

Factories Act, 1948

Chapter IV - Safety

(1) In every factory the following, namely:--

- (i) every moving part of a prime mover and every flywheel connected to a prime mover, whether the prime mover or flywheel is in the engine house or not;
- (ii) the headrace and tailrace of every water-wheel and water turbine;
- (iii) any part of a stock-bar which projects beyond the head stock of a lathe; and
- (iv) unless they are in such position or of such construction as to be safe to every person employed in the factory as they would be if they were securely fenced, the following, namely : --
 - (a) every part of an electric generator, a motor or rotary converter;
 - (b) every part of transmission machinery; and
 - (c) every dangerous part of any other machinery;

shall be securely fenced by safeguards of substantial construction which¹[shall be constantly maintained and kept in position] while the parts of machinery the y are fencing are in motion or in use:

²[Provided that for the purpose of determining whether any part of machinery is in such position or is of such construction as to be safe as aforesaid, account shall not be taken of any occasion when--

- (i) it is necessary to make an examination of any part of the machinery aforesaid while it is in motion or , a s a result of such examination, to carry out lubrication or other adjusting operation while the machinery is in motion, being an examination or operation which it is necessary to be carried out while that part of the machinery is in motion, or
- (ii) in the case of any part of a transmission machinery used in such process as may be prescribed (being a process of a continuous nature the currying on of which shall be, or is likely to be , s substantially interfered with by the stoppage of that part of the machinery), it is necessary to make an examination of such part of the machinery while it is in motion or , a s a result of such examination, to carry out any mounting or shipping of bel t s or lubrication or other adjusting operation while the machinery is in motion,

and such examination or operation is made or carried out in accordance with the provisions of sub-section (1) of section 22 .]

(2) The State Government may by rules prescribe such further precautions as it may consider necessary in respect of any particular machinery or part thereof, or exempt, subject to such condition as may be prescribed, for securing the safe t y of the workers, any particular machinery or part thereof from the provisions of this section.

1. Substituted by Act 94 of 1976, section 10, for "shall be kept in position" (w.e.f. 26-10-1976).

2. Substituted by Act 94 of 1976 section 10, for the proviso (w.e.f. 26-10-1976).

Section 22 - Work on or near machinery in motion

(1) 1 [Where in any factory it becomes necessary to examine any part of machinery referred to in section 21, while the machinery is in motion, or, as a result of such examination, to carry out--

(a) in case referred to in clause (i) of the proviso to sub-section (I) of section 21, lubrication or other adjusting operation; or

(b) in a case referred to in clause (ii) of the proviso aforesaid, any mounting or shipping of belts or lubrication or other adjusting operation,

while the machinery is in motion, such examination or operation shall be made or carried out only by a specially trained adult male worker wearing tight fitting clothing (which shall be supplied by the occupier) whose name has been recorded in the register prescribed in this behalf and who has been furnished with a certificate of this appointment, and while he is so engaged,--

(a) such worker shall not handle a belt at a moving pulley unless-

(i) the belt is not more than fifteen centimeters in width;

(ii) the pulley is normally for the purpose of drive and not merely a fly-wheel or balance wheel (in which case a belt is not permissible);

(iii) the belt joint is either laced or flush with the belt;

(iv) the belt, including the joint and the pulley rim, are in good repair;

(v) there is reasonable clearance between the pulley and any fixed plant or structure;

(vi) secure foothold and, where necessary, secure handhold, are provided for the operator; and

(vii) any ladder in use for carrying out any examination or operation aforesaid is securely fixed or lashed or is firmly held by a second person;]

(b) without prejudice to any other provision of this Act relating to the fencing of machinery, every set screw, bolt and key on any revolving shaft, spindle, wheel or pinion, and all spur, worm and other toothed or friction gearing in motion with which such worker would otherwise be liable to come into contact, shall be securely fenced to prevent such contact.

2 [(2) No woman or young person shall be allowed to clean, lubricate or adjust any part of a prime mover or of any transmission machinery while the prime mover or transmission machinery is in motion, or to clean, lubricate or adjust any part of any machine if the cleaning, lubrication or adjustment thereof would expose the woman or young person to risk of injury from any moving part either of that machine or of any adjacent machinery.]

