



**GOVERNMENT OF SINDH
LABOUR & HUMAN RESOURCES
DEPARTMENT**

NOTIFICATION

NO. L-II-2-2-2019: In exercise of the powers conferred by section 10 read with sections 5, 7, 11, 12, 16, 17, 18 and 23 of the Sindh Occupational Safety and Health Act, 2017, the Government of Sindh are pleased to make the following rules, namely :-

1. Short title and commencement.

- (1) These rules may be called the Sindh Occupational Safety and Health Rules, 2019.
- (2) They shall come into force at once.

2. Definitions. (1) In these rules, unless the context otherwise requires –

- (a) “Act” means the Sindh Occupational Safety and Health Act 2017 **(Sindh Act No. I of 2018)**;
- (b) “air receiver” means any vessel, other than pipe or coil, or an accessory, fitting or part of a compressor, containing compressed air and connected to a compressing plant; or any fixed vessel or tank or compressed exhaust gases and used for the purpose of starting an internal combustion engine;
- (c) “article” includes any solid, liquid or gas or any combination thereof;
- (d) “biological monitoring” means a planned program of periodic collection and analysis of human body fluids, tissues, excreta or exhaled air;
- (e) “construction site” means a workplace at which construction work is done and includes any or all adjoining area where plant or other materials used or to be used in connection with that work are located or kept and over which the main contractor has control for the purpose of doing the construction work;
- (f) “construction work” means –
 - (i) the construction, erection, installation, alteration, repair, maintenance, cleaning, painting, renewal, removal, excavation, dismantling or demolition of any building, roads and bridges or any other construction site; or

- (ii) work on which a hoisting appliance or any scaffold is used or intended to be used; or
 - (iii) work in driving or extracting piles, sheet piles or trench sheet; or
 - (iv) work in laying any pipe or work in lining pipe that is done at or adjacent to the place where the pipe is laid or to be laid;
- (g) “Committee” means the Health and Safety Committee to be established by the employer under the provisions of section 12 (1) (b);
 - (h) “explosives” means any substance capable of releasing energy in a rapid and uncontrolled manner to give rise to explosions;
 - (i) “Form” means a Form appended to these rules;
 - (j) “health and safety equipment” mean any article or part thereof which is manufactured, provided or installed in the interest or the health or safety of any person, property or environment;
 - (k) “lifting equipment” includes chains, rope slings rings, holes, shackles and swivels;
 - (l) “manual labour” means the work ordinarily performed by tradesperson of every type and description, labourers and drivers of all modes of transport, but does not include clerical work or similar occupation;
 - (m) “maximum permissible pressure” means the pressure specified in the relevant certificate or the pressure specified in the report of the last examination;
 - (n) “Government” means the Government of Sindh;
 - (o) “plant” includes fixtures, fittings, implements, equipment, tools and appliances, and anything which is used for any purpose in connection with such plant;
 - (p) “prime-mover” means an engine, motor or other appliance which provides mechanical energy driven from steam, water, wind, electricity, combustion of fuel or other source;
 - (q) “register” means a register of factories and workplaces established under section 15 and includes any other register kept in every factory or workplace;
 - (r) ‘safe working pressure’ means the pressure specified in the relevant standards provided under these rules;

- (s) “Certifying Surgeon” means a registered medical practitioner appointed under the Sindh Factories Act, 2015 (Sindh Act NO.XIII of 2016) to act as Certifying Surgeon for the purpose of the Act and these rules;
- (t) “section” means a section of the Act;
- (u) “substance” includes any solid, liquid, vapour, gas or aerosol, or combination thereof;
- (v) “trade union” means a trade union registered under Sindh Industrial Relations Act 2013 (Sindh Act No.XXIX of 2013);
- (w) “transmission machinery” means a shaft, wheel, drum, pulley, system of fast and loose pulleys, coupling, clutch, chain drive, driving-belt or other device by which the motion of a prime mover is transmitted to or received by any machine or appliance;
- (x) “user” in relation to plant or machinery, means the person who uses the plant or machinery for own benefit or has the right of control over the use of plant or machinery, but does not include a lessor of or any person employed in connection with that plant or machinery.

(2) The words and expressions used but not defined in these rules shall have the same meaning as assigned to them in the Act.

3. **General duties of employer.** The employer shall, in addition to the general duties mentioned under section 4, comply with any additional duties assigned by Government, from time to time, and to follow and enforce the regulations, standards, guidelines and code of practices laid down by Government.

4. **General duties of self-employed and employers to persons other than their workers under section 5.** A self-employed person is an individual engaged in an occupation, but not in the service of an employer and shall -

- (a) determine the responsibilities in relation to the health and safety of all workers at the workplace;
- (b) cooperate with the employer, contractor, sub-contractors, other self-employed persons, and occupational health committees in protecting the health and safety at the workplace;
- (c) conduct work in a way which does not endanger anyone’s health and safety at the workplace;
- (d) provide information which may affect the health and safety of others to the employer, contractor, subcontractors, other self-employed persons and occupational safety and health committees established;

- (e) follow and enforce the regulations, standards, guidelines and code of practices laid down by such authority.

5. **General duties of persons concerned with premises to persons other than their workers under section 6.** Where a person who uses non-domestic premises as a workplace by virtue of any contract or tenancy or an obligation of any extent in relation to the maintenance or repair of any premises to which this rule applies or any means of access thereto or egress therefrom or the safety of or the absence of risks to health arising from plant or substances in any such premises.

6. **General duties of worker and volunteer under section 8.** The workers and volunteer at the work place shall, in addition to the general duties mentioned under section 8, comply with any additional duties assigned by Government, from time to time, and shall follow and enforce the regulations, standards, guidelines and code of practices laid down by Government.

7. **General duties of supplier as regards articles and substances for use at work under section 9.** A supplier in addition to his duties as mentioned in section 9 shall -

- (a) supply plant at workplace, site or equipment, in a safe condition;
- (b) supply chemical and biological substances that are safe when instructions are followed correctly;
- (c) provide MSDS (Material Safety Data Sheets) of chemicals and biological substances supplied; and
- (d) provide written instructions about how to use equipment safely.

8. **SAFETY AND HEALTH (SECTION 10).**

(A) CLEANLINESS IN THE PLACE OF WORK AND ITS FREEDOM FROM NUISANCE, AND MAINTENANCE OF BUILDINGS.

- (1) No rubbish, filth or debris shall be allowed to accumulate or to remain in any part of a factory or workplace in such position that effluvia therefrom can arise within the factory or workplace.
- (2) In every factory or workplace, all drains carrying waste or sludge water shall be constructed in masonry or other impermeable material and shall be regularly flushed at least once a day and where possible connected with some recognized drainage line.
- (3) The floor of the rooms and the compound surrounding every factory or workplace shall be maintained in a strictly and clean condition.

- (4) Proper arrangements shall be made for maintaining in a reasonably clean and drained condition all washing and bathing places within a factory or workplace, the places where drinking water is distributed to the operatives of the factory or workplace and the area around such places.

(B) ILLUMINATION, VENTILATION, TEMPERATURE, NOISE, DUST, FUME AND ARTIFICIAL HUMIDIFICATION.

- (1) All places where persons work or pass or may have to work or pass in emergencies, shall be provided during time of use with adequate natural lighting or artificial lighting or both, suitable for the operation and the special type of work performed, as per standards laid down by Government.
- (2) Skylights and windows should be located and spaced so that daylight conditions are fairly uniform over the working area.
- (3) Where necessary, skylights and windows should be provided with means to avoid glare.
- (4) A regular system of cleaning skylights and windows should be established to ensure that they are kept clean at all times.
- (5) Artificial lighting shall be provided when daylight fails or for area where the daylight cannot reach.
- (6) The general lighting should be of uniform level, widely distributed to avoid harsh shadows or strong contrast and free from direct or reflected glare.
- (7) Where intense local lighting is necessary, a combination of general and supplementary lighting at the point of work may be provided.
- (8) Supplementary lighting shall be specially designed for the particular visual task and arranged or provided with shading or diffusing devices to prevent glare.
- (9) Artificial lighting shall be adequate at the place of work for the operation or work performed.
- (10) A minimum of 120 lux (12-foot candles) shall be provided for yards, roadways and outside thoroughfares.
- (11) A minimum of 150 lux (15-foot candles) shall be provided:
- (12) The threshold limit values as laid down in the prescribed standards by Government which shall refer to sound pressure that represents conditions under which it is believed that nearly all workers may be repeatedly exposed without adverse effect on their ability to hear and understand normal speech.

- (13) Feasible administrative or engineering controls shall be utilized when workers are exposed to sound levels exceeding those specified in prescribed standards by Government, when measured on a scale of a standard sound level meter at slow response. If such controls fail to reduce sound within the specified levels, ear protective devices capable of bringing the sound level to permissible noise exposure shall be provided by the employer and used by the worker.
- (14) The values specified apply to total time of exposure per working day regardless of whether this is one continuous exposure or a number of short-term exposures but does not apply to impact or impulsive type of noise.
- (15) If the variation in noise level involves maximum intervals of one (1) second or less, it shall be considered as continuous. If the interval is over one (1) second, it becomes impulse or impact noise.
- (16) When the daily noise exposure is composed of two or more periods as noise exposure of different levels, their combined effect should be considered rather than the effect of each.
- (17) Exposures to impulsive or impact noise shall not exceed 140 decibels peak sound pressures level (ceiling value).
- (18) In every room of a factory or workplace ventilating opening shall be provided in the proportion of five square feet for each person required or permitted to work in such room and the openings shall be such as to admit a continuous supply of fresh air:

Provided that the Chief Occupational Safety and Health Inspector may, in respect of any factory or workplace or any room in a factory or workplace, for reasons to be recorded in writing, relax the requirements of this rule where, in his opinion the same may be permitted without hazards to the health of the persons employed in such factory or workplace or working in such room.

