

**THE JAMMU AND KASHMIR FACTORIES RULES,
1972**

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THE JAMMU AND KASHMIR FACTORIES RULES, 1972

Labour Department Notification SRO 329, dt. 7th July, 1972

In exercise of the powers conferred by sections 41, 50, 64, 83 and 112 of the Factories Act, 1948 (Central Act 63 Of 1946), the Government of Jammu and Kashmir hereby make the following Rules, the same having previously been published as required by section 115 of the said Act, namely;

CHAPTER I PRELIMINARY

1. Short title extent and commencement

- (1) These Rules may be cited as Jammu and Kashmir Factories Rules, 1972.
- (2) These Rules shall extend to whole of Jammu and Kashmir State.

2. Definitions

In these Rules unless there is anything repugnant in the subject or context:

- (a) "Act" means the Factories Act, 1948.
- (b) "Appendix" means an appendix appended to these Rules.
- (c) "Artificial Humidification" means the introduction of moisture into the air of a room by any artificial means whatsoever except, the unavoidable escape of steam or water vapour into the atmosphere directly due to a manufacturing process.

Provided that the introduction of air directly from outside through moistened mats or screens placed in openings at times when the temperature of the room is 80 degrees or more, shall not be deemed to be artificial humidification.
- (d) "Belt" includes any driving strap or rope.
- (e) "Degrees" (of temperature) means degree on the Fahrenheit scale.
- (f) "Form" means a form appended to these Rules.
- (g) "Form" includes gas or vapour.
- (h) "Health Officer" means the Municipal Health Officer or District Health Officer or such other Official as may be appointed by the Government in that behalf.
- (i) "Hygrometer" means an accurate wet and dry bulb hygrometer conforming to the prescribed conditions as regards construction and maintenance.
- (j) "Inspector" means an Officer appointed under section 8 of the Act, and includes "Chief Inspector".
- (k) "maintained" means maintained in an efficient state in of efficient working order and in good repair.
- (l) "Manager" means the person responsible to the occupier for the working of the factory for the purposes of the Act.

3. Approval Of plans

- (1) No building shall be constructed or taken into use as a factory or a part of a factory after the date of commencement of the Act unless the ¹[²[previous information in writing on the basis of self-certification] is obtained from the Chief Inspector of Factories.

Application for such permission shall be made in Form No. 1 which shall be accompanied by the following documents:

- (a) A flow chart of the manufacturing process supplemented by a brief description of the process in its various stages.
- (b) Plans in triplicate drawn to scale showing:
- (i) the site of the factory and immediate surroundings including adjacent buildings and other structures, roads, drains, etc.;
 - (ii) the plan elevation and necessary cross-sections of the various buildings, indicating all relevant details relating to natural lighting, ventilation and means of escape in case of fire. The plans shall also clearly indicate the position of plant and machinery, aisles and passage ways; and
- (c) such other particulars as the Chief Inspector may require.
- (2) If the Chief Inspector is satisfied that the plans are in consonance with the requirement of the Act he shall subject to such conditions as he may specify approve them by signing and returning to the applicant one copy of each plan; or he may call for such other particulars as he may require to enable such approval to be given.

4. Application for registration and grant of Licence

The Occupier of every factory shall submit to the Chief Inspector an application in Form No.2 for the registration of the factory and grant of a licence. The application shall be accompanied by the notice of occupation in Form No.3, in duplicate, containing the particulars specified in section 7:

Provided that the occupier of premises in use as a factory on the date of the commencement of the Act shall submit such application within 30 days from the date of commencement of these Rules.

5. Grant of licence

- (1) A licence for a factory shall be granted by the Chief Inspector of Factories in Form No.5 prescribed for the purpose and on payment of the fees specified in the Schedule hereto.
- (1-A) ³[Licence shall be granted within a period of 30 days from the date of submission of application by the unit holder. If the competent authority doesn't convey in writing the deficiency(s)/observations(s), if any, to the applicant within the prescribed period, the licence shall be deemed to have been issued]".
- (2) ⁴[Every license granted or renewed under this chapter shall remain in force for a period as mentioned below:

- a. Red and Orange category factories: - one year
b. Green category factories: - three years]

⁵[SCHEDULE A

MINIMUM NUMBER OF PERSONS EMPLOYER ON ANY DAY DURING THE YEAR

Quantity of H.P. Installed	20 Rs.	50 Rs.	100 Rs.	250 Rs.	500 Rs.	750 Rs.	1000 and above Rs.
Nil	200	380	680	1580	3080	4580	6080
10	250	430	730	1630	3130	4630	6130
50	450	630	930	1830	3330	4830	6330
100	700	880	1180	2080	3580	5080	6580
250	1450	1630	1930	2830	4330	5830	7330
500	2700	2880	3180	4080	5580	7080	8580
1000	5200	5380	5680	6580	8080	9580	11080
1500	7700	7880	8180	9080	10580	12080	13580
2000 and above	10200	10380	10680	11580	13080	14580	16080]

SCHEDULE B

Scale of fees payable for licence and annual renewal of licence by electricity generating, transforming or transmitting factories:

Total installed capacity of the generating plant in (K.W)	Fees payable
(a) 50 K.W not over 100 K.W.	Rs. 25
(b) Over 50 K.W not over 100 K.W.	Rs. 50
(c) Over 100 K.W not over 150 K.W.	Rs. 75
(d) Over 150 K.W not over 300 K.W.	Rs. 100
(e) Over 300 K.W not over 700 K.W.	Rs. 150
(f) Over 700 K.W not over 1,00 K.W.	Rs. 225
(g) Over 1,00 K.W not over 5,000 K.W.	Rs. 450
(h) Over 5,000 K.W not over 10,000 K.W.	Rs. 750
(i) Over 10,000 K.W not over 50,000 K.W.	Rs. 1,250
(j) Over 50,000 K.W. not over 60,000 K.W.	Rs. 1,500
(k) Over 60,000 K.W. not over 80,000 K.W.	Rs. 1750
(l) Over 80,000 K.W. not over 1,00,000 K.W.	Rs. 2,000
(m) Over 1,00,000 K.W. not over 1,50,000 K.W.	Rs. 2,500

(n) Over 1,50,000 K.W. not over 2,00,000 K.W.	Rs. 3,000
(o) Over 2,00,000 K.W. not over 3,00,000 K.W.	Rs. 3,5000
(p) All over 3,00,000 K.W.(Without Limits)	Rs. 4,000

(3) ⁶[Licence shall be granted within a period of 30 days.]

6. Amendment of Licence

- (1) A licence granted under Rule 5 may be amended by the Chief inspector.
- (2) A licence who desires to have licence amended shall submit it to the Chief inspector with an application stating the nature of the amendment and reasons thereof.
- (3) The fee for the amendment of a licence shall be five rupees plus the amount (if any) by which the fees that would have been payable if the licence had originally been issued in the amended form exceeds the fee originally paid or the licence.

7. Renewal of licence

- (1) A licence may be renewed by the ⁷[Factory inspector concerned.]
- (2) Every application for the renewal of a licence shall be accompanied by the notice of occupation in Form No.3 in duplicate and shall be made not than two months before the date on which the licence expires, and if the application is so made the premises shall be held, to be duly licensed until such date as the ⁸[Factory Inspector concerned] renews the licence.
- (3) The same fee shall be charged for the renewal of a licence as for the grant thereof:
Provided that if the application for renewal is not received within the time specified in-Sub-Rule (2), the licence shall be renewed only on payment of a fee 25 per cent in excess of the fee ordinarily payable for the licence.
- (4) ⁹[Every application under sub-rule (1) for renewal of license shall be disposed of within a period of 30 days.”]

8. Transfer of licence

- (1) The holder of a licence may at any time before the expiry of the licence, apply for permission to transfer his licence to another person.
- (2) Such application shall be made to the Chief Inspector who shall, if he approves of the transfer, enter upon the licence, under his signature, an endorsement to the effect that the licence has been transferred to the person named.
- (3) A fee alive rupees shalt be charged on each such application.

9. Procedure on death or disability of licensee

If a licensee dies or becomes insolvent, the person carrying on the business of such licence shall not be liable to any penalty under the Act for exercising the powers granted to the licensee by the licence during such times as may reasonably be required to allow him to make an application for the amendment of the licence under Rule 6 in his own name for the unexpired portion of the original licence.

10. Loss of licence

Where a licence granted under these Rules is lost or accidentally destroyed, a duplicate may be granted on payment of a fee of rupees five.

11. Payment of fees

- (1) Every application under these Rules shall be accompanied by a treasury receipt showing that the appropriate fee has been paid into the local Treasury under the Head of Account "087" Labour and Employment.
- (2) If an application for the grant, renewal or amendment of licence is rejected, the fee paid shall be refunded to the applicant.

12. Notice of occupation

The notice of occupation shall be Form No. 3.

13. Notice of change of Manager

The notice of change of Manager shall be in Form No.4. Also, it will be the liability of the ¹⁰[New Manager] to inform.

14.

When the strength of a registered factory decreases or the factory is closed down for any reasons and the occupier and Manager do not want to get the licence renewed, the occupier shall inform the Chief Inspector of his intentions before 30 days of the expiry of the licence already issued.

15. Appointment of Inspector

No person shall be appointed as an Inspector for the purpose of the Act unless he possesses the qualifications prescribed for such Inspectors in the Jammu and Kashmir Labour Welfare (Gazetted) Service Recruitment Rules, 1972 at the time of his appointment.

CHAPTER II

INSPECTING STAFF

16. Powers of Inspectors

An Inspector shall, for the purpose of the execution of the Act, have power to do all or any of the following things, that is to say:

- (a) to photograph any worker to inspect, examine, measure, copy photograph, sketch or test as the case may be, any building or room, any plant, machinery, appliance or apparatus, any register or document or anything provided for the purpose of the securing the health, safety or welfare of the workers employed in a factory;
- (b) in the case of an Inspector who is a duly qualified as medical practitioner, to carry out such medical examinations as may be necessary for the purposes of his duties under the Act;
- (c) to prosecute, conduct or defend before a Court any complaint or other proceeding arising under the Act or in discharge of his duties as an Inspector:

Provided that the powers of the District Magistrate and such other Public Officers as are appointed to be additional Inspectors shall be limited to the inspection of factories in respect of the following matters namely:

Cleanliness (section 11), Over-crowding (section 16), lighting (section 17) Drinking water (section 18), Latrines and Urinals (section 19), Spittoons (section 20), Precautions in the case of fire (section 38), Welfare (Chapter V), Working hours of adults (Chapter VI except the power of exemption under the proviso to (section 62), Employment of young persons (Chapter VII), Leave with wages (Chapter VIII), and Display of notices (section 108).

17. Duties of Certifying Surgeons

- (1) For purposes of the examinations and certification of young persons who wish to obtain certificate of fitness, the Certifying Surgeon shall arrange a suitable time and place for the attendance of such persons, and shall give previous notice in writing of such arrangements to the managers of factories situated within the local limits assigned to him.
- (2) The Certifying Surgeon shall issue his certificates in Form No. 6. The foil and counterfoil shall be filled in and the left thumb mark of the person in whose name the certificate is granted shall be taken on them. On being satisfied as to the correctness of the entries made therein and of the fitness of the person examined, he shall sign the foil and initial the counter-foil and shall deliver the foil to the person in whose name the certificate is granted. The foil so delivered shall be the certificate of fitness granted under section 69. All counterfoils shall be kept by the Certifying Surgeon for a period of at least 2 years after the issue of the certificate.
- (3) The Certifying Surgeon shall, upon request by the Chief Inspector carry out such examinations and furnish him with such report as he may indicate, for any factory or class or description of factories where:
 - (a) cases of illness have occurred which it is reasonable to believe are due to the nature of the manufacturing process carried on, or other conditions of work prevailing therein, or
 - (b) by reason of any change in the manufacturing process carried on or in the substance used, therein or by reason of the adoption of any new manufacturing process, or of any new substance for use in a manufacturing process, there is a likelihood of injury to the health of workers employed in that manufacturing process, or
 - (c) young persons are, or are about to be employed in any work which is likely to cause injury to their health.
- (4) For the purpose of the examination of persons employed in processes covered the Rules relating to dangerous operations, the Certifying Surgeon shall visit the factories within the local limits assigned to him at such intervals as are prescribed by Rules relating to such dangerous operations.
- (5) At such visits the Certifying Surgeon shall examine the persons employed in such processes and shall record the results of his examination in a register known as

the Health Register (Form No. 18 which shall be kept by the factory manager and produced to the Certifying Surgeon at each visit.

- (6) If the Certifying Surgeon finds as a result of his any person employed in such process is no longer fit for medical reasons to work in that process, he shall suspend such person from working in that process for such time as he may think fit and no person after suspension shall be employed in that process without the written sanction of Certifying Surgeon in the Health Register.
- (7) The manager of a factory shall afford to the Certifying Surgeon facilities to inspect any process in which any person is employed or is likely to be employed.
- (8) The manager of a factory shall provide for the purposes of any medical examination which the Certifying Surgeon wishes to conduct at the factory (for his exclusive use on the occasion of an examination) a room which shall be properly cleaned and adequately ventilated and lighted and furnished with a screen, a table with writing materials and chairs.