(3) The State Government may, by notification in the Official Gazette, prohibit, in any specified factory or class or description of factories, the cleaning, lubricating or adjusting by any person of specified parts of machinery when those parts are in motion.

1. Substituted by Act 94 of 1976, section 11, for the opening paragraph and clause (a) (w.e.f. 26-10-1976).

2. Substituted by Act 25 of 1954, section 6, for Sub-section (2) (w.e.f. 7-5-1954).

Section 23 - Employment of young persons on dangerous machines

(1) No young person 1 [shall be required or allowed to work] at any machine to which this section applies, unless he has been fully instructed as to the dangers arising in connection with the machine

and the precautions to be observed and-

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

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

(2) Sub-section (1) shall apply to such machines as may be prescribed by the State Government, being machines which in its opinion are of such a dangerous character that young persons ought not to work at them unless the foregoing requirements are complied with.

1. Substituted by Act 20 of 1987, 10, for "shall work" (w.e.f. 1-12-1987).

Section 24 - Striking gear and devices for cutting off power

(1) In eve r y factory--

(a) suitable striking gear or other efficient me chanical appliance shall be provided and maintained and used to move driving belts to and from fast and loose pulleys which fo r m part of the transmission machinery, and such gear or appliances shall be so constructed, pla c ed and maintained as to prevent the belt from creeping back on the fast pulley;

(b) driving belts when not in use shall not be allowed to rest or ride upon shafting in motion.

(2) In every factory suitable devices for cutting off power in emergencies from running machinery shall be provided and maintained in every workroom :

Provided that in respect of factories in operation before the commencement of this Act, the provisions of this sub-section shall apply only to workrooms in which electricity is used as power.

1[(3) When a device, which can inadvertently shift from "off " to "on" position, is provided in a factory to cut off power, arrangements shall be provided for locking the device in safe position to prevent accidental star t ing of the transmission machinery or other machines to which the device is fitted].

1. Inserted by Act 94 of 1976, section 12 (w.e.f. 26-10-1976) .

Section 25 - Self-acting machines

No traversing part of a self-acting machine in any factory and no material carried thereon shall, if the space over which it runs is a space over which any person is liable to pass, whether in the course of hi s employment or otherwise, be allowed to run on its outward or inward traverse within a distance of 1 [forty-five centimetres] from any fixed structure which is not part of the machine:

Provided that the Chief Inspector may permit the continued use of a machine installed before the commencement of this Act which does not comply with the requirements of this section on such conditions for ensuring safety as he may think fit to impose.

1. Substituted by Act 20 of 1987, section 11, for "eighteen inches" (w.e.f. 1-12-1987) .

Section 26 - Casing of new machinery

(1) In all machinery driven by power and installed in any factory after the commencement of this Act,--

(a) every set screw, bolt or key on any revolving shaft, spindle, wheel or pinion shall be so sunk, encased or otherwise effectively guarded as to prevent danger ;

(b) all spur, worm and other toothed or friction gearing which does not require frequent adjustment while in motion shall be completely encased, unless it is so situated as to be as safe as it would be if it were completely encased.

(2) Whoever sells or lets on hire or, as agent of a seller or hirer, causes or procures to be sold or let on hire, for use in a factory any machinery driven by power which does not comply with the provisions of 1[sub-section (1) or any rules made under sub-section (3)], shall be punishable with imprisonment for a term which may extend to three months or with fine which may extend to five hundred rupees or with both.

2[(3) The State Government may make rules specifying further safeguards to be provided in respect of any other dangerous part of any particular machine or class or description of machines.]

1. Substituted by Act 25 of 1954, section 7, for "sub-section (1)".

2. Substituted by Act 25 of 1954, section 7, for sub-section (3).

Section 27 - Prohibition of employment of women and children near cotton-openers

No woman or child shall be employed in any part of a factory for pressing cotton in which a cotton opener is at work:

Provided that if the feed-end of a cotton-opener is in a room separated from the delivery end by a partition extending to the roof or to such height as the Inspector may in any particular case specify in writing, women and children may be employed on the side of the partition where the feed-end is situated.