- (19) In every factory or workplace where injurious, poisonous or asphyxiating gases, dust or other impurities are used for or are evolved from any process carried on in such a factory or workplace, all practicable measures to the satisfaction of Inspector shall be taken to protect the workers against the inhalation of such gases, dust or other impurities in accordance with the standards prescribed by Government.
- (20) In every room in a cotton mill where slasher sizing is carried on, efficient arrangements for the removal of the steam given off in the process of drying the yarn shall be fitted and slasher sizing shall not be carried on in any room where any other process of manufacture is being performed.

- (21) There shall be no artificial humidification in any room or department of a cotton spinning or weaving factory or workplace by the use of steam during any period when the dry bulb temperature of the room exceeds 85 degrees Fahrenheit scale.
- (22) At any time when the wet bulb reading of the hygrometer in that room is higher than that specified in the following table in relation to the dry bulb reading of the hygrometer at that time, or as regards a dry bulb reading intermediate between any two dry bulbs readings indicated consecutively in the table, when that dry bulb reading does not exceed the wet bulb reading to the extent indicated in relation to the lower of the two dry bulb readings in degree Fahrenheit scale.

TABLE

Dry bulb	Wet bulb	Dry bulb	Wet bulb	Dry bulb	Wet bulb	Dry bulb	Wet bulb
60.0	58.0	75.0	73.0	90.0	84.5	105.0	91.0
61.0	59.0	76.0	74.0	91.0	85.0	106.0	91.0
62.0	60.0	77.0	75.0	92.0	85.5	107.0	91.5
63.0	61.0	78.0	76.0	93.0	86.0	108.0	91.5
64.0	62.0	79.0	77.0	94.0	86.5	109.0	92.0
65.0	63.0	80.0	78.0	95.0	87.0	110.0	92.0
66.0	64.0	81.0	79.0	96.0	87.5	111.0	92.5
67.0	65.0	82.0	80.0	97.0	88.0	112.0	92.5
68.0	66.0	83.0	80.5	98.0	88.5	113.0	93.0
69.0	67.0	84.0	81.0	99.0	89.0	114.0	93.0
70.0	68.0	85.0	82.0	100.0	89.5	115.0	93.5
71.0	69.0	86.0	82.5	101.0	90.0	116.0	93.5
72.0	70.0	87.0	83.0	102.0	90.0	117.0	94.0
73.0	71.0	88.0	83.5	103.0	90.5	118.0	94.0
74.0	72.0	89.0	84.0	104.0	90.5	119.0	94.5
						120.0	94.5

- (23) This rule shall not apply when -
- (i) the difference between the wet bulb reading, as indicated by the hygrometer in the room or department concerned and the wet bulb reading taken within a hygrometer outside the factory or workplace in the shade is less than 3.5 degree Fahrenheit scale; or

- (ii) the cooling properties of the air in the room or department as measured by the wet reading of a Kata-thermometer at a height of five feet in all usual working places within the room or department is greater than eleven milli-calories per square centimeter per second.
- (24) In all departments of cotton spinning and weaving mills in which artificial, humidification is employed, hygrometer shall be provided and maintained in such position as may be approved by the Inspector and on the following scales:-
- (i) **Weaving Department.**- Two hygrometers for departments with less than 500 looms and one additional hygrometer for every 500 or part of 500 looms in excess of 500.
- (ii) **Other Departments.**- One hygrometer for each room of less than 3,00,000 cubic feet capacity and one extra hygrometer for each 2,00,000 cubic feet, or part thereof in excess of 3,00,000 cubic feet.
- (25) One hygrometer shall be provided and maintained outside each cotton spinning and weaving mill wherein artificial humidification is adopted in a position approved by the Inspector, for taking true shade temperatures.
- (26) When the Inspector is satisfied that in any department of a cotton spinning or weaving mill, the limits of humidity allowed by the table below sub-rule (22) have, at no time during the immediately preceding twelve months been exceeded, he may, for any such department, if it not be a weaving department, grant exemption in form "A" from the maintenance of the hygrometer.
- (27) A legible copy of the table shall be fixed near each hygrometer.
- (28) Correct wet and dry bulb temperatures, as indicated by each hygrometer maintained under the provisions of sub-rule (24), shall be recorded thrice during each working day by competent persons appointed by the employer and approved by the Inspector. These temperatures shall be taken between 7.00 A.M., 11.00 A.M. and 2.00 P.M." (but not in the rest interval) and between 4.00 P.M. and 5.30 P.M. In extraordinary circumstances, such additional readings between such hours as the Inspector may specify shall be recorded. The temperatures shall be recorded on a chart approved by the Inspector and affixed close to the hygrometer and entered in a humidity register in prescribed form. At the end of each month, the person taking the readings shall sign the register and certify the correctness of the entries. The chart and register shall at all times be available for inspection by the Inspector and copies of the entries made therein shall be sent to him whenever he so requires.
- (29) The entries made in the humidity register shall be deemed to be prima facie evidence of the temperatures and humidity of the department to which the entries relate but an Inspector may at any time check the correctness of the readings by personal observations.

- (30) The cooling power of the atmosphere in each department shall be measured by taking readings of the wet Kata-thermometer in the close proximity of each hygrometer maintained in the department and at a height of five feet from the floor. Such readings shall be recorded every Tuesday and Friday at the time specified for taking hygrometer reading and shall be entered in the humidity register referred to in rule (28). The readings of the Kata-thermometer shall be taken by a competent person appointed by the employer.
- (31) Every hygrometer shall comprise two mercurial or alcohol thermometers similar in construction and equal in dimensions, scale and division of scale. They shall be mounted on a wooden or metallic frame with a suitable receptacle containing water.
- (32) The wet bulb shall be closely covered with a single layer of muslin kept wet by means of a cotton or woolen wick attached to it and dipping into the water in the receptacle. The muslin covering the wet bulb and the wick shall be suitable for the purpose, clean and free from greasy substances. The bulbs shall be spherical and of suitable dimensions and shall be freely exposed on all sites to the atmosphere.
- (33) No part of the wet bulb shall be within three and a half inches of the dry bulb or within three inches of the surface of the water in the receptacle, and the water receptacle shall be placed below the wet bulb, on the side away from the dry bulb.
- (34) The bores of the stem shall be such that the top of the mercury or alcohol column shall be reading distinguishable and correct readings made at a distance of two feet.
- (35) Each thermometer shall be graduated so that accurate readings may be taken between 50 and 120 degrees Fahrenheit scale.
- (36) Every degree Fahrenheit scale, from 50 degrees up to 120 degrees shall be clearly marked on the glass stem: each fifth and tenth degree shall be marked by longer marks than intermediate degrees and the temperatures marked opposite each tenth degree i.e. 50, 60, 70, 80, 90, 100, 110 and 120.
- (37) The marking shall be accurate to within 0.2 degree Fahrenheit scale at all readings between 50 and 120 degrees.
- (38) A distinctive number shall be conspicuously marked upon each hygrometer employed in a department.
- (39) The accuracy of each hygrometer shall be certified by the National Manufacturing Laboratory of the country of origin of hygrometer or such other authority as may be approved by the Chief Occupational Safety and Health Inspector and such certificate shall be attached to the humidity register.

- (40) Every hygrometer shall be maintained at all times during the period of employment in efficient working order so as to yield accurate readings and the muslin covering and the wick of the wet bulb shall be renewed once a week, and the receptacle shall be filled with distilled, boiled or pure rain water which shall be renewed once a day, and no water shall be placed in the receptacle or applied directly to the wick or muslin during the period of employment.
- (41) If an Inspector gives notice in writing that a hygrometer is not accurate it shall not, after one month from the date of such notice, be deemed to be "accurate", unless and until it has been re-examined and a fresh certificate as required by sub-rule (39) secured in respect thereof, which certificate shall be kept attached to the humidity register.
- (42) No hygrometer shall be affixed to a wall, pillar or other surface unless protected therefrom by wood or other non-conducting material at least half an inch in thickness, which shall be separated from the wall, pillar or other surface by an air space of at least one inch.
- (43) No hygrometer shall be so fixed as to be in the direct draught from a fan, window or ventilating opening or at such a height that the head of the hygrometer is more than five feet and a half from the floor.
- (44) No reading shall be taken for record on any hygrometer within fifteen minutes of the renewal of water in the receptacle.
- (45) Where steam pipes are used for the introduction of steam into any room for the purposes of artificial humidification -
 - (a) all hangers supporting such pipes shall be separated from the pipes by an efficient, insulator not less than half an inch in thickness;
 - (b) such pipes shall be as short as is reasonably practicable, and the diameter of such pipes shall not exceed one inch; provided that the Chief Occupational Safety and Health Inspector may for reasons to be recorded in writing permit the use of pipes with a diameter exceeding one inch.
- (46) All ducts for the introduction of humidified air, whether actually in use for that purpose or not, shall be kept clean.

(C) DISPOSAL OF WASTES AND EFFLUENTS.