CHAPTER III

HEALTH

18. Cleanliness of walls and ceilings

- (1) The provisions of clause (d) of sub-section (1) of section II of the Act shall not apply to the class or description of factories or parts of factories specified in the schedule hereto:

Provided that they are kept in a clean state by washing, sweeping, brushing, dusting, vacuum cleaning or other effective means:

Provided further that the said clause (d) shall continue to apply:

- (i) In respect to the factories or parts of factories specified in Part A of the said Schedule, to work-room in which the amount of cubic space allowed, for every person employed in the room is less than 2,500 cubic feet.
 - (ii) As respects of factories parts of factories specified in Part B of the said Schedule, to work rooms in which the amount of cubic space allowed for each person employed in the rooms is less than 2,500 cubic feet.
 - (iii) To engine houses, fitting shops, lunch rooms, canteens, shelters, creches, clock room, rest rooms and washing places; and
 - (iv) To such parts of walls, sides and tops of passages and s as are less than 20 feet above the floor or stair.
- (2) If it appears to the Chief Inspector that any part of the factory, to which by virtue of Sub-Rule (1) any of the provisions of the said clause (d) do not apply, or apply as varied by Sub-Rule (1) is not being kept in a clean state, he may by written notice require the occupier to white-wash or colour-wash, wash, paint or varnish the same, and in the event occupier failing to comply with such requisition within two months from the date of this notice, Sub-Rule (1) shall cease to apply to such part of a factory, unless the Chief Inspector otherwise determines.

SCHEDULE

PART "A"

Blast furnaces

Brick and tile works in which unglazed bricks or tiles are made.

Cement works

Chemical works

Copper mills

Gas works

Iron and steel mills

Stone, slate and marble works

the following parts of factories Rooms in which the walls or ceilings consist of galvanised iron, glazed bricks, glass, slate, asbestos, bamboo, thatch, parts in which dense steam is continuously evolved in the process.

Parts in which pitch, tar or like material is manufactured or is used to a substantial extent, except in brush works. The parts of glass factory known as the glass house. Rooms in which graphite is manufactured or is used to a substantial extent in any process.

Parts in which coal, coke, oxide of iron, ochre, lime or stone is crushed on ground.

Parts of walls, partitions, feet above the floor. ceilings or tops of rooms which are at least 20 feet above the floor.

Ceiling of tops of rooms in print works, bleach work or dye works, with the exemption of finishing rooms or warehouses.

Inside walls of oil mills below a height of 5 feet from the ground floor level.

Inside walls in tanneries below a height of 5 feet from the ground floor level where a wet process is carried on.

PART B

Coach and motor body works.

Electric generating or transforming stations.

Engineering works.

Factories in which Sugar is refined or manufactured.

Foundries other than in which brass casting is carried on Gun factories.

Ship building, works.

Those parts of factories where unpainted or unvarnished wood is manufactured.

19. Record of white-washing, etc

The record of dates on which white-washing, colour washing, varnishing etc. are carried out shall be entered in a Register maintained in Form No.8.

20. Disposal of trade wastes and effluents

- (1) In the case of a factory where the drainage system is proposed to be connected to the public sewerages system, prior approval of the arrangements made shall be obtained from the local authority, maintaining such works.
- (2) In the case of factory situated in a place where no public sewerage system exists, prior approval of the arrangements made for the disposal of trade-wastes and effluents shall be obtained from the Public Health Authorities or such authority as the State Government may appoint in this behalf.

21. When artificial humidification not allowed

There shall be no artificial humidification in any room of a cotton spinning or weaving factory:

- (a) by the use of steam during any period when the dry bulb temperature of that room exceeds 85 degrees.
- (b) at any time when the wet bulb reading or the Hygrometer is higher than that specified in the following Schedule in relation to the dry bulb reading of the Hygrometer at that time, or as reading, a dry bulb reading intermediate between any two dry bulb readings indicated consecutively in the Schedule when the dry bulb readings does not exceed the wet bulb reading to the extent indicating in relation to the lower of these two dry bulb readings:

SCHEDULE

Dry bulb	Wet bulb	Dry bulb	Wet bulb	Dry bulb	Wet bulb
60.0	58.0	77.0	75.0	94.0	86.0
61.0	59.0	78.0	76.0	95.0	87.0
62.0	60.0	79.0	77.0	96.0	88.0
63.0	61.0	80.0	78.0	97.0	88.0
64.0	62.0	81.0	79.0	98.0	88.0
65.0	63.0	82.0	80.0	99.0	89.0
66.0	64.0	83.0	80.5	100.0	89.5
67.0	65.0	84.0	81.0	101.0	90.0
68.0	66.0	85.0	82.0	102.0	90.0
69.0	67.0	86.0	82.5	103.0	90.5
70.0	68.2	87.2	83.0	104.0	90.5
71.0	69.0	88.0	83.5	105.0	91.0
72.2	70.0	89.0	84.0	106.0	91.0

73.0	71.0	90.0	84.5	107.0	91.5
74.0	72.0	91.0	85.0	108.0	91.5
75.0	73.0	92.0	85.0	109.0	92.0
76.0	74.00	93.00	86.80	110.00	92.00

Provided, however, that clause (b) shall not apply when the difference between the wet bulb temperature as indicated by the hygrometer in the department concerned and the wet bulb temperature taken with a hygrometer outside in the shade is less than 35 degrees.

22. Provision of hygrometer

In all departments of Cotton spinning and weaving mills wherein artificial humid cation is adopted, hygrometers shall be provided and maintained in such positions as are approved by the Inspector. The number of hygrometer shall be regulated according to the following scale:

- (a) Weaving department: One hygrometer for departments with less than 500 looms, and one additional hygrometer for every 500 or part of 500 looms in excess of 500.
- (b) Other departments: One hygrometer for each room of less than 3,000,00 cubic feet capacity and one extra hygrometer for each 2,000,00 cubic feet or part thereof, in excess of this.
- (c) One additional hygrometer shall be provided and maintained outside each cotton spinning and weaving factory wherein artificial humidication is adopted, and in a position approved by the Inspector for taking hygrometer shade readings:

23. Exemption from maintenance of hygrometer

When the Inspector is satisfied that the limits of humidity allowed by the Schedule to Rule (21) are never exceeded, he may for any department other than the Weaving Department grant exemption from the maintenance of the hygrometer. The Inspector shall record such exemption in writing.

24. Copy of Schedule to Rule 18 to be affixed near every hygrometer

A legible copy of the Schedule to Rule 18 shall he affixed near such hygrometer.

25. Temperature to be recorded at each hygrometer

At each hygrometer maintained in accordance with Rule 22 correct wet and dry bulb, temperatures shall be recorded thrice daily dur, each working day by competent persons nominated by the Manager and approved by the Inspector. The temperature shall be taken between 7 a. m. and 9 a. m. between 11 a. m. and 2 p. m. (but not in the rest interval) and between 4 p. m. and 5. 30 p. m. In exceptional circumstances, such additional readings and between such hours, as the Inspector may specify, shall be taken. The temperatures shall be entered in a Humidity Register in Form No.7 maintained in the factory. At the end of each month, the persons, who have taken the readings shall sign the register and certify the correctness of the entries. The register shall always be available for inspection by the Inspector.

26. Specifications of hygrometer

- (1) Each hygrometer shall comprise of two-mercurial thermometers respectively of wet bulb and dry bulb of similar construction and equal in dimensions, scale and divisions of scale. They shall be mounted on frame, with a suitable reservoir containing water.
- (2) The wet bulb shall be closely covered with a single layer of muslin, kept wet by means of a wick attached to it and dropping into the water in the reservoir. The muslin covering and the wick shall be suitable for the purpose, clean and free from size or grease.
- (3) No part of the wet bulb shall be within 3 inches from the dry bulb or less than 1 inch from the surface of the water in the reservoir and the water reservoir shall be below it, on the side of it away from the dry bulb.
- (4) The bulb shall be spherical and of suitable dimensions and shall be freely exposed on all sides to the air of the room.
- (5) The bores of the stems shall be such that the-position of the top of the mercury column shall be readily distinguishable at a distance of 2 feet.
- (6) Each thermometer shall be graduated so that accurate readings maybe taken between 50 and 120 degrees.
- (7) Every degree from 50 degrees up to 120 degrees shall be clearly marked by horizontal lines on the stem, each fifth and tenth degree shall be marked by longer marks than the intermediate degrees and the temperature marked opposite each tenth degree, i.e. 50, 60, 70, 80, 90, 100, 110 and 120.
- (8) The markings as above shall be accurate, that is to say at no temperature between 50 and 120 degrees shall, be indicated readings, be in error by more than two tenths of a degree.
- (9) A distinctive number shall be indelibly marked upon the thermometer.
- (10) The accuracy of each thermometer shall be certified by the National Physical Laboratory, London, or some competent authority appointed by the Chief Inspector and such certificate shall be attached to the Humidity Register.

27. Thermometers to be maintained in efficient order

Each thermometer shall be maintained at all times during the period of employment in efficient working order, so as to give accurate indications and in particular

- (a) the wick and the muslin covering of the wet bulb shall be renewed once a week;
- (b) the reservoir shall be filled up with water which shall be completely renewed once a day. The Chief Inspector may direct the use of distilled water or pure rain water in any particular mill or mills in certain localities;
- (c) no water shall be applied directly to the wick or covering during the period of employment.

28.

An inaccurate thermometer but not to be used without fresh certificate if any Inspector gives notice in writing that a thermometer 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 as prescribed and a fresh certificate obtained which certificate shall be kept attached to the Humidity Register.

29. Hygrometer not to be affixed to wall etc. unless protected by wood

- (1) 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 and distant at least one inch from the bulb of each thermometer.
- (2) No hygrometer shall be fixed at a height of more than 5 feet 6 inch from the floor to the tip of the thermometer stem or in the direct draughts from a fan, window or ventilating opening.

30. No reading to be taken within 15 minutes of renewal of water

No reading shall be taken for record on any hygrometer within 15 minutes of the renewal of water in the reservoir.

31. How to introduce steam for humidification

In any room in which steam pipes are used for the introduction of steam for the purpose of artificial humidification of the air the following provisions shall apply

- (a) The diameter of such pipes shall not exceed two inches and in the case of pipes installed after the enforcement of these rules the diameter shall not exceed one inch;
- (b) Such pipes shall be as short as is reasonably practicable;
- (c) All hangers supporting such pipes shall be separated from the bare pipes by an efficient insulator not less than half an inch in thickness;
- (d) No uncovered jet from such pipe shall project more than 4-1/2 inches beyond the outer surface of any cover;
- (e) The steam pressure shall be as low as practicable and shall not exceed 70 lbs per square inch;
- (f) The pipes employed for the introduction of steam into the air in a department shall be effectively covered with such non-conducting material, as may be approved by the Inspector in order to minimise the amount of heat radiated by them into the department.

32. Lighting, application and commencement

- (i) Same as provided in the Rules 32 to 36 shall apply to factories in which persons are being regularly employed in a manufacturing process or processes for more than 48 hours a week, or in shifts, provided that nothing in these rules be deemed to require the provision of lighting of a specified standard in any building or structure so contracted that, in the opinion of the Chief Inspector, it would not be reasonably practicable to comply with such requirement.

33. Lighting of interior parts

- (1) The general illumination over these interior parts of a factory where persons are regularly employed shall be not less than 3 feet candles measured in the horizontal plane at a level of 3 feet above the floor:

Provided that in any such parts in which the mounting height of the light source for general illumination necessarily exceeds 25 feet measured from the floor or where the structure of the room or the position or construction of the fixed machinery or plant prevents the uniform attainment of this standard, the general illumination at the said level shall be not less than 1 foot candle and where work is actually being done the illumination shall not less than 3 feet candles.

- (2) The illumination over all other interior parts of the factory over which person employed pass shall, when and where a person is passing be not less than 0.5 feet candles at floor level.
- (3) The standard specified in this rule shall be without any prejudice to the provision of any additional illumination required to render the lighting sufficient and suitable for the nature of the work.

34. Prevention of Degree

- (1) Where any source of artificial light in the factory is less than 16 feet above floor level, no part of the light source of the lighting, fitting having a brightness greater than 10 candle per square inch shall be visible to persons whilst normally employed within 100 feet of the source, except where the angle of elevation from the eye to the source or part of the fitting as the case may be exceeds 20.
- (2) Any local light, that is to say an artificial light designed to illuminate particularly the area or part of the area of `work of a single operative or single group of operatives working near each other, shall be provided with a suitable shade of opaque material to prevent glare or with other effective means by which the light- source is completely screened on the eyes of every, person employed at a normal working place, or shall be sop laced that no such person is exposed to glare therefrom.

35. Power of Chief Inspector to exempt

Where the Chief Inspector is satisfied in respect of any particular factory or part thereof in respect of any description of work room or process that any requirement of Rules 32 to 34 is in appropriate or is not reasonably practical he may by order in writing exempt the factory or part thereof', or description of work-room or process from such requirement to such extent and subject to such conditions as he may specify.

36. Exemption

- (1) Nothing in Rule 33 shall apply to the factories or parts of factories respect ively specified in part 11 of the said Schedule.

SCHEDULE

PART I

Parts of factories in which light sensitive photographic materials are made or used in an exposed condition.

PART II

Cement work

Works for the crushing and grinding of limestone.

Gas works.

Cloven works coke oven.

Electrical Stations.

Flour Mills.

Malting and breweries

Parts of factories in which the following processes are carried on:

Concrete or artificial stone making.

Conversion of Iron into Steel.

Smelting of Iron ore.

Iron or steel Rolling.

Hot rolling or forging, tempering or annealing of metals.

Glass blowing and other working in molten glass.

Tar distilling.

Petroleum refining and blending

37. Quantity of drinking water

The quantity of drinking water to be provided for the workers in every factory shall be at least as many gallons a day as then workers employed in the factory and such drinking water shall be readily available at all times during working hours.

38. Source of supply

The water provided for drinking shall be supplied:-(a) from the taps connected with a public water supply system; or (b) from any other source approved in writing by the Health Officer.

39. Storage of water

If drinking water is not supplied from taps connected with a public water supply system it shall be kept in suitable vessels constitution and to keep the vessels scrupulously clean.

40. Cleanliness of well or reservoir

(1) Drinking water shall not be supplied from any open well or reservoir unless it is so constructed, situated, protected and maintained as to be free from the possibility of pollution by chemical, or bacterial and extraneous impurities.

(2) Where drinking water is supplied from such well or reservoir the water in it shall be sterilized once in a week or more frequently if the inspector by written order so requires and the date on which sterilising is carried out shall be recorded:

Provided that this requirement shall not apply to any such well or reservoir if the water therein is filtered and treated to the satisfaction of the Health Officer before it is supplied for consumption.

41. Report from Health Officer

The Inspector may by order in writing direct the Manager to obtain, at such time or at such report intervals as he may direct, a report from the Health Officer as to the fitness of human consumption of the water supplied to the workers, and in every case to submit to the Inspector a copy of such report as soon as it is received from the Health Officer.

42. Cooling of water

In every factory, wherein more than two hundred and fifty workers are ordinarily employed:

- (a) the drinking water supplied to the workers shall in hot weather, in every year, be cooled by ice or other effective method: Provided that ice is placed in the drinking water, the ice shall be clean and wholesome and shall be obtained from a source approved in writing by the Health Officer.
- (b) The cooled drinking water shall be supplied in every canteen, lunch-room and rest-room and also at conveniently accessible points throughout the factory which for the purpose of those rules shall be called "Water Centres".
- (c) The water centres shall be sheltered from the weather and adequately drained.
- (d) the number of water centres to be provided shall be one "Centre" for every 150 persons employed at any one time in the factory: Provided that in the case of a factory where the number of persons employed exceeds 500 it shall be sufficient if there is one such "Centre" as aforesaid for every 150 persons up to the first 500 and one for every 500 persons thereafter.
- (e) every water centre shall be maintained in a clean and orderly condition.
- (f) Every water centre shall be in charge of a suitable person who shall distribute the water. Such person shall be provided with clean clothes on duty.

Clause (f) shall not apply to any factory in which suitable mechanically operated drinking water refrigerated units are installed to the satisfaction of the Chief Inspector.

43. Latrine accommodation

Latrine accommodation shall be provided in every factory on the following scale:

- (a) Where females are employed, there shall be at least one latrine for every twenty-five females.
- (b) Where males are employed, there shall be at least one latrine for every twenty-five males provided that, where the number of males exceeds hundred, it shall be sufficient if there is one latrine for every 25 males up to the first 100, and one for every 50 thereafter.

In calculating the number of latrines required under this rule, any odd number of workers less than 25 or 50, as the case may be, shall be reckoned as 25 or 50.

44. Latrines to conform to public health requirements

Latrines other than those connected with an efficient water borne sewerage system, shall comply with the requirements of the public health authorities.

45. Privacy of latrines

Every latrine shall be under cover and so partitioned off as to spare privacy, and shall have a proper door and fastenings.

46. Sign boards to be displayed

Where workers of both sexes are employed there shall be displayed outside each latrine block a notice in the language understood by the majority of workers "for men only" or "for women only" as the case may be. The notice shall also bear the figure of a man or of a woman as the case may be.

47. Urinal accommodation

Urinal accommodation shall be provided for use of male workers and shall not be less than two feet in length for every 50 males; provided that where the number of males employed exceed 500, it shall be sufficient if there is one urinal for every fifty males up to the first 500 employees and one for every 100 thereafter.

In calculating the urinal accommodation required (Ender this rule and odd number of workers less than 50 or 100, as the case may be, shall be reckoned as 50 or 100.

48. Urinals to conform to public health requirements

Urinals other than those connected with an efficient water-borne sewerage system, and urinals in a factory wherein more than two hundred and fifty workers are ordinarily employed shall comply with the requirements of the Public Health Authority.

49. Certain latrines and urinals to be connected to sewerage, system.

When any general system of underground sewerage with an assured water supply for any particular locality is provided in a municipality, all latrines and urinals of a factory situated in such a locality shall, if the factory is situated within 100 ft. of an existing sewer, be connected with that sewerage system.

50. White washing, colour-washing of latrines and urinals

The walls, ceiling and partitions of every latrine and urinal shall be white-washed or colour-washed and the white-washing or colour-washing shall be repeated at least once in every period of four months. The dates on which the white washing or colourwashing is carried out shall be entered in the prescribed Register (Form No. 8):

Provided that this rule shall not apply to latrines and urinals the walls, ceiling or partitions of which are laid in glazed tiles or otherwise finished to provide a smooth, polished impervious surface and that they are washed with suitable detergents and disinfectants at least once in every period of four months.

51. Construction and maintenance of drains

All drains carrying waste or sullage water shall be constructed in masonry or other impermeable material and shall be regularly flushed and the effluent disposed of by connecting such drains with a suitable drainage line:

Provided that, where there is no such drainage line, the effluent shall be deodorized and rendered innocuous and then disposed of in a suitable manner to the satisfaction of the Health Officer.

52. Water taps in latrines

- (1) Where piped water supply is available in sufficient number of water taps, conveniently accessible shall be provided in or near such latrine accommodation.
- (2) If piped water supply is not available sufficient quantity of water shall be kept stored in suitable receptacles near the latrines.

53. Number and location of spittoons

The number and location of the spittoons to be Provided shall be to the satisfaction of the Inspector.

54. Type of spittoons

The spittoons shall be of either of the following types:

- (a) a galvanised iron container with a conical funnel shaped cover. A layer of suitable disinfectant liquid shall always be maintained in the container;
- (b) a container filled with dry, clean sand and covered with a layer of bleaching powder;
- (c) any other type approved by the Chief Inspector. The sp be emptied, cleaned

55. Cleaning of spittoons

The spittoon mentioned in clause (a) of Rule 54 shall be emptied, cleaned and disinfected at least once every day; and the spittoon mentioned in clause (b) of Rule 54 shall be cleaned by scrapping out the top layer of sand as often as necessary or at least once every day.

CHAPTER IV

SAFETY

56. Further safety Precautions

- (1) Without prejudice to the provision of sub-section (1) of section 21 in regard to the fencing of machines, till further precautions specified in the Schedules annexed hereto shall apply to the machines noted in each Schedule
- (2) This rule come into force in respect of any class or description of factories, where machines noted in the said Schedules are in use, on such dates as the Government may, by notification in the Government Gazette, appoint in this behalf.

SCHEDULE I

COTTON TEXTILE

1. Cotton Textile openers, Scutchers combines openers and Scutchers and Lap Machines Hard Waste Breakers, etc.

- (1) All Cotton openers Scutchers combined openers and Scutchers, Scutcher and Lap Machines, Hard Waste Breakers and similar machines shall be driven by separate motors or from counter shaft provided with fast and loose pulleys and efficient belt shifting devices.
- (2) In all openers, combined openers and scutchers, scutcher-Lap machines, Hard Waste Breakers and similar machines the beater covers and doors

which give access to any dangerous part of the Machine shall be fitted effective inter-locking arrangements which shall prevent:

- (a) the covers and doors being opened while the machine is in motion; and
- (b) the machine being restarted until the covers and doors are closed:

Provided that in respect of doors of openings, other than dirt doors or desk doors such openings shall be so fenced as to prevent access to any dangerous parts of the machine if effective interlocking arrangements is not provided.

- (3) In all openers, combined openers and scutchers, scutchers scutcher-lap machines, hard waste breakers and similar machines, the openings giving access to the dust chamber shall be provided with permanently fixed fencing which shall while admitting the light, yet prevent contact between any portion of a worker's body and the beater grid bars.

2. Combined openers and Scutchers, Scutchers-Lap, Silver Lap, Lap Machines, Derby Doublers and Ribbon Machines

- (1) The Lap forming rollers shall be fitted with a guard or cover which shall prevent access to the intake of the lap roller and fluted roller as long as the weighed rack is down;
- (2) The guard or cover shall be so locked that it cannot be raised until the machine is stopped and the machine cannot be started until the guard or cover is closed.

3. Carding Machines

All cylinder doors shall be secured by an automatic locking device which shall prevent the door being opened until the cylinder has ceased to revolve and shall render it impossible to restart the machine until the door has been closed

4. Speed Frames

Head stocks shall be fitted with automatic locking arrangements which shall prevent the doors giving access to jack box wheels being opened while the machinery is in motion and --,11,11 render it impossible to restart the machine until the doors have been closed.

5. Self-acting Mules

The drive shall be from counter-shafts which shall be provided with fast and loose pulleys and efficient belt shifting devices.

6. Calendering Machines etc.

In respect of calendering machines, mangles and similar machines, all such machines shall be provided with an efficient "nip" guard along the whole length on the intake side of each pair of bowl and similar parts, which shall be so fitted and maintained whilst the rollers of bowls are in motion, as to prevent access to the point of contact of the rollers or bowls.

SCHEDULE II
COTTON GINNING

Line Shaft: The line shaft or second motion in cotton ginning factories when below floor level, shall be completely enclosed by a continuous wall or unclinably fencing with only so many openings as are necessary for access to the shaft for removing cotton seeds, cleaning and oiling, such openings shall be provided with gates or doors which shall be kept closed and locked.

SCHEDULE III
WOOD WORKING MACHINES

1. Definitions

For the purpose of the Schedules

- (a) Wood working machine means a circular saw, band saw, planing machine, chain mortising machine or vertical spindle wooling machine operating on wood or cork,
- (b) Circular saw means a circular saw working in a bench (including rack bench) but does not include a pendulum or similar saw which is moved towards the wood for the purpose of cutting operation;
- (c) Band saw means a band saw, the cutting portion of which runs in a vertical direction but does not include a long saw or hand resawing machine;
- (d) Planing machine a machine for overhead planing or for thicknessing or for both operations.

2. Stopping and starting device

An efficient stopping and starting device shall be provided on every wood-working machine. The control of this device shall be in such a position as to be readily and conveniently operated by the person incharge of the machine.

3. Space around machines

The space surrounding every wood-working machine in motion shall be kept free from obstruction.

4. Floors

The floor-surroundings every wood-working machine shall be maintained in good and level condition, and shall not become slippery, and as far as precautionable shall be kept free from chips or other loose material.

5. Training and Supervision

- (1) No person shall be employed at a wood-working machine unless he has been sufficiently trained to work that class of machine, or unless he works under the adequate supervision of a person who has a thorough knowledge of the working of the machine.
- (2) A person who is being trained to work a wood-working machine shall be fully and carefully instructed as to the dangers of the Machine and the precautions to be observed to secure safe working of the machine.

6. Circular saw

Every circular saw shall be forced as follows:

- (a) Behind and indirect line with the saw there shall be riving knife, which shall have a smooth surface, shall be strong, rigid and easily adjustable, and shall also conform to the following conditions:
 - (i) The edge of the knife nearer the saw from an arc of a circle having a radius not exceeding the radius of the largest saw used on the bench.
 - (ii) The knife shall be maintained as close as practicable to the saw having guard to the nature of the work being done at the time, and at the level of the bench table the distance between the front edge of the knife and the teeth of the saw shall not exceed half an inch.
 - (iii) For the saw of a diameter of less than 24 inches, the knife shall extend upwards from the bench table to within one inch of the top of the saw, and for a saw of a diameter of 24 inches or over shall extend upwards from the bench to a height of at least nine inches.
- (b) The top of the saw shall be covered by a strong and easily adjusted. that the said flange shall extend below the roots of the teeth of the saw. The guard shall extend from the top of the riving knife to a point as low as practicable at the cutting edge of the saw.
- (c) The part of the saw below the bench table shall be protected by two plates of metal or other suitable material one on each side of the saw such plates shall not be more than six inches apart, and extend from the axis of the saw outwards to a distance of not less than two inches beyond the teeth of the saw. Metal plates, if not beaded, shall be of a thickness of at least 1/10 inch, or, if beaded be of a thickness of at least 1/20th inch.

7. Push sticks

A push stick or other suitable appliance shall be provided for use at every circular saw and at every vertical spindle moulding machine to enable the work to be done without unnecessary risk.

8. Band Saw

Every Band Saw shall be guarded as follows:

- (a) Both sides of the bottom pulley shall be completely encased by sheet or expanded metal or other suitable material.
- (b) The form of the top pulley shall be covered with sheet or expanded metal or other suitable material.
- (c) All portions of the Plate shall be enclosed or otherwise securely guarded except the portion of the blade between the bench table and top guide.

9. Planing machine

- (1) A planing other than a planing machine which is mechanically fed shall not be used for over hand planing unless it is fitted with a cylindrical cutter- block.

- (2) Every planing machine used for over hand Planing shall be provided with all "Bridge" guard capable of covering to full length and breadth of the cutting slot in the bench, and so constructed as to be easily adjusted both in a vertical and horizontal direction.
 - (3) The feed roller of every planing machine used for thickening shall be provided with an efficient guard.
10. Vertical spindle moulding machine
- (1) The cutter of every vertical spindle moulding machine shall be guarded by the most efficient guard having regard to the nature of the work being performed.
 - (2) The wood being moulded at a vertical spindle moulding machine shall, if practicable, be held in a jig or holder of such construction as to reduce as far as possible the risk of accident to the worker.
11. Chain mortising machines
- The chain of every chain mortising machine shall be provided with a guard which shall enclose the cutters as far as practicable:
12. Adjustment and maintenance of guards
- The guards and other appliances required under this schedule shall be:
- (a) maintained in an efficient stage;
 - (b) constantly kept in position while the machinery is in motion; and
 - (c) so adjusted as to enable the work to be done without unnecessary risk
13. Exceptions
- Paragraphs 6, 8, 9 and 10 shall not apply to any wood working machine in respect of which it can be proved that other safeguards are provided, maintained and used which render the machine as safe as it would be, if guarded in the manner prescribed in this schedule.

SCHEDULE IV

RUBBER MILLS

1. Installation of machine

Mills for breaking down, cracking, grating, mixing, refining and warming rubber or rubber compounds shall be so installed that the top of the front roll is not less than forty-six inches above the floor or working level. Provided that in existing installation where the top of the front roll is below this height a strong rigid distance bar guard shall be fitted across the front of the machine in such position that the operator cannot reach the nip of the rolls.

Safety devices.

- (1) Rubber Mills shall be equipped with:
 - (a) Hoppers so constructed or guarded that it is impossible for the operators to come into contact in any manner with nip of the rolls.

(b) Horizontal safety trip rods or tight wire cables across both front and rear, which will, when pushed or pulled operate instantly to disconnect the power and supply the brakes, or to reverse the rolls.

(2) Safety trip rods or tight wire cables on rubber mills shall extend across, the entire length of the face of the roll and shall be located not more than sixty- nine inches above the floor or working level.

(3) Safety-trip rods and tight wire cables on all rubber mills shall be examined and tested daily in the presence of the Manager or other responsible person and if any defect is disclosed by examination and test the mill shall not be used until such defect has been remedied.

57. Employment of young persons on dangerous machines

The following machines shall be deemed to be of such dangerous character that young person shall not work at them unless the provisions of section 23 (1) are complied with:

Power Presses other than hydraulic presses:

Milling machines used in the metal trades;

Guilloting machines;

Circular saws;

Platen printing machine.

58. Examination of certain hoists and lifts

(1) A register shall be opened with the following, columns to record particulars of examination of hoists and lifts:

- (i) Date of examination.
- (ii) Number of hoists and lifts, if more than one.
- (iii) Details of tests made.
- (iv) Result of examinations,
- (v) Signature of Examiner.
- (vi) Designation and qualification of the examiner.

(2) In pursuance of the provisions of sub-section (4) of section (28), in respect of any class or description of hoist or lift specified in the first column of the following schedule, the requirements of the section 28 specified in the second column of the said schedule and set opposite to that class or description of hoist or lift shall not apply.

SCHEDULE

Class or description of hoist or lift	Requirements which shall not apply
Hoists or lifts mainly used for raising materials for charging blast Furnaces or lime kills. Hoists not connected with mechanical power	Sub-section 1(b) in so far as it requires a gate at the bottom landing; sub-section 1(d) sub-section 1(e); sub section 1(d) in so far as it requires hoistway or liftway enclosure to be so constructed as to prevent

and which are not used for carrying persons.	any person or thing from being trapped between any part of the hoist or lift any fixed structure or moving part sub-section 1(e).
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59. Lifting machines, chain, ropes and lifting tackles

- (1) No lifting machine and no chain, rope or lifting tackle, except fibre rope or fibre rope sling, shall be taken into use in any factory for the first time in that factory unless it has been tested and all parts have been thoroughly examined by a competent person and a certificate of such test and examination specifying the safe working load or loads and signed by the person making the test and the examination, has been obtained and is kept available for instruction.
- (2)
 - (a) Every jib-crane so constructed that the safe working load may be varied by the rising or lowering of the jib, shall have attached thereto either (in automatic indicator of safe working loads or an automatic jib angle indicator and a table indicating the safe working loads at corresponding inclination of the jib or corresponding radii of the load.
 - (b) A table showing the safe working loads of every kind and size of chain, rope or lifting tackle in use and in the case of a multiple sling the safe working loads at different angles of the legs and shall be posted in a prominent position on the premises and no rope, chain or lifting tackle not shown in the table shall be used. The foregoing provisions of this paragraph shall not apply in respect of such lifting tackle if the safe working load thereof, or in the case of a multiple sling, the safe working load at different angles of the legs, is plainly marked upon it.
- (3) Particulars of register to be maintained under clause (a) (iii) of sub-section (1) of section 29 of the Act shall be:
 - (i) Name of occupier of factory;
 - (ii) Address of the factory;
 - (iii) Distinguishing number or mark, if any, and description sufficient to identify the lifting machine, chain, rope, or lifting tackle.
 - (iv) Date when the lifting machine, chain, rope, or lifting tackle was first taken into use in the factory;
 - (v) Date and number of the relating to any test and examination made under sub-rules (1) and (8) together with the name and address of the person who issued the certificate.
 - (vi) Date of each periodical thorough examination made under clause (a) (iii) of sub-section (1) of section 29 of the Act and sub-rule (6) and by whom it was carried out.
 - (vii) Date of annealing or other heat treatment of the chain and other lifting tackle made sub-rule (6) and by whom it was carried out.

- (viii) Particulars of any defects affecting the same working load found at any such thorough examination or after annealing and of the steps taken to remedy such defects.

The Register shall be kept readily available for inspection.

- (4) All rails on which a travelling crane moves and every truck on which carriage of a transporter or runway moves, shall be of proper size and adequate strength and have an even running surface and such rail or truck shall be properly laid, adequately supported and properly maintained.
- (5)
- (1) To provide access to rail tracks of overhead travelling cranes suitable passage-ways of at least 50 cm. (20 inches) width with toe boards and double hand rails 90 cm. (3 feet) high shall be provided along with size, moving part of the crane can strike persons on the ways, such that no way shall be at a lower level than the crane track itself. Safe access ladders shall be provided at suitable interval to afford access to these passage-ways, and from passage-ways to the rail tracks.
- (2) The Government of may in writing except any existing factory from the provisions of sub-rule (1) if by virtue of the construction of the factory it is impossible to provide such a passage-way.
- (6) All claims and lifting tackle, except a rope sling shall, unless they have been subjected to such other heat treatment as may be approved by Chief Inspector of Factories be effectively annealed under the supervision of a competent person at the following intervals.
- (i) All chains, slings, rings, nooks, shackles and swivels used in connection with molten metal or molten slag or when they are made of half inch bar or smaller, once at least in every six months.
- (ii) All other chains, rings, hooks, shackles and swivels use once at least in every twelve months:
- Provided that chains and lifting tackle not in frequent use shall subject to the Chief Inspectors approval be annealed only when necessary. Particulars of such annealing shall be entered in a register prescribed under sub-rule (3).
- (7) Nothing in the foregoing sub-rule (6) shall apply to the following classes of chains and lifting tackle:
- (i) Chains made of malleable cast iron;
- (ii) Plate link-Chain;
- (iii) Chains, rings, hooks, shackles and swivels made of steel or of any non-ferrous metal;
- (iv) Packed chains, working or sprocket of pocketed wheels;
- (v) Rings, hooks, shackles and swivels permanently attached to pitched chains, pulley blocks or weighing machines;

- (vi) Hooks and swivels having screw threaded parts or ball bearing or other case hardened parts;
- (vii) Socket shackles secured to wire ropes by white-metal capping;
- (viii) Bordeaux Connections.

Such chains and lifting tackle shall be thoroughly examined by a competent person once at least in every twelve months and particulars entered in the register kept in accordance with sub-rule (3).

- (8) All lifting machines, chains, ropes and lifting tackle except a fibre rope or fibre sling, which have been lengthened altered or repaired by welding or otherwise, shall before being again taken into use be adequately re-tested and re-examined by a competent person and certificate of such test and examination be obtained, and particulars entered in the register kept in accordance with sub-rule (3).
- (9) No person under 18 years of age and no person who is not sufficiently competent and reliable shall be employed as driver of a lifting machine whether driven by mechanical power or otherwise or to give signals to a driver.

60. Pressure Plant

- (1) Every plant or machinery other than the working cylinders of prime-movers used in a factory, and operated a pressure, greater than atmospheric pressure, shall be:
 - (a) of good construction, sound material, adequate strength, and free from any patent defect;
 - (b) Properly maintained in a safe condition;
 - (c) fitted with:
 - (i) a suitable Safety value or other effective device to ensure that the maximum permissible working pressure of the vessel shall not be exceeded;
 - (ii) a suitable pressure gauge easily visible and designed to show, at all times, the correct internal pressure in lbs. Per square inch, and marked with a prominent red ink at the safe working pressure of the vessel;
 - (iii) a suitable stop valve or valves by which the vessel may be isolated from other vessels or source of supply of pressure;
 - (iv) a suitable drain cock or valve at the lowest part of the vessel for the discharge of connected liquid;
 - (d) thoroughly examined by a competent person:
 - (i) externally, once in every period of six months, to ensure general condition of the vessel and the working of its fittings; and
 - (ii) internally, once in every period of twelve months, to ensure condition of the wall, seams and ties, both inside and outside the vessel, soundness of the parts of the vessel, and the effects of corrosion. If by reasons of construction of vessel, a thorough internal examination is not possible, this examination may be replaced by a hydraulic test

which shall be carried on once in every two years. Provided that the vessels in continuous processes which cannot be frequently opened, the period of internal examination may be expanded to four years.

- (iii) hydraulically tested at intervals of not more than four years provided that in respect of pressure vessels with thin wall such as sizing cylinders made of copper or any other nonferrous metal periodic hydraulic test may be dispensed with on the condition that the requirement laid down in clause (2) are fulfilled:

Provided that it shall be sufficient for the purposes of clause (c) if the safety valve, pressure gauge and stop valve are mounted on a pipe line immediately adjacent to the valve and where there is a range of two or more similar vessel a plant; served by the same pressure lead, only one set of such mounting load be fitted provided that they cannot be isolated.

(2)

- (a) In respect of pressure vessels of thin walls such as sizing cylinders made of copper or any other non-ferrous metal and safe working pressure shall be reduced at the rate of 5% of the original working pressure for every of its use after the first five years and no such cylinder shall be continued to be used for more than twenty years after it was first taken into use.
 - (b) If no information as the date of construction thickness of walls and safe working pressure is available the age of the sizing cylinder shall be determined by the competent person in consultation with Chief Inspector from any other particulars available with the Manager.
 - (c) Every new and second hand cylinder of thin walls to which repairs which may affect its safety, have been carried out shall be rested before use to at least one and a half times its working pressure.
- (3) Every vessel other than Part of prime-mover operated at a pressure greater than atmospheric pressure and not so constructed as to with stand with safety the maximum permissible working pressure at the source of supply or the maximum pressure which can be obtained in the pipe connect-i ng the vessel with any other source of supply shall be fitted with a suitable reducing value other suitable automatic device to prevent the safe working pressure of the vessel being exceeded.
- (4) In cases owing to the nature of the process of the action of the contents of the vessel, a pressure gauge or safety valve or both cannot work reliably attested and reliable working thermometer with a sufficient large scale on which shall be clearly marked the maximum permissible temperature in the vessel or pyrometers or rupture diesel in addition to the pressure gauge and safety valve may be fitted as may be directed by the Chief Inspector.
- (5) If during thorough examination, doubt arises as to the ability of 'vessel to work safety until the next examination provided for in these rules than the competent person shall enter in the Register prescribed a reasoned statement to authorise

the vessel for further work subject to a lowering or pressure or to more frequent inspection or subject to both of these requirements.

- (6) No vessel which has undergone alterations or repairs shall be taken into use unless it is thoroughly examined by a competent person.
- (7) A report of the result of every examination made shall be completed in Form No.8 and signed by the person making the examination and shall be kept available for perusal by an Inspector or at any time while the vessel is in service.
- (8) No vessel which has previously been used shall be taken into use any factory for first time in the factory until it has been examined and reported in accordance with these rules and no new vessel shall be taken into use unless there has been obtained from the maker of the vessel, or from a competent person a certificate specifying the maximum permissible working pressure thereof, and stating the nature of the tests to which the vessel and its fittings (if any) have been subjected, and the vessel is so marked as to enable it to be identified, to which the certificate relates.
- (9) Where the report of any examination under this rule specifies conditions for securing the safe working of a vessel shall not be used in accordance with these conditions.
- (10) The competent person making the report of any examination under this rule, shall within seven days of the completion of the examination, send to the Inspector a copy of the report in every case where the maximum permissible working cannot continue to be used with safety unless certain repairs are carried out immediately or within specified time.
- (11) The requirements of this rule shall be in addition and not in derogation of the requirements of any other Act, rules or regulations.
- (12) Nothing in this rule shall apply to:
 - (a) any vessel which comes within the scope of the Indian Boilers Act;
 - (b) metal bottles of cylinders used for the storage or transport of compressed gasses or liquified or dissolved gasses under pressures.

61. Water sealed Gasholder

- (1) The expression "Gasholder" means a water sealed gasholder which has a storage capacity of not less than 1,415 cubic meters (5000 cft.).
- (2) Every gasholder shall be adequate material and strength sound construction and properly maintained.
- (3) Where there is more than one gasholder in the factory every gas-holder shall be marked in a conspicuous position with a distinguishing number of letters.
- (4) Every gasholder shall be thoroughly examined externally by a competent person at least once in a period of twelve months.
- (5) In the case of gasholder of which any lift has been in use for more than ten years, the internal state of the sheeting shall, within one. year of the coming into operation of these rules and thereafter at least once in every period of four years,

be examined by a competent person by means of electronic or other accurate devices:

Provided that if the Chief Inspector is satisfied that such electronic or other accurate devices are not available, he may permit the cutting of samples for the crown and the sides of the holder:

Provided further that if the above inspection raises a doubt, an internal visual examination shall be made.

- (6) All possible steps shall be taken to prevent or minimise ingress of impurities in the gasholder.
- (7) No gasholder shall be repaired or demolished except under the direct supervision of a person, who by his training and experience, and his knowledge of the necessary precautions against risks of explosion and of persons being overcome by gas, is competent to supervise such work.
- (8)
 - (i) All sample discs cut under sub-rule (5) above, shall be kept readily available for inspection.
 - (ii) A permanent register in such form as may be convenient, duly signed by the occupier or manager, shall be maintained giving the following particulars:
 - (a) The serial number of the gasholder, under sub-rule (3) above and particulars of manufacture i.e. maker's name, date of manufacture, capacity, number of lifts, pressure thrown by the holder when full of gas.
 - (b) The dates of inspection yielded out as required under Sub- rules (4) and (5) above and by whom carried out.
 - (c) The method of inspection used.
 - (d) Date of painting etc.
 - (e) Nature of repairs and name of person carrying out repairs; and
 - (f) Remarks.
 - (iii) The result of examination by competent person carried out under sub-rules (4) and (5) shall be in Form No. X

62. Excessive weights

- (1) No woman or young person shall unaided by another person, lift, carry or move by hand or on head any material article, tool or appliances exceeding the maximum limit in weight set out in the following schedule:

SCHEDULE

Person	Maximum weight of maternal article, tool or appliances
--------	--

(a) Adult female	65 lbs.
(b) Adolescent male	65 lbs.
(c) Adolescent female	45 lbs.
(d) Male child	35 lbs.
(e) Female child	30 lbs.

- (2) No woman or young person shall engage, in conjunction with others, in lifting, carrying or moving by hand or on head, any material, article, tool or appliance, if the weight thereof exceeds the lowest weight fixed by the Schedule to sub-rule (1) for any of the persons engaged, multiplied by the number of the person engaged.

63.

Effective screens or suitable goggles shall be provided for the protection of persons employed in or in the immediate vicinity of the following processes:

- (a) The process specified in Schedule I annexed hereto, being processes which involve risk of injury to the eyes from particulars or fragments thrown off in the course of the process.
- (b) The process specified in Schedule II annexed thereto, being processes which involve risk of injury to the eyes by reason of exposure to excessive light.

SCHEDULE I

Dry grinding of metals or articles of metal applied by hand to a revolving wheel disc driven by mechanical power. Turning (external) or internal of non-ferrous or of cast iron, or articles of such metals or such iron, where the work is done dry, other than precision turning where the use of goggles or a screen would seriously interfere with the work, or turning by means of hand tools.

Welding or cutting of metals by means of an electric oxyacetylene or similar process.

The following processes when carried on by means of hand tools or other portable tools: Fettleing of material involving the removal of metal.

Cutting out or cutting off cold rivets or bolts from boilers or other plant, or from ships.

Chipping or scaling of boilers or ship plates.

Breaking or dressing of stone, concrete or slag.

Welding or cutting of metals by means of an electrical oxyacetylene or similar process.

All processes in connection with glass melting furnaces.

64. Minimum dimensions of manholes

Every chamber, tank, vat, pipe, fuel or other confined space, which persons may have to enter and which may contain dangerous fumes to such an extent as to involve risk of the persons being overcome thereby, shall unless there is other effective means of egress, be provided with a manhole which may be rectangular, oval or circular in shape, and which shall:

- (a) in the case of a rectangular or oval shape, be not less than 116 inches long and 12 inches wide;

- (b) in the case of a circular shape, be not less than 16 inches in diameter.

65. Exemptions

The requirements of sub-section (4) of section 37 shall not apply to the following processes carried on in any factory: by the

- (a) The operation of repairing a water-sealed gasholder electric welding processes, subject to the following conditions:
 - (i) The gasholder shall contain only the following gases separately or mixed at a pressure greater than atmospheric pressure, namely; towngas, coke-oven gas, producer gas, blast furnace gas, or gases, other than air, used in their manufacture:

Provided that this exemption shall not apply to any gas-holder containing acetylenes or mixture of gasses to which acetylenes has been added intentionally;
 - (ii) Welding shall only be done by the electric welding process and shall be carried out by experienced operatives under the constant supervision of a competent person.
- (b) The operations of cutting of welding steel or wrought from iron gas mains and services by the application of heat, subject to the following conditions:
 - (i) The main or service shall be situated in the open air, and it shall contain only the following gases, separately of mixed at a pressure greater than atmospheric pressure, namely gas, coke-oven gas, producer gas blast furnace gas, or gasses other than air, used in their manufacture.
 - (ii) The main or service shall not contain acetylene or any gas or mixture of gases to which acetylene has been added intentionally.
 - (iii) The operation shall be carried out by an experienced person or persons and at least two persons (including those carrying out the operations) experienced in work on gas mains and over 18 years of age shall be present during the operation.
 - (iv) The site of the operation shall be free from any inflammable or explosive gas or vapour.
 - (v) Where acetylene gas is used as a source of heat in connection with an operation, it shall be compressed and contained in a porous substance in a cylinder; and
 - (vi) Prior to the application of any name to the gas main or service this shall be pierced or drilled and escaping gas ignited.
- (c) The operation of repairing an oil tank or any ship by the electric welding process shall be subject to the following conditions:
 - (i) The only oil contained in the tank shall have a flash point of not less than 150°F (close test) and a certificate to this effect shall be obtained from the competent analyst;

- (ii) The analyst's certificate shall be kept available for inspection by an inspector, or by any person employed or working on the ship;
- (iii) The welding operation shall be carried out, only on the exterior surface of the tank at a place (a) which is free from oil or oil leakage in inflammable quantities and (b) which is not less than one foot below the nearest part, of the surface of the oil within the tank;
- (iv) Welding shall be done only by the electric welding and shall be carried out by experienced operatives under the constant supervision of a competent person.

66. Means of escape in case of fire

- (1) Every factory shall be provided with adequate means of escape in case of fire for the persons employed therein, and without prejudice to the generality for the foregoing:
 - (a) Each room of a factory building shall in relation to its size and the number of persons employed in it, be provided with an adequate no. of exits for use in case of fire though not necessarily confined to such use, so positioned that each person will have reasonably free and unobstructed passage from his work place to an exit.
 - (b) No exit intended for use in case of fire shall be less than 3 feet in width nor less than 6 feet 6 inches in height.
 - (c) In the case of a factory building or part of a factory building of more than one storey and in which not less than twenty persons work at any one time, there shall be provided at least one substantial stairway permanently constructed either inside or outside the building and which affords direct and unimpeded access to ground level.
 - (d) In the case of a factory building or part of a factory building in which twenty or more persons work at any one time above the level of the ground floor and wherein explosive or highly inflammable materials are used or stored, or which is situated below ground level, the means of escape shall include at least two separate and substantial stairways permanently constructed either inside or outside the building and which afford direct and unimpeded access to ground level.
 - (e) Every stairway in a factory which affords a means of escape in case of fire shall be provided with a substantial handrail which if the stairway has an open side shall be on that side, and if the stairway has two open sides such hand rail shall be provided on both sides.
- (2) In the case of a building constructed or converted for use as a factory after the date of the passing of the Act, the following additional requirements shall apply:
 - (a) At least one of the stairways provided shall be of fire resisting materials.
 - (b) Every hoistway or liftway inside a factory building shall be completely enclosed with fire-resisting materials and all means of access to the hoist or lift shall be fitted with doors of fire resisting materials:

Provided that any such hoistway or liftway shall be enclosed only at the top by same material easily broken by fire or the provided with a vent at the top.

- (c) No fire escape stair shall be constructed at an angle greater 45° from the horizontal.
- (d) No part of factory building shall be further along the line of travel than 150 feet from. any fire escape stair.
- (e) No stairway shall be less than 45 inches in width.

67. Fire Fighting apparatus and water supply

- (1) In every factory there shall be provided and maintained the following fire fighting equipment:
 - (a) Two fire buckets of not less than 9 litres capacity for every 100 Sq. meters of floor area subject to a minimum of four buckets on each floor.
 - (b) Every bucket provided under this sub-rule shall:
 - (i) Conform to appropriate Indian Standards specification;
 - (ii) be kept in a position approved by the Inspector and shall be used for no other purpose than fire extinguishing; and
 - (iii) At all times be kept full of water, but if the principal fire risk arises from inflammable liquid or other substances where water cannot be used, it shall be kept full of clean, fine dry sand, stone dust or other inert material:

Provided that where the Chief Inspector is of the opinion than other ate firefighting apparatus is provided in the factory building or room, may issue a certificate in writing (which he may at his discretion revoke) specifying the extend to which the above requirements are relaxed in respect of that building or room.

- (2) In every factory, adequate provision of water supply for fire fighting shall be made and where the amount of water required, litres per minute, as calculated from the formula $A+B+C+D$ divided by 1,000 in 550 or more, power driven trailer pumps of adequate capacity to meet the requirement of water as calculated above shall be provided and maintained.

In the above Formula

A= The total area in sq. meters of all floors including galleries in all buildings of the factory:

B =The total area in square meters of all floors including galleries including open spaces in which combustible materials are handled stored.

C = The total area in sq. meters of all floors over 15 meters above ground level; and

D = The total area in sq. meters of all floors of all buildings other than those of fire resisting construction:

Provided that in areas where the fire risk involved does not requires use of water, such areas under B, C and D may, for the purpose of calculation, be halved:

Provided further that where the areas under B, C or D are protected by permanent automatic fire fighting installations approved by any fire association or fire insurance company, such areas may, for the purpose of calculation be halved.

Provided also that where the factory is situated at not more than 3 K. M. from an established city or town fire service, the pumping capacity based on amount of water arrived at by the formula above may be reduced by 25% but no account shall be taken of this reduction in calculating water supply required under sub-rule (7).

- (3) Each trailer pump shall be provided with equipment as per Schedule A. Such equipment shall conform to Indian Standard specifications when-ever they exist.
- (4) Trailer pumps shall be housed in a separate shed/sheds which shall be sited close to a principal source of water supplied in the vicinity of the main risks of the factory.
- (5) In factories where the area is such as cannot be reached by manhauling of trailer pump within reasonable time vehicles with towing attachment shall be provided at the scale of one for every four trailer pumps with a minimum of one such vehicle kept available at all times.
- (6) Water supply shall be provided to give flow of water as required under sub-rule (2) for at least 100 minutes. At least 50% of this water supply or 4,50,000 litres whichever is less, shall be in the form of static tanks of adequate capacities (not less than 4,00,000 litres each) distributed round the factory with due regard to the potential fire risks in the factory. (Where piped supply is provided, the size of the main shall not be less than 15 cm. diameter and it shall be capable of supplying minimum of 4,5000 litres per minute at a pressure of not less than 0.7 kg./sq. cm
- (7)
 - (a) In factories having more than 100 sq. meters floor area and where fire may occur due to combustible materials other than inflammable liquids, electrical equipment and ignitable metals, soda acid or equivalent type of portable extinguishers at the rate of one for every 500 sq. meters of area spaced at not more than 30 meters apart subject to a minimum of one extinguisher shall be provided in addition to fire buckets required under sub- rule (1).
 - (b) In factories where fires may occur due to inflammable or grease or paint, the extinguishers to be provided at the scale laid down in clause (a) shall consist of foam carbon tetrachloride, dry powder, carbon dioxide, chlorobrome, methane or other equivalent type, as appropriate. In case of inflammable liquid soluble in water, the extinguishers shall be foam types.
 - (c) In factories where fires may occur due to the electrical equipments the extinguishers to be provided at the scale laid in clause (a) shall consist of carbon dioxide, dry powder carbon tetrachloride or equivalent types.

(d) In factories where fires may occur due to magnesium aluminium or zinc dust or shavings of other ignitable metals, the use of liquids carbon dioxide and foam type extinguishers shall be prohibited and an ample supply of clean, fine dry sand, stone dust or other inert material shall be kept ready for segregating such fires.

(e) Every type of portable fire extinguisher shall be kept mounted in a position approved by the Inspector:

Provided that where the Chief Inspector is of the opinion that other adequate fire fighting apparatus or permanent automatic fire lighting installations approved by any recognised fire association or fire insurance company are provided in the factory building or room, he may issue a certificate in writing (which he may at his description revoke) specifying the extent to which the above requirements are relaxed in respect of that building or room.

(8)

(a) Every portable fire extinguisher to be provided under sub-rule (9) shall:

(i) conform to the appropriate Indian Standards specifications;

(ii) be kept charged ready for use, properly mounted in a position approved by the Inspector and accompanied by the maker printed instructions for its use; and

(iii) be examined, tested or discharged periodically in according with the maker's recommendation.

(b) The manager of every factory shall keep and maintain sufficient number of spare charges for each type of extinguisher provided in the factory with a minimum of 12 spare charges always in stock and readily available.

(9) Each factory shall detail a trained officer who shall be responsible for the proper maintenance and up keep of all fire fighting equipment.

(10) If the Chief Inspector is satisfied in respect of any factory or any part of the factory that owing to the exceptional circumstances such inadequacy of water supply or for infrequency of the manufacturing process or for any other reason to be recorded in writing, all or any of the requirements of the rule impracticable; or not necessary for the protection of workers, he may by order in writing (which he may discretion revoke) exempt such factory part of that factory from all or any of the provisions of the rules subject to conditions as he may by such order prescribe.

SCHEDULE-A

EQUIPMENT FOR TRAILER PUMPS

A. FOR, LIGHT TRAILER PUMP (680 LITRES/MIN)

9	Metres length of armoured suction hose, with wrenrthes.
1	Metal suction strainer,

1	Basket strainer.
2	Two-way suction collecting head.
1	Suction adaptor.
20	24 meters lengths of unlined 75 mm, delivery hose complete with quick release couplings,
1	Dividing Breaching-piece.
2	Branch-piece with 15 mm nozzles.
1	Duffuser Nozzale.
1	Stand pipe with blank cap.
1	Hydrant Key:
4	Collapsible canvas buckets.
1	Fire Hook (Preventor) with cutting edges.
1	E.T.C. Extinguisher one litre capacity,
1	30 meters length of 25 min-mamila rope.
1	9 meters extension ladder (where necessary).
1	Heavy axe
1	Spade
1	Pick axe
1	Crowbar.
1	Saw
1	Hurricane lamp
1	Electric Torch.
1	Pair Rubber Glover.

B. FOR LARGE TRAILER PUMP 1,800 LITRE.S/MIM)

(Meters length of armoured suction house, with wrenches).

1	Metal strainer.
2	Basket strainer.
1	Three-way suction. collecting head.
1	Suction adaptor
14	25 meters length of unlined canvas 75 complete with 'quick-release couplings.
1	Breaching-pieco.
1	Collecting Breaching-pieco.
4	Branch pipes with one 25 mm. two 20 mm. and one diffuser nozzles

2	Standpipe with blank caps.
2	Hydrant Keys.
6	Collapsible canvas buckets.
1	Ceiling hook (Preventor) with cutting edge.
1	C.T.C. Extinguisher one litre capacity,
1	30 meters length of 25 min-manils rope.
1	9 meters extension ladder (where necessary).
1	Heavy axe
1	Spade
1	Pick axe
1	Crowbar.
1	Saw
1	Hurricane lamp
1	Electric Torch.

Note: If it appears to the Chief Inspector of Factories that in any factory the provision of breathing apparatus is necessary, he may by order in writing require the occupier to provide suitable breathing apparatus in addition to the equipment for light trailer pump or large trailer pump as the case may be.

Use of polymerising machines in the Printing Departments of Cotton Textile Mills.

- (1) The following precautions shall be taken when fabrics are processed in polymerising or curing machine for fixing prints by the Emulsion Technique namely:
 - (i) Printing Fabrics shall be thoroughly dried by passing them over drying cans or through a hot flume or other equally effective means, before the same are allowed to pass through the polymerising machine.
 - (ii) The exhaust flap or damper shall be provided with a door opening so that at least 2/3 of it is always open
 - (iii) Infrared ray heaters of the machines shall be cut off while running the prints.
 - (iv) The electrical heater shall be so located that if there is any dropping of the solvent due to condensation, it does not directly come in contact with the heaters.
 - (v) The electrical heater shall be connected so located to a separate circuit and shall be provided with an isolation switch so as to ensure that it is completely cut off in an emergency.
 - (vi) The drive of the exhaust fan shall be interlocked with the main drive of the machine in such a way that if the exhaust motor stops, the machine including all devices shall also stop.

- (vii) The electrical heater shall have thermostats to regulate the temperature rises above the pre-set value.
 - (viii) Adequate flaps shall be provided on top of the machine which can open and let off the fumes outside the workroom in the case of an explosion or in case any pressure is built up.
 - (ix) Filter gauge shall be cleaned at least once a week.
 - (x) Exhaust dust shall be cleaned at least once a week.
 - (xi) Tension of the V. belt drive of the fans shall be checked every week.
- (2) The machine shall be examined under the direct supervision of a responsible person designated by the occupier or manager, who by his experience and knowledge of necessary precautions against risks of explosion, is fit to supervise such work.
- (3) A register shall be maintained in which the details of the various checks carried under sub-rule (2), shall be entered and every entry made therein shall be signed by the person making the checks.

CHAPTER V

WELFARE

68.

- (1) There shall be provided and maintained in every factory for the use of employed persons adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and the facilities shall be conveniently accessible and shall be kept in a clean and orderly condition.
- (2) Without prejudice to the generality of the foregoing provisions the washing facilities shall include:
- (a) a trough with taps or jets at intervals of not less than two feet; or
 - (b) wash basins with taps attached thereto; or
 - (c) taps on stand-pipes; or
 - (d) showers controlled by taps; or
 - (e) circular troughs of the fountain type; provided that the Inspector may, having regard to the needs and habits of the workers, fix the proportion in which the aforementioned types of facilities shall be installed.
- (3)
- (a) Every trough and basin shall have a smooth, impervious surface and shall be fitted with a waste pipe and plug.
 - (b) The floor or ground under and in the immediate vicinity of every trough, tap, jet, wash-basin, stand-pipe and shower shall so laid or finished, as to provide a smooth impervious surface and shall be adequately drained.

- (4) For persons whose work involves contact with any injurious or obnoxious substance there shall be at least one tap for every fifteen persons; and for persons whose work does not involve such contact the number of taps shall be as follows:

No. of workers	No. of taps
Up to 20	1
21 to 35	2
36 to 50	3
51 to 150	4
150 to 200	5
Exceeding 200 but not exceeding 500	5 plus one tap for every 50 or fraction of 50.
Exceeding 500	11 plus one tap for every 100 or fraction of 100

- (5) If female workers are employed, separate facilities shall be provided and so enclosed or screened that the interiors are not visible from any place where person of the other sex work or pass. The entrance to such facilities shall bear conspicuous notice in the language understood by the majority of the workers "for Women Only" and shall also be indicated pictorially.
- (6) The water supply to the washing facilities shall be capable of yielding at least six gallons a day for each person employed in the factory and shall be from a source approved in writing by the Health Officer. Provided that where the Chief Inspector is satisfied that such an yield is not practicable he may by certificate in writing permit the supply of a smaller quantity not being less than one gallon per day for every person employed in the factory.

69.

All classes of factories mentioned in the schedule annexed hereto shall provide facilities for keeping clothing not worn during the working hours and for the drying of wet clothing, such facilities shall include the provision of arrangements approved by the Chief Inspector of Factories.

Glass works

Engineering workshops

Iron and Steel work

Oil Mills

Chemical works

Automobile workshops

Dyeing work.

70. First Aid appliance

The first aid boxes or cup boards shall be distinctively marked with red cross on white background and shall contain the following equipment:

- A. For factories in which the number of persons employed does not exceed ten, or (in the case of factories in which mechanical power is not used) does not exceed fifty persons. Each first-aid box or cup-board shall contain the following equipment:
- (i) Six small size sterilized dressings.
 - (ii) Three medium size sterilised dressings.
 - (iii) Three large size sterilised dressings.
 - (iv) Three large size sterilised burn dressings.
 - (v) One (60 ml.) bottle cetrimide solution (1 %) or a suitable antiseptic solution.
 - (vi) One (60 ml.) bottle of Mercurechrome solution (2%) in water.
 - (vii) One (30 ml.) bottle containing sal-volatile having the dose and mode of administration indicated on the label.
 - (viii) One pair scissors.
 - (ix) One roll of adhesive plaster (2 cms. 1 meter).
 - (x) Six pieces sterilized eye pads in separate sealed pockets.
 - (xi) A bottle containing 100 tablets (each of 5 grains) of aspirin or any other analgesic.
 - (xii) Polythene wash bottle (1/2 litre, i. e. 500 c.c.) for washing eyes.
 - (xiii) A snake-bite lancet.
 - (xiv) One (30 ml.) bottle containing potassium permanganate crystals.
 - (xv) One copy of first aid leaflet issued by the Directorate General of Factory Advice Service and Labour Institutes, Government of India, Bombay.
- B. For factories in which mechanical power is used and in which the number of persons employed exceeds ten but does not exceed Fifty. Each First-aid box or cupboard shall contain the following equipment:
- (i) Twelve small size sterilized dressings.
 - (ii) Six medium size sterilised dressings.
 - (iii) Six large size sterilised dressings.
 - (iv) Six large size sterilised burn dressings.
 - (v) Six (15 Gms.) packets of sterilized cotton wool.
 - (vi) One (120 ml.) bottle of cetrimide solution (10%) or a suitable antiseptic solution.
 - (vii) One (120 ml.) bottle of Mercurechrome solution (2%) in water.
 - (viii) One (61 ml.) bottle containing sal-volatile having the dose and mode of administration indicated, on the label.

- (ix) One pair scissors.
- (x) Two roll of adhesive plaster (2cms. 1 meter).
- (xi) Eights pairs of sterilized eye pads in separate sealed pockets.
- (xii) One tourniquet.
- (xiii) One dozen safety pins.
- (xiv) A bottle containing 100 tablets (each of 5 grains) of aspirin or any other analgesic.
- (xv) One polythene wash bottle (1/2 litre. 1. e. 5 c.c.) for washing eyes.
- (xvi) A snake-bite lancet.
- (xvii) One (30 ml.) bottle containing potassium permanganate crystals.
- (xviii) One copy of first aid leaflet issued by the Directorate General of Factory Advice Service and Labour Institutes, Government of India, Bombay.

C. For factories employing more than forty persons each first-aid box or cup-board shall contain the following equipment:

- (i) Twenty four small size sterilized dressings.
- (ii) Twelve medium size sterilised dressings.
- (iii) Twelve large size sterilised dressings.
- (iv) Twelve large size sterilised burn dressings.
- (v) Twelve (15 gm.) packet of sterilized cotton wool.
- (vi) One (200 mg.) bottle of Mercurechrome (2%) solution in water.
- (vii) One (200 ml.) bottle of cetrimide solution (10%) of a suitable antiseptic solution.
- (viii) One (120ml.) bottle of sal-volatile having the dose and mode of administration indicated on the label.
- (ix) One pair scissors.
- (x) One roll of adhesive plaster (6 cms. x 1 meter).
- (xi) Two roll of adhesive plaster (2cms. x 1 meter).
- (xii) Twelve pieces of sterilized eye pads in separate sealed pockets.
- (xiii) A bottle containing 100 tablets (each of 5 grains) of aspirin or any other analgesic.
- (xiv) One polythene wash bottle (500 c.c.) or washing of eyes.
- (xv) Twelve roller bandages 100 centimetres wide,
- (xvi) Twelve roller bandages 5, cms. wide.
- (xvii) Six triangular bandages.
- (xviii) One tourniquet.

- (xix) A supply of suitable splints.
- (xx) Two packets of safety pins.
- (xxi) Kidney tray.
- (xxii) A snake bite lancet.
- (xxiii) One (30 ml.) bottle containing potassium permanganate Crystals.
- (xxiv) First-aid leaflet issued by the Directorate General-of Factory Advice, Service and Labour Institute Bombay.

Provided that items (xiv to xxi) inclusive need not be included in the standard First-aid box or cup-board (a) where there is properly equipped ambulance room, or (b) if at least one box containing such items placed and mentioned in accordance with the requirements of section 45 is separately provided.

- D. In lieu of the dressings required under item (i) and (ii) there may be substituted adhesive wound dressings approved by the Chief Inspector of Factories and other equipment or medicines that may be considered essential and recommended by the Chief Inspector of Factories from time to time.

71. Notice regarding First-aid

A notice containing the names of the persons working within the precincts of the factory who are trained in First-aid treatment and who are incharge of the first-aid boxes or cup- boards shall be posted in every factory at a conspicuous place and near each such box or cup-board. The notice shall also indicate work-room where the said person shall be available. The name of the nearest hospital and its telephone number shall also be mentioned prominently in the said notice.

72. Ambulance room

- (1) The ambulance room or dispensary shall be incharge of qualified medical practitioner assisted by at least one qualified nurse and such subordinate as Chief Inspector may direct.
- (2) There shall be displayed in the ambulance room or dispensary a notice giving the name, address and telephone number of medical practitioner incharge, the name of the nearest hospital and its telephone number shall also be mentioned prominently in the said notice.
- (3) The ambulance room or dispensary shall be separate from the rest of the factory and shall be used only for the purpose of first-aid treatment and rest. It shall have a floor area of at least 24 sq. mtrs. and smooth, hard and impervious walls and floors shall be adequately ventilated and lighted by both natural and artificial means. An adequate supply of wholesome drinking water shall be laid on and the room contain at least:
 - (i) A gazed sink with hot and cold water always available.
 - (ii) A table with smooth top at least 180 cm. into 150 cms.
 - (iii) Means for sterilizing instruments.
 - (iv) A couch.

- (v) Two stretchers.
- (vi) Two Rubber hot buckets or containers with close fitting lids.
- (vii) Two Rubber hot water bags.
- (viii) A Kettle and spirit stove or other suitable means of boiling water
- (ix) Twelve plain wooden splints 900 mx. 100 mmx 6 mm.
- (x) Twelve plain wooden splints 350 m. x. 75 mm x 6mm.
- (xi) Six plain wooden splints 250mm x 50m x 12mm.
- (xii) Six woollen blankets.
- (xiii) Three pairs artery forceps.
- (xiv) One bottle or spirits Ammonia Aromatics (120 ml.).
- (xv) Smelling slates (600 gins.).
- (xvi) Two medium size sponges.
- (xvii) Six hand towels.
- (xviii) Four "Kidney" trays.
- (xix) Four cakes of toilet, preferably an antiseptic soaps.
- (xx) Two glass tumblers and two wine glasses.
- (xxi) Two clinical thermometers.
- (xxii) Tea spoons-Two.
- (xxiii) Graduated (120 ml.) measuring glass-two.
- (xxiv) Minim Measuring glasses-two.
- (xxv) One wash bottle (1000 cc.) for washing eyes.
- (xxvi) One bottle (one litre) carbolic lotion 1 in 20.
- (xxvii) Three chairs.
- (xxviii) One screen.
- (xxix) One electric hand torch.
- (xxx) Four first-aid boxes or, cupboards stocked to the standard prescribed, under C of rule 63.
- (xxxi) An adequate supply of anti tetanus toxide.
- (xxxii) Injections-Morphia, Pethidine, Atropine, Adrenaline, Ceramine Novocam-6 each.
- (xxxiii) Corarnine liquid, (60 ml.)
- (xxxiv) Tablets-Anti-histaminic, anti spasmodic (25 each).
- (xxxv) Syringes with needle-2 c.c., 5 c.c. 10c.c. 50 c.c.
- (xxxvi) Surgical scissors, three.

- (xxxvii) Needle holder.
 - (xxxviii) Suturing needles, and materials.
 - (xxxix) Dissecting forceps-three.
 - (xl) Dressing forceps-three.
 - (xli) Scalpes-three.
 - (xlii) Stethoscope one.
 - (xlili) Rubber bandy RULES, bandage.
 - (xliv) Oxygen cylinder necessary attachments.
- (4) The occupier of the every factory to which these rules apply shall for the purpose of removing serious cases of accident or sickness provide the premises and maintain in good conditions a suitable conveyance unless he has made arrangements for obtaining such a conveyance from a hospital.

Explanation.— For the purpose of this rule, “qualified medical practitioner” means a person holding qualification granted by an Authority specified in the Schedule to the Indian Medical Degrees Act, 1916, or in the Schedules to the Indian IVmedical Council Act, 1956.

FIRST AID LEAFLET (INSTRUCTION FOR HANDLING EMERGENCIES)

SHOCK

1. Lay the patient on his back.
2. Stop-bleeding if any.
3. Relieve pain by supporting injured part.
4. Keep the patient comfortable; but not hot. Do not cause sweating.
5. Fluids may be given in small. amounts unless the patient is nauseated, unconscious, likely be operated on, or has an abdominal wound.
6. Reassure and cheer up the patient.

WOUNDS

1. Stop the bleeding by anyone of the following methods:
 - (a) Direct pressure;
 - (b) Direct finger pressure into the wound in cases of large bleeding wounds;
 - (c) Tourniquet (seldom-needed) use only as a last resort.
2. Avoid touching the wound with hands or unsterile material.
3. Clear the wound with running water and surrounding area with soap or spirit, with clean gauze bandage or sterilise and gauze and roller bandages as needed.
4. Keep the patient quiet; raising the extremity if it is the bleeding part, Give no stimulants.

5. Never apply antiseptic ointment, lotion or indine or germicide to the wound.

ABDOMINAL WOUNDS

1. No time must be lost in sending the patient to the hospital.
2. Keep the patient flat.
3. Give nothing by mouth.
4. Maintain warmth.
5. If intestines protrude from the wound do not attempt to touch or replace them.
6. Apply sterile dressing and bind as for wounds.
7. Provide careful immediate transportation to the hospital.

EYE WOUNDS

1. Removal may be attempted if foreign body is not embedded.
2. Do not apply oil or ointment.
3. If there is a foreign body embedded in the eye-ball, send the worker immediately to the doctor after supply pad and loose bandage.

CHEMICAL BURNS OF THE EYES

1. Immediate washing of the eye at least for fifteen minutes is of great importance.
2. Apply sterile bandage and send the worker immediately to the doctor.
3. Neutralizing agents or ointments should not be used.

SUFFOCATION

1. Remove the Patient from the source of danger.
2. Make a rapid examination to ensure that the air passage are free, and clean them if necessary.
3. Restore natural breathing by artificial respiration, if breathing has ceased.

ELECTRIC SHOCK

1. Remove the patient from the source of danger.
2. Make a rapid examination to ensure that the air passage are free, and clean them if necessary.
3. Restore natural breathing by artificial respiration, if breathing has ceased.

INSENSIBILITY

1. Send for a doctor if possible; pending his arrival.
2. Where the patient's face is pale, lay him flat and face downwards with his head turned to knee side. If his face is flushed of blue, raise and support the head and shoulders.
3. Control any serious bleeding.
4. Loosen any tight clothing and let him have plenty of air.

5. Do not give anything by mouth.
6. If doctor is not available send the casualty to hospital.

BACKBONE (SPINAL) FRACTURE

1. Transport on a rigid frame. This frame may be improved by using available boards or a door.
2. The rigid frame may be placed on a stretcher for transportation.
3. If a firm frame cannot be improvised, transport patient on abdomen on a stretcher made of canvas or blanket.
4. In neck fracture cases it is much better to get a doctor to the scene for danger to life is great.

BRUISES

1. Cold application at first 24-48 hours.
2. Later heat-after 24-48 hours.

BURNS

1. Act quickly.
2. Put the affected part in water.
3. Pour the water over burns that cannot be immersed (cold water relieves pain, reduces fluid loss).
4. Cover with a sterilizing dressing.

SNAKE BITE

Calm and reassure the patient. Immobilise the bitten limb by splinting it. Wash and cool the wound with soap and water. Do not cut, rub or suck the bite. Take to a doctor. Press hard over wound for up to 15 minutes. Do not remove cloth if it has been placed.

73. Canteen

- (1) Rules 73 and 79 shall come into force in respect of any class or description of factories on such dates as the Government may by notification in the Government gazette appoint in this behalf.
- (2) The occupier of every factory and wherein more than two hundred and fifty workers are ordinarily employed according to the standards prescribed in these rules, shall provide in or near the factory an adequate canteen of the Chief Inspector plans and site plans in duplicate of the building to be constructed or adopted.
- (3) The canteen building shall be situated not less than fifty feet from any latrine, urinal, boiler house, coal stacs, as dumps and any other source of dust, smoke or obnoxious fumes:

Provided that the Chief inspector may in any particular factory relax the provisions of this sub-rule to such an extent as may be reasonable in the circumstances and may require measures to be adopted to secure the essential purpose of this rule.

- (4) The canteen building shall be constructed in accordance with the plans approved by the Chief Inspector and shall accommodate at least a dining hall, kitchen, store room, pantry and washing places separately for workers and for utensils.
- (5) In a Canteen the floor and inside walls up to a height of 4 feet from the floor shall be made of smooth and impervious material; the remaining portion of the inside walls shall be made smooth by cement plaster or in any other manner approved by Chief Inspector.
- (6) The doors and windows of a canteen building shall be of fly proof construction and shall allow adequate ventilation.
- (7) The canteen shall be sufficiently lighted at all times when any person have access to it.
- (8)
 - (a) In every canteen:
 - (i) all inside walls of rooms and all ceilings and passages and staircases shall be lime-washed or colour-washed at least once in each year or painted once in three years dating from the period when last lime-washed, or painted, as the case may be;
 - (ii) all wood work shall be varnished or painted;
 - (iii) all internal structural iron or steel work shall be varnished or painted once in three years dating from the period when last varnished or painted; Provided that inside walls of kitchen shall be lime washed once every four months.
 - (b) Records of dates on which lime-washing, colour-washing, varnishing or painting is carried out shall be maintained in the prescribed Register (Form No.8).
- (9) The precincts of the canteen shall he maintained in a clean and sanitary condition. Waste water shall be carried away in suitable covered drains an shall not be allowed to accumulate so as to cause a nuisance. Suitable arrangements shall be made for the collection and disposal of garbage.

74. Dining hall

- (1) The dining hall shall accommodate at a time at least 30 per cent of the workers working at a time:

Provided that, in any particular factory or in any particular class of factories, the Government may, by a notification in this behalf, alter, the percentage of workers to be accommodated.
- (2) The floor area of the dining hall, excluding the area occupied by the service counter and any furniture except tables and chairs, shall be not less than 10 square feet per diner to be accommodated as prescribed in sub-rule, (1).
- (3) A portion of the dining hall and service counter shall be partitioned off and reserved for women workers in proportion to their number. Washing places for women shall be separate and screened to secure privacy.

- (4) Sufficient tables, chairs or benches shall be available for the number of the dinners to be accommodate as prescribed in sub-rule (1).

75. Equipment

- (1) There shall be provided and maintained sufficient utensils, crockery, cutlery, furniture and any other equipment necessary for the efficient running of the canteen. Suitable clean clothes for the employees serving in the canteen shall also be provided.
- (2) The furniture, utensils and other equipment shall be maintained in a clean and hygienic condition. A service counter, if approved, shall have a advance supply top of smooth and impervious material, suitable facilities including an advance supply hot water shall be provided for the cleaning of utensils and equipment.

76. Prices to be Charged

- (1) Food, drink and other it served in the canteen shall be sold on a non-profit basis and the prices, charged shall be subject to the approval of the canteen Managing Committee.
- (2) The charges per portion of foodstuff, beverages and any other items served in the canteen shall be conspicuously displayed in the canteen.

77. Accounts

- (1) All books of accounts, registers and any other documents used in connection with the running of the canteen shall be produced on demand to an Inspector.
- (2) The accounts pertaining to the canteen shall be audited once every twelve months, by registered accountants and auditors.

The Balance Sheet prepared by the said auditors shall be submitted to the Canteen Managing Committee and later than two months after the closing of the audited accounts:

Provided that the accounts pertaining to the canteen in a Government factory having its own accounts department, may be audited in such Department:

Provided further that where the canteen is managed by a co-operative society registered under the Co-operative Societies Act, the accounts pertaining to such canteen may be audited in accordance with the provisions of the Co-operative Societies Act.

78. Managing Committee

- (1) The Manager shall appoint a Canteen Managing Committee which shall be consulted from time to time as to:
 - (a) The quality and quantity of food stuffs to be served in the Canteen;
 - (b) the arrangement of the menus;
 - (c) times of meals in the canteen; and
 - (d) any other matter as may be directed by the Committee.
- (2) The Canteen Managing Committee shall consist of an equal number of persons nominated by the Occupier and elected by the workers. The number of elected

workers shall be in the proportion of 1 for every 1000 workers employed for the factory provided that in no case there shall be more than 5 or less than 2 workers on the committee.

- (3) The Manager shall determine and supervise the procedure for elections to the Canteen Managing Committee.
- (4) A Canteen Managing Committee shall be dissolved by the Manager two years after the last elections no account being taken of a bye-election:

Provided that where the canteen is Managed by a Co-operative Society registered under the Co-operative Societies Act, it shall not be necessary to appoint a Canteen Managing Committee.

79. Shelters, rest rooms and lunch rooms

- (1) This rule shall come into force, in respect of any class or description of factories, on such dates as the Government, may, by notification in the Government gazette, appoint in this behalf.
- (2) The shelters, or rest rooms and lunch rooms shall conform to the following standards and the manager of a factory shall submit for the approval of the Chief Inspector a site plan, in duplicate, of the building to be constructed or adopted:

- (a) The building shall be soundly constructed and all the walls and roofs shall be of suitable heat resisting materials and shall be waterproof. The floor and walls to a height of 3 feet shall be so laid or finished as to provide a smooth, hard and impervious surface.
- (b) The height of every room in the building shall be not less than 12 feet from floor level to the lowest part of the roof and there shall be at least 12 square feet of floor area for every person employed:

Provided that:

- (i) workers who habitually go home for their meals during the rest periods may be excluded in calculating the number of workers to be accommodated, and
 - (ii) in the case of factories in existence at the date of commencement of the Act, where it is impracticable owing to lack of space to provide 12 square feet of floor area for each person, such reduced floor area per person shall be provided as may be approved in writing by the Chief Inspector.
- (c) Effective and suitable provision shall be made in every room for securing and maintaining adequate ventilation by the circulation of fresh air and there shall also be provided and maintained sufficient and suitable natural or artificial lighting.
 - (d) Every room shall be adequately furnished with chairs or benches with back-rests.
 - (e) Sweepers shall be employed whose primary duty is to keep the room, building and precincts thereof in a clean and tidy condition.

80. Creches

- (1) Rules 80 to 83 shall come into force in respect of any class or description of factories, on such date as the Government may, notification in the Government Gazette appoint in this behalf.
- (2) The creche shall be conveniently accessible to the mothers of the, children accommodated therein and so far as is reasonably practicable it shall not be situated in close proximity to any part of the factory where obnoxious fumes dust or odours are given off or in which excessively noisy processes are carried on.
- (3) The building in which the creche is situated shall be soundly constructed and all the walls and roofs shall be of suitable heat resisting materials and shall be water proof. The floor and internal walls of the creche shall be so laid or furnished as to provide a smooth impervious surface.
- (4) The height of the rooms in the building shall be not less than 12 feet from the floor to the lowest part of the roof and there shall be not less than 20 sq. feet of floor area for each child to be accommodated.
- (5) Effective and suitable provision shall be made in every part of the creche for securing and maintaining adequate ventilation by the circulation of fresh air.
- (6) The creche shall be adequately furnished and equipped and in particular there shall be one suitable cot or cradle with the necessary bedding for each child (provided that for children over two years of age it will be sufficient if suitable bedding is made available) at least one chair or equivalent seating accommodation for the use of each mother while she is feeding or attending to her child, and a sufficient supply of suitable toys for the elder children.
- (7) A suitable fenced and shady open air play ground shall be provided for the elder children. Provided that the Chief Inspector may by order in writing exempt any factory from compliance with this sub-rule, if he is satisfied that there is not sufficient space available for the provisions of such play ground.

81. Wash room

- (1) There shall be in or adjoining the creche a suitable wash room for the washing of the children and their clothing. The wash room shall conform to the following standards:
 - (a) The floor and internal walls of the rooms to a height of 3 feet shall be so laid or furnished as to provide a smooth impervious surface. The room shall be adequately lighted and ventilated and the floor shall be effectively drained and maintained in a clean and tidy condition.
 - (b) there shall be at least one basin or similar vessel for every four children accommodated in the creche at anyone time together with a supply water provided, if practicable, through taps from a sources approved by the Health Officer. Such source shall be capable of yielding for each child a supply of at least five gallons of water a day.
 - (c) An adequate supply of clean clothes soap and clean towels shall be made available for each child while it is in the crèche.

- (2) Adjoining the washing room referred to above, a latrine shall be provided for the sole use of the children in the creche. The design of latrine and the scale of accommodation to be provided shall either be approved by the Public Health Authorities or where there is no such public health authority, the Chief Inspector of Factories.

82. Supply of milk and refreshment

At least half a pint of clean pure milk shall be available for each child on every day it is accommodated in the creche and the mother of such child, shall be allowed in the course of her daily work two intervals of at least 15 minutes to feed the child. For children above two years of age there shall be provided an adequate supply of wholesome refreshment.

83. Clothes for creche staff

- (1) The creche staff shall be provided with suitable clean clothes for use while on duty in the creche.

CHAPTER V

WORKING HOURS FOR ADULTS

84. Compensatory holidays

- (1) Except in case of workers engaged in any work which for technical reasons must be carried on continuously through out the day the compensatory holidays to be allowed under sub-section (1) of section 52 of the Act shall be so spaced that not more than two holidays are given in one week.
- (2) The Manager of the factory shall display, on or before the end of the month in which holidays are lost, a notice in respect of workers allowed compensatory holidays during the following months and of the dates thereof, at the place at which the Notice of periods of work prescribed under section 61 is displayed. Any subsequent change-in the Notice in respect of any compensatory holiday shall be made not less than 3 days in advance of the holiday.
- (3) Any compensatory holiday or holidays to which a worker entitled shall be given to him before he is discharged or dismissed and shall not be reckoned as part of any period of Notice required to be given before dis-charge, dismissal.
- (4)
 - (a) The Manager shall maintain a register in Form No. 10 provided that if, the Chief Inspector of Factories is of the opinion that any muster roll or register maintained as part of the routine of the factory or routine made by the Manager, given in respect of any or all workers in the factory particulars, required for the enforcement of Section 52, he may, by order in writing, direct that such muster roll or register of return shall, to the-corresponding extent, be maintained in place of and be treated as the register of return required under this rule for the factory.
 - (b) The register maintained under Clause (a) shall be preserved for a years after the last entry in it and shall be produced before the Inspector on demand.

85. Muster Roll for exempted factories

The Manager of every factory in which workers are exempted under section 64 or 65 from the provisions of sections 51 or 53 shall keep a Muster Roll in Form No. 11 showing the normal piece work rate of pay or the rate of pay per hour of all exempted employees. In this Muster Roll shall be all correctly entered the over time hours of work and payments therefor of a exempted workers. The Muster Roll shall be in form No. 11 and shall always be available for inspection.

86. Notice of periods of work for adults

The notice of periods of work for adult workers shall be in Form No. 12.

87. Register of adult workers

The register of adult workers shall be in Form No. 13.

88. Persons defined to hold positions of supervision or management

The following persons shall be deemed to hold positions of supervision or management:

- (a) All persons specified in the Schedule annexed hereto.
- (b) Any other person who, in the opinion of the Inspector, holds a position of supervision or management.

SCHEDULE

LIST OF PERSONS TO HOLD POSITIONS OF SUPERVISION OR MANAGEMENT IN FACTORIES

1. Managers.
2. Assistant Managers.
3. Engineers.
4. Foreman.
5. Weaving Master and Spinning Master in Textiles Mills.
6. Head Electricians.
7. Security Officer (Watch and Ward Officer).
8. Labour Officers..

89. Persons defined to hold confidential positions

All time keepers employed in a factory within the meaning of sub-section (1) of section 2 shall be deemed to be employed in a confidential position in the Factory.

90. List to be maintained of workers holding confidential position or position of supervision of Management

A list showing the names and designations of all persons to whom provisions of sub-section (1) of section 64 have been applied shall be maintained in every factory.

91. Exemption of certain adult workers

Adult workers engaged in factories specified in column 2 of the Schedule hereto annexed on the work specified in column 3 of the said schedule shall be exempt from the provisions of the exemptions specified in col. 5 of the said schedule.

SCHEDULE

Section of the Act empowering grant of exemption	Class of Factories	Nature of exempted work	Extent of exemption	Remarks
1	2	3	4	5
64 (2) (a) and 64 (3)	All Factories	Urgent repairs	Section 51, 52, 54, 55, 56 and 61	(i) No. of workers employed on such repairs more than 15 hours on any one day 30 hours during any three consecutive day, or 66 hours during each period of seven consecutive days commencing from his first employment on such repairs.
64 (2) (b) 64 (3)	All Factories	1. Work in the Factories mechanic Shop the smithy of the foundry or in connection with mill gearing the electric driving or lighting apparatus, the mechanical or electrical lifts or the steam or water pipes or pumps of a factory.	Sections 51, 54, 55, 56 and 61	(ii) Within 24 hours of the commencement of the work notice shall be sent to the Inspector describing the nature of the urgent repair and the period probably required for their compilation. (iii) Exemption from the provisions of section 54 shall apply only in the case of adult male workers. (iv) The limits of work inclusive of over-time shall exceed these mentioned in sub-section (4) of section 54.
		2. Work of examining or requiring any machinery or other part of the plant which is necessary for carrying on work in the factory.		

		3. Work in boiler houses and engine rooms such as lighting fires in order to raise steam or generate gas preparatory to commencement of regular work in the factory.	do.	do.
64 (2) (c) 64 (3)	All Factories	Work performed by drivers on lighting, ventilating and humifying apparatus.		
		Work performed by fire pumpmen		
64 (2) (d) 64 (3)	Oil tank installations	Worked performed by workers connected with pumping operations.	Sections 51, 52, 54, 55, 56 and 61	In the absence of the worker who have failed to report for duty. Shift worker shall be allowed to work the whole the whole or part of a subsequent shift provided that.
	Hydro electric public supply factories	Operation and maintenance of prime movers and auxiliaries transformers and switches.	Section 52, 54 and 55	
	Public electricity supply companies generating form oil.			
	In internal combustion engineers	The work of engine drivers and assistant, generator attendants, boilers and generator, switch board operators and pumpment.	do.	

	Electrical transforming factories	The Work viz, operation and maintenance of the transforming plant switch and synchronous condensers.	do	the exemption will be restricted to only male adult workers. The limits of work inclusive of overtime shall not exceed those mentioned in sub-section (4) of section 64.
	Distillers	Work on the extraction of sugar from various bases fermentation of sugar juice and distillation of fermented wash.	Sections 52, 54 and 55.	
	Sugar factories	Extraction of the Juice from the cane, clarification, evaporation and boiling of the Juice. Curing of the massecuite Bagging.	do.	do.
	Chemical factories	Work on the sulphur burners, chambers, concentrators and pumps roasting furnace, the manufacture of Hydrochloric and Nitric Acids Sulphates sulphides nitrates, sulphosphates and chlorides, work on steam service.	do.	do.
	Vegetables oil hydrogenation factories	The work, viz refining bleaching filtering generation of hydrogenating and, demorising processes also compression of oxygen and the cylinder filling and work on the electrical power plant.	do.	do.
	Ice Factories	Work of the engine and compressor	Section 54 and 55.	do.
		drivers and assistants and Oilers		

	Oil Mills	All works	Section 54 and 55.	do.
	Flour Mills	All works	Section 52 and 55.	do.
	Glass Factories	Workers attending to furnace	do.	do.
		All work and processes form mixing of batch to removal of the manufactured glassware form the lears.	Section 52	do.
	Paper Factories	All work on paper making machinery and on the generation and supply of power connected therewith.	Section 52, 54 and 55.	do.
		Work on choppers, digesters, kneaders, strainers and washers, beaters, paper-' making machine, pumping plant reelers, cutters and power plant.		
	Rubber Tyre Factories	All work on curing process.	Section 55.	The limits of work inclusive of overtime shall not exceed those mentioned in sub-section (4) of section 64.
	Iron and Steel factories	All work on furnace	Section 51, 52, 54, 55 and 56	do.
46(2)(1)	News paper printing factory	Teleprinter service	Sections 51, 54 and 56	do.
66(2) (j)	All Factories	Loading and unloading of railway wagons.	Section 51, 52, 54, 55 and 56	do.

Explanations

1. The following shall be considered to be urgent repairs:

- (a) Repairs to any part of the machinery, plant or structure of a factory which execution would involve danger to human life or safety or the stoppage or manufacturing process.
 - (b) Break-down repairs to the motive power, transmission or other factories, collieries railways, dockyard, harbours, tramways, motor transport gas, electrical generating and transmission, pumping or similar essential or public utility services carried out in general engineering works and foundries and which are manufacturing processes production or necessary to enable such concerns to maintain the manufacturing processes, production or service during normal hours.
 - (c) Repairs to deep-sea ships and repairs to chemical aircraft done in a factory which are essential to enable such ships or aircrafts to leave port at proper time continue their operations in a sea or air worthy condition as the case may be.
 - (d) Repairs in connection with a charge of motive power for example from steam to electricity or vice-versa when such work cannot possibly be done without stoppage of the normal manufacturing process.
2. Periodical cleaning is not included in the terms "Examining or repairing".

CHAPTER VII

EMPLOYMENT OF YOUNG PERSONS

92. Notice of period of work for children

The notice of periods of work for child workers shall be in form No. 14.

93. Register of child workers

The Register of child workers shall be in Form No. 15.

CHAPTER VIII

LEAVE WITH WAGES

94. Leave with wages Register

- (1) The Manager shall keep a register in Form No. 16 hereinafter called the leave with wages register:

Provided that if the Chief Inspector of Factories is of the opinion that any muster roll or register maintained as part of the factory, or return by the manager, given in respect a of any or all of the workers in the factory, the particulars required for the enforcement of Chapter VIII of the Act, may by order, in writing direct that such muster roll or register or return shall, to the corresponding extend, be maintained in place of and be treated as the register or return required under this Rule in respect of the factory.

- (2) The leave with wages register shall be preserved for a period of three years after the last entry in it and shall be produced before the Inspector on demand.

95. Leave Book

- (1) The Manager shall provide each worker who has become entitled to leave during a calendar year, with a book in Form No.7 (hereinafter called the leave book) not later than the 31st January of the following calendar year. The leave book shall be

the property of the worker and the Manager or his agent shall not demand it except to make entries of the dates of holidays or interruptions in service, and shall not keep it for more than a week at a time:

Provided that in the case of worker who is discharged or dismissed from service during the course of the year i. e. who is covered under sub-section (3) of section 79 of the Factories Act, 1948, the Manager shall issue an abstract from the register of leave with wages (Form No. 16) within a week from the date of discharge or dismissal as the case may be.

- (2) If a worker loses his leave book, the Manager shall provide him with another copy on payment of 15 paise and shall complete it from his record.

96. Medical Certificate

If any worker is absent from work and it appears that his absence is due to illness, he shall, if so required by his Manager by a notice in writing submit a medical certificate signed by a registered medical practitioner or by the registered or recognised Vaid or a Hakim stating the cause of the absence and the period for which the worker is, in the opinion of such medical practitioner. Vaid or Hakim, unable to attend to his work.

97. Notice to Inspector of Involuntary Unemployment

The Manager shall give as soon as possible, a notice to the Inspector of every case of involuntary unemployment of workers giving number of unemployed and the reason for their unemployment. Entries to this effect shall be made in the with wages register and leave book in respect of each work concerned.

98. Notice by worker

Before or on the completion of a period of twelve months continuous service in the factory as defined in section 97, a worker may give notice to the Manager of his intention not to avail himself of holidays falling due in the following period of 12 months. The Manager shall make an entry to effect in the leave with wages register and in the leave book of the worker concerned.

99. Notice of leave with wages

- (1) Except in regard to a worker who has given notice of his intention not to avail himself holidays in the year in which these fall due the Manager shall by a notice displayed at the place at which the notice of the periods of work required by section 61 is displayed fix the dates on which leave with wages shall be allowed to each worker or group of workers including any work who has accumulated his leave of 30 days. The date shall not, in an individual case be earlier than four weeks for the date of notice unless the worker agrees to take the leave earlier, the necessary entries shall be made in the leave with wages register and the leave book of the worker concerned.
- (2) As far as circumstances permit, members of the same family, composing husband, wife and children shall be allowed leave on the same date.
- (3) The Manager may alter the dates fixed for leave only after giving a notice of four weeks to the workers.

- (4) A worker may exchange the period of his leave with another worker, subject to the approval of the Manager.

100. Payment of wages if the worker dies

If a worker dies before he resumes work, the balance of his pay due for the period of holidays shall be paid to his nominee within one week of the intimation of death of the worker. For this purpose each worker shall submit a nomination in Form No. 29 duly signed by himself and attested by two witnesses. The nomination shall remain in force until it is cancelled or revised by another nomination.

FORM NO. 29

I hereby require that in the event of my death before resuming work the balance of my pay dues for the period of holidays shall be paid to.....who is ray.....and resides at.....

101. Register to be maintained in case of exemption under section 83

- (1) where an exemption is granted under section No. 83 the Manager shall maintain a register showing the position of each worker as regards leave due, leave taken and wages granted.
- (2) He shall display at the main entrance of the factory, a notice giving full details of the system established in the factory for leave with wages and shall send a copy of it to the Inspector.
- (3) No alteration shall be made in the scheme approved by the Govt. at the time of granting exemption under section 83 without the previous sanction.

CHAPTER IX

SPECIAL PROVISIONS

102. Dangerous operations

- (1) The following operations when carried on in any factory are declared to be dangerous operations made under section 87:
 1. Manufacture of aerated water and processes incidental thereto.
 2. Electrolytic plating or oxidation of metal articles by use of other chromium compounds.
 3. Manufacture and repair of electric accumulators.
 4. Glass manufacture.
 5. Grinding or glazing of metals.
 6. Manufacture and treatment of lead and certain compounds leads.
 7. Generating petrol gas from petrol.
 8. Cleaning or smoothing, roughening etc. of articles, by a jet of sand metal shot, or grit, or other abrasive propelled by a blast of compressed air or steam.
 9. Liming and tanning of raw hides, skins and processes incidental thereto.

10. Printing presses and Type foundries-Certain load processes carried therein.
 11. Manufacture of pottery.
 12. Chemical works.
 13. Manufacture of Article from Refectory Materials.
 14. Handling and processing of Asbestos, manufacture of any article of asbestos and any other process of manufacture of otherwise in which asbestos is used in any form.
 15. Handling and manipulation of corrosive substances.
 16. Compressions of oxygen and hydrogen produced by the electrolysis of water.
- (2) The provisions specified in the Schedules annexed hereto; shall apply to any class or description of factories wherein dangerous operations specified in each schedule are carried out.
- (3) The rule shall come into force in respect of any class or description of factories, wherein the said operations are carried on. On such dates as the Government may by notification in the Government Gazette appoint in this behalf.

SCHEDULE I

(MANUFACTURE OF AERATED WATERS AND PROCESSES INCIDENTAL THERETO)

1. Fencing of Machines

All machines for filling bottles or syphons shall be so constructed, placed or fenced, as to prevent, as far as, as may be practicable a fragment of a bursting bottle of syphon from striking any person employed in the factory.
2. Face guards and gauntlets
 - (1) The Occupier shall provide and maintain in good condition for the use of all persons engaged in filling bottles or syphons:
 - (a) suitable face guards to protect the face, neck and throat, and
 - (b) suitable gauntlets for both arms to protect the whole hand and arms, provided that:
 - (i) Paragraph: 2 (1) shall not apply where bottles are filled by means of an automatic machine so constructed that fragment of a bursting bottle can be escaped, and
 - (ii) Where a machine is so constructed that only one arm of the bottle at work upon it is exposed to danger, a gauntlet need not be provided for the arm which is not exposed to danger.
 - (2) The