Section 28 - Hoists and lifts

(1) In every factory--

(a) every hoist and lift shall be-

(i) of good mechanical construction, sound material and adequate strength;

(ii) properly maintained, and shall be thoroughly examined by a competent person at least once in every period of six months, and a register shall be kept containing the prescribed particulars of every such examination;

(b) every hoistway and liftway shall be sufficiently protected by an enclosure fitted with gates, and the hoist or lift and every such enclosure shall be so constructed as to prevent any person or thing from being trapped between any part of the hoist or lift and any fixed structure or moving part;

(c) the maximum safe working load shall be plainly marked on every hoist or lift, and no load greater than such load shall be carried thereon;

(d) the cage of every hoist or lift used for carrying persons shall be fitted with a gate on each side from which access is afforded to a landing;

(e) every gate referred to in clause (b) or clause (d) shall be fitted with interlocking or other efficient device to secure that the gate cannot be opened except when the cage is at the landing and that the cage cannot be moved unless the gate is closed.

(2) The following additional requirement shall apply to hoists and lifts used for carrying persons and installed or reconstructed in a factory after the commencement of this Act, namely:--

(a) where the cage is supported by rope or chain, there shall be at least two ropes or chains separately connected with the cage and balance weight, and each rope or chain with its attachments shall be capable of carrying the whole weight of the cage together with its maximum load;

(b) efficient devices shall be provided and maintained capable of supporting the cage together with its maximum load in the event of breakage of the ropes, chains or attachments;

(c) an efficient automatic device shall be provided and maintained to prevent the cage from over-running.

(3) The Chief Inspector may permit the continued use of a hoist or lift installed in a factory before the commencement of this Act which does not fully comply with the provisions of sub-section (1) upon such conditions for ensuring safety as he may think fit to impose.

(4) The State Government may, if in respect of any class or description of hoist or lift, it is of opinion that it would be unreasonable to enforce any requirement of sub-sections (1) and (2), by order direct that such requirement shall not apply to such class or description of hoist or lift.

1 [Explanation.--For the purposes of this section, no lifting machine or appliance shall be deemed to be a hoist or lift unless it has a platform or cage, the direction or movement of which is restricted by a guide or guides.]

1. Inserted by Act 20 of 1987, section 12 (w.e.f. 1-12-1987).

Section 29 - Lifting machines, chains, ropes and lifting tackles

1 [29. Lifting machines, chains, ropes and lifting tackles

(1) In any factory the following provisions shall be complied with in respect of every lifting machine (other than a hoist and lift) and every chain, rope and lifting tackle for the purpose of raising or lowering persons, goods or materials :--

(a) all parts, including the working gear, whether fixed or movable, of every lifting machine and every chain, rope or lifting tackle shall be--

(i) of good construction, " sound material and adequate strength and free from defects;

(ii) properly maintained; and

(iii) thoroughly examined by a competent person at least once in every period of twelve months, or at such intervals as the Chief Inspector may specify in writing; and a register shall be kept containing the prescribed particulars of every such examination;

(b) no lifting machine and no chain, rope or lifting tackle shall, except for the purpose of test be loaded beyond the safe working load which shall be plainly marked thereon together with an identification mark and duly entered in the prescribed register; and where this is not practicable, a table showing the safe working loads of every kind and size of lifting machine or chain, rope or lifting tackle in use shall be displayed in prominent positions on the premises;

(c) while any person is employed or working on or near the wheel track of a 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 [2](#) [six metres] of that place.

(2) The State Government may make rules in respect of any lifting machine or any chain, rope or lifting tackle used in factories--

(a) prescribing further requirements to be complied with in addition to those set out in this section;

(b) providing for exemption from compliance with all or any of the requirements of this section, where in its opinion, such compliance is unnecessary or impracticable.

(3) For the purposes of this section a lifting machine or a chain, rope or lifting tackle shall be deemed to have been thoroughly examined if a visual examination supplemented, if necessary, by other means and by the dismantling of parts of the gear, has been carried out as carefully as the conditions permit in order to arrive at a reliable conclusion as to the safety of the parts examined.

Explanation.--In this section.--

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

[3](#) [(b) "lifting tackle" means any chain sling, rope sling, hook, shackle, swivel, coupling, socket, clamp, tray or similar appliance, whether fixed or movable, used in connection with the raising or lowering of persons, or loads by use of lifting machines.]

1. Substituted by Act 25 of 1954, section 8, for section 29 (w.e.f. 7-5-1954).

2. Substituted by Act 20 of 1987, section 13, for "twenty feet" (w.e.f. 1-12-1987).

3. Substituted by Act 20 of 1987, section 13, for clause (b) (w.e.f. 1-12-1987).

Section 30 - Revolving machinery

(1) [1](#)[In every factory] in which the process of grinding is carried on there shall be permanently affixed to or placed near each machine in use a notice indicating the maximum safe working peripheral speed of every grindstone or abrasive wheel, the speed of the shaft or spindle upon which the wheel is mounted, and the diameter of the pulley upon such shaft or spindle necessary to secure such safe working peripheral speed.

(2) The speeds indicated in notices under sub-section (1) shall not be exceeded.

(3) Effective measures shall be taken in every factory to ensure that the safe working peripheral speed of every revolving vessel, cage, basket, fly-wheel, pulley, disc or similar appliance driven by power is not exceeded.

1. Substituted by Act 20 of 1987, section 14, for "In every room in a factory" (w.e.f. 1-12-1987).

Section 31 - Pressure plant

[1](#)[(1) If in any factory, any plant or machinery or any part thereof is operated at a pressure above atmospheric pressure, effective measures shall be taken to ensure that the safe working pressure of such plant or machinery or part is not exceeded.]

(2) The State Government may make rules providing for the examination and testing of any plant or machinery such as is referred to in sub-section (1) and prescribing such other safe ty measures in

relation thereto as may in its opinion be necessary in any factory or class or description of factories.

2[(3) The State Government may, by rules, exempt, subject to such conditions as may be specified therein, any part of any plant or machinery referred to in sub-section (I) from the provisions of this section.]

1. Substituted by Act 20 of 1987, section 15, for sub-section (1) (w.e.f. 1-12-1987).

2. Inserted by Act 94 of 1976, section 13 (w .e.f. 26-10-1976).

Section 32 - Floors, stairs and means of access

In every factory--

(a) all floors, steps, stairs, passages and gangways shall be of sound construction and properly maintained¹[and shall be kept free from obstructions and substances likely to cause persons to slip], and where it is necessary to ensure safety, steps, stairs, passages and gangways shall be provided with substantial handrails ;

(b) there shall, so far as is reasonably practicable, be provided and maintained safe means of access to every place at which any person is at any time required to work.

2[(c) when any person has to work at a height from where he is likely to fall, provision shall be made, so far as is reasonably practicable, by fencing or otherwise, to ensure the safety of the person so working.]

1. Inserted by Act 94 of 1976, section 14, (w.e.f. 26-10-1976).

2. Substituted by Act 20 of 1987, section 16, for clause (c) (w.e.f. 1-12-1987).

Section 33 - Pits, sumps openings in floors, etc

(1) In every factory every fixed vessel, sump, tank, pit or opening in the ground or in a floor which, by reason of its depth, situation, construction or contents, is or may be a source of danger, shall be either securely covered or securely fenced.

(2) The State Government may, by order in writing, exempt, subject to such conditions as may be prescribed, any factory or class or description of factories in respect of any vessel, sump, tank, pit or opening from compliance with the provisions of this section.

Section 34 - Excessive weights

(1) No person shall be employed in any factory to lift, carry or move any load so heavy as to be likely to cause him injury.

(2) The State Government may make rules prescribing the maximum weights which may be lifted, carried or moved by adult men, adult women, adolescents and children employed in factories or in any class or description of factories or in carrying or any specified process.

Section 35 - Protection of eyes

In respect of any such manufacturing process carried on in any factory as may be prescribed, being a process which involves--

- (a) risk of injury to the eyes from particles or fragments thrown off in the course of the process, or
- (b) risk to the eyes by reason of exposure to excessive light,

the State Government may by rules require that effective screens or suitable goggles shall be provided for the protection of persons employed on, or in the immediately vicinity of, the process.

Section 36 - Precautions against dangerous fumes, gases, etc

1[36. Precautions against dangerous fumes, gases, etc

(1) No person shall be required or allowed to enter any chamber, tank, vat, pit, pipe, flue or other confined space in any factory in which any gas, fume vapour or dust is likely to be present to such an extent as to involve risk to persons being overcome thereby, unless it is provided with a manhole of adequate size or other effective means of egress.

(2) No person shall be required or allowed to enter any confined space as is referred to in sub-section (1), until all practicable measures have been taken to remove any gas, fume, vapour or dust, which may be present so as to bring its level within the permissible limits and to prevent any ingress of such gas, fume, vapour or dust and unless--

- (a) a certificate in writing has been given by a competent person, based on a test carried out by himself that the space is reasonably free from dangerous gas, fume, vapour or dust ; or
- (b) such person is wearing suitable breathing apparatus and a belt securely attached to a rope the free end of which is held by a person outside the confined space.]

1. Substituted by Act 20 of 1987, section 17, for section 36 (w.e.f. 1-12-1987).

Section 36A - Precautions regarding the use of portable electric light

1[36A. Precautions regarding the use of portable electric light

In any factory--

- (a) no portable electric light or any other electric appliance of voltage exceeding twenty-four volts shall be permitted for use inside any chamber, tank, vat, pit, pipe, flue or other confined space² [unless adequate safety devices are provided]; and
- (b) if any inflammable gas, fume or dust is likely to be present in such chamber, tank, vat, pit, pipe, flue or other confined space, no lamp or light other than that of flame-proof construction shall be permitted to be used therein.]

1. Inserted by Act 94 of 1976, section 16 (w.e.f. 26-10-1976) .

2. Inserted by Act 20 of 1987, section 18 (w.e.f. 1-12-1987) .

Section 37 - Explosive or inflammable dust, gas, etc

(1) Where in any factory any manufacturing process produces dust, gas, fume or vapour of such character and to such extent as to be likely to explode on ignition, all practicable measure shall be taken to prevent any such explosion by--

- (a) effective enclosure of the plant or machinery used in the process;
- (b) removal or prevention of the accumulation of such dust, gas, fume or vapour;
- (c) exclusion or effective enclosure of all possible sources of ignition.

(2) Where in any factory the plant or machinery used in a process such as is referred to in sub-section (1) is not so constructed as to withstand the probable pressure which such an explosion as aforesaid would produce, all practicable measures shall be taken to restrict the spread and effects of the explosion by the provision in the plant or machinery of chokes, baffles, vents or other effective appliances.

(3) Where any part of the plant or machinery in a factory 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, namely:--

- (a) before the fastening of any joint of any pipe connected with the part or the fastening of the cover of any opening into the part is loosened, any flow of the gas or vapour into the part of any such pipe shall be effectively stopped by a stop-valve or other means;
- (b) before any such fastening as aforesaid is removed, all practicable measures shall be taken to reduce the pressure of the gas or vapour in the part or pipe to atmospheric pressure;
- (c) where any such fastening as aforesaid has been loosened or removed effective measures shall be taken or prevent any explosive or inflammable gas or vapour from entering the part or pipe until the fastening has been secured, or the case may be, securely replaced;

Provided that the provisions of this sub-section shall not apply in the case of plant or machinery installed in the open air.

(4) No plant, tank or vessel which contains or has contained any explosive or inflammable substance shall be subjected in any factory to any welding, brazing, soldering or cutting operation which involves the application of heat unless adequate measures have first been taken to remove such substance and any fumes arising therefrom or to render such substance and fumes non-explosive or non-inflammable, and no such substance shall be allowed to enter such plant, tank or vessel after any such operation until the metal has cooled sufficiently to prevent any risk of igniting the substance.

(5) The State Government may by rules exempt, subject to such conditions as may be prescribed, any factory or class or description of factories from compliance with all or any of the provisions of this section.

Section 38 - Precautions in case of fire

1[38. Precautions in case of fire

(1) In every factory, all practicable measures shall be taken to prevent outbreak of fire and its spread, both internally and externally, and to provide and maintain--

- (a) safe means of escape for all persons in the event of a fire, and
- (b) the necessary equipment and facilities for extinguishing fire.

(2) Effective measures shall be taken to ensure that in every factory all the workers are familiar with the means of escape in case of fire and have been adequately trained in the routine to be followed

in such cases.

(3) The State Government may make rules, in respect of any factory or class or description of factories, requiring the measures to be adopted to give effect to the provisions of sub-section (1) and (2).

(4) Notwithstanding anything contained in clause (a) of sub-section (1) or sub-section (2), if the Chief Inspector, having regard to the nature of the work carried on in any factory, the construction of such factory, special risk to life or safety, or any other circumstances, is of the opinion that the measures provided in the factory, whether as prescribed or not, for the purposes of clause (a) of sub-section (1) or sub-section (2) are inadequate, he may, by order in writing, require that such additional measures as he may consider reasonable and necessary, be provided in the factory before such date as is specified in the order.]

1. Substituted by Act 20 of 1987, section 19, for section 38 (w.e.f. 1-12-1987).

Section 39 - Power to require specifications of defective parts or tests of stability

If it appears to the Inspector that any building or part of a building or any part of the ways, machinery or plant in a factory is in such a condition that it may be dangerous to human life or safety, he may serve on 1[the occupier or manager or both] of the factory an order in writing requiring him before a specified date --

(a) to furnish such drawings, specifications and other particulars as may be necessary to determine whether such building, ways, machinery or plant can be used with safety, or

(b) to carry out such tests in such manner as may be specified in the order, and to inform the Inspector of the results thereof.

1. Substituted by Act 94 of 1976, section 18, for "the manager" (w.e.f. 26-10-1976).

Section 40 - Safety of buildings and machinery

(1) If it appears to the Inspector that any building or part of a building or any part of the ways, machinery or plant in a factory is in such a condition that it is dangerous to human life or safety, he may serve on 1[the occupier or manager or both] of the factory an order in writing specifying the measures which in his opinion should be adopted, and requiring them to be carried out before a specified date.

(2) If it appears to the Inspector that the use of any building or part of a building or any part of the ways, machinery or plant in a factory involves imminent danger to human life or safety, he may serve on 1[the occupier or manager or both] of the factory an order in writing prohibiting its use until it has been properly repaired or altered.

1. Substituted by Act 94 of 1976, section 18, for "the manager" (w.e.f. 26-10-1976).

Section 40A - Maintenance of buildings

1[40A. Maintenance of buildings

If it appears to the Inspector that any building or part of a building in a factory is in such a state of disrepair as is likely to lead to conditions detrimental to the health and welfare of the workers, he may serve on the occupier or manager or both of the factory an order in writing specifying the measures which in his opinion should be taken and requiring the same to be carried out before such date as is specified in the order.]

1. Inserted by Act 94 of 1976, section 19 (w.e.f. 26-10-1976).

Section 40B - Safety Officers

1 40B. Safety Officers

(1) In every factory,--

(i) wherein one thousand or more workers are ordinarily employed, or

(ii) wherein, in the opinion of the State Government, any manufacturing process or operation is carried on, which process or operation involves any risk of bodily injury, poisoning or disease, or any other hazard to health, to the persons employed in the factory,

the occupier shall, if so, required by the State Government by notification in the Official Gazette, employ such number of Safety Officers as may be specified in that notification.

(2) The duties, qualifications and conditions of service of Safety Officer shall be such as may be prescribed by the State Government.]

1. Inserted by Act 94 of 1976, section 19 (w.e.f. 26-10-1976).

Section 41 - Power to make rules to supplement this Chapter

The State Government may make rules requiring the provision in any factory or in any class or description of factories of such further¹[devices and measures] for securing the safety of persons employed therein as it may deem necessary.

1.Substituted by Act 94 of 1976, section 20, for "devices" (w.e.f. 26-10-1976).