- (1) Effective arrangements shall be made in every factory or workplace for the disposal of wastes and effluents due to the manufacturing process carried on therein.
- (2) In every factory or workplace, a register in the prescribed Form "B" shall be maintained for entering into the dates on which lime washing, painting or varnishing is carried out.

- (3) No rubbish, filth or debris shall be allowed to accumulate or to remain in any part of a factory or workplace in such position that effluvia therefrom can arise within the factory or workplace.
- (4) In every factory or workplace, all drains carrying waste or sludge water shall be constructed in masonry or other impermeable material and shall be regularly flushed at least once a day and where possible connected with some recognized drainage line.
- (5) The floor of the rooms and the compound surrounding every factory or workplace shall be maintained in a strictly and clean condition.
- (6) Proper arrangements shall be made for maintaining in a reasonably clean and drained condition all washing and bathing places within a factory or workplace, the places where drinking water is distributed to the operatives of the factory or workplace and the area around such places.

(D) FLOOR, STAIRS, MEANS OF ACCESS, PROPER WORKING SPACE, OVERCROWDING, CONFINED SPACES, PITS, SUMPS, OPENING IN FLOORS AND ALLIED THINGS.

- (1) The particulars of each room of the factory or workplace, in which workers are regularly employed shall be entered in Form "C" which shall be shown to the Inspector when so required.
- (2) As long as any workers are present in a factory or workplace, the latrines, passages, stairs, hoists, factory or workplace ground and other parts of the factory or workplace in so far as the entrance of the said places is not closed, shall be lighted in such manner that safety is fully secured in passing through or remaining in the same.
- (3) Artificial lighting in accordance with the following standards shall be provided and used in the interior of cotton ginning factories at times when artificial lighting is necessary and is ordinarily used:-
 - (a) By means of electricity to the satisfaction of the Inspector, one Electric lamp of 60 watts per four gins;
 - (b) The train line shaft alley in Ginning Factory/ workplace/ workplace shall be sufficiently lighted at all times for a worker to carry on his duties inside it without the aid of lantern;
 - (c) Adequate measures shall be taken so far as reasonably practicable to prevent the cause of eye strain, glare or risk of accident to any person employed;
 - (d) So far as reasonably practicable arrangements shall be made by suitable screening or placing or other effective methods to prevent, discomfort or injury by the reflection of light from smooth or polished surfaces into the eyes of the workers.

(E) DRINKING WATER AND CONSERVANCY:

- (1) In every factory or workplace, there shall be provided free of charge for the use of the workers, volunteers and employees of the factory or workplace, a supply of water fit for drinking as per prescribed standards at the rate of one gallon per day for every person employed in the factory or workplace. Such supply of water shall be derived from any public water-supply or wells including tube-wells, or tanks so situated, constructed and protected as not to be polluted or contaminated with organic or other impurities.
- (2) Where drinking water for a factory or workplace is obtained from an intermittent public water-supply, such factory or workplace shall be provided with storage for water at the scale prescribed in sub-rule (1).
- (3) A well for the supply of drinking water to a factory or workplace or for the purpose of humidification in a factory or workplace –
 - (i) shall not be constructed or located within fifty feet of any latrine drain or other source liable to pollute the water in the well;
 - (ii) shall be entirely closed and covered;
 - (iii) shall be fitted with a reliable pump; and
 - (iv) shall be provided with a dust and water proof trap door having an opening not exceeding four square feet, and such trap door shall be kept locked and only opened for cleaning or inspection.
- (4) The water required to be provided under rule (1) shall be kept in clean and suitable vessels shall be renewed daily and all practicable steps shall be taken to preserve the water and the vessels in which it is contained from contamination.
- (5) The temperature of the drinking water supplied to workmen shall at no time exceed 90 degrees in Fahrenheit scale.
- (6) The Inspector may by order in writing require the employer to obtain reports, at such time or at such intervals as may be specified in the orders, regarding the fitness or otherwise for the purposes of drinking of the water supplied to worker from the Director of Health Services Sindh or from a Health Officer of a local authority provided with the necessary facilities to carry out such tests, and the employer shall comply with such order and send to the Inspector by registered post copies of such reports within seven days of their receipt by him.

- (7) The Inspector may, if he thinks fit, himself take a sample of water from the water provided and supplied to workers in any factory or workplace and direct the employer of such factory or workplace to obtain a report thereon and the employer shall thereupon obtain a report on such sample and supply a copy of such report to the Inspector in the manner provided in sub-rule (6).

(F) GUARDING AND FENCING OF THE MACHINERY AND WORK AT OR NEAR MACHINERY IN MOTION.

- (1) The following parts of transmission machinery shall be securely fenced if in motion and within reach of workers and such other volunteer persons authorized by the employer:-
- (i) All shafts, couplings, collars, clutches, toothed wheels, gears, pulley driving straps, chains and ropes, except such as are in the opinion of the Inspector by construction or position equally safe to every person employed in the factory or workplace as they should be if securely fenced or guarded;
 - (ii) All projecting set screws, keys, nuts or bolts on revolving parts, except any such as are counter sunk or otherwise made equally safe;
 - (iii) The underside of all heavy overhead main driving belts or ropes if there is any probability of persons having to pass under them.
- (2) The following parts of machine tools shall be securely fenced:-
- (i) The back gears and change wheels of lathes;
 - (ii) The back gear, bit and level gearing of drilling machines; and
 - (iii) The gear wheels of planning, shaping, slotting and milling machines which are within reach of workers;
- (3) Every platen machine and guillotine cutting machine in a printing work shall be fitted with an efficient finger-guard.
- (4) All emery wheels and tool grinding machines shall be fitted with strong iron hood guards and shall also have a plate glass shield so fitted as to prevent flying particles from entering into the operator's eyes.
- (5) All hoist gates shall be self-locking and only capable of being opened when the case is opposite the floor.
- (6) All circular saws of more than six inches in diameter shall be provided with a strong metal hood guard a riving knife at the back of the saw. The saw under the table shall be completely guarded.

- (7) All band saws shall be fitted with expanded metal cage guards enclosing the upper half of the machine. The saw under the table shall also be completely guarded.
- (8) All elevator passage ways and hoist ways shall be fenced.
- (9) In every factory or workplace, all electrical circuits or part of such circuits or any object electrically connected with them whether commonly or occasionally in an electrified condition, which by reason of their position could cause injury to any person, shall be protected adequately, either by non-metallic fencing or insulation or by both, in such manner as to remove danger of injury:

Provided that where switch gear is installed for the purpose of immediately removing the pressure on the occurrence of a fault, such mechanism shall be taken into account when considering the adequacy or otherwise of the protection furnished:

Provided further that in no case shall any conditions or combinations of conditions, which are subject to objection under any other enactment be accepted as adequate.

- (10) Instructions both in English, Urdu and the Vernacular of the district for the restoration of persons suffering from electric shock shall be affixed in a conspicuous place in every factory or workplace using electric energy for lighting or power purposes.
- (11) **Fencing Pit.-** All open tanks and vessels containing either chemicals or substances dangerous to human life or safety and all pits, tanks, gutters and excavations eighteen inches or more in depth within the precincts of any factory or workplace and workplace shall be securely fenced.
- (12) **Fencing in Textile and otherwise.** In addition to the provisions hereinafter provided, the following provisions shall apply to textile factories to the extent indicated:-

(i) In respect of blowing room machinery:-

- (a) Beater covers and the door immediately above the dirt grid of all openers, combined openers and sketchers, sketchers lap machines, hard waste breakers and similar machines shall be fitted with an automatic locking arrangement which shall render it impossible to open the covers or the grid while the beater is still running, or to restart the machinery until the doors have been closed.
- (b) The nip between the cage wheel and calendar wheels shall be efficiently protected in all machines, preferably by spectacle guards extending round the outer edge of both wheels.

- (c) Fender guards shall be provided for the fan strap side of sketcher to guard the fan strap and slow motion strap; provided that where the slow motion pulley is driven directly by a strap from the overhead shaft, it shall be optional either to place the wheel or to protect it by fender guard. If the strap is on the opposite side to the slow motion strap each strap shall be protected separately.
- (d) All lap rollers shall be provided with lap protectors.
- (e) Cotton openers, combined openers and sketchers, sketchers lap machines, hard waste breakers and similar machines shall be driven from countershafts provided with fast and loose pulleys and efficient belt shifters.

(ii) *In respect of carding machines -*

- (a) All feed roller wheels, doffer and barrow wheels, side shaft wheels, calendar wheels and collar wheels shall be efficiently fenced.
- (b) All cylinder doors shall be fitted with a safety automatic locking motion to prevent the doors from being opened until the cylinder has ceased to render it impossible to rest at the machine until the doors have been closed.

(iii) *In respect of drawing frames.-*

- (a) The roller gearing shall be effectively covered.
- (b) The under shaft shall be encased in a metal sleeve or otherwise securely fenced.

(iv) *In respect of speed frames.-*

- (a) Headstocks shall be fitted with an automatic locking arrangement which shall prevent the doors being opened while the machinery is in motion and shall render it impossible to restart the machines until the doors have been closed.
- (b) Bobbin skew gear wheel shall be covered over the top and these covers shall be extended both in front and behind round the edge of the wheels except in those cases where the spindles are not cleaned whilst the machinery is in motion.
- (c) Spindles show gear wheels shall be effectively covered.
- (d) Lifter rack wheel, shall be securely fenced, the guard to be such that it will effectively protect the nip both as the rail rises and as it falls.

(v) *In respect of self-acting mules-*

- (a) Guards for middle back shaft scrolls shall be fitted with flanges to protect the intake of the bands and the side of the scroll. The guards for the middle draw band carrier pulley shall be either fixed to the bottom creel board, or be so fast ended otherwise that they cannot readily be knocked aside. The side pieces of the guard shall be extended inwards, far enough completely to guard the nip between the band and the scroll.
- (b) All headstocks shall be provided with strong sheet iron guard high enough to cover the rim pulleys and so shared as to prevent any moving portion of the machinery being reached from the back when the guard is in position.
- (c) The guard for the end draw band pulleys shall be extended at least half an inch beyond the end of the pulley.
- (d) All guardant pinions shall be securely fenced.
- (e) No person shall be allowed to be between the fixed and traversing parts unless the mule is stopped on the outward run.
- (f) All front and back carriage wheels shall be guarded by efficient top guards.
- (g) All spinning mules shall be driven from counter shaft which shall be provided with fast and loose pulleys and efficient belt shifter.

(vi) *In respect of ring and throttle and doubling frames-*

- (a) The outer ends of the frames shall be fitted in with metal plates.
- (b) Guards made of strong rigid Metallic bars placed so that the vertical gap between them is not more than six inches shall be permanently and securely fixed along the whole length of each right frame and such guards shall not be removable without the use of tools.

(vii) *In respect of calendaring machines-*

All calendaring machines shall be provided with an efficient nip-guard along the whole length on the intake side of each pair of bowls and shall be so fitted and maintained, while the machine is in use, as to prevent the access of any person's fingers to the point of contact of the rollers or bowls.

(viii) *All shuttle looms shall be fitted with shuttle guards with adequate strength.*

(ix) *Additional, fencing in cotton ginning factories.-*

In addition to the provisions hereinbefore prescribed, the following provisions shall apply to Cotton Ginning Factories to the extent indicated:-

(a) The line shaft or second motion in cotton ginning factories shall be completely enclosed by continuous wall or unclimbable fencing with only so many openings as are necessary for access to the shaft for cleaning, oiling or adjusting of belts and such openings shall be provided with gates or doors which shall be kept closed and locked.

(b) The toothed rollers of the opener shall be guarded by securely fixing the machines, not more than eight inches above the lattice, a stout Wooden plank or a strong metal guard not less than eighteen inches in width so arranged that in no circumstances can a man's hand get into the rollers.

Explanation.- If the guard can be removed or shifted from its position without the aid of tools, the toothed rollers of the opener shall not be considered to have been guarded for the purposes of this rule.

(c) The spur gearing at the side of the opener shall be completely covered by a strong metal guard.

(d) The crank shaft pulleys and roller pulleys of all gins shall be securely guarded by strong box guard and hinged covers.

(13) The cover to the blades of all saw gin machinery shall be fitted with an automatic locking device so arranged as to make it impossible for the saw to be exposed whilst the machine is in motion.

(G) SELF-ACTING MACHINES AND DEVICE FOR CUTTING OFF POWER; REVOLVING MACHINERY AND PRESSURE PLANTS:

(1) The employer in the factory or workplace shall have the duty to ensure that every flywheel directly connected to a prime mover and every moving part of a prime mover, other than the prime is securely fenced.

(2) Every head and tailrace of water wheels, turbines and every part of electric generators, motor or rotary converter, fly wheels or transmission machinery are securely fenced unless they are safe by position or construction.

- (3) Every dangerous part of all other machinery other than specified under the “Act” or “Rules” shall be securely fenced unless they are position or construction:

Provided that, in so far as the safety of a dangerous part of any machinery cannot by reason of the nature of the operation performed be securely fenced by means of a fixed guard.

- (4) The requirement of Rule 82 shall be deemed to have been complied with if a device is provided which in the opinion of the Chief Occupational Safety and Health Inspector satisfactorily protects the operator from coming into contact with that part.
- (5) Other parts which shall be securely fenced when they are being processed in lathe or other similar machine, include -
 - (a) stock bar projecting beyond the head stock; and
 - (b) tube stock in similar circumstance or when being threaded in a screwing.
- (6) Efficient devices or appliances shall be provided and maintained in every work place by which power can promptly be cut off from the transmission machinery.
- (7) Every machine driven by mechanical power shall be provided with a starting and stopping device, the control of which shall be conveniently situated to the person operating the machine
- (8) Driving belts when not in use shall be allowed to rest or ride on a revolving shaft, which form part of the transmission machinery.
- (9) Suitable striking gear or other efficient mechanical appliances shall be provided and maintained and be 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 so as to prevent the driving-belt from creeping back on the fast pulley.
- (10) In determining whether any part of a machinery is safe by position or by construction to persons employed in the premises:
 - (a) The account shall not be taken of any person carrying out, while part of the machinery is in motion, an examination or lubrication or adjustment shown by examination to be immediately necessary and being an examination lubrication or adjustment which it is necessary to carry out while the part of the machinery is in motion.

- (b) No account shall be taken of any person carrying out any lubrication or mounting or shipping of belts any pail of transmission machinery used in any process being a process where owing to its continuous nature, the stopping of that part would seriously interfere with the carrying on of the process.
- (c) The provisions of clause (b) shall apply where examination, lubrication or other operation is carried out by an adult person approved by the management of a factory or workplace who has received adequate training and has been provided with a close fitting overall having no external pockets.
- (d) No person shall be appointed as a machinery attendant unless he has been sufficiently trained in the work entailed and is fully aware of the dangers involved in the operations.
- (e) Where any operations under this rule are being carried out, another person shall assist the operator and shall ensure that all equipment and other fixtures used are securely fixed in position to prevent them from slipping.
- (f) Every fencing or safety guard shall be of substantial construction properly maintained and kept in position while the parts required to be fenced or safeguarded are in motion or in use, except when any such part are necessarily exposed and all the conditions specified in clause (e) are complied with.
- (g) No person shall clean any part of a prime mover, transmission machinery or any dangerous part of any machinery while in motion, where the cleaning would expose the person to a risk of injury from any moving part of that machine or an adjacent machine.
- (h) It shall be the responsibility of the employer to ensure that (i) all exposed workers are instructed on the hazards prevailing in their workplace; (ii) safety measures are taken to avoid injury; and (iii) training is provided at least once in every two years.
- (i) The Chief Occupational Safety and Health Inspector shall, subject to the general direction of Government undertake or promote studies and research to identify hazards in the working environment and develop innovative ways of dealing with occupational safety and health problems.

(H) INSTRUCTIONS, TRAINING AND SUPERVISION IN RELATION TO EMPLOYMENT ON DANGEROUS MACHINERY AND FENCING OR CASING OF MACHINERY; WET FLOORS, OPEN WIRING, SAFETY ESCAPES, EMERGENCY EXITS, SAFE ELECTRIC WIRING AND FITTING ETC:

Government shall issue separately the guidelines, regulations and code of practices, containing the instructions training and supervision in relation to employment on dangerous machines and fencing or casing of machinery, wet floors, open wiring, safety escapes, emergency exits, safe electric wiring and fitting and such other hazards.

(I) EXPLOSIVES OR INFLAMMABLE DUST, GAS AND PRECAUTION AGAINST DANGEROUS FUMES ETC:

The minimum dimensions of the manhole shall be –

- (i) in relation to the confined space be not less than eighteen inches long and sixteen inches wide in case of a rectangular manhole and not less than eighteen inches in diameter in case of a circular or oval manhole;
- (ii) in relation to tank wagons and other mobile plant not less than eighteen inches long and sixteen inches wide in case of rectangular manhole and eighteen inches in diameter in case of circular manhole.

(J) PRECAUTION IN CASE OF FIRE:

(1) Every factory or workplace shall be provided with -

- (a) supply of water maintained at a sufficient pressure as per prescribed standards to reach all parts of the factory or workplace together with the necessary hose-pipes and hydrants for making effective use of the water drawing the time the factory or workplace is in operation; or
- (b) buckets and chemical fire extinguishers at the following scale:-
 - (i) **Buckets.** (a) For floor space up 6000 square feet, six buckets for every 1000 square feet of floor or a part thereof, one additional bucket in excess of the first 6000 square feet;

(b) The buckets shall be painted red and kept permanently on stands filled with water or sand at the discretion of the employer.
 - (ii) **Fire Extinguishers.** (a) Chemical fire extinguishers of at least two gallons capacity of soda compressed carbon-dioxide type.

(b) For floor space up to 6000 square feet, one extinguisher

(c) For every 6000 square feet of floor, one additional extinguisher for space in excess of the first 6000 square feet.

- (2) Where a factory or workplace consists of more than one storey, each storey shall be provided with at least one chemical fire extinguisher and have its own supply of buckets at the scale specified.
- (3) All apparatus for extinguishing fires shall be kept in good order and shall be periodically examined and tested after every month.
- (4) Every building within the precincts of a factory or workplace of more than one story shall be provided with at least two sets of stairs or steps, one of which shall be on the outside of the buildings so as to afford direct and unimpeded access to the ground level from every part of the factory or workplace in case of fire. The stairs or steps shall be permanently fixed and made of non-combustible materials and shall be provided with suitable and sufficient hand rails:

Provided that where workers are not employed in the second or a higher story of a factory or workplace building an outside stairs-case will not be necessary.

- (5) Cotton Ginning Factories shall be provided with at least two flight of stairs made of bricks work or other fire resisting materials situated outside the building.
- (6) In every factory or workplace a mechanically or electrically operated fire alarm shall be fixed and where this is not possible a fire bell shall be provided to give alarm in case of fire.
- (7) All fire safety measures for the building shall comply with building codes of Pakistan, Fire Safety Provisions 2016 in the following areas:-
 - (i) general requirements;
 - (ii) classification of occupancy;
 - (iii) general safety requirements;
 - (iv) building services;
 - (v) fire safety construction features;
 - (vi) fire protection system;
 - (vii) means of egress;
 - (viii) safeguarding construction, alteration and demolition operation;
 - (ix) fire department access and water supply;
 - (x) combustible waste and refuse; and
 - (xi) occupancy fire safety

(K) PERSONAL PROTECTIVE EQUIPMENT:

- (1) Written procedures shall be prepared covering safe use of respirators, as per prescribed standards, in dangerous atmospheres that might be encountered in normal operations or in emergencies. All personnel shall be familiar with these procedures and the available respirators to use.
- (2) Workers in enclosed toxic or oxygen-deficient atmosphere shall be assisted in case of accident by at least one additional worker stationed in an area unaffected by the incident and provided with proper rescue equipment to assist the other(s) in case of emergency. Communication (visual, voice or signal line) shall be maintained among the individuals present.
- (3) When self-contained breathing apparatus or hose masks with blowers are used in atmospheres dangerous to life or health, standby men must be present with suitable rescue equipment.
- (4) A program for the maintenance and care of respirators shall be adopted to the type of plant, working conditions, and hazards involved and shall include the following basic services:-
 - (a) Hard hats for the protection of workers from impact penetration from falling and flying objects, blows, and from limited electric shock and burns shall be provided, as per prescribed standards, where there is reasonable probability of exposure to such hazards.
 - (b) When selecting gloves, consideration should be given to the hazards to which the wearer may be exposed to and the ease and free movement of the fingers.
 - (c) Gloves shall not be worn by workers operating drills, punch presses or other machinery in which the hand may be caught by moving parts.
 - (d) Gloves, mittens, and leathers or pads for workers handling sharp edged or abrasive objects shall be made of tough materials and where necessary provided with special reinforcement.
 - (e) Gloves, mittens and sleeves for workers handling hot metals shall be made of suitable heat resisting material.
 - (f) Gloves and sleeves for electrical workers shall be made of rubber or other suitable materials conforming with the test requirements on dielectric strength.
 - (g) Gauntlets for workers handling corrosive substances, such as acids and caustics, shall be made of natural rubber, synthetic rubber or pliable plastic material resistant to corrosion.

- (h) Gauntlets for protecting workers against the action of toxic, irritating or infectious substances shall -
 - (i) cover the forearm as much as possible,
 - (ii) have a close fit at the upper end and shall not have the slightest break.
 - (iii) gloves torn during use shall be replaced immediately.
- (i) Workers working in unguarded surface above open pits or tanks, steep slopes, moving machinery and similar locations, or working from unguarded surfaces 20 ft. or more above water or ground, temporary or permanent floor platform, scaffold construction or where otherwise exposed to the possibility of falls hazardous to life or limb, shall be secured by safety belts and life lines. In situations where safety belts and life lines in guarded platforms and scaffolds or temporary floors are not feasible, safety nets shall be provided and installed.
- (j) Window washers or cleaners working outside buildings 20 ft. or more above the ground or other surfaces unless protected from falling by other means, shall use safety belts attached to suitable anchors.
- (k) Workers entering a sewer, flue, duct, or other similarly confined places shall be provided and required to wear safety belts with life lines attached and held by another person stationed at the opening ready to respond to agreed signals.
- (l) Workers who are required to climb and work on top of poles six (6) meters or more shall use safety belts. On top of structures where there is no place to strap a safety belt, a messenger line shall be installed for strapping the safety belt or life line.
- (m) Safety belts shall be made of chromed tanned leather, linen or cotton webbing, or other suitable materials at least 4 ½ inches wide and ¼ inches thick and of sufficient strength to support a weight of 250 pounds (Lbs) without breaking in accordance with prescribed standards.
- (n) Hardware used for safety belts should have a strength of approximately equal to the full strength of the waist band. Buckles shall hold securely without slippage or other failure. This holding power should be achieved by only a single insertion of the strap through the buckle in the normal or usual way.

- (o) Belt anchors shall be made of metal machined from bar stock, forged or heat treated, capable of supporting a pull of 6000 lbs without fracture applied in the direction which the anchor must withstand in case a man falls. All anchors and fastenings shall be provided with means to prevent turning, backing off or becoming loose. Anchor fittings with single thread section which is merely screwed into reinforcing plates shall not be used. Metals recommended for belt anchors are nickel copper alloy and stainless steel.
- (p) Life lines shall be made of good quality manila rope of at least 3/4 inch (in.) diameter or equivalent material such as nylon rope of at least 1.27 cm or 1/2 in. diameter and shall be of sufficient strength to support a weight of 2500 lbs. without breaking.
- (q) Safety nets shall not be less than 3/8 in. diameter mesh ropes and not less than 3/4 in. diameter border ropes (perimeter) made of manila rope or other materials that can absorb the impact of a falling body equally as nets fabricated from manila rope of the dimensions specified. The mesh shall be arranged not to exceed 6 in. on canters positively and securely attached to avoid wear at each crossing point and at points of contact with the border.
- (r) Safety nets shall be equipped with adequately padded thimble sockets or equivalent means of attachments. Support(s) and anchorage(s) shall be of sufficient size and strength to catch any falling worker. The nets shall be attached to sufficient supports outside and beyond the area of possible fall and supported at sufficient heights to prevent sagging to any solid object beneath when cushioning the fall of a worker.
- (s) Safety belts, life lines and safety nets shall be inspected before use and at least once each week thereafter. Defective belts, lines or nets shall be immediately discarded and replaced or repaired before reuse.
- (t) Workers shall be provided with approved safety shoes and leg protection as per prescribed standards whenever necessary as determined by the nature of work.

(L) EXCESSIVE WEIGHTS:

The excessive weights shall be regulated as per the code of practices or standards laid down by the Government.

(M) LOADING AND EARTH MOVING MACHINERY:

- (1) A safe system of work should be established prior to any earth moving operation involving the use of a loading and earth moving machinery; and this system should be followed by all personnel engaged in the operation. The system should be prepared and endorsed by the responsible person of the loading and earth moving machinery under the advice of project engineer, service engineer, mechanic, Health and Safety Officer and other relevant personnel. In particular, both written and verbal instructions about the safe system of work should be provided to the machine operator prior to the earth moving operation.
- (2) The safe system of work should include the following:-
 - (i) **Risk assessment.** Before using a specific type of load shifting machine on a particular site, a risk assessment should be carried out. Limitations in using the plant to suit the particular site conditions and geotechnical parameters should be specified and mutually agreed by a person competent in geotechnics and a person competent in mechanical plant and such limitations should be understood and observed by all parties concerned.
 - (ii) **Planning the operation.** This includes identification and description of the earth moving areas, scale and duration of the operation, use of access road and possible route of onsite travelling. In particular, the width and gradient of the slope, access road or inclined surface should be properly surveyed before selecting a proper machine to suit the working environment. If the machine, which in particular with an internal combustion engine has to enter and work in confined areas in the factories or workplaces, consideration should be given to the following limitations:-
 - (a) the maximum allowable gradient of earth slope to climb;
 - (b) the minimum distance from crawler tracks or wheels to edges of slopes;
 - (c) rolling resistance of rubber-tired plant, traction, and ground conditions at different moisture contents;
 - (iii) **Maintenance.** (a) The maintenance, inspection, examination and testing of the equipment periodically by a mechanic and service engineer and/or professional engineer;
 - (b) provision of operation and maintenance manuals, manufacturer's specifications, and inspection and maintenance log book for the use of mechanic, service engineer or other safety personnel during the periodic maintenance, inspection, examination and test.

- (iv) provision and selection of properly trained and competent personnel to operate the machine. The operator should at a minimum possess a valid certificate issued by the organizer of a training course which evidences that, by virtue of his attendance at the training course designed for that purpose, he is trained and competent to operate a particular type of loading and earth moving machinery. The training course should be a course recognized by the Chief Safety and Health Inspector.
 - (v) adequate supervision by properly trained and competent personnel to execute the rules and precautions stated in the safe system of work. Such personnel should have the knowledge of the machine and necessary authority to suspend the earth moving operation if a dangerous circumstance arises;
 - (vi) preventing unauthorized movement or use of machines at all times;
 - (vii) observing all potential unsafe conditions that may arise during the earth moving operation and introducing preventive measures to ensure the safe operation of the machine at all times. If the machine is operated in special circumstances such as in a congested work environment, close to nearby fixture, at dusk or at night, a banksman should be assigned to give signal to the operator of the machine;
 - (viii) identification of site personnel to execute the rules and safety precautions, supervise the operation and impose stop work order for a hazardous working condition;
 - (ix) procedures and safety precautions for loading and unloading the machine on site;
 - (x) emergency preparedness, including the arrangement and provision of rescue appliances to recover and restore the equipment; and
 - (xi) checklists for certain “dos” and “don’ts” to be observed for safe operation, maintenance, inspection, testing and examination of the machine.
- (3) The safe system of work should be published in simple language so that everyone can read and understand it. It should be distributed to site personnel responsible for the earth moving operation, including the operator.

(N) CRANES, HOIST, LIFTS AND OTHER LIFTING OPERATIONS:

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

- (2) Every hoist, lift or any other lifting machine shall be thoroughly examined every three months by a person authorised by the Chief Occupational Safety and Health Inspector. A register shall be maintained for every examination of a lifting machine containing the following particulars: —
- (a) The distinguishing number or marks, (if any) and a description sufficient to identify the lifting machine;
 - (b) The working load or loads in the case of a crane with a variable operating radius, including load at various radii of the jib trolley or crane is to be stated according to specification laid down.
 - (c) Particulars of any defect found in the lifting machine, or in any Automatic indicator with which the machine is fitted, in either case affecting the safety of the machine;
 - (d) The repairs (if any) required either –
 - (i) immediately; or
 - (ii) within a specified time (which must be stated), to enable the lifting machine to continue to be used with safety (if no such repairs are required the word "Note" is to be entered);
 - (e) the name and address of the person carrying out the examination and the date of examination; and
 - (f) the address of the factory/ workplace and the name of the occupier.
- (3) Every hoist way or lift way shall be efficiently protected by a substantial enclosure fitted with gates, so as to prevent any person falling down or coming into contact with any moving part of the hoist or lift when the cages are shut.
- (4) The cage of a hoist or lift shall be fitted with efficient interlocking or other devices to ensure that the cage 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 cage is closed.
- (5) Every hoist or lift and every enclosure shall be so constructed as to prevent 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 counter-balance weight and any other moving part of the hoist or lift.
- (6) There shall be marked conspicuously on every hoist or lift the maximum working load which it can safely carry, and no load greater than safe working load shall be carried on any hoist or lift.

- (7) A person owning a hoist or lift used for carrying person whether with goods or otherwise shall comply with the requirements as follows:-
- (i) provision and maintenance of efficient automatic devices to prevent over running of the cage or platform;
 - (ii) every cage is on each side from which access is afforded to a landing be lifted with a gate and every such gate shall be provided with efficient devices to secure it, 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;
 - (iii) in the case of a hoist or lift constructed or reconstructed after coming into force of these rules, where the platform or cage is suspended by rope or chain, there shall be at least two ropes or chains separately connected with, the cage or platform, and each chain or rope and its attachment shall be capable of carrying the whole weight of the platform or cage and its maximum working load;
 - (iv) provision and maintenance of efficient devices which will support the platform or cage with its maximum working load in the event of the breakage of the rope or chains or any of their attachments.
- (8) Every hoist way or lift way inside a building constructed after the coming into operation of these rules, and which passes through two or more floors shall be completely enclosed with fire-resisting material and all means of access to the hoist or lift shall be fitted with fire resisting doors.
- (9) For the purpose of this rule, no lifting machine or appliance shall be deemed to be a hoist or lift unless it has a platform or cage and its direction of movement is restricted by a guide.
- (10) Chain, ropes and any other lifting tackle, shall not be used unless it is of good construction, of sound and suitable material, adequate strength for the work intended to do, free from patent defect and shall be properly maintained.
- (11) A table showing the safe working loads of every kind and size of chain, rope or any other lifting tackle in use, and, in the case of a multiple sling, the safe working load at different angles of the legs, shall be posted in the store in which the gear is kept, or in other prominent position.
- (12) All chains, ropes and other lifting tackle in use shall be thoroughly examined by the Health and Safety Officer or employer at least once in every period of six months or at such greater intervals as the Chief Occupational Safety and Health Inspector may authorize.

- (13) The report of the result of every examination shall (a) be made on the prescribed form, and contain the prescribed particulars including particulars of the safe working load; (b) be entered in or attached to the register within fourteen days of the completion of the examination; (c) be signed by the authorized Inspector.
- (14) No chain, rope, or any other lifting gear, except a fibre rope or fibre rope sling, shall be taken into use in any place for the first time in that place unless it has been tested and thoroughly examined by Health and Safety Officer or employer and a certificate of that test and examination specifying the safe working load, has been obtained and is available for inspection.
- (15) Every chain and any other lifting tackle except a rope sling shall be annealed at least once in every twelve months.
- (16) No chain, rope or lifting tackle of any type and description shall be loaded beyond the safe-working load.
- (17) No person shall use a crane or any other lifting machine unless -
 - (a) all working parts of the gear whether fixed or movable including the anchoring or fixing appliances of every lifting machine, is of good mechanical construction, sound material and adequate strength for the work it is required to do;
 - (b) unless the crane or lifting machine has been properly maintained, tested and thoroughly examined by the manufacturers or by an authorised Inspector in respect of a new lifting machine and thereafter periodically tested and examined by the Health and Safety Officer or employer and a report of such tests and examinations specifying the safe working loads and signed by the manufacturers or by the Health and Safety Officer or employer has been obtained and kept available for inspection.
- (18) All parts of the crane or any other lifting machine shall be thoroughly examined at least once in every period of twelve months by the Health and Safety Officer or employer.
- (19) All rails on which a travelling crane moves and every track on which a carriage of a transport runway moves, shall be of proper size and adequate strength and shall have an even running surface and those rails or track shall be properly laid, adequately supported or suspended, and properly maintained.
- (20) There shall be plainly marked on every lifting machine the safe working load or loads thereof, except that in the case of a jib crane so constructed that the safe working load may be varied by the raising or lowering of the jib, there shall be attached thereto either an automatic indicator of safe working loads or a table indicating the safe working loads at corresponding inclinations of the jib or corresponding radii of the load.

- (21) No Person shall load a crane or other lifting machine beyond the safe working load as marked or indicated under clause (t) for the purpose of a test.
- (22) Where any person is employed or working at 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 meters or 20 ft. from the place where the person is working or employed.
- (23) No lifting machine shall be operated except by a trained and competent person, except that it shall be permissible for that machine to be operated by a person who is under the direct supervision of a qualified person for the purpose of training.
- (24) No person under eighteen years of age shall be employed to operate any lifting machine driven by mechanical power or to give signals to the operator of any such machine.
- (25) A register, containing the particulars of all chains, ropes or any other lifting tackle and of all lifting machines shall be maintained by the employer.

(O) SCAFFOLDING AND WORK AT HEIGHT:

The scaffolding and work at height shall be regulated as per the code of practices or standards laid down by the Government.

(P) SAFETY OF BUILDING, MACHINERY AND MANUFACTURING PROCESS:

The safety of building, machinery and manufacturing process shall be regulated as per the code of practices or standards laid down by the Government.

(Q) WRITTEN STATEMENT OF POLICY:

The policy statement as provided in section 11 of the Act should provide a clear indication of the company's objectives and plans for occupational health and safety and may cover following issues:-

- (i) Senior management's commitment to the establishment of a healthy and safe workplace and to the integration of health and safety into all workplace activities;

- (ii) The commitment shall be to comply with applicable occupational health and safety legal requirements and other requirements for better environment at the workplace and the intention to treat applicable health and safety legislation as a minimum standard rather than maximum.
- (iii) Responsibility of appropriate personnel in maintaining a healthy and safe workplace and to protect the well-being of all persons in the workplace;
- (iv) Accountability of all levels of management for carrying out health and safety responsibilities;
- (v) Importance of consultation and cooperation between management and employees for the effective implementation of policy and any related programs;
- (vi) Commitment to continual improvement by conducting regular reviews of the policy;
- (vii) Commitment to monitor the policy's effectiveness by having a method for setting and reviewing the occupational safety and health objectives and targets;
- (viii) That the policy will be documented, posted, and communicated internally as well as externally, as appropriate, and
- (ix) commitment to provide adequate funds and details thereof available for the purpose.

(R) CONSULTATION: SAFETY AND HEALTH REPRESENTATIVE

- (1) The election of the Occupational Safety & Health Representative shall be conducted in a transparent manner through secret ballot. An Election Committee comprising at least three members shall be constituted from amongst workers. The employer shall provide all possible support including expenditure to be incurred on election. The Chairperson of the Election Committee shall issue election schedule, nomination papers and conduct the election through secret ballot.
- (2) The particulars of the Occupational Safety and health representative so elected shall be sent to the Inspector by the Employer in prescribed form.
- (3) The term of the Occupational Safety and Health Representative shall for two years from the date of election.
- (4) Any complaint against the election of the Occupational Safety and Health Representative shall be made to Inspector, who shall conduct enquiry and decide the complaint on merit. His decision in this regard shall be final.

- (5) Additional role, responsibility or duty may be assigned by the Government or Authority concerned through Regulations, Standards, Guidelines and Code of Practices.
- (6) The functions of Safety and Health Representative appointed for the factory or workplace under the Act or these rules shall include –
 - (a) to review the effectiveness of safety and health measures;
 - (b) to identify potential hazards and major incidents at a factory or workplace;
 - (c) to collaborate with his employer, examine the causes of incidents at the factory or workplace;
 - (d) to investigate complaints by any employee relating to that employee's health or safety at work;
 - (e) to make representations to the employer or a safety and health committee or where such representations are unsuccessful, to an inspector;
 - (f) to accompany an inspector on any inspection;
 - (g) to participate in any internal safety and health drill.
 - (h) to report accidents near-misses, occupational injuries or illnesses and accidental deaths and non-compliance to the Inspector.
- (7) An employer shall provide such facilities, assistance and training as a safety and health representative may reasonably require for the carrying out of his functions.

(S) SAFETY AND HEALTH OFFICER:

- (1) There shall be appointed one full-time Safety and Health Officer for every five hundred workers at workplace or part thereof and one Assistant Safety and Health Officer for every additional five hundred workers or a fraction which shall be counted as one.
- (2) The Safety and Health Officer shall be a Graduate Engineer and registered with Pakistan Engineering Council having at least 10 years' experience in the relevant field.
- (3) The following shall be the terms and conditions of the Safety and Health Officer:-
 - (a) His pay shall not be less than pay of Manager;
 - (b) His age shall not be less than thirty-five years;

- (c) His services shall not be terminated without prior approval of the Chief Safety and Health Inspector Sindh and without one month's notice or pay in lieu thereof.
- (d) He shall be entitled to gratuity at the rate of thirty (30) days gross wages for each completed year or part thereof in excess of six months at the date of last pay drawn by him.
- (e) Leave of any nature shall be admissible to him in accordance with the respective provisions of the Sindh Terms of Employment (Standing Orders) Act 2015 Sindh Act No.XI of 2016) or rules made thereunder.
- (f) He shall be entitled to benefits and facilities which may be admissible to other employees of the establishment including the benefits admissible under any Labour Law or any settlement to the other employees of the establishment.

(4) The Safety and Health Officer shall perform the following duties:-

- (i) to act as the employers principal assistant and consultant in the application of programs to remove the hazards from the workplace and to correct unsafe work practices;
- (ii) act in an advisory capacity on all matters pertaining to safety and health for the guidance of the employer and the workers.
- (iii) conducts investigation of accidents as member of the Safety and Health Committee and submits his separate report and analysis of accidents to the employer.
- (iv) coordinate all safety and health training programs for the employees and employer.
- (v) maintain or help in the maintenance of an efficient accident record system and coordinate actions taken by supervisors to eliminate accident causes.
- (vi) provide assistance to Government agencies in the conduct of safety and health inspection, accident investigation or any other related programs.

(T) SAFETY AND HEALTH COMMITTEE:

- (1) An employer shall, in respect of each factory or workplace where two or more safety and health representatives have been designated, establish one or more committees and at every meeting of such a Committee, consult with the committee for the purpose of initiating, developing, promoting, maintaining and reviewing measures to ensure the safety and health of his employees at work.

- (2) The committee shall consist of such number of members at least one-third of whom shall be women as the employer may from time to time determine except that –
 - (i) where one Committee has been established in respect of a factory or workplace, all the safety and health representatives for that factory or workplace shall be members of the Committee;
 - (ii) where two or more Committees have been established in respect of a factory or workplace, each safety and health representative for that factory or workplace shall be a member of at least one of those committees, and the number of persons elected on any committee established in terms of this rule shall not exceed the number of safety and health representatives on that committee;
 - (iii) the persons elected on a safety and health Committee shall be designated in writing by the employer for a period of two years, and shall be the members of Committee for a period of their designation in terms of this rule.
- (3) The Committee shall hold meetings as often as may be necessary but at least once every three months at a time and place determined by the Committee.
- (4) An inspector may by notice in writing direct the members of a committee to hold a meeting at a time and place determined by the Inspector.
- (5) Where more than ten percent of the employees at a specific factory or workplace has made a written request to an Inspector, the Inspector may by a written notice direct that such a meeting be held.
- (6) The committee shall determine the procedures of the meetings.
- (7) The Committee may co-opt one or more persons by reason of a particular knowledge of safety and health matters as an advisory member or as advisory members of the committee but such member shall not have the right to vote.
- (8) If an inspector is of the opinion that the Committees established for any Particular factory or workplace is inadequate, he may in writing, direct the employer to establish for that factory or workplace such number of committees as the inspector may determine.
- (9) The Committee –
 - (a) may make recommendations to the employer or, where the recommendations fail to resolve the matter, to an Inspector, regarding any matter affecting the safety or health of persons at the factory or workplace or any section thereof for which such Committee has been established;

- (b) shall discuss any incident at the factory or workplace or section thereof in which or in consequence of which any person was injured, became ill or died, and may in writing report the incident to an inspector; and
- (c) shall keep record of each recommendation made to an employer and of any report made to an inspector;
- (d) shall perform such other functions as may be assigned to by the employer or Inspector.

**(U) TRAINING OF SAFETY AND REPRESENTATIVE
(SECTION 13)**

The training of safety and health representative shall be regulated as per the prescribed code of practices and standards or guidelines laid down by Government.

**(V) PRECAUTIONS AGAINST CONTAGIOUS, INFECTIOUS
AND OCCUPATIONAL DISEASES AT WORKPLACES
(SECTION 15)**

- (1) Every factory or workplace shall provide to every worker Hygiene Card in Form "D/1" and Medical Fitness Certificate in Form D/2 for workers exposed to Occupational Diseases as specified under Sindh Workers Compensation Act 2015 (**Sindh Act No.VII of 2016**).
- (2) The Certifying Surgeon shall medically examine the workers under these rules and shall issue Hygiene Cards or Medical Fitness Certificates. The fee for examination shall be rupees one hundred per worker and such expenses be borne by employer of the factory or workplace.
- (3) Fee under sub-rule (2) shall be payable by the Occupier or owner or Manager of the factory or workplace.
- (4) The Certifying Surgeon shall maintain record of payment received.
- (5) The Certifying Surgeon shall submit monthly report to the Chief Safety and Health Inspector Sindh, giving details of Hygiene Cards or Medical Fitness Certificates issued during the month.
- (6) In case the Certifying Surgeon is not satisfied with Fitness of workers of factory or workplace, or he is obstructed in his official duties, he shall immediately report the matter to the Chief Safety and Health Inspector Sindh.
- (7) The Chief Safety and Health Inspector Sindh shall take appropriate action on the report of Certifying Surgeon.

**(W) COMPULSORY VACCINATION AND INOCULATION
(SECTION 16)**

- (1) Each worker in a factory or workplace shall be vaccinated and inoculated for all contagious or infectious diseases as per provisions of sub-rule (4).
- (2) The vaccinations and inoculations shall be arranged by the employer of the factory or workplace.
- (3) All costs of vaccination and inoculation shall be borne by the employer or owner of the workplace.
- (4) The compulsory vaccination and inoculation shall be regulated by the Regulations, Standards, Guidelines and Code of Practices as laid down by Government.

(X) REGISTRATION OF WORKPLACES AND APPROVAL OF SITE, BUILDINGS AND OTHER CONSTRUCTIONS TO BE USED AS WORKPLACES. (SECTION 17)

- (1) Any person being the owner or occupier of a factory or workplace shall before its operation be required to register such factory or workplace under the Act and these rules.
- (2) Before any person occupies or uses as a factory or workplace any premises, which were not so occupied or used by him that person shall apply for the registration of the premises.
- (3) Application for registration of factory or workplace shall be accompanied by following documents in triplicate:-
 - (i) Notice of Occupation in Form-E
 - (ii) Certificate of Stability in Form-F
 - (ii) Copy of Layout plan of the factory
 - (iii) List of Machinery
 - (iv) Particulars of rooms
 - (v) No. of workers to be engaged.
 - (vi) CNIC of Occupier/owner and Manager
 - (vii) Any other document required under Act or rules or by the Chief Occupational Safety and Health Inspector.
- (4) Where the Chief Occupational Safety and Health Inspector is satisfied that the premises are suitable for use as a factory or workplace, he shall register the premises and shall issue to the applicant a certificate of registration.

- (5) The Chief Occupational Safety and Health Inspector may after consideration of the application for registration grant or refuse to issue a certificate of registration to the applicant.
- (6) Where the Chief Occupational Safety and Health Inspector refuses to issue a certificate of registration, he shall state in writing the grounds for the refusal.
- (7) Where an occupier or owner closes a registered factory or workplace, he shall inform the Chief Occupational Safety and Health Inspector that he has closed the factory or workplace and ceased operation.
- (8) Where there is a change of occupier or owner or industry or process, the new occupier or owner shall, within a period of one month of the change, inform the Chief Occupational Safety and Health Inspector in writing of the changes.
- (9) Every person who intends to construct a factory or workplace or a factory or workplace or to alter or add to any existing factory or workplace building shall, submit drawing in blue prints or white prints of the intended premises to the Chief Occupational Safety and Health Inspector.
- (10) The drawings shall depict, vital sections and elevations, machinery layout plan inscribed in plan showing production process flow, electrical installation, sewage disposal, emergency exits, fire protection plans and adequate sanitary and welfare facilities with respect to the maximum number of intended workers in each shift.
- (11) On receipt of drawings, the Chief Occupational Safety and Health Inspector may –
 - (a) grant approval on payment of the prescribed fee and subject to terms and conditions as he may determine; or
 - (b) refuse to approve the drawings and specify the grounds for refusal
- (12) Any person who is aggrieved by the decision of the Chief Occupational Safety and Health Inspector under sub-rule (11), he may, within thirty days from the date of the decision, may send an appeal to Government and such notice shall state the grounds of the appeal.
- (13) Government may, on hearing the appeal, confirm, vary or reverse the decision of the Chief Occupational Safety and Health Inspector.
- (14) Building premises shall have adequate fire, emergency or danger sign and safety instructions of standard colors and sizes visible at all times, in accordance with table-II, ‘standard colors of signs for safety instruction and warnings in building premises’. (Appendix).

- (15) Other visible signs that may be needed to direct the driver of motorized vehicle such as STOP, YIELD, and DO NOT ENTER, properly positioned within the compound of the establishment shall be used to increase safety especially during the night.
- (16) Good housekeeping shall be maintained at all times through cleanliness of building, yards, machines, equipment, regular waste disposal, and orderly arrangement of processes, operations, storage and filing of materials.
- (17) All buildings, permanent or temporary shall be structurally safe and sound to prevent their collapse.
- (18) Roof shall be of sufficient strength to withstand normal load, typhoons and strong winds in addition to normal weather conditions and where required to carry suspended loads.
- (19) Foundations and floors shall be of sufficient strength to sustain safely the loads for which they are designed and under no condition shall they be overloaded.
- (20) Plans for proposed new construction and alterations or substantial repairs of buildings shall be submitted to the Building Official for examination and approval.

APPOINTMENT OF INSPECTORS (SECTION 18)

The Inspectors so appointed under the Act shall possess professional degree in Mechanical, Electrical, Civil or Chemical technology from any recognized University and registered with Pakistan Engineering Council (PEC) or a MBBS Doctor registered with PMDC.

FORM-A
(See rule 8(B)(26))
EXEMPTIONS:

Section of Rule from which Exemption is Granted	Subject Dealt with:	Extent of a Reasons for Exemption	Date and No. of Order:	Signature of occupier or Manager:

FORM "C"
(See Rule 8(D)(1))
Particulars of Rooms

Name or particulars of rooms in factory/workplace	Dimension of room in feet			Total floor area in square feet	Floor area occupied by machinery in the room	Breathing space (cubic contents in cubic feet)	Maximum No. of persons who may be employed in the room	Signature of Occupier or Manager	Remarks
	Length	Breadth	Height						
1	2	3	4	5	6	7	8	9	10

FORM D/1
(See rule 8(V)(1))
HYGIENE CARD

Card No _____

Name of worker

Father's name

Designation

Ticket number of worker

Date of examination	Whether free from any contagious disease or not	Remarks- brief description of disease in case, it is detected	Thumb-impresion or signature of worker	Signature of doctor

FORM D/2

(See rule 8(V)(1))

CERTIFICATE OF FITNESS

Serial No.

Date

I hereby certify that I have personally examined (name) _____ son of
_____ holder of CNIC #
_____ residing at
_____ who is desirous of being employed as
_____ in the Factory/ workplace; that his age as nearly as
can be ascertained from my examination is years and that he/she is in my opinion fit for
employment at work involving the use of _____,

(Identify hazardous material)

until _____ His/ her descriptive marks, are

Left thumb-impression of person examined.

Certifying Surgeon.

I certify that I re-examined the person mentioned above, on	I extend this certificate until	Signature of Certifying Surgeon	Note of symptoms of Occupational disease (if any)
---	---------------------------------	---------------------------------	---

FORM-E

(see rule 8(X)(3))

NOTICE OF OCCUPATION

1. Name of occupier.....
2. Name of factory or workplace
3. Location of the factory or workplace
4. Full postal address of factory or workplace
5. Nature of moving power used
6. Amount of moving power used.....
7. Nature of work carried on.....
8. Name of Manager for the purpose of the Sindh Occupational Safety and Health Act, 2017 (Sindh Act No.I of 2018)

.....
.....

9. Time of beginning and ending work on each day, showing the period of rest interval.....
.....
.....

10. Greatest number of persons simultaneously employed anywhere within the precincts of the factory or workplace on any one day in the year:

.....
.....

(a) Permanent staff (including clerical establishment) (b) Men

(c) Women

(d) Children (e) All other type of Labour (including contractor's Labour)

11. Number of gins (in case of cotton ginning factories only)

12. Date of its functioning

(Signature of Occupier/Owner)

.....

(Signature of Manager).....

(Date of Dispatch of Notice).....

FORM-F

(see rule 8(X)(3))

CERTIFICATE OF STABILITY

1. Town and district in which factory is situated. -----
2. Full postal address. -----
3. Owner of building. -----
4. Company, firm or occupier by whom the factory will be operated. -----
5. Nature of work to be carried on. -----
6. Approximate area of the factory building. -----
7. Approximate area of the premises. -----
8. The number of floors on which workers will be employed. -----
9. Details and strength of materials used. -----
10. Details of iron, work with measurement of spans and loads carried by stanchion and pillars. -----

Certified that the undersigned has carried out a detailed survey of the building and material referred to above and is satisfied that the margin of safety in accordance with the recognized standard required by the Architects and Builders Association and further that the erection has been carried out in such a way as to give the building reasonable stability and to provide the maximum safety in working the machines housed in the building.

Signature-

Designation-

FORM 'G'
(Rule "Z")
INSPECTION BOOK

Serial No.	Name and address of factory.	Date of inspection.	Irregularities noticed.	Remarks.	Signature of the inspecting officer.
1	2	3	4	5	6

FORM H-I
(Section 23)
First Accident Report

(To be submitted within 24 hours from the time of occurrence of the Accidents).

1. (a) Name and address of the factory
- (b) Telephone No
2. Name and address of owner/occupier
3. Principal products services rendered;
 - (i)
 - (ii)
4. Particulars, of the injured person
 - (a) Name with father's name
 - (b) Address (i) Present
 - (ii) Permanent
 - (c) Age .
 - (d) Sex
 - (e) Occupation
5. Date and time of accident
6. Branch/Department/place where accident occurred
7. Brief Description of
 - (a) Cause of accident
 - (b) Nature of Injuries
8. Name and address of witnesses to the accident
 - (1)
 - (2)
9. Name and address of the medical officer under whose treatment the injured person has been placed.
10. Date and time of dispatch of report

Signature of Owner/Manager

Notice of Accident:
FORM H-II (Section-23)

FINAL ACCIDENT REPORT

(1) To be submitted within 3 months from the date of occurrence of the accident:

- (a) Name and address of factory.
- (b) Telephone No.

(2) Name and address of owner/occupier.

(3) Principal products service rendered

- (i)
- (ii)
- (iii)

4. Particulars of the injured person

(a) Name with father's name.

(b) Address.

(i) Present.

(ii) Permanent.

(c) Age,

(d) Sex

(e) Occupation

5. Nature of accident (Please tick applicable).

(i) Death.

(ii) Permanent total disablement.

(iii) Permanent partial disablement.

(iv) Injury causing absence from work exceeding 20 days.

(v) Injury causing; absence from work for more than 48 hours and up to 20 days.

(vi) Injury causing less than (48 hours absence) (if this sub-item is ticked please do not fill up item 6 to 10).

6. The accident resulted, in permanent partial disablement to the injured person (tick one or more as may be the case) in the following list of injuries :

*Loss of,---

Right arm above or the elbow One eye

Left arm above or at the elbow Thumb

Right arm below the elbow All toes of one foot

Left arm below the elbow One phalanx of thumb

Leg at or above the knee Index finger

Leg below the knee Great toe

Hearing-permanent total Any finger other than index finger

*Loss of any limb or member also includes list of its use.

7. Classification by type of accident (please tick applicable).

(i) Fall of persons

(vi) Explosion

(ii) Falling objects

(vii) Fire

(iii) Stamping on strike against

(viii) Eruption of water or struck by objects ex-

(ix) Suffocation by gases including falling objects.

(x) Any other type (specify, e.g., over exertion/strenuous

(iv) Electricity movement, etc.)

(v) Poison corrosive and

harmful substances including reduction.

8. Classification by agency of accident (please tick applicable).

(i) Prime mover

(vii) Other Transport and

(ii) Transmission Machinery haulage.

(iii) Lifting Machinery

(viii) Hand tools

(iv) Working Machinery

(ix) Any other agency (specify

(v) Other equipment and installations e.g., water transport, pressure vessels furnaces

(vi) Rail Transport ovens, kilns, etc.

9. Period of working hours (for absence from duty in the case of non fatal accident).

10. In case of injury involving absence of more than 90 days' entry in item 9 be made as the injured person is still absent instead of writing number of days.

11. Name and address of the Medical Officer under whose treatment, the injured person has been placed.

Dated of dispatch of report.

Signature of Owner/Manager

For use by Chief Inspector of Factories.

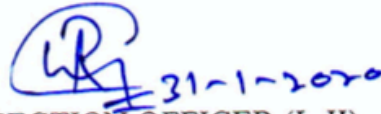
ABDUL RASHEED SOLANGI
SECRETARY TO GOVT. OF SINDH

No. L-II-2-2/2019,

Karachi, dated 31st January, 2020

A copy is forwarded for information and necessary action to:

1. The Director Labour Sindh, Karachi.
2. The Superintendent, Sindh Govt. Press, Karachi with the request to publish the notification in the next Government Gazette.
3. All Members of OSH Council Sindh.
4. PS to Minister for Labour & HR, Sindh, Karachi.
5. P.S to Secretary, Labour & HR Department Govt. of Sindh, Karachi.



SECTION OFFICER (L-II)
FOR SECRETARY TO GOVT. OF SINDH

TABLE-II

Colour	Meaning or purpose	Instruction and information
Red	Prohibition sign Danger alarm	Dangerous behaviour; stop; shutdown; emergency cut-out devices; evacuate
Yellow Amber	Warning sign	Be careful; take precautions; examine
Blue	Mandatory sign	Specific behaviour or action, eg wear protective equipment
Green	Emergency escape First-aid sign No danger	Doors; exits; escape routes; equipment and facilities Return to normal