the object may become displaced, special measures shall be adopted to prevent the danger so far as is reasonably practicable.

(3) Every container or receptacle used for raising or lowering stone, bricks, tiles, slates or similar objects shall be so enclosed, constructed or designed as to prevent the accidental fall of such objects:

Provided that this requirement shall not apply to a grab, shovel or similar excavating receptacle if effective steps are taken to prevent any person being endangered by a fall of objects therefrom.

(4) Goods or loose material shall not be placed directly on a platform of a hoist unless such platform is enclosed or other effective precautions are taken where necessary to prevent the fall of any such goods or material.

(5) No truck or wheelbarrow shall be carried on a hoist platform unless it is effectively scotched or secured on the platform.

(6) No loaded truck or wheelbarrow shall be carried on the open platform of a hoist unless the truck or wheelbarrow is so loaded that no part of the load is liable to fall off.

(7) No load shall be left suspended from a lifting machine unless a competent person is actually in charge of the machine.

(8) No person shall be raised, lowered or carried by a crane except on the driver's platform.

57. (1) No person shall be raised, lowered or carried by a power-driven lifting machine except-

Carriage of persons

(a) on the driver's platform in the case of a crane; or

(b) on a hoist; or

(c) on a suspended scaffold of a type approved by an inspector; or

(d) as permitted by sub-regulation (2).

(2) A person may be raised, lowered or carried by a power-driven lifting machine otherwise than in accordance with the provisions of sub-regulation (1) only-

(a) in circumstances where the use of a hoist or of an approved suspended scaffold is not reasonably practicable and the requirements of sub-regulation (3) are complied with; or

(b) on an aerial cableway or aerial ropeway provided that the requirements of paragraphs (b) to (d) of sub-regulation (3) are complied with.

(3) The requirements referred to in sub-regulation (2) are-

(a) that the machine can be operated from one position only;

(b) that any winch used in connection with the machine shall comply with regulation 51.

(c) that no person shall be carried except-

(i) in a suitable chair or cage; or

(ii) in a suitable skip or other receptacle at least 1 metre deep; and any such chair, cage, skip or other receptacle shall be of good construction, sound material, adequate strength and properly maintained, and shall be provided with suitable means to prevent any occupant falling out and shall not contain material or tools liable to interfere with his handhold or foothold or otherwise endanger him; and

(d) that suitable measures shall be taken to prevent the chair, cage, skip or other receptacle from spinning or tipping in a manner dangerous to any occupant.

(As amended by S.I. No. 90 of 1974)

58. (1) A report of the result of any test, examination or inspection required by regulations 41, 42, 43, 44 and 53 shall, as soon as

Records and exceptions

practicable after the completion of such test, examination or inspection, be supplied by the competent person to the person undertaking the construction work.

(2) The Commissioner may from time to time specify the particulars which shall be entered in any register to be kept under the provisions of this regulation by the person undertaking construction work.

(3) A register kept under the provisions of this regulation shall be kept either at the site of the construction work to which it applies or, where this is not practicable, at the office of the person undertaking such construction work.

(4) All reports, certificates and other documents kept in the register and required by these Regulations shall at all reasonable times be open to inspection by an inspector. The person keeping any such report, certificate or other document shall send to any inspector such extracts therefrom or copies thereof as the inspector may from time to time require for the purpose of the execution of his duties under the Act.

(5) If it is shown to the satisfaction of the Commissioner that it is unnecessary or unreasonable in the special circumstances of a case or class of lifting machine, hoist, lifting tackle or plant subject to Parts IV, V and VI to enforce any of the requirements, he may by certificate grant exemption from compliance with such requirements.

PART VII

EXCAVATIONS, SHAFTS AND TUNNELS

59. (1) Every part of any excavation, shaft, earthwork and tunnel where persons are employed shall be inspected by a competent person at least once every day during which persons are employed and at the beginning of every shift. The competent person shall keep a record of such inspections which shall be kept available at the site for any examination by an inspector. Inspection of excavations, etc.

(2) An adequate supply of timber of suitable quality or other suitable material shall where necessary be provided and used to prevent, so far Timbering

as is reasonably practicable and as early as is reasonably practicable in the course of the work, danger to any person employed from a fall or dislodgement of earth, rock or other material forming the side or roof of or adjacent to any excavation, shaft, earthwork or tunnel:

Provided that-

(i) this regulation shall not apply where the competent person has certified that the work can be carried out in safety, having regard to the nature and slope of the side of the excavation or earthwork and other circumstances, and that no fall or dislodgement of earth or other material so as to bury or trap a person employed, or so as to strike a person employed, is liable to occur;

(ii) this regulation shall not apply in relation to a person actually engaged in timbering or other work which is being carried out for the purpose of compliance with this regulation, if appropriate precautions are taken to ensure his safety as far as circumstances permit.

60. (1) No timbering or plant used to retain or support any part of an excavation, shaft, earthwork or tunnel shall be erected or be substantially added to, altered or dismantled except under the direction of a competent person. Inspection and supervision of timbering

(2) No person shall be employed in any part of any excavation, shaft, earthwork or tunnel after any unexpected substantial fall of earth or rock or other material in the vicinity of such part until the sides and, where necessary, the roof, have been inspected by a competent person and such person has certified that the operations may be carried out in safety.

(3) This regulation shall not apply to persons carrying out inspections required by this regulation or actually engaged in timbering or other work for the purpose of making a place safe, if appropriate precautions are taken to ensure their safety as far as circumstances permit.

61. No excavation, shaft, earthwork or tunnel which is likely to reduce, so as to endanger any person employed, the security or stability of any part of any structure, whether temporary or permanent, shall be commenced or continued unless adequate steps are taken before and during the progress of the work to prevent danger to any person. Excavations which reduce stability

employed from the collapse of the structure or the fall of any part thereof.

62. Every accessible part of an excavation, shaft, pit or opening in the ground into or down the side of which a person employed is liable to fall a vertical distance of more than 2 metres shall be provided with a suitable barrier to a height of at least 610 millimetres and as close as is reasonably practicable to the edge, or shall be securely covered:

Fencing of excavations

Provided that the foregoing requirement shall not apply to any part of an excavation, shaft, pit or opening while (and to the extent to which) the absence of such barrier and covering is necessary for the access of persons or for the movement of plant or 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, shaft, pit or opening.

63. (1) Materials shall be cleared to a distance of at least 1,550 metres from the edges of an excavation, shaft, pit or opening in the ground so as not to endanger persons employed below.

Safeguarding edges of excavations

(2) No load shall be placed or moved near the edge of any excavation, pit or shaft where it is likely to cause a collapse of the side of the excavation, pit or shaft and thereby endanger any person.

(As amended by S.I. No. 90 of 1974)

64. In the open face working of any excavation no undercutting shall be allowed and no vertical face shall, so far as is reasonably practicable have a height of more than 1,550 metres but such open face shall be worked in terraces or at an angle of safety. All debris and other loose matter or stones on the surface shall be cleared to a distance of at least 1,550 metres from the edge of the working.

Open face excavations

(As amended by S.I. No. 90 of 1974)

65. Every excavation, shaft or tunnel shall have safe and reliable means of entry and exit for persons employed and, as far as is reasonably practicable, the means of entry and exit shall be provided at intervals not exceeding 15 metres.

Means of entry and exit

(As amended by S.I. No. 90 of 1974)

66. All persons working in shafts, tunnels and in other construction work, where there is a similar risk of head injuries, shall be provided with suitable protective hard hats, which shall be worn by the persons concerned. Hard hats

67. (1) Explosives at construction sites shall not be handled or used except by or under the immediate control of a competent person with adequate knowledge of the dangers connected with their use, and steps shall be taken to see that, when a charge is fired, persons employed are in positions in which, so far as can be anticipated, they are not exposed to risk of injury from the explosion or from flying material. Explosives

(2) In addition to the above requirement, the use of explosives in construction work will be subject to any regulations controlling the use of explosives which are enforced by the Chief Inspector of Mines.

PART VIII

DEMOLITION

68. Before demolition is commenced and also during the progress of the work- Avoidance of danger from

(a) no electric cable or apparatus which is liable to be a source of danger, other than a cable or apparatus used for the operation, shall remain electrically charged; electric cables, fire and water

(b) all practicable steps shall be taken to prevent danger to persons employed-

(i) from risk of fire or explosion through leakage or accumulation of gas or vapour; and

(ii) from risk of flooding from water mains, sewers or culverts.

69. No floor, roof or other part of a building shall be so overloaded with debris or materials as to render it unsafe. Overloading of floors, etc.

- 70.** Before any steelwork or ironwork is cut or released, precautions shall be taken, so far as is practicable, to avoid danger from any sudden twist, spring or collapse. Removal of steelwork
- 71.** Before demolition is commenced, and also during the progress of the work, precautions shall, where necessary, be taken by adequate shoring or otherwise to prevent, as far as practicable, the accidental collapse of any part of the building or any adjoining building, the collapse of which may endanger any person employed. Shoring to prevent collapse
- 72.** All demolition and operations incidental thereto shall be specifically placed under the supervision of a competent person experienced in demolition operations. Supervision

PART IX

TRANSPORT

- 73.** (1) All rails forming a rail track and every gantry or elevated structure carrying rails on which trucks, wagons or any other conveyances are moved by a locomotive or other form of mechanical haulage, shall be properly constructed, adequately supported and maintained so as to ensure the stability of any locomotive, truck, or wagon, etc., on the track. Rails and rail tracks
- (2) Every rail track shall be provided at each end with adequate stop blocks, buffers and, where practicable, automatic braking devices.
- 74.** Every locomotive, wagon and truck used for transport purposes shall be properly maintained. Maintenance of locomotives, etc.
- 75.** On every level on which mechanical haulage is employed, adequate clearance shall be maintained between the sides of the level and the trucks unless suitable recesses are provided at intervals of not more than 30 metres. All reasonable steps shall be taken to avoid or obviate low clearance and overhead obstructions. Clearance

(As amended by S.I. No. 90 of 1974)

76. Every gantry or elevated structure carrying rails on which a locomotive, truck or wagon moves shall be properly constructed and maintained and, at every part along which persons employed have to pass on foot, shall be provided with a suitable and adequate footway. Gentries

77. Every locomotive or other type of mechanical haulage shall be fitted with an effective whistle or other warning device. It shall be the duty of the person in charge of any locomotive, truck, or train of trucks to ensure that such locomotive or truck or the leading unit of a train of trucks has an adequate light affixed to the front of it when in motion in the dark. Warning of movement

78. No person shall be required or permitted to ride on a buffer or on a running board or in any other insecure position on any locomotive, truck, wagon or other vehicle, except where adequate handholds and footholds are provided. Riding on vehicles

79. No person shall be required or permitted to remain on any truck, wagon or other vehicle during the loading or unloading of loose materials by means of a grab, excavator or similar appliance, if he is endangered by so remaining. Loading of vehicles

80. A mechanically propelled vehicle or a mechanically drawn trailer-vehicle if owned or used by, or hired by and operated under the control of, a contractor or employer of workmen at any construction site to which these Regulations apply and used for conveying workmen, goods or materials for the purpose of such operations shall, when being moved at a site where such construction work is carried on (whether or not workmen, goods or materials are actually being conveyed on the vehicle at the time)- Mechanically propelled vehicles and trailers

(a) be in an efficient state, in efficient working order and in good repair and not be used in an improper manner; and

(b) not be loaded in such a manner or to such an extent as to interfere with the safe driving or operation of the vehicle.

This regulation shall not apply to locomotives, trucks or wagons on lines of rails.

81. On every inclined track where trucks are worked, attached to a Inclined tracks

rope or chain, adequate safety devices shall be provided to prevent danger from runaway trucks.

82. Where any vehicle is used for tipping material into any excavation or pit or over the edge of any embankment or earthwork, adequate measures, such as the provision of suitable stop blocks, shall be taken where necessary so as to prevent such vehicle from over-running the edge of such excavation, pit, embankment or earthwork. Vehicles near edge of excavation, etc.

PART X

HEALTH

83. At every site where persons are employed in operations to which these Regulations apply- First-aid, ambulance and ambulance room

(a) (i) a sufficient number of first-aid boxes or cases shall be available in readily accessible positions while work is going on;

(ii) in the case of a site where more than one hundred persons are employed, there shall be provided and available suitable stretchers and a vehicle capable of efficiently carrying an injured person on a stretcher:

Provided that this sub-paragraph shall not apply if specific arrangements have been made for obtaining an ambulance and stretchers promptly, when required, from a hospital or other place in the immediate vicinity of the site;

(iii) a suitable sling stretcher or other appliance for raising injured persons shall be readily available where work is being carried on in an excavation, shaft or other place, the proper removal from which of a seriously injured person is liable to call for the use of such an appliance;

(iv) nothing except appliances or requisites for first-aid shall be kept in a first-aid box or case;

(b) every first-aid box or case shall-

(i) contain such equipment as by law provided which shall be kept clean and in good condition;

(ii) be placed under the charge of a responsible person who shall be capable of giving first-aid and be readily available;

(c) in the following cases, namely:

(i) in the case of a site where more than five hundred persons are intended to be or have been employed at any one time and the number so employed is for the time being more than two hundred and fifty; and

(ii) in the case of a site at which more than two hundred and fifty persons are intended to be or have been employed and which is more than sixteen kilometres from a hospital and at which the number so employed is for the time being more than one hundred;

there shall be provided a properly constructed ambulance room with equipment at least up to such standards as prescribed in the Second Schedule, The room shall be in the charge of a suitably qualified person and a record shall be kept of all cases of sickness or accident treated at the room.

84. An adequate supply of wholesome drinking water shall be provided at a convenient point or points and clearly marked "Drinking Water". Drinking water

85. There shall be provided, if an inspector so directs, at or in the immediate vicinity of any site where persons are employed in operations to which these Regulations apply- Shelters,
accommodation
for clothing,
accommodation
for meals

(a) conveniently accessible and suitable accommodation for taking shelter during interruptions owing to bad weather;

(b) conveniently accessible and suitable accommodation for changing clothing;

(c) adequate and suitable accommodation for taking meals.

86. Sufficient and suitable sanitary conveniences for all persons employed at a construction site shall be provided by the main contractor or employer of workmen undertaking the operations. Sanitary
conveniences

87. Where in connection with any grinding, cleaning, spraying or Inhalation of dust

manipulation of any material, there is given off dust or fume of such a character and to such an extent as to be likely to be injurious to the health of persons employed, suitable respirators or otherwise shall be provided to prevent inhalation of such dust or fume.

- 88.** Where the following processes are carried on, that is to say: Protection of eyes
- (a) dry grinding of surfaces of metal, stone, concrete or similar materials by means of a wheel or disc driven by mechanical power;
 - (b) cutting, dressing or carving of stone, concrete or similar materials by means of a portable tool driven by mechanical power;
 - (c) chipping or scaling of painted or corroded metal surfaces or wire-brushing of such surfaces by mechanical power;
 - (d) cutting out and cutting off of cold rivets from any structure or part thereof; and
 - (e) welding or cutting of metals by means of an electrical, oxy-acetylene or similar process; suitable goggles or screens shall be provided to protect the eyes of persons employed in the process.

- 89.** Effective steps shall be taken to secure and maintain the adequate ventilation of every working place in any excavation, pit, hole, adit, tunnel, shaft, caisson, or other enclosed space so as- Ventilation of confined spaces
- (a) to maintain an atmosphere which is fit for respiration; and
 - (b) to render harmless all fumes, dust or other impurities which may be dangerous or injurious to health.

- 90.** Where any persons are employed in a process in which a lead compound or other poisonous substance is used, there shall be provided for the use of the persons liable to come into contact with such compound or substance adequate and suitable facilities for washing, which shall include nail brushes, soap and towels. Lead compounds and other poisonous substances

PART XI

MISCELLANEOUS

- 91.** No timber or materials with projecting nails shall be used in any work in which they are a source of danger to persons employed or be allowed to remain in any place where they are a source of danger to Projecting nails and loose material

such persons.

92. Any temporary structure erected for the purpose of operations to which these Regulations apply, not being a scaffold or a structure to which any other regulation applies, shall be of good construction, sound material and adequate strength and stability, having regard to the purpose for which it is used.

Construction of temporary structures

93. All practicable precautions shall be taken, by the use of temporary guys, stays, supports and fixings or otherwise where necessary, to prevent danger to any person employed through the collapse of any part of a structure during any temporary state of weakness or instability of the structure or part thereof before the structure is completed.

Avoidance of danger from collapse of structure

94. (1) Where on or adjacent to the site of any operations to which these Regulations apply there is water into which a person employed is liable to fall with risk of drowning, suitable rescue equipment shall be provided and kept ready for use and steps shall be taken to arrange for the prompt rescue of any such person in danger of drowning.

Prevention of drowning

(2) Where appropriate and reasonably practicable, secure fencing of not less than 1 metre in height shall be erected near the water to prevent such fall.

(As amended by S.I. No. 90 of 1974)

95. If the special nature or circumstances of any part of the work renders impracticable compliance with the provisions of these Regulations designed to prevent the fall of any persons engaged on construction work, then those provisions shall be complied with so far as practicable and, except for persons for whom there is adequate handhold and foothold, either there shall be provided-

Safety nets, sheets and belts

(a) suitable safety nets or safety sheets; or

(b) safety belts or other contrivances which will so far as practicable enable such persons who elect to use them to carry out the work without risk of serious injury.

96. Measures shall be taken to prevent, so far as practicable, steam, smoke or other vapour from being generated on the site of operations to

Generation of steam, smoke and

which these Regulations apply and obscuring any part of the work, scaffolding, machinery or plant where any person is employed. vapour

97. Scaffold materials, tools and other objects and material (including waste material) shall not be thrown, tipped, or shot from a height where they are liable to cause injury, but shall be properly lowered; in any place where proper lowering is not practicable and also where any part of a structure is being demolished or broken off, adequate steps shall be taken, where necessary, to protect persons employed from falling or flying debris. Protection from falling material

98. Every employer shall submit such returns and reports and keep such records as the Commissioner may from time to time require, and any employer who fails to render any such return or report or keep such record, or knowingly makes any false statement in any such return, report or record, shall be guilty of an offence. Returns

99. All parts of machinery as may be a source of danger to any person at a construction site subject to these Regulations shall be securely fenced and guarded. Guarding of machinery

100. (1) Before any construction work to which these Regulations apply is commenced, and also during the progress thereof, all practicable steps shall be taken to prevent danger to persons employed from any live electric cable or apparatus which is liable to be a source of danger, either by rendering such cable or apparatus dead or otherwise. Electricity

(2) Where any electrically charged overhead cable or apparatus is liable to be a source of danger to persons employed during the course of any construction work to which these Regulations apply, whether from a lifting machine, or the use or handling of any plant, equipment or building materials, all practicable precautions shall be taken, either by the provision of adequate and suitably placed barriers or otherwise, to prevent approach to the danger area in the vicinity of the overhead cables or apparatus.

(3) All electrical apparatus and conductors used in construction work shall comply with the relevant requirements of the Factories (Electricity) Regulations.

101. It shall be the duty of every contractor and every employer of workmen undertaking any construction work to which these Regulations apply- Duties of contractors and employers of workmen

(a) to comply with such regulations which affect him or any workmen employed by him:

Provided that the requirements of the said regulations shall be deemed not to affect any workman if and so long as his presence in any place is not in the course of performing any work on behalf of his employer and is not expressly or impliedly authorised or permitted by his employer;

(b) to comply with such regulations as relate to any work, act or operation performed or about to be performed by any such contractor or employer of workmen;

(c) to comply with such regulations as relate to the erection or alteration of scaffolds and to the erection, dismantling, installation, working or use of any machine, appliance or other plant or equipment by any such contractor or employer of workmen;

(d) to keep readily available a copy of these Regulations for use on the site of any construction work.

102. It shall be the duty of every person employed to comply with the requirements of such of these Regulations as relate to the performance of or the refraining from an act by him and to co-operate in carrying out these Regulations and, if he discovers any defect in the machinery, plant or equipment, to report such defect without unreasonable delay to his employer or foreman, or to a person appointed by the employer as safety supervisor. Duties of persons employed

103. (1) Whenever an accident occurs in any construction work which either- Notice of accidents

(a) causes loss of life to a person employed in that construction work; or

(b) disables any such person for more than three days from earning full wages at the work at which he was employed;

the employer shall forthwith send written notice of the accident to an inspector.

(2) In addition, in case of death, the employer shall forthwith send notice of the accident in writing, and also where practicable by telegraph or telephone, to an inspector.

(3) Whenever death ensues as a consequence of an accident which has already been notified, the employer shall immediately send notice of such death to an inspector.

104. These Regulations shall not apply to construction work undertaken within the boundary of a mine, or to premises used for refining metals or ores which are under the control of a mining company or authority.

Mining
operations and
premises

105. Any person guilty of an offence to which section *ninety-one* of Penalties the Act applies, or in respect of these Regulations or any lawful requirement made thereunder, shall be liable to the penalties prescribed by section *ninety-two* of the Act.

FIRST SCHEDULE

(Regulation 17)

INSPECTION OF SCAFFOLDS

1. Location and description of scaffold inspected.
2. Date of inspection.
3. Result of inspection. Enter details of any defects. If no defects enter "In good order".
4. Signature of person who made the inspection.
5. Date of entry in record book.

SECOND SCHEDULE

(Regulation 83 (c))

AMBULANCE ROOM EQUIPMENT

The ambulance room shall contain at least:

1. A glazed sink with hot and cold water always available.
2. A table with a smooth impermeable top.

3. Means for sterilising instruments.
4. A supply of suitable dressings, bandages and splints.
5. A couch.
6. A stretcher.
7. Blankets and hot water bottles.
8. A foot bath.
9. A suitable cupboard for instruments, etc.
10. Any special equipment which the Director of Medical Services may, in any particular case, consider necessary.

**REGULATION 58 OF THE CONSTRUCTION
(SAFETY AND HEALTH)
REGULATIONS-REGISTER OF HOIST, LIFTING
MACHINES AND LIFTING TACKLE**

*Statutory Instrument
119 of 1968*

Notice by the Labour Commissioner

It is hereby specified that the particulars to be entered, for the purposes of the Construction (Safety and Health) Regulations, in a register to be kept by employers or contractors undertaking construction work shall be as follows:

1. Name and office address of employer or contractor.
2. Distinguishing number or mark and description sufficient to identify each hoist, lifting machine or lifting tackle.
3. Date and number of the report of each thorough examination of hoists subject to regulation 43 and lifting tackle subject to regulation 53.
4. Date and number of the report of each test or thorough examination of lifting machines subject to regulations 41 and 43.
5. Date and number of the report of each examination and test of the anchorage or ballasting of a crane subject to regulation 44.

6. Particulars of any defect found at any examination required by regulation 42 or specified in paragraphs 3, 4 and 5 above and affecting the safe working load and the steps taken to remedy such defect.

7. Date and number of the certificate relating to any test and thorough examination made under regulation 41 of each crane, crab, winch, hoist, pulley block, gin wheel or sheer legs before being taken into use for the first time and the name, signature and address of the person who issued the certificate.

THE FACTORIES (ELECTRICITY) REGULATIONS

ARRANGEMENT OF REGULATIONS

Regulation

1. Title
2. Interpretation
3. Application of Regulations
4. Exemptions
5. Safety of installations
6. Conductors
7. Control gear
8. Switches and circuit-breakers
9. Fuses and automatic circuit-breakers
10. Joints and connections
11. Cutting off pressure and protection from excess current
12. Placing of single-pole switches
13. Earthing of bare neutral conductors
14. Means of cutting off pressure from motors, etc.
15. Switches for control of electric motors
16. Portable apparatus
17. General arrangement of switchboards
18. Enclosure of switchboards
19. Placing of switchboard apparatus, etc.

20. Switchboard working platforms and passage-ways
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SECTIONS 74 AND 82-THE FACTORIES (ELECTRICITY) REGULATIONS Regulations by the Minister

*Statutory Instrument
254 of 1967
91 of 1974
Act No.
13 of 1994*

1. These Regulations may be cited as the Factories (Electricity) Regulations. Title
2. In these Regulations, unless the context otherwise requires- Interpretation

"apparatus" means electrical apparatus in any undertaking, and includes all apparatus, machines and fittings in which conductors are used or of which they form a part;

"authorised person", in respect of any duties incidental to the

generation, transformation, distribution or use of electrical energy in any undertaking, means-

(a) the person responsible for such undertaking if a competent person; and

(b) any electrical contractor under contract with the person responsible for such undertaking; and

(c) any competent person authorised by the person responsible for the undertaking concerned or by such undertaking as aforesaid;

"bare" means not covered with insulating material;

"circuit" means an electrical circuit forming a system or branch 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 when the matter so covered is live;

"danger" means danger to health or danger to life or limb from shock, burn or other injury to persons employed in an undertaking, or from fire, attendant upon the generation, transformation, distribution or use of electrical energy;

"dead" means at or about zero potential and disconnected from any live system or part thereof;

"earthed" means connected to the general mass of earth in such manner as will ensure at all times an immediate discharge of electrical energy without danger;

"extra high pressure" means a pressure in a system normally exceeding 6,600 volts at the point where the electrical energy is used or supplied;

"high pressure" means a pressure in a system normally above 650 volts but not exceeding 6,600 volts at the point where the electrical energy is

used or supplied;

"insulating", in respect of any clothing, material or thing, means such clothing, material or thing of such size, quality and construction that, having regard to all the circumstances of its use by any person, in connection with electrical energy, such person is by reason of such use, adequately protected from danger;

"live" means electrically charged;

"low pressure" means a pressure in a system normally not exceeding 250 volts at the point where the electrical energy is used;

"medium pressure" means a pressure in a system normally above 250 volts but not exceeding 650 volts at the point where the electrical energy is used;

"person responsible" means-

(a) in respect of a factory, the occupier thereof;

(b) in respect of any building operations or work of engineering construction, any person undertaking such operations or work whether as employer, contractor or sub-contractor;

"pressure" means the difference of electrical potential between any two conductors, or between a conductor and earth, as read by a hot wire or electrostatic voltmeter;

"public supply" means the supply of electrical energy by a person authorised thereto by a licence granted under the provisions of any law;

"substation" means any premises, or part thereof, in which electrical energy is transformed or converted to or from pressure above medium pressure if such premises, or part thereof, are large enough for a person to enter after the apparatus is in position: Provided that where such transformation is made solely for the purpose of working instruments, relays or similar auxiliary apparatus, such premises shall not be deemed to be a substation;

"switchboard" means a collection of switches, fuses, conductors and other apparatus in connection therewith, used for the purpose of

controlling the current or pressure in any system or part of a system;

"switchboard passage-way" means any passage-way or compartment large enough for a person to enter and used in connection with a switchboard when live;

"system" means an electrical system in an undertaking in which all the conductors and apparatus are electrically connected to a common source of electromotive force;

"undertaking" means any factory, building operation or work of engineering construction.

3. These Regulations shall apply to the generation, transformation, distribution and use of electrical energy in any undertaking. Application of Regulations

4. (1) Nothing in regulations 6 to 8, 11 (*a*), 12 to 14, 18 to 20, 24 to 29, 31, 33 and 34 shall apply- Exemptions

(*a*) to any system in which the pressure does not exceed 250 volts direct current or 125 volts alternating current; or

(*b*) in any generating station, to any system in which the pressure between it and earth does not exceed low pressure:

Provided that where, on account of any special circumstances, the Commissioner is of opinion that the exemption granted by this sub-regulation should not apply to any particular factory, he may give written notice to the occupier of such factory that the provisions of this sub-regulation shall not apply thereto, and the said exemption shall cease to apply to such factory from such date, not being less than twenty-eight days from the date of such notice, as the Commissioner may specify.

(2) Nothing in these Regulations shall apply to any service lines or apparatus other than apparatus contained in any substation of a public supply between the output terminals of the supply station and the supply side of a consumer's terminals, or to any chamber containing such service lines or apparatus:

Provided that no live metal shall be exposed in such service lines or apparatus so that it may be touched.

(3) If the person responsible for any undertaking can show, to the satisfaction of the Commissioner, that with regard to any requirement of these Regulations the special conditions of the undertaking are such as adequately prevent danger, that requirement shall be deemed to be satisfied in respect of such undertaking for so long as such conditions remain substantially unaltered.

(4) The Commissioner may, by statutory order, direct that any class of special conditions defined in such order shall be deemed, for the purposes of all or any of the requirements of these Regulations, adequately to prevent danger, and the Commissioner may at any time amend or revoke any such order.

(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:

Provided that any such process is so worked and any such apparatus is so constructed and protected and special precautions are taken as may be necessary to prevent danger.

(6) The Commissioner may, if satisfied that safety is otherwise secured in a practical manner, by statutory order, exempt from the operation of all or any of these Regulations, any premises to which any special regulations as to the generation, transformation, distribution or use of electrical energy, made under the provisions of any law, apply, and the Commissioner may at any time amend or revoke any such order.

5. All apparatus and conductors shall be sufficient in size and power Safety of for the work which they are called upon to do, and be so constructed, installations installed, protected, worked and maintained as to prevent danger so far as is reasonably practicable.

6. All conductors shall either be covered with insulating material Conductors and further efficiently protected where necessary to prevent danger, or

they shall be so placed and safeguarded as to prevent danger so far as is reasonably practicable.

7. Every switch, switch fuse, circuit-breaker, and insulating link shall be- Control gear

- (a) so constructed, placed or protected as to prevent danger;
- (b) so constructed and adjusted as accurately to make and 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.

8. (1) Every switch intended to be used for breaking a circuit and every circuit-breaker, and each pole of double-pole or multi-pole switches or circuit-breakers, shall be so constructed that it cannot with proper care be left in partial contact. Switches and 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 be accidentally maintained.

9. (1) Every fuse, and every automatic circuit-breaker used in lieu of such fuse, shall be so constructed and arranged as effectively to interrupt the current before it so exceeds the working rate as to involve danger. Fuses and automatic circuit-breakers

(2) Every fuse, and every automatic circuit-breaker used in lieu of such fuse, shall be of such construction or be so guarded or placed as to prevent danger from over-heating or from arcing or the scattering of hot metal or other substance when it comes into operation.

(3) Every fuse shall be either of such construction or so protected by a switch that the fusible metal may be readily renewed without danger.

10. Every electrical joint and connection shall be of proper construction as regards conductivity, insulation, mechanical strength Joints and connections

and protection.

- 11.** Such efficient means as may be necessary to prevent danger shall be provided and suitably located-
- (a) for cutting off all pressure from every part of a system; and
(b) for protecting every part of a system from excess current.
- Cutting off pressure and protection from excess current

- 12.** Where one of the conductors of a system is connected to earth, no single-pole switch, other than a link for testing purposes or a switch for use in controlling a generator, shall be placed in such conductor or any branch thereof:
- Placing of single-pole switches

Provided that a switch or automatic or other cutout may be placed in the connection between the conductor and earth at the generating station for use in testing or in emergency only.

- 13.** Where one of the main conductors of a system is bare and uninsulated, no switch, fuse or circuit-breaker shall be placed in that conductor or in any conductor connected thereto, and any such conductor shall be earthed:
- Earthing of bare neutral conductors

Provided that switches, fuses or circuit-breakers may be used to break the connection with the generators or transformers supplying the power if the connection of any bare conductor with earth is not thereby broken.

- 14.** Every motor, converter and transformer shall be protected by efficient means, suitably placed and so connected that all pressure may thereby be cut off from the motor, converter or transformer, as the case may be, and from all apparatus connected therewith:
- Means of cutting off pressure from motors, etc.

Provided that where one point of the system is connected to earth, it shall not be necessary to disconnect on that side of such system which is connected to earth.

- 15.** (1) Every electric 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.
- Switches for control of electric motors

(2) In every place in which machines are being driven by an electric motor, there shall be means at hand for either switching off the motor or stopping the machines if necessary to prevent danger.

16. (1) Every flexible wire for any portable apparatus shall be connected to the system concerned either by efficient permanent joints or connections or by a properly constructed connector. Portable apparatus

(2) In all cases where a person handling any portable apparatus or pendant lamps with switches would be liable to get a shock, through a conducting floor or conducting work or otherwise, if the metal-work of such apparatus became live, such metal-work shall be efficiently earthed and any flexible metallic covering of the conductors shall be itself efficiently earthed and shall not be the only earth connection for the metal of the apparatus.

(3) No lampholder shall be in metallic connection with the guard or other exposed metal-work of a portable lamp.

(4) All portable apparatus and all flexible wire connected thereto shall be controlled by efficient means suitably located, and capable of cutting off the pressure thereto, and the metal-work of such apparatus shall be efficiently earthed independently of any flexible metallic cover of the conductors, and any such flexible covering shall itself be independently earthed.

(5) The provisions of this regulation shall not apply in any case where the apparatus, lamp or wire concerned is connected to a system in which the pressure is direct current not exceeding 150 volts.

17. The general arrangement of switchboards shall, so far as is reasonably practicable, be such that- General arrangement of switchboards

(a) all parts which may have to be adjusted or handled are readily accessible;

(b) the course of every conductor may, where necessary, be readily traced;

(c) conductors not arranged for connection to the same system are kept well apart and can, where necessary, be readily distinguished;

(d) all bare conductors are so placed or protected as to prevent danger from accidental short circuit.

18. (1) Every switchboard having bare conductors normally so exposed that they may be touched by any person shall, if not located in an area or areas set apart for the purposes thereof, be suitably fenced or enclosed.

Enclosure of
switchboards

(2) No person, other than an authorised person or a person acting under his immediate supervision, shall have access to any switchboard mentioned in sub-regulation (1).

19. All apparatus appertaining to a switchboard and requiring handling shall, so far as is practicable, be so placed or arranged as to be operated from the working platform of the switchboard, and all measuring instruments and indicators connected therewith shall, so far as is practicable, be so placed as to be observed from such platform, and if any such apparatus is worked or observed from any place other than such platform, adequate precautions shall be taken to prevent danger.

Placing of
switchboard
apparatus, etc.

20. (1) Adequate means of access, free from danger, shall be provided for every switchboard passage-way.

Switchboard
working
platforms and
passageways

(2) Where at the working platform of any switchboard or in any switchboard passage-way there are bare conductors exposed or arranged to be exposed when live so that they may be touched by any person on such platform or in such passage-way, there shall be left a clear and unobstructed passage of ample width and height, with a firm and even floor, on such platform or in such passage-way.

(3) The following provisions shall apply to all such platforms and passage-ways as are mentioned in sub-regulation (2), unless the bare conductors on such platform or in such passage-way, whether overhead or at the sides thereof, are otherwise adequately protected against danger by divisions or screens or other suitable means:

(a) any such platform or passage-way constructed for a low

pressure or medium pressure switchboard shall have a clear height of not less than 2.250 metres, and a clear width, measured from any bare conductor, of not less than 1 metre;

(b) any such platform or passage-way constructed for a high pressure or extra high pressure switchboard, other than operating desks or panels working solely at low pressure, shall have a clear height of not less than 2.500 metres, and a clear width, measured from any bare conductor, of not less than 1.250 metres;

(c) bare conductors shall not be exposed on both sides of any such switchboard passage-way unless either-

(i) the clear width of such passage-way measured between such bare conductors is not less than 1.250 metres in the case of low or medium pressure and not less than 2.438 metres in the case of high and extra high pressure; or

(ii) the conductors on one side of such passage-way are so guarded that they cannot accidentally be touched.

(As amended by S.I. No. 91 of 1974)

21. In every switchboard for high pressure or extra high pressure-

Switchboards for high or extra high pressure

(a) every high pressure or extra high pressure conductor within reach from the working platform or in any passage-way shall be so placed or protected as adequately to prevent danger;

(b) the metal cases of all instruments working at high or extra high pressure shall either be earthed or completely enclosed with insulating covers;

(c) all metal handles of high and extra high pressure switches and, where necessary to prevent danger, all metal gear for working such switches, shall be earthed;

(d) when any work is done on any such switchboard the switchboard shall be made dead unless-

(i) the section of the switchboard on which the work is to be done (hereinafter referred to as the relevant section) is made dead and every other section which is live is either-

A. so separated from the relevant section by permanent or removable divisions or screens as not to be a source of danger to persons working on the relevant section; or

B. in such a position or of such construction as to be as safe as if so separated as aforesaid; or

(ii) the switchboard itself is so arranged as to secure that work is done without danger without taking any of the precautions aforesaid.

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| <p>22. All parts of generators, motors, transformers or other similar apparatus which are at high or extra high pressure and which are within reach from any position where a person employed in the undertaking may require to be, shall, so far as is reasonably practicable, be so protected as to prevent danger.</p> | <p>Protection of high and extra high pressure apparatus</p> |
| <p>23. Where a high or extra high pressure supply is transformed for use at a lower pressure, or energy is transformed up to above low pressure, suitable provision shall be made to guard against danger by reason of the lower pressure system becoming accidentally charged above its normal pressure by leakage or contact from the higher pressure system.</p> | <p>Precautions against accidental charging above normal working pressure</p> |
| <p>24. Where necessary to prevent danger, adequate precautions shall be taken either by earthing or by other suitable means to prevent any metal other than a conductor from becoming electrically charged.</p> | <p>Precautions against accidental charging of metal other than conductors</p> |
| <p>25. Adequate precautions shall be taken to prevent any conductor or apparatus from being accidentally or inadvertently electrically charged when persons are working thereon.</p> | <p>Precautions against accidental charging of apparatus</p> |
| <p>26. Where necessary adequately to prevent danger, insulating stands or screens shall be provided and kept permanently in position, and such stands or screens shall be maintained in sound condition.</p> | <p>Provision of insulating stands or screens</p> |
| <p>27. Portable insulating stands or screens or insulating boots or gloves, or other suitable means, shall be provided and used when necessary adequately to prevent danger, and any such articles shall be periodically examined by an authorised person.</p> | <p>Provision and use of portable insulating devices</p> |

28. Adequate working space and means of access, free from danger, Safe working shall be provided for all apparatus that has to be worked or attended to space and means by any person. of access

29. All those parts of any undertaking in which apparatus is placed Lighting shall be adequately lighted to prevent danger.

30. All conductors and apparatus exposed to the weather, wet, Protection against corrosion, inflammable surroundings or explosive atmosphere, or used exposure in connection with 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.

31. (1) No person other than an authorised person, or a competent Only authorised person acting under his immediate supervision, shall operate any persons, etc., to apparatus where technical knowledge or experience is required for such undertake certain operation in order adequately to avoid danger, and no person shall work work alone in connection with any system or apparatus in any case where the Commissioner has directed that he shall not.

(2) No person other than an authorised person, or a competent person over the apparent age of twenty-one years acting under his immediate supervision, shall undertake any repair, alteration, extension or cleaning of any apparatus and no one shall do such work unaccompanied.

(3) Where a contractor is employed in any undertaking, and the danger to be avoided is under his control, such contractor shall appoint the authorised person for the purposes of this regulation, but if the danger to be avoided is under the control of the person responsible for the undertaking, such person shall appoint such authorised person.

32. Printed instructions as to the proper first-aid treatment of Instructions as to persons suffering from electric shock shall be affixed in a prominent treatment for place in all undertakings where electrical energy is generated, electric shock transformed or used above a pressure of 125 volts alternating current or 250 volts direct current.

33. (1) Every substation shall be substantially constructed, and shall Construction,

be so arranged that no person can obtain access thereto otherwise than etc., of
by a proper entrance or can interfere with the apparatus or conductors substations
therein from outside.

(2) Every substation shall be provided with efficient means of ventilation, be kept dry, and made vermin proof as far as practicable.

(3) At the entrance to every substation shall be posted a suitable warning notice of danger.

34. Every substation shall be under the control of an authorised person, and none but an authorised person, or a person acting under his immediate supervision, shall enter any part of any substation where there may be danger. Control of substations

35. Every underground substation not otherwise easily and safely accessible shall be provided with adequate means of access by a door or trap door, with a staircase or ladder securely fixed and so placed that no live part of any switchboard or any bare conductor shall be within reach of a person thereon: Means of access to substations

Provided that the means of access to any such substation shall be by a doorway and staircase-

- (i) if any person is regularly employed therein otherwise than for inspection and cleaning; or
- (ii) if the substation is not of ample dimensions and there is therein either moving machinery, other than ventilating fans, or high or extra high pressure.

36. Any person guilty of an offence under the provisions of section *ninety-one* of the Act in respect of these Regulations or any lawful requirement thereunder shall be liable to the penalties prescribed by section *ninety-two* of the Act. Penalties

SECTIONS 74 AND 82-THE FIRST-AID BOXES REGULATIONS

Regulations by the Minister

*Statutory Instrument
251 of 1967
93 of 1974*

1. These Regulations may be cited as the First-aid Boxes

Title and

Regulations, and shall apply to factories, building operations and works application of engineering construction.

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

"adhesive wound dressing" means a dressing which consists of a pad fixed to a piece of plaster, waterproof or otherwise, as centrally as possible so as to leave an adequate margin of adhesive surface all round;

"approved", in relation to-

(a) an adhesive wound dressing, means an adhesive wound dressing packed and kept in accordance with, and of a type prescribed by, these Regulations;

(b) eye ointment, means eye ointment packed and kept in accordance with, and of a type prescribed by, these Regulations;

"eye ointment" means the eye ointment referred to as Sulphacetamide Eye Ointment in the British Pharmacopoeia, 1958, containing not less than six per centum and not more than ten per centum sulphacetamide sodium, or sulphacetamide eye ointment of similar strength in a suitable water miscible base;

"eye-pad" means a pack containing a sterilised pad with a long bandage attached;

"first-aid box, case or cupboard" means a first-aid box, case or cupboard required to be kept, maintained or made available in terms of section *sixty-seven* of the Act or regulation 83 of the Construction (Safety and Health) Regulations.

3. (1) Every first-aid box, case or cupboard in any factory or at the site of any building operations or works of engineering construction shall contain the items specified in relation to such factory, building operations or work of engineering construction site in the Schedule. Contents of first-aid boxes or cases

(2) The Commissioner may, in any particular case, vary or add to the list of items set out in any Part of the Schedule by giving notice thereof in writing to a factory occupier or manager or an employer of persons

engaged in building operations or works of engineering construction, as the case may be, and the contents of any first-aid box, case or cupboard in any such factory or at the site of any such building operations or works of engineering construction shall thereupon be made to conform to such variation or addition:

Provided that such variation or addition shall in no way diminish the effectiveness of such items.

4. All materials for dressings contained in any first-aid box, case or cupboard shall be those designated in, and of a grade or quality not lower than the standards specified by, the British Pharmaceutical Codex or any supplements thereto. Requirements as to dressings

5. (1) Every adhesive wound dressing shall be packed in an individual sealed pack marked clearly to indicate the contents and shall be kept in a tin or other suitable dust-proof container. Dressing containers

(2) The pad and margin of adhesive surface of every adhesive wound dressing shall be protected by muslin or other suitable material for removal before use.

(3) The pad of every adhesive wound dressing shall be-

(a) a piece of unmedicated absorbent lint or other suitable material; or

(b) a piece of absorbent lint or other suitable material containing any one of the following substances of not more than the strength specified:

Boric Acid	..	..	..	5 per centum
Aminacrine Hydrochloride.	..	..	..	0.1 per centum
Chlorhexidine Hydrochloride	..	..	..	0.1 per centum
Euflavine	..	..	..	0.15 per centum
Domiphen Bromide	..	..	..	0.15 per centum
Bismuth Subgallate	..	..	..	2.5 per centum.

6. (1) All eye ointment shall be packed in sterilised collapsible opaque tubes in accordance with sub-regulations (2) and (3). Eye ointment

(2) Every tube containing eye ointment shall be fitted with a nozzle and cap and shall contain four grams of the ointment.

(3) There shall be clearly marked on each such tube-

(a) the words "Sulphacetamide Eye Ointment"; and

(b) the content of sulphacetamide sodium.

(4) The sulphacetamide sodium contained in the eye ointment shall conform to the standard prescribed in the British Pharmacopoeia, 1958.

(Amended by S.I. No. 93 of 1974)

7. Any person guilty of an offence under the provisions of section *ninety-one* of the Act in respect of these Regulations or any lawful requirement thereunder shall be liable to the penalties prescribed by section *ninety-two* of the Act. Penalties

SCHEDULE

(Regulation 3)

CONTENTS OF FIRST-AID BOXES, CASES OR CUPBOARDS

PART I

FACTORIES IN WHICH THE NUMBER OF PERSONS EMPLOYED DOES NOT EXCEED TEN OR BUILDING OPERATIONS OR WORK OF ENGINEERING CONSTRUCTION SITES WHERE THE NUMBER OF PERSONS EMPLOYED DOES NOT EXCEED TWENTY-FIVE

1. A sufficient number (not less than six) of small unmedicated sterilised dressings for injured fingers.
2. A sufficient number (not less than three) of medium-sized unmedicated sterilised dressings for injured hands or feet.
3. A sufficient number (not less than three) of large unmedicated sterilised dressings for other injured parts.
4. A sufficient number (not less than twelve) of adhesive wound

dressings of an approved type and of assorted sizes.

5. A sufficient number (not less than two) of suitable triangular bandages.

6. A sufficient supply of adhesive plaster (at least one spool 25 millimetres \times 1 metre and one spool 12.500 \times 5 metres).

7. A sufficient supply of absorbent, preferably sterilised, cotton wool in 28 grams packets (at least two packets).

8. A rubber bandage, pressure bandage or tourniquet.

9. Safety pins.

10. A one per centum solution of Cetrimide.

11. A sufficient supply of approved Sulphacetamide Eye Ointment in a container of approved type and size.

12. Two eye pads with bandages.

13. A bottle of sal volatile, already mixed in the proportion of 3.500 millilitres to each 56 millilitres water; marked "Stimulant" and having dose and mode of administration indicated on the label.

14. A copy of the leaflet giving advice on first-aid treatment issued by the Department of Labour.

(As amended by S.I. No. 93 of 1974)

PART II

FACTORIES IN WHICH THE NUMBER OF PERSONS EMPLOYED EXCEEDS TEN BUT DOES NOT EXCEED FIFTY

1. A sufficient number (not less than twelve) of small unmedicated sterilised dressings for injured fingers.

2. A sufficient number (not less than six) of medium-sized unmedicated sterilised dressings for injured hands or feet.

3. A sufficient number (not less than six) of large unmedicated sterilised dressings for other injured parts.

4. A sufficient number (not less than twenty-four) of adhesive wound dressings of an approved type and of assorted sizes.

5. A sufficient number (not less than four) of suitable triangular bandages.

6. A sufficient supply of adhesive plaster (at least one spool 25 millimetres \times 1 metre and one spool 12.500 millimetres \times 5 metres).

7. A sufficient supply of absorbent, preferably sterilised, cotton wool in 28 gram packets (at least three packets).

8. A rubber bandage, pressure bandage or tourniquet.
9. Safety pins.
10. A one per centum solution of Cetrimide.
11. A sufficient supply of approved Sulphacetamide Eye Ointment in a container of approved type and size.
12. Four eye pads with bandages.
13. A bottle of sal volatile, already mixed in the proportion of 3.500 millilitres to each 56 millilitres water; marked "Stimulant" and having dose and mode of administration indicated on the label.
14. A copy of the leaflet giving advice on first-aid treatment issued by the Department of Labour.

(As amended by S.I. No. 93 of 1974)

PART III

FACTORIES IN WHICH THE NUMBER OF PERSONS EMPLOYED EXCEEDS FIFTY OR BUILDING OPERATIONS OR WORK OF ENGINEERING CONSTRUCTION SITES WHERE THE NUMBER OF PERSONS EMPLOYED EXCEEDS TWENTY-FIVE

1. A sufficient number (not less than twenty-four) of small unmedicated sterilised dressings for injured fingers.
2. A sufficient number (not less than twelve) of medium-sized unmedicated sterilised dressings for injured hands or feet.
3. A sufficient number (not less than twelve) of large unmedicated sterilised dressings for other injured parts.
4. A sufficient number (not less than thirty-six) of adhesive wound dressings of an approved type and of assorted sizes.
5. A sufficient number (not less than eight) of suitable triangular bandages.
6. A sufficient supply of adhesive plaster (at least two spools 25 millimetres ´ 1 metre and two spools 12.500 millimetres ´ 5 metres).
7. A sufficient supply of absorbent, preferably sterilised, cotton wool in 28 grams packets (at least six packets).
8. A supply of suitable splints and cotton wool or other material for padding.
9. A rubber bandage, pressure bandage or tourniquet.
10. Safety pins.

11. A one per centum solution of Cetrimide.
12. A sufficient supply of approved Sulphacetamide Eye Ointment in a container of approved type and size.
13. Eight eye pads with bandages.
14. A bottle of sal volatile, already mixed in the proportion of 3.500 millilitres to each 56 millilitres water; marked "Stimulant" and having dose and mode of administration indicated on the label.
15. A copy of the leaflet giving advice on first-aid treatment issued by the Department of Labour.

(As amended by S.I. No. 93 of 1974)

THE WOODWORKING MACHINERY REGULATIONS

ARRANGEMENT OF REGULATIONS

Regulation

1. Title
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SECTIONS 74 AND 82-THE WOODWORKING MACHINERY REGULATIONS

*Statutory Instrument
253 of 1967
94 of 1974*

Regulations by the Minister

1. These Regulations may be cited as the Woodworking Machinery Regulations. Title

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

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

"plain band saw" means a band saw, other than a log saw or band re-sawing machine, the cutting portion of which runs in a vertical direction;

"planing machine" includes a machine for overhand planing or for thicknessing or for both operations;

"undertaking" means any factory, building operations or work of engineering construction;

"woodworking machine" means a circular saw, plain band saw, planing machine, vertical spindle moulding machine or chain mortising machine operating on wood.

3. These Regulations shall apply to woodworking machines in any undertaking. Application of Regulations

4. Every woodworking machine shall be provided with an efficient stopping and starting appliance, the controls of which shall be situated in such a position as to be readily and conveniently operated by the person in charge of the machine. Machine control

5. Sufficient clear and unobstructed space shall be maintained at every woodworking machine while such machine is in motion to enable work to be carried on without unnecessary risk. Working space

6. The floor surrounding every woodworking machine shall be Floors

maintained in good and level condition and, as far as practicable, free from loose material, and shall not be allowed to become slippery.

7. Sufficient and suitable lighting, whether natural or artificial, shall be secured and maintained at every woodworking machine, and any means of artificial lighting shall be so placed or shaded as to prevent the direct rays of such lighting from striking the eyes of any person operating such machine.

8. When any circular saw is in motion-

Circular saws

(a) that part of the saw below the bench table shall be protected by two plates of metal, one on each side of and parallel to the saw and not more than 150 millimetres apart, which shall extend to a distance of not less than 50 millimetres beyond the teeth of the saw in every direction; and

(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 which shall also conform to the following conditions:

(i) 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;

(ii) 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 the teeth of the saw shall not exceed 12 millimetres;

(iii) for a saw of a diameter of less than twenty-four inches, the knife shall extend upwards from the bench table to within 25 millimetres of the top of the saw, and for a saw of a diameter of 610 millimetres or over, shall extend upwards from the bench table to a height of at least 220 millimetres; and

(c) the top of the saw shall be covered by a strong and easily adjustable guard, with a flange at the side of the saw farthest from the fence, which shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw, and which shall be kept so adjusted that the said flange shall extend below the roots of the teeth of the saw; and

(d) where such saw is fed by hand, a suitable push-stick shall be kept available for use at the bench table to enable the work to be carried

on without unnecessary risk.

(As amended by S.I. No. 94 of 1974)

9. When any plain band saw is in motion- Plain band saws

- (a) the front of the top pulley shall be covered with sheet metal or other suitable material; and
- (b) both sides of the bottom pulley shall be completely encased by sheet metal or other suitable material;
- (c) all portions of the blade, other than that between the bench table and the top guide, shall be enclosed or otherwise securely guarded.

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

(2) Every planing machine used for overhand 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 adjustable both in a horizontal and vertical direction.

(3) The feed roller of every planing machine used for thicknessing shall be provided with an efficient guard.

11. (1) The cutter of every vertical spindle moulding machine shall, when practicable, be fitted with a guard which is, having regard to the nature of the work which is being performed, the most efficient for preventing injury to any person. Vertical spindle moulding machines

(2) Where the work being performed at a vertical spindle moulding machine cannot be efficiently performed when a guard is fitted to the cutter, the wood being moulded in such machine shall, if practicable, be held in a jig or holder of such construction as to reduce as far as possible the risk of injury to any person.

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

12. The chain of every chain mortising machine shall be provided with a guard which shall, as far as is practicable, enclose the cutters of such machine. Chain mortising machines

13. The guards and appliances required by these Regulations shall be maintained in an efficient state, and shall, unless the nature of the work being done at any particular time renders the use of such guards and appliances impracticable, be kept in position whilst the machinery concerned is in motion and so adjusted as to enable the work to be carried on without unnecessary risk. Maintenance of guards, etc.

14. The provisions of these Regulations relating to circular saws, plain band saws and planing machines shall not apply in any case where it can be shown to the satisfaction of the Commissioner that other safeguards are provided and maintained which render the machines equally as safe as they would be if guarded in the manner prescribed by these Regulations. Alternative guards

15. No person shall be employed at a woodworking machine unless he has been sufficiently trained to work that type or class of machine, or unless he works under the adequate supervision of a person who has been so trained, and every person employed at a woodworking machine shall be fully instructed as to the dangers which may arise in connection with such machine and the precautions to be observed in that regard. Training

16. Any person employed on a woodworking machine shall-
(a) use and maintain in proper adjustment the guards provided in accordance with the provisions of these Regulations; or
(b) use, in the appropriate case, any appliance so provided; except when, owing to the nature of the work being done, the use of the guards or appliances is rendered impracticable. Duty of employees

17. Any person guilty of an offence under the provisions of section *ninety-one* of the Act in respect of these Regulations or any lawful requirement thereunder shall be liable to the penalties prescribed by section *ninety-two* of the Act. Penalties

SECTION 84-THE FACTORIES ACT (APPLICATION EXTENSION) ORDER *Statutory Instrument*

1. This Order may be cited as the Factories Act (Application Extension) Order. Title
2. The Parts of the Act and the Regulations in the Schedule shall apply to all farm premises in which a steam boiler is used in connection with agricultural operations, including dairy farming. Extension to farm premises

SCHEDULE

(Paragraph 2)

EXTENSION TO FARM PREMISES

The Factories Act, Parts VIII and XIV.
The Factories (Prescribed Particulars and Forms) Regulations.
The Plant Inspection and Examination Fees Regulations.

CERTIFICATE OF EXCEPTION BY THE LABOUR COMMISSIONER

I HEREBY CERTIFY that in accordance with section 61 of the Factories Act, steam boilers which are used solely for the purposes of "steaming" tobacco at farm premises shall be excepted from the following provisions of the Act:

(a) that part of section 54 (5) which requires the construction of steam boilers to be consistent with a relevant standard specification; and

(b) from the provisions of section 55 (3);

subject to the following conditions:

(i) An excepted steam boiler shall comply with all the provisions of Part VIII of the Act apart from the specified exceptions.

(ii) An excepted steam boiler and all its fittings and attachments shall be thoroughly examined by an inspector or other person authorised by the Commissioner at intervals not exceeding three years and also as soon as practicable after any extensive repairs.

(iii) An excepted steam boiler shall not be worked at a pressure exceeding 0.600 bars per 25.4 square millimetres, until it has been thoroughly examined by an inspector, and the prescribed report

obtained, which includes particulars of the safe working pressure.

(iv) Oil drums or similar vessels shall not be used for generating steam under pressure greater than atmospheric pressure.

(v) This Certificate of Exception, or any condition, may be revoked by the Commissioner at any time.

(As amended by S.I. No. 89 of 1974)

SECTION 105-THE FACTORIES (CLEANLINESS OF WALLS AND CEILINGS) REGULATIONS *Statutory Instrument 153 of 1967*
Regulations by the Minister

1. These Regulations may be cited as the Factories (Cleanliness of Walls and Ceilings) Regulations. Title

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

"walls and ceilings" means all inside walls and partitions, all ceilings and tops of rooms, and all walls, sides and tops of passages and staircases;

"washed" means washed with hot water and soap or other suitable detergent, or cleaned by such other method as may be approved by an inspector.

3. For the purposes of subsection (2)(d)(ii) of section *nineteen* of the Act, the manner of painting and of repainting walls and ceilings shall be the application of a suitable paint in such manner as to produce over the whole of the treated surface a compact continuous film capable of being washed. Manner of painting and repainting

4. For the purposes of subsection (2)(d)(ii) of section *nineteen* of the Act, walls and ceilings- Intervals for repainting or revarnishing walls and ceilings

(a) which are painted shall be repainted at intervals not exceeding seven years;

(b) which are varnished shall be revarnished at intervals not exceeding seven years:

Provided that the whole part of the surface of walls and ceilings shall be repainted or revarnished, as the case may be, as often as may be

necessary to maintain over the whole surface a compact continuous film capable of being washed.

**SECTION 105-THE FACTORIES (FIRST-AID)
(PRESCRIBED STANDARD OF TRAINING)
REGULATIONS**

Regulations by the Minister

*Statutory
Instrument
152 of 1967*

- | | |
|---|---|
| <p>1. These Regulations may be cited as the Factories (First-aid) (Prescribed Standard of Training) Regulations.</p> | Title |
| <p>2. For the purposes of subsections (4) and (6) of section sixty-seven of the Act, a person shall be deemed not to be trained in first-aid treatment unless-</p> <p>(a) he is a fully registered nurse, registered in accordance with the provisions of the Nurses and Midwives Act; or</p> <p>(b) he is a fully registered medical assistant registered in accordance with the provisions of the Medical and Allied Professions Act; or</p> <p>(c) he is a nurse trained to a standard laid down by the Department of Health and his name is duly entered upon a roll kept at that Department; or</p> <p>(d) he is the holder of a certificate in first-aid issued within the immediately preceding period of three years by, or is otherwise recognised as being trained in first-aid treatment by, a first-aid training organisation specified in the Schedule.</p> | Standard of training in first-aid-treatment
Cap. 300
Cap. 297 |
| <p>3. In factories where the persons in charge of the first-aid boxes or cupboards are required under subsection (4) of section <i>sixty-seven</i> of the Act to be persons trained in first-aid treatment, the following particulars shall be entered in or attached to the general register in respect of every such person:</p> <p>(a) his name;</p> <p>(b) the nature and date of his qualification as a person trained in first-aid treatment; and</p> <p>(c) the date on which evidence of his being so trained was inspected by the occupier.</p> | General register |

SCHEDULE

(Regulation 2)

FIRST-AID TRAINING ORGANISATIONS

The Council of St. John in Zambia.
Zambia Red Cross Society.

THE FACTORIES (PRESCRIBED PARTICULARS AND FORMS) REGULATIONS

ARRANGEMENT OF REGULATIONS

Regulation

1. Title
2. Interpretation
3. Certificate of appointment of inspector
4. Register of factories
5. Registration of existing factories
6. Registration of new factories
7. Drawings of factories
8. "Machinery attendants" certificate
9. Report of result of examination of hoist or lift
10. Register of chains, ropes and lifting tackle and lifting machines
11. Report of result of examination of steam boiler
12. Boiler book
13. Report of result of examination of steam receiver
14. Report of result of examination of air receiver
15. Notification of factory accident
16. Notification of dangerous occurrence
17. Notification of industrial disease
18. Abstract of Act to be kept posted in factory
19. General register

SCHEDULE-Prescribed particulars and forms

SECTION 105-THE FACTORIES (PRESCRIBED PARTICULARS AND FORMS) REGULATIONS

Regulations by the Minister

*Statutory Instrument
154 of 1967
92 of 1974*

- | | |
|--|---|
| <p>1. These Regulations may be cited as the Factories (Prescribed Particulars and Forms) Regulations.</p> | Title |
| <p>2. Unless the context otherwise requires, expressions used in these Regulations shall have the same respective meanings as in the Act.</p> | Interpretation |
| <p>3. A certificate of appointment of an inspector furnished under subsection (2) of section <i>six</i> of the Act shall be in the form and shall contain the particulars specified in Part I of the Schedule.</p> | Certificate of appointment of inspector |
| <p>4. The register of factories maintained by the Commissioner in accordance with the requirements of section <i>eleven</i> of the Act shall contain the particulars specified in Part II of the Schedule.</p> | Register of factories |
| <p>5. The written application for a certificate of registration required by subsection (1) of section <i>twelve</i> of the Act to be made to the Commissioner by every person who on the commencement of the Act occupies a factory shall contain the particulars specified in Part II of the Schedule.</p> | Registration of existing factories |
| <p>6. The written application for a certificate of registration required by subsection (2) of section <i>thirteen</i> of the Act to be made to the Commissioner by any person who intends to occupy or use as a factory any premises which were not so occupied or used on the commencement of the Act shall contain the particulars specified in Part II of the Schedule.</p> | Registration of new factories |
| <p>7. The written application required by subsection (2) of section <i>fifteen</i> of the Act to be made to the Commissioner for approval of drawings relating to the erection or conversion or extension of a factory shall contain the particulars specified in Part III of the Schedule.</p> | Drawings of factories |
| <p>8. The certificate of appointment required to be furnished by an</p> | "Machinery |

occupier under subsection (2) (a) (ii) of section *thirty* of the Act (which attendants" provides that no person shall lubricate, examine or adjust any unfenced certificate dangerous part of machinery or lubricate transmission machinery or mount or ship any belt that is in motion unless, in addition to the other precautions or conditions specified in the aforesaid section, he is appointed by the occupier by prescribed certificate attached to the general register to carry out such examination, lubrication, adjustment or other operation and he has been furnished by the occupier with a signed copy of such certificate) shall be in the form set out in Part IV of the Schedule.

9. A report of the result of every examination of a hoist or lift made under subsection (2) of section *forty-seven* of the Act shall be in the form set out in Part V of the Schedule and shall contain the particulars therein specified. Report of result of examination of hoist or lift

10. The register kept for the purposes of section *fifty-three* of the Act in respect of all chains, ropes or lifting tackle (except fibre rope slings) to which section *fifty-one* of the Act applies and in respect of all lifting machines to which section *fifty-two* of the Act applies shall contain the particulars specified in Part VI of the Schedule. Register of chains, ropes and lifting tackle and lifting machines

11. A report of the result of every examination of a steam boiler under subsection (7) of section *fifty-five* of the Act shall be in the form set out in Part VII of the Schedule and shall contain the particulars therein specified. Report of result of examination of steam boiler

12. The boiler book kept for the purposes of subsection (11) of section *fifty-five* of the Act shall be in the form set out in Part VIII of the Schedule and shall contain the particulars therein specified. Boiler book

13. A report of the result of every examination of a steam receiver under subsection (7) of section *fifty-seven* of the Act shall be in the form set out in Part IX of the Schedule and shall contain the particulars therein specified. Report of result of examination of steam receiver

14. A report of the result of every examination of an air receiver under subsection (6) of section *fifty-eight* of the Act shall be in the form set out in Part IX of the Schedule and shall contain the particulars therein specified. Report of result of examination of air receiver

15. Written notice of an accident in a factory given under section *seventy-six* of the Act shall be in the form set out in Part X of the Schedule and shall contain the particulars therein specified. Notification of factory accident

16. Written notice of a dangerous occurrence in a factory given under section *seventy-seven* of the Act shall be in the form set out in Part X of the Schedule and shall contain the particulars therein specified. Notification of dangerous occurrence

17. Written notice of any case of industrial disease given under section *seventy-eight* of the Act shall be in the form set out in Part XI of the Schedule and shall contain the particulars therein specified. Notification of industrial disease

18. The abstract of the Act required by section *eighty-five* of the Act to be kept posted in a prominent position in every factory shall be in the form set out in Part XII of the Schedule. Abstract of Act to be kept posted in factory

19. The general register required by section *eighty-six* to be kept in respect of every factory shall be in the form set out in Part XIII of the Schedule and shall contain the particulars therein specified. General register

SCHEDULE

PRESCRIBED PARTICULARS AND FORMS

PART I

(Regulation 3)

REPUBLIC OF ZAMBIA, DEPARTMENT OF LABOUR

IDENTITY CERTIFICATE

No.

This is to certify that

.....PHOTOGRAPH

who is a OF

..... HOLDER

DATE

STAMP

is an officer in the Department of Labour.

.....
Labour Commissioner

.....
Signature of Holder

This card must be handed in on leaving the Department.

PART II

(Regulations 4, 5 and 6)

PARTICULARS OF A FACTORY WHICH ARE-

TO BE ENTERED IN A REGISTER OF FACTORIES MAINTAINED BY THE LABOUR COMMISSIONER; OR

TO BE SUBMITTED TO THE LABOUR COMMISSIONER BY THE OCCUPIER OF AN EXISTING FACTORY IN AN APPLICATION FOR REGISTRATION WITHIN THREE MONTHS OF THE COMMENCEMENT OF THE ACT; OR

TO BE SUBMITTED TO THE LABOUR COMMISSIONER BY THE INTENDING OCCUPIER OF A NEW FACTORY IN AN APPLICATION FOR REGISTRATION OF THE PREMISES BEFORE THEY ARE OCCUPIED OR USED AS A FACTORY:

1. Name of the occupier, or intending occupier of the factory (including trading name-if any).
2. Postal address and situation (i.e. number in and name of street, road, etc., or plot number) of the factory.
3. Nature of the work carried on, or proposed to be carried on, in the factory.
4. Whether mechanical power is used or intended to be used and, if so, its nature.
5. Whether steam boilers are used or intended to be used and, if so, the following particulars in respect of each such boiler:
 - (a) type, description and distinctive number;
 - (b) country and year of manufacture;
 - (c) date of last thorough examination and name of person by whom the examination was made;
 - (d) the maximum permissible working pressure in bars.
6. (a) Total number of persons employed, or intended to be employed, in the factory.

(b) Where persons are employed, or intended to be employed, in shifts, the maximum number employed, or intended to be employed, at any one time.

(As amended by S.I. No. 92 of 1974)

PART III

(Regulation 7)

PARTICULARS TO BE SUPPLIED WITH, OR TO BE SHOWN ON,
DRAWINGS

(i.e. PLANS AND SECTIONS) OF-

- (1) NEW FACTORY BUILDINGS;
- (2) CONVERSION OF EXISTING BUILDINGS FOR USE AS A FACTORY; AND
- (3) EXTENSIONS OF EXISTING FACTORY BUILDINGS.
 1. Materials to be used in the building;
 2. Materials to be used in the roofing;
 3. Provision for ventilation;
 4. Provision for drainage;
 5. Provision for natural and artificial lighting;
 6. Provision of means of escape in case of fire; and
 7. The particulars specified in Part II of this Schedule.

PART IV

(Regulation 8)

Labour Form F/17

Certificate No.

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Section 30)

THE FACTORIES (PRESCRIBED PARTICULARS AND FORMS) REGULATIONS

(Regulation 8)

CERTIFICATE OF APPOINTMENT AS A MACHINERY ATTENDANT

.is hereby appointed a "machinery attendant"
and authorised to carry out examinations or other operations at unfenced machinery in
accordance with the provisions of section 30 of the Factories Act.

Signature of Factory Occupier or Agent

Date

Name and postal address of Occupier

Address of Factory

PART V

(Regulation 9)

Labour Form F/18

Report No.

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Section 47 (2))

THE FACTORIES (PRESCRIBED PARTICULARS AND FORMS) REGULATIONS

(Regulation 9)

FORM PRESCRIBED FOR THE

REPORT OF THOROUGH EXAMINATION OF HOIST OR LIFT AT INTERVALS
NOT EXCEEDING SIX MONTHS

(See Note on Legal Requirements and space for continuation of entries overleaf.)

1. Name and postal address of occupier

2. Address of factory or other premises where hoist or lift is situated

3. (a) Type of hoist or lift and identification number or description
(b) Date of construction or reconstruction (if available)

4. DESIGN AND CONSTRUCTION.
Are all parts of the hoist or lift of good mechanical construction, sound material and adequate strength (so far as ascertainable)?
NOTE.-Details of any renewals or alterations required should be given in 7 below.

5. MAINTENANCE.

Are the following parts of the hoist or lift properly maintained and in good working order? If not, state what defects have been found. A separate answer is required for each part.

- (a) Enclosure of hoistway or liftway
- (b) Landing gates and cage gate(s)
- (c) Interlocks on the landing gates and cage gate(s)
- (d) Other gate fastenings
- (e) Cage or platform and fittings, cage guides, buffers, and interior of the hoistway or liftway

- (f) Over-running devices
- (g) Suspension ropes or chains, and their attachments
- (h) Safety gear, i.e. arrangements for preventing fall of platform or cage
- (i) Brakes
- (j) Worm or spur gearing
- (k) Other electrical equipment
- (l) Other parts

6. What parts (if any) were inaccessible?

7. Repairs, renewals or alterations required to enable the hoist or lift to continue to be used with safety-

(a) immediately;

(b) within a specified time, the said time to be stated

(Continue entry overleaf if necessary)

NOTE.-If no such repairs, renewals or alterations are required the word "NONE" is to be entered.

8. Defects (other than those specified at 7 above) which require attention (Continue entry overleaf if necessary)

9. Maximum safe working load subject to repairs, renewals or alterations (if any) specified at 7

10. Other observations (Continue entry overleaf if necessary)

I/We (full name(s) in BLOCK CAPITALS)
certify that on _____ I/we thoroughly examined
this hoist or lift and that the foregoing is a correct report of the result.

Signature(s) _____ Date

Qualifications _____

Address(es) _____

If employed by a Company, Firm or Association give your position in the Company,
etc., and their name and address

NOTE-This report is to be attached to the general register.
(As amended by S.I. No. 92 of 1974)

PART VI

(Regulation 10)

REGISTER OF CHAINS, ROPES AND LIFTING TACKLE, AND LIFTING MACHINES

1. Name of the occupier of the factory.
2. Postal address and situation (i.e. number in and name of street, road, etc., or plot number) of the factory.
3. Distinguishing number or mark and description sufficient to identify the chain, rope or lifting tackle, or the lifting machine.
4. Date (if after 1-5-67) when the chain, rope or lifting tackle, or the lifting machine, was first taken into use in the factory.
5. Date and number of the report of each thorough examination of a chain, rope or lifting tackle made under section 51 (1) (d) of the Act at least once in every period of six months, and the name, signature and address of the person by whom it was carried out.
6. Date and number of the report of each thorough examination of all parts and working gear whether fixed or movable, including the anchoring and fixing appliance, of a lifting machine made under section 52 (2) of the Act at least once in every period of fourteen months, and the name, signature and address of the person by whom it was carried out.
7. Particulars of any defect found at any examination specified in

5 and 6 above and affecting the safe working load, and of the steps taken to remedy such defect.

8. Date and number of the certificate relating to any test and thorough examination made under section 51 (1) (e) of the Act of a chain, rope or lifting tackle (except a fibre rope or fibre rope sling) before being taken into use, and the name, signature and address of the person who issued the certificate.

9. Date and number of the certificate relating to any test and thorough examination made under section 52 (6) of a lifting machine and its working gear before being taken into use, and the name, signature and address of the person who issued the certificate.

10. Date of annealing or other heat treatment of wrought iron chains or lifting tackle required by an inspector under section 51 (3) of the Act.

PART VII

(Regulation 11)

Labour
Form F/1
In all
correspondence
please
quote this

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Section 55)

THE FACTORIES (PLANT INSPECTION AND EXAMINATION FEES)
REGULATIONS

THE FACTORIES (PRESCRIBED PARTICULARS AND FORMS) REGULATIONS

(Regulation 11)

FORM PRESCRIBED FOR REPORT OF EXAMINATION OF STEAM BOILER,
SUPERHEATER OR ECONOMISER WHEN COLD

A fee of is due in respect of this examination.

1. Name of occupier		
2. Address of factory where boiler, superheater or economiser is situated.		
3. Description and distinctive number of boiler, superheater or economiser	4. Country and year of manufacture	
5. Fittings and attachments: (a) Are there proper fittings and attachments? (b) Are all fittings and attachments in satisfactory condition (as far as ascertainable when not under pressure)?	(a)	6. Heating surface or grate area
(b)	7. Date of last hydraulic test (if any) and pressure applied ..	
8. Boiler, superheater or economiser: (a) What examinations and tests were made? (b) Condition of boiler, superheater or economiser (c) What parts were inaccessible at this examination?	(a)	(b) External: (c) Internal:
9. Repairs (if any) required, and period within which they should be executed, and other conditions which the authorised inspector thinks it necessary to specify for securing safe working		
10. Other observations		
11. Maximum permissible working pressure calculated from dimensions and other data ascertained by the present examination, due allowance being made for conditions of working if unusual or exceptionally severe	(a)	

Where repairs affecting the working pressure are required, state the maximum permissible working pressure:

(a) Before the expiration of the period specified in 9

(b) After the expiration of such period if the required repairs have not been completed

(c) After the completion of the required repairs

(b)
(c)

I (full name in BLOCK CAPITALS) hereby declare that I am a duly authorised Inspector and that, subject to the reservation (noted above) of certain points for examination under steam pressure, on 19 the boiler above described was sufficiently scaled, prepared and (so far as its construction permits) made accessible for thorough examination and for such tests as were necessary for thorough examination, and that on the said date I thoroughly examined this boiler, including its fittings and attachments.

I certify that the above is a true report of the result.

.....

Signature of Authorised Inspector

Date

Address

INVOICE

Dr. to: THE GOVERNMENT OF THE REPUBLIC OF ZAMBIA

Name:

Address:

Cheques or Postal Orders **CROSSED "ACCOUNT PAYEE ONLY"** for the amount indicated below made payable to the GOVERNMENT OF THE REPUBLIC OF ZAMBIA should be forwarded to the PERMANENT SECRETARY, MINISTRY OF LABOUR, P.O. Box, LUSAKA.

This invoice must accompany your remittance.

K

Basic fee..

Additional fee for hydraulic test

Additional fee for mileage, i.e., vessel not within 10 kilometres of prescribed boundaries . .
 Additional fee in respect of waiting time, i.e. hours at 60 fee units per hour or part
 thereof as vessel was not prepared at appointed time _____

TOTAL AMOUNT DUE _____

General Receipt Number dated 19
 attached.

NOTE FOR OFFICIAL INFORMATION OF
 ACCOUNTANT ONLY:
 (i) The General Receipt Number must be
 quoted.
 (ii) The Invoice *must* be returned with Original
 General Receipt to the
 Addressee.

(As amended by S.I. No. 92 of 1974 and Act No. 13 of 1994)

PART VIII

(Regulation 12)

BOILER BOOK

Date commenced steaming	Date discontinued steaming	Dates cleaned	Dates and nature of examinations	Details of alterations or repairs	Signature of person in charge of plant

PART IX

(Regulations 13 and 14)

Labour
Form F/2
In all
correspondence
quote this
please

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Sections 57 and 58)

THE FACTORIES (PLANT INSPECTION AND EXAMINATION FEES) REGULATIONS

THE FACTORIES (PRESCRIBED PARTICULARS AND FORMS) REGULATIONS

(Regulations 13 and 14)

FORM PRESCRIBED FOR THE REPORT OF EXAMINATION OF STEAM RECEIVER OR AIR RECEIVER

A fee of is due in respect of this examination.

1. Name of occupier	
2. Address of factory where receiver is situated	
3. Description and distinctive number of receiver and type	
4. Country and year of manufacture	
5. Date of last hydraulic test (if any) and pressure applied	
6. Maximum pressure of steam/air at source of supply to receiver	
7. Receiver: (a) What parts (if any) were inaccessible? (b) What examinations and tests were made?.. .. . (c) Condition of receiver (state any defects materially affecting the maximum permissible working pressure or the safe working of the receiver).	(a) (b) (c) External: Internal:

8. Fittings: Is the receiver so constructed as to withstand with safety the maximum pressure of steam/air at source of supply? If not, are the required fittings and appliances provided in accordance with the Act? Are all fittings and appliances properly maintained and in good condition?	
---	--

<p>9. Repairs (if any) required, and period within which they should be executed, and any other conditions which the authorised inspector thinks it necessary to specify for securing safe working</p>		
<p>10. Maximum permissible pressure calculated from dimensions and other data ascertained by the present examination, due allowance being made for conditions of working if unusual or exceptionally severe ..</p> <p>Where repairs affecting the working pressure are required, state the maximum permissible working pressure:</p> <p>(a) Before the expiration of the period specified in 9.</p> <p>(b) After the expiration of such period if the required repairs have not been completed ..</p> <p>(c) After the completion of the required repairs</p>		<p>(a)</p> <p>(b)</p> <p>(c)</p>
<p>11. Other observations</p>		

I (full name in BLOCK CAPITALS) hereby declare that I am a duly authorised Inspector for the purposes of section 7 of the Factories Act and that, subject to the reservation (noted above) of certain points for examination under steam/air pressure, on 19

I thoroughly examined, so far as the construction of the receiver permits, the steam/air receiver above described.

I certify that the above is a true report of the result.

.....
Signature of Authorised Inspector

Date

Address

INVOICE

Dr. to: THE GOVERNMENT OF THE REPUBLIC OF ZAMBIA

Name:

Address:

Cheques or Postal Orders CROSSED "ACCOUNT PAYEE ONLY"
for the amount indicated below made payable to the
GOVERNMENT OF THE REPUBLIC OF ZAMBIA should be
forwarded to the PERMANENT Secretary, Ministry of Labour, P.O.
Box, Lusaka
This Invoice must accompany your
Remittance

K

Basic fee
Additional fee for hydraulic test
Additional fee for mileage, i.e., vessel not within 10 kilometres of prescribed boundaries ..
Additional fee in respect of waiting time, i.e. hours at 60 fee units per hour or
part thereof as vessel was not prepared at appointed time
TOTAL AMOUNT DUE

General Receipt Number dated 19
attached.

NOTE FOR OFFICIAL INFORMATION OF
ACCOUNTANT ONLY:

(i) The General Receipt Number must be
quoted.

(ii) The Invoice *must* be returned with
Original General
Receipt to the Addressee.

(As amended by Act No. 13 of 1994)

PART X

(Regulations 15 and 16) **Labour Form F/6**

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Sections 76 and 77)

PRESCRIBED FORM OF WRITTEN NOTICE OF ACCIDENT OR DANGEROUS OCCURRENCE IN A FACTORY

NOTE.-For accidents occurring on building operations or works of engineering construction use Labour Form F/10.

	FOR OFFICIAL USE District and date of receipt. M.R. GROUP Ref. to
1. OCCUPIER OR EMPLOYER	1. Serial No
(a) Name of occupier of premises	2. M.W.B.G
(b) Actual employer of injured person if other than above: Name Address	3. Age Group
	4. F.N.F.D.O.
2. PREMISES	4. (a)
Situation <i>and</i> postal address of works where accident or dangerous occurrence happened:	4. (b)
	5. Process
3. INDUSTRY	6. S.I.C
Nature of industry	7. (a) Causation
4. EXACT PLACE	7. (b)
Exact place in the works where the accident or dangerous occurrence	

happened 7. (c)

5. INJURED PERSON 7. (d)

(a) Injured person's full names 7. (e)

(b) National Registration Number 7. (f)

(c) Address 7. (g)

(d) Age (e) Sex (f) Occupation 7. (g)

(g) Hour at which person started work on day of accident 7. (h)

6. ACCIDENT OR DANGEROUS OCCURRENCE, DETAILS 7. (j)

(a) Date (b) Time 7. (k)

(c) Full details of how accident or dangerous occurrence happened and what injured person was doing at the time. If a fall of a person, materials, etc., state height of fall (if necessary continue overleaf) 7. (l)

8. Occupation

9. Injury
Nature I Site

10.

11.

12.

13.

(d) If due to machinery, state-

(i) Name and type of machine and name of part causing accident

(ii) Whether in motion by mechanical power at the time

(iii) If caused by crane or other lifting machine, and specify type

7. NATURE AND EXTENT OF INJURIES

Details (e.g. fractured left leg, scalded right arm followed by sepsis, etc.)

8. RESULT OF ACCIDENT

(a) Did accident result in death?

(b) If not fatal, was injured person disabled for more than three days from* earning full wages at the work at which he was employed?

**NOTE.-Even if injured person has been paid full wages while off work, or while working on a lighter job than his usual work, he has not earned those full wages and the accident should be reported on the fourth day after its occurrence.*

9. Has accident (or dangerous occurrence) been entered in the-
General Register?

Signature of Occupier, Employer or Agent.....

Date

PART XI

(Regulation 17)
Labour Form F/9

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Section 78)

FORM OF REPORT ON INDUSTRIAL DISEASE TO BE SENT BY OCCUPIER OF
FACTORY TO AN INSPECTOR OF FACTORIES

1. Name of occupier
2. Situation and postal address of factory

3. Nature of industry
4. Nature of disease
5. Particulars of person:
(a) Full names
(b) National Registration Number
(c) Address
(d) Age (e) Sex..... (f) Occupation
6. Nature of person's employment at time disease was contracted
7. By whom diagnosed and on what date

Date..... Signature
.....

PART XII

(Regulation 18) **Labour Form F/30**

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Section 85)

ABSTRACT OF THE ACT IN FORM PRESCRIBED BY THE
MINISTER

(To be kept posted in a prominent position in every factory)

INSPECTOR OF FACTORIES

(To whom communications relative to the Act should be addressed)

Address

Telephone

LABOUR OFFICER

Address

.Telephone

Name of Occupier

Postal Address

HEALTH

1. *Cleanliness.* Every factory must be kept clean. In particular, accumulations of dirt and refuse must be removed daily from floors and benches; the floor of every workroom must be cleaned at least once a week and, where wet processes are carried on, adequate means for draining the floor must be provided. All inside walls, partitions and ceilings must-(i) if they have a smooth impervious surface, be washed with hot water and soap or cleaned by other approved method every 14 months, or (ii) if kept painted in a prescribed manner or varnished, be repainted or revarnished at least once every 7 years and washed with hot water, etc., every 14 months, or (iii) in other cases, be whitewashed or colourwashed every 14 months (Section 19). The prescribed particulars must be entered in the General Register (Sections 19 and

86).

2. *Overcrowding.* A factory must not be overcrowded. There must be in each workroom at least 12 cubic metres of space for every person employed, not counting space more than 4 metres from the floor.
3. Every workroom must not be less than 3.048 metres in height, measured from the floor to the lowest point of the ceiling or, where there is no ceiling, to the lowest point of the roofing material (Section 20).
4. *Ventilation.* Adequate ventilation of workrooms must be secured by the circulation of fresh air. All practicable measures must be taken to protect workers against inhalation of dust, fumes or other impurities likely to be injurious or offensive, and local exhaust ventilation must be provided and maintained where practicable (Sections 21 and 69).
5. *Lighting.* There must be sufficient and suitable lighting in every part of the factory in which persons are working or passing (Section 22).
6. *Sanitary Conveniences.* Sufficient and suitable sanitary conveniences, separate for each sex, must be provided. The conveniences must be maintained and kept clean and effective provision must be made for lighting them (Section 23).
7. *Meals in Certain Dangerous Trades.* A person must not partake of food or drink in workrooms where any poisonous substance is so used as to give rise to dust or fume (Section 70).
8. *Protective Clothing, Appliances and Screening.* Suitable protective clothing and appliances including, where necessary, suitable gloves, footwear, goggles and head coverings, must be provided and maintained for the use of workers employed in any process involving excessive exposure to heat, cold or wet or to any poisonous or other injurious or offensive substance.
9. Suitable goggles or effective screens must be provided to protect the eyes of persons employed in any process likely to entail injury to the eyes and screening or other effective provision must be made to protect the eyes of *any* person exposed to electric arc welding flash (Section 71).
10. *Lifting Excessive Weights.* No one must be employed to lift, carry or move any load so heavy as to be likely to cause injury (Section 72).
11. *Notification of Industrial Diseases.* Cases of poisoning by lead, phosphorus, arsenic, mercury, carbon bisulphide, manganese, cyanide or aniline; chronic poisoning by benzene; compressed air illness; anthrax; toxic jaundice due to tetrachlorethane or nitro- or

amido- derivatives of benzene or other poisonous substance; toxic anaemia, epitheliomatus ulceration, and chrome ulceration must forthwith be reported to an Inspector of Factories and entered in the General Register (Section 78).

SAFETY

12. *Fencing.* Every part of the transmission machinery and every dangerous part of other machinery, and all parts of electric generators, motors, rotary converters, and flywheels directly connected to them, must be securely fenced unless in such a position or of such construction as to be as safe to every person employed or working on the premises as if securely fenced; and any part of a stock-bar which projects beyond the head-stock of a lathe must be securely fenced unless it is in such a position as to be as safe to every such person as if securely fenced. A male person over 18 may, however, approach unfenced machinery in motion in certain strictly limited contingencies and subject to the strict conditions specified in the Act (Sections 27 to 30).

13. Moving parts of other prime movers, and flywheels directly connected to them, and the head and tail race of a water wheel or water turbine, must be securely fenced irrespective of their position (Section 27).

14. Fixed vessels, pits, etc., containing scalding, corrosive or poisonous liquids, or any molten metal must, unless the edge is 1 metre above the adjoining ground or platform, be securely fenced to at least that height or be securely covered; where this is impracticable, other precautions, so far as practicable, must be taken. Where any such vessel is not securely covered, no ladder, stair or gangway may be placed above, across or inside it which is not at least 500 millimetres wide and securely fenced to a height of at least 1 metre and securely fixed. Where any such vessels adjoin each other, and the space between them is either less than 500 millimetres or is not securely fenced to at least 1 metre, barriers must be placed so as to prevent passage between them. Every vessel, pit, etc., must have a clear warning notice bearing in red letters in English and in at least one vernacular language commonly used by the employees, the word "DANGER" (Section 33).

15. All fencing must be of substantial construction and be maintained in an efficient state (Section 31).

16. *Further Requirements in Connection with Transmission Machinery.* Devices or appliances for promptly cutting off the power from the transmission machinery must be provided in every room or place where work is carried on. Every power-driven machine must be provided with an efficient starting and stopping appliance, the

control of which must be readily accessible to the person operating the machine. Efficient mechanical appliances must be provided to move driving belts to and from fast and loose pulleys. Driving belts must not rest or ride on revolving shafts when the belt is not in use (Section 28).

17. *New Machines.* New power-driven machines must not be sold, let on hire, or used unless certain parts are effectively guarded (Section 32).

18. *Self-acting Machines.* Precautions are required to ensure that persons are not trapped between moving parts of a self-acting machine and any separate fixed structure or between moving and stationary parts of the machine (Section 34).

19. *Training and Supervision of Inexperienced Workers.* A person must not work at any dangerous machine or in any dangerous process unless-(i) he has been fully instructed as to the dangers and precautions, and (ii) he has received sufficient training in the work or is under adequate supervision (Section 35).

20. *Construction of Floors, Stairs, etc.* Floors, steps, stairs, passages and gangways must be soundly constructed, properly maintained and, so far as is reasonably practicable, kept free from obstruction and any substance likely to cause persons to slip. Handrails must be provided for stairs. All ladders must be soundly constructed and properly maintained and be properly secured to prevent slipping, have effective anti-skid devices, or be firmly held by a person stationed at the foot. Openings in floors shall, wherever practicable, be securely fenced (Section 36).

21. *Safe Means of Access and Place of Work.* So far as is reasonably practicable- (i) there must be provided safe means of access to every place at which any person has at any time to work, (ii) every such place must be made and kept safe for anyone working there, (iii) fencing or other means must be provided to ensure the safety of any person who is to work at a place from which he would be liable to fall more than 2 metres and which does not afford secure foothold and, where necessary, secure handhold (Section 37).

22. *Precautions Against Gassing or Lack of Oxygen.* Special precautions are laid down for work in confined spaces where men are liable to be overcome by dangerous fumes or by lack of oxygen in the air (Section 38).

23. *Explosion or Fire of Inflammable Dust or Gas.* Precautions against explosion or fire are laid down for certain processes and for welding or soldering of (or other operations involving the application of heat to) containers which hold or have held any explosive or inflammable substance (Section 39).

24. *Fire.* Appropriate means for fighting fire must be provided and maintained and kept readily available in every factory irrespective

of the number of persons employed. Persons trained in the correct use of such means must be present while work is going on in the factory. All highly inflammable substances must be stored in a fire-resisting store or in a safe place outside any occupied building. No fire, flame, smoking or other agency likely to ignite volatile inflammable substances is to be permitted where it may ignite such substances.

25. Adequate means of escape in case of fire must be provided in every factory. The contents of workrooms must be so arranged that there is a free passageway to the means of escape. While any person is in any factory for the purpose of employment or meals, doors must not be so locked or fastened that they cannot be easily and immediately opened from the inside. Any door which opens on to a staircase or corridor from any room in which more than 10 persons are employed must open outwards unless it is a sliding door. Exit doors at the foot of staircases must open outwards unless they are sliding doors. Adequate landings must be provided at doors giving access to stairways. All fire exits must be distinctively and conspicuously marked by a notice printed in red letters of adequate size. Hoistways and liftways inside buildings constructed after the 1st May, 1967, must be completely enclosed with fire-resisting materials and the means of access to them must be fitted with fire-resisting doors except that the top of unvented hoistways and liftways must be enclosed by material easily broken by fire.

26. Where more than 20 persons are employed in the same building effective fire alarms must be provided and maintained. Effective alarms must also be provided where explosive or highly inflammable materials are stored or used even if less than 20 persons are employed in the building. Alarms must be tested and examined every three months and a report entered in or attached to the General Register (Section 86). In factories employing more than 20 workers in the same building above the first floor or more than 6 metres above ground level, effective steps must be taken to ensure that all workers are familiar with the means of escape and their use and the routine to be followed in case of fire. These precautions must also be taken where explosive or highly inflammable materials are stored or used even if less than 20 persons are employed in the building (Sections 40 to 45).

27. *Hoists or Lifts.* Every hoist or lift must be of good mechanical construction, sound material and adequate strength and must be properly maintained. It must be thoroughly examined every six months by a competent person whose report must be entered in or attached to the General Register.

28. Every hoistway or liftway must be efficiently protected by a substantial enclosure and landing gates with efficient interlocking or other devices. The safe working load must be marked conspicuously on each hoist. Additional safeguards (e.g. devices to prevent over-running,

interlocking gates for cages and devices to support the platform or cage if hoisting ropes or attachments should break) must be provided on hoists or lifts used for carrying persons, whether with goods or otherwise. The requirements are somewhat less stringent in the case of hoists or lifts constructed before the 1st May, 1967; hoists not connected with mechanical power, and continuous hoists.

29. Every teagle opening or similar doorway used for hoisting or lowering goods must be fenced (except when the hoisting or lowering is going on at that opening) and be provided with a secure handhold on each side of the opening (Sections 47 to 49).

30. *Chains, Ropes and Lifting Tackle.* No chain, rope or lifting tackle used for raising or lowering persons, goods, materials or plant may be used unless it is of good construction, sound material, adequate strength, suitable quality and free from patent defect. Tables of safe working loads must be posted in the stores and elsewhere, but need not cover any lifting tackle the safe working load of which is marked on the tackle itself. No tackle shall be used for any load exceeding its stated safe working load (except when being tested by a competent person). Chains, ropes and lifting tackle must be thoroughly examined by a competent person every six months, and must not (excepting fibre ropes and fibre rope slings) be taken into use for the first time in the factory unless they have been tested and certified.

31. An Inspector of Factories may require wrought iron chains or lifting tackle to be annealed or otherwise treated by heat at specified intervals.

32. A register of all chains, etc., and also the certificates of tests and reports of examinations must be kept (Sections 51 and 53).

33. *Cranes and Other Lifting Machines.* All parts and working gear (including anchoring appliances) of cranes and other lifting machines must be of good mechanical construction, sound material, adequate strength and free from patent defect, and must be properly maintained. A thorough examination of all such parts and gear by a competent person must be made every 14 months. A lifting machine must not be taken into use for the first time in the factory unless it has been tested and certified. A register of examinations and tests must be kept. The safe working load or loads must be shown on every lifting machine: in the case of cranes with a derricking jib, an automatic indicator or a table of safe working loads must be attached to the crane. No lifting machine shall be loaded above its stated safe working load (except when being tested by a competent person).

34. Rails and tracks of travelling cranes and transporters must be of proper size and construction. If any person is working near the wheel track of an overhead travelling crane, steps must be taken to ensure that

the crane does not approach within 6 metres of the person. Effective measures must be taken to give warning of the approach of such a crane to anyone working above floor level and liable to be struck by it or its load (Sections 52 and 53).

35. *Steam Boilers, Steam Receivers, etc.* Every part of every steam boiler and steam receiver must be of good construction, sound material, adequate strength and free from patent defect. Detailed requirements are laid down as to the valves and other fittings. The outlet of every steam container must at all times be kept open and free from obstruction.

36. Steam boilers and steam receivers and their fittings must be properly maintained and must be thoroughly examined by a Government Inspector or other person authorised by the Labour Commissioner, in the case of boilers every 18 months and after extensive repairs, and in the case of steam receivers every 36 months. New boilers must have manufacturers' certificates. A report of each examination of a steam boiler or a steam receiver must be attached to the Boiler Book.

37. Every steam boiler attendant must be properly instructed in his duties.

38. No modification, unless sanctioned by the manufacturer, must be made to any pressure part of any steam boiler or steam receiver until an Inspector has been notified in writing (Sections 54 to 57 and 60).

39. *Air Receivers.* Every air receiver and its fittings must be of sound construction and properly maintained. Detailed requirements are laid down as to the fittings.

40. Air receivers must be thoroughly cleaned, and be examined or tested by a Government Inspector or other person authorised by the Labour Commissioner every 36 months, and a report entered in or attached to the General Register (Sections 58 and 86).

41. No modification, unless sanctioned by the manufacturer, must be made to any pressure part of any air receiver until an Inspector has been notified in writing (Section 60).

42. *Notification of Accidents and Dangerous Occurrences.* Accidents causing loss of life or disabling a worker for more than three days from *earning* full wages at the work at which he was employed must be reported forthwith to an Inspector of Factories and entered in the General Register.

43. Certain dangerous occurrences must also be reported whether disablement is caused or not, e.g., the bursting of a revolving vessel, wheel, grindstone or grinding wheel moved by mechanical power, the collapse or failure of a crane, hoist or other lifting appliance or any part

thereof, or the overturning of a crane; and explosions or fires in certain circumstances (Sections 76, 77 and 86).

WELFARE

44. *Drinking Water.* An adequate supply of wholesome drinking water must be provided (Section 63).

45. *Washing Facilities.* Adequate and suitable washing facilities and suitable means of drying must be provided and maintained in a clean and orderly condition (Section 64).

46. *Accommodation for Clothing.* Adequate and suitable accommodation for clothing not worn during working hours, and for protective clothing, must be provided and maintained.

47. The Minister may by order direct that adequate change rooms shall be provided and maintained in any factory where he considers such rooms are necessary (Section 65).

48. *Facilities for Sitting.* Where any employed persons (irrespective of sex) have in the course of their employment reasonable opportunities for sitting without detriment to their work, there must be provided for their use suitable facilities sufficient to enable them to take advantage of those opportunities. There are detailed requirements as to seats and sitting arrangements for work of which a substantial proportion can properly be done sitting (Section 66).

49. *First-aid.* In every factory there must be provided a first-aid box or cupboard of the prescribed standard, containing nothing except first-aid requisites, and in charge of a responsible person who must always be readily available during working hours. In every workroom a notice must be affixed stating the name of the person in charge of the box or cupboard provided in respect of that room. Where more than 100 persons are employed at one time, an additional box or cupboard for every additional 100 persons or fraction of that number is required.

50. In factories where more than 50 persons are employed the responsible person in charge of the first-aid box or cupboard must satisfy prescribed conditions as to training in first-aid treatment (Section 67 and Regulations).

GENERAL

51. *Registration.* Before any premises are occupied or used as a factory, a Certificate of Registration must be obtained from the Labour Commissioner (Sections 11 to 15).

52. *Special Regulations for Safety, Health and Welfare* made for particular factories, industries, processes, plant, etc., must be observed, and printed copies of all such regulations, or prescribed abstracts

thereof, in force in any factory must be kept posted in the factory (Section 85).

53. *General Register.* The occupier must keep a General Registry in the prescribed form (Section 86).

54. *Duties of Persons Employed.* A person employed must not wilfully interfere with or misuse any means, appliance, convenience or other thing provided in pursuance of the Act for securing health, safety or welfare and he must use any means or appliance for securing health or safety provided for his use under the Act. He must not wilfully and without reasonable cause do anything likely to endanger himself or others (Section 89).

55. These special duties supplement the general duty of employed persons not to commit breaches of the Act even though the employer may be primarily responsible for seeing that they are observed: where an act or default for which a factory occupier or owner is liable under the Act is in fact the act or default of some other person (e.g., an agent or worker) that person can be prosecuted and is liable to the same fine as the occupier or owner (Section 93).

56. *Inspection.* Inspectors have power to enter, inspect and examine every part of a factory by day or by night. They may require the production of registers, certificates and other papers. They may examine any person found in the factory, either alone or in the presence of any other person as they think fit, and may require him to sign a declaration of the truth of the matters about which he is examined. They may also exercise such other power as may be necessary for carrying the Act into effect, including certain powers of taking samples for analysis. Every person obstructing an Inspector is liable to a penalty (Sections 7, 8, 9 and 75).

(As amended by S.I. No. 92 of 1974)

PART XIII

REPUBLIC OF ZAMBIA

THE FACTORIES ACT

(Section 86)

THE FACTORIES (PRESCRIBED PARTICULARS AND FORMS) REGULATIONS

(Regulation 19)

GENERAL REGISTER FOR FACTORIES

This register must be kept available for inspection by Inspectors of Factories for two years

after the date of the last entry therein

SECTION A. GENERAL.

Name of occupier (*In the case of a firm which is not a Limited Company, the names of each proprietor or partner*)

Postal address of factory

Registered office address (*If different from above*)

Situation of factory (*i.e., number in, or plot number, and name of street, road, etc.*)

Nature of work carried on.

REPORTS AND CERTIFICATES REQUIRED TO BE ATTACHED TO THE GENERAL REGISTER

CERTIFICATE OF REGISTRATION OF THE FACTORY

..... Date of issue

Other Certificates issued by the Labour Officer
Chief Inspector of Factories
(*Indicate nature of certificate*)

Such documents should be attached to the gummed slips at the beginning or end of this Register, or if the space is insufficient, they may be kept, apart from other papers, in a separate cover attached to this Register.



When a new Register is taken into use, reports and certificates still current or in operation should be transferred to the new Register.

Name(s) of person(s) (if any) appointed under section 30 of the Factories Act to carry out examinations or operations at unfenced machinery in accordance with the provisions of section.

(The certificate(s) of appointment must be attached to this Register and a signed copy furnished to each person so appointed)

Signature of occupier

SECTION B. WASHING, PAINTING, WHITEWASHING, ETC.

Dates		Parts washed, whitewashed or colourwashed, painted, varnished, or otherwise treated on the dates specified in columns (1) to (3)		
Day (1)	Month (2)	Year (3)	Parts of factory treated (4)	Full particulars of treatment given (5)

SECTION C. TESTING OR EXAMINATION OF FIRE WARNING SYSTEMS

Description of warning system (1)	Date of test or examination (2)	Particulars of defects found (3)	Particulars of action taken to remedy defects (4)

SECTION D. ACCIDENTS AND DANGEROUS OCCURRENCES

Date of accident or occurrence (1)	Date of notice sent on Form F/6 to Inspector of Factories (2)	Name of person injured (3)	Sex (4)	Age (5)	Usual employment (6)	Precise occupation at time of accident (7)	How caused <i>e.g.</i> whether by machinery, motion and by what such machinery (8)

SECTION E. CASES OF INDUSTRIAL DISEASE

Date of notice sent on Form F/9 to Inspector of Factories (1)	Person affected			Occupation (5)	Name of disease (6)	Name of examining medical practitioner (7)
Name (2)	Sex (3)	Age (4)				

SECTIONS 74 AND 105-THE FACTORIES (PLANT INSPECTION AND EXAMINATION FEES) REGULATIONS.

*Statutory Instrument
61 of 1997
Act No.
13 of 1994*

- | | |
|--|---|
| <p>1. (1) These Regulations may be cited as the Factories (Plant Inspection and Examination Fees) Regulations.</p> | Title and application |
| <p>(2) These Regulations shall apply to factories, building operations and works of engineering construction.</p> | |
| <p>2. Every steam boiler, steam receiver and air receiver shall be inspected periodically as stipulated under Part VIII of the Act.</p> | Times of inspection |
| <p>3. When any steam boiler, steam receiver or air receiver is inspected or examined by any inspector or other person authorised by the Commissioner, the appropriate fee specified in Part I and II of the Schedule to these Regulations shall be paid in respect of each inspection or examination.</p> | Fees payable on inspection of steam boiler, steam receiver or air receiver |
| <p>4. When any steam boiler, steam receiver or air receiver is due for inspection or examination by an inspector or any person authorised by the Commissioner, the owner or user of any such vessel or the occupier of the premises in which such vessel is used shall be notified by a registered letter of the date and time when such inspection or examination shall be carried out and any such letter shall be sent to the owner, user or occupier, as the case may be, at least ten days before the proposed date of inspection.</p> | Notification of intended inspection |
| <p>5. Where an inspector or any person authorised by the Commissioner has arranged to inspect or examine a plant on a date and a time specified in a registered letter but is unable to carry out the inspection or examination at the prescribed time because of lack of preparation on the part of the owner, user or occupier, such owner, or user or occupier shall be liable to the following surcharges:</p> | Surcharge payable when steam boiler, etc, is not prepared for examination at specified time |
| <p>(a) where preparations may be made to allow the plant to be inspected or examined within one hour of the prescribed time, a surcharge of K25,000.00 per hour or <i>pro rata</i> shall be added to the basic fee chargeable for the inspection or examination;</p> | |

(b) where preparations cannot be made to allow the inspection or examination to be carried out within one hour of the prescribed time, a surcharge equal to the basic fee shall be chargeable whether or not the inspection or examination is carried out immediately after the expiry of one hour; or

(c) where an inspection or examination cannot be carried out for any reason whatsoever, the inspector shall in addition to the surcharge, issue an Inspection Report showing a "Nil" entry against "Maximum Permissible Pressure" in respect of the steam boiler, steam receiver or air receiver to be inspected or examined and such Inspection Report shall remain in force until such time as further arrangements can be made to inspect or examine such steam boiler, steam receiver or air receiver.

6. The Factories (Plant Inspection and Examination Fees) Regulations, 1995 are hereby revoked.

Revocation of
S.I. No. 124 of
1995

SCHEDULE

(Paragraph 3)

PART I

BASIC FEE

1. Steam Boilers

(1) Boiler having a grate area of (or evaporation rate of steam per hour)	K	Fee units
(a) less than 1 square metre (1000 kg or less)	1139
(b) not less than 1 square metre but less than 2 square metres	1139
(c) 2 square metres or more (2000 kg or more)	1167
 (2) Boilers having no normal grate, in the case of a boiler with heating surface of-		
(a) less than 25 square metres (less than 5000 kg)	1222
(b) not less than 25 square metres but less than 55 square metres (more than 5000 kg but less than 10,000 kg)	1278
(c) 55 square metres or more (10,000 kg or more)	1389

(3) Each economiser, each super-heater (when carried out separately from the boiler examination)	.. .. .	..	..	..	..1167
(4) Each steam tube oven or steam tube hot plate	..	..	..	..	1139
2. Electrically heated boilers					
Boilers having a diameter of-					
(a) less than 1 square metre (less than 100 litres)	..	..	..	..	1139
(b) not less than 1 square metre but less than 2 square metres (more than 1000 litres but less than 2000 litres or more)	..	..	..	..	..1222
(c) Steam Receivers					
receivers having a diameter of-					
(i) less than 450 mm (less than 1000 litres)	..	..	..	..	1139
(ii) more than 450 mm (but less than 1500 litres)	..	..	..	..	1194
(iii) 750 mm or more (1500 litres or more)	..	..	..	..	..
	1222				
3. Steam Receivers					
Receivers having a diameter of-					
(a) more than 450 mm (less than 1000 litres)	..	..	..	..	1139
(b) more than 450 mm less than 1500 litres	..	..	..	..	1194
(c) 750 mm or more (1500 litres or more)	..	..	..	..	1222
4. Air Receivers					
Receivers having a diameter of-					
(a) less than 450 mm (less than 1000 litres)	..	..	..	..	1139
(b) more than 450 mm but less than 750 mm (more than 1000 litres but less than 1500 litres)	..	..	..	..	1194
(c) 750 mm or more (1500 litres or more)	..	..	..	..	1222

PART II

					Fee units
					K
1. Each hydraulic test of a steam boiler, steam receiver or air receiver.	..	..	..	..	25 per centum of the appropriate basic fee
2. Each inspection or examination of steam boiler, steam receiver or air receiver under normal pressure (when carried out at the request of the owner, user or occupier)	..	..	..	..	10 per

centum of appropriate basic fee

3. Each inspection or examination of steam boiler, steam receiver or air receiver other than inspections or examinations arranged out by registered letters (when carried out at the request of the owner, user or occupier) 100 per centum of appropriate basic fee
4. Each inspection or examination carried out anywhere in Zambia, except within a radius of 10 kilometres of an established factories 25 per centum of the appropriate basic fee

(As amended by Act No. 13 of 1994)

SECTION 74-THE FACTORIES (BENZENE) REGULATIONS
Regulations by the Minister

Statutory Instrument
179 of 1978
158 of 1993

1. These Regulations may be cited as the Factories (Benzene) Regulations, and shall apply to all factories where benzene or products containing benzene are manufactured, handled or used. Title and application

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

"benzene" means the aromatic hydrocarbon benzene C₆H₆;

"products containing benzene" means products the benzene content of which exceeds one per cent by volume.

3. Whenever harmless or less harmful substitute products are available, such products shall be used instead of benzene or products containing benzene. Restriction on use of benzene

4. The provisions of regulation 3 shall not apply to- Exceptions

- (a) the production of benzene;
- (b) the use of benzene for chemical synthesis;
- (c) the use of benzene in motor fuel; or
- (d) analytical or research work carried out in laboratories.

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| <p>5. In any factory where persons are exposed to benzene or products containing benzene, the concentration of benzene in the air in such factory shall not exceed twenty-five parts per million (80 mg/m³).</p> | <p>Restriction on concentration of benzene in air</p> |
| <p>6. All necessary measures shall be taken to prevent the escape of benzene vapour into the air in work rooms where benzene or products containing benzene are manufactured, handled or used.</p> | <p>Prevention of escape of vapour</p> |
| <p>7. (1) Work processes involving the use of benzene or products containing benzene shall be carried out in an enclosed system.</p> | <p>Work to be carried out in enclosed area</p> |
| <p>(2) Where it is not practicable for the work processes to be carried out in an enclosed system as stated in sub-regulation (1), efficient means shall be provided to ensure the removal of benzene vapour.</p> <p><i>(As amended by S.I. No. 158 of 1993)</i></p> | |
| <p>8. Any person who may have skin contact with benzene or products containing benzene shall be provided with adequate means of personal protection against the risks of absorbing benzene through the skin.</p> | <p>Protection against skin contact</p> |
| <p>9. Any person who for special reasons may be exposed to concentration of benzene in the air which exceeds the maximum referred to in regulation 5 shall be provided with adequate means of personal protection against the risks of inhaling benzene vapour.</p> | <p>Protection against benzene vapour</p> |
| <p>10. Every person exposed to benzene or products containing benzene shall be provided with suitable protective clothing which, together with the means of protection referred to in regulations 8 and 9, shall be cleaned and maintained by the employer.</p> | <p>Protective clothing</p> |
| <p>11. Every person supplied with means of personal protection or protective clothing shall use them at all times during working hours.</p> | <p>Use of protective clothing</p> |
| <p>12. No food shall be taken into or consumed in work rooms in which benzene or products containing benzene are manufactured, handled or used.</p> | <p>Prohibition of consumption of meals in work rooms</p> |

13. All factories where benzene or products containing benzene are manufactured, handled or used shall be equipped with- Washing and eating facilities

- (a) sufficient and suitable washing facilities;
- (b) suitable accommodation for taking meals, unless appropriate arrangements exist for meals to be taken elsewhere; and
- (c) change rooms where work clothes can be stored separately from the ordinary clothes.

14. (1) Every person employed in processes involving exposure to benzene or products containing benzene shall undergo- Medical examinations

- (a) a pre-employment medical examination for fitness which shall include a blood test; and
- (b) periodical re-examination at intervals not exceeding twelve months which shall include biological and blood tests.

(2) The medical examinations referred to in sub-regulation (1) shall be carried out during working hours under the supervision of a qualified physician.

(3) Such medical examinations shall not involve the employed person in any expense.

15. Any woman medically certified as pregnant and any nursing mother shall not be employed in work processes involving exposure to benzene or products containing benzene. Employment of pregnant and nursing mothers

16. Young persons under the age of eighteen years shall not be employed in work processes involving exposure to benzene or products containing benzene except where they are undergoing education or training and are under adequate technical and medical supervision. Employment of persons under age

17. Benzene or products containing benzene shall only be brought into work rooms in containers which are of suitable material and of adequate strength and so designed and constructed as to prevent any leakage or escape of vapours. Benzene containers

- 18.** The word "Benzene" shall be clearly labelled and be visible on any container holding benzene or products containing benzene. Labelling of containers
- 19.** Persons employed in factories where benzene or products containing benzene are manufactured, handled or used shall receive appropriate training and instructions on measures to safeguard health and prevent accidents as well as taking necessary action in case of benzene poisoning. Training of employees
- 20.** In factories where benzene or products containing benzene are manufactured, handled or used, notices shall be displayed in prominent positions indicating- Display of notices
- (a) the hazards which are likely to happen;
 - (b) preventive measures to be taken;
 - (c) protective equipment to be used; and
 - (d) first-aid measures to be taken in case of benzene poisoning.
- 21.** Any person who contravenes any of the provisions of these Regulations shall be guilty of an offence and be liable on conviction to the penalties prescribed in section *ninety-two* of the Factories Act. Offences and penalties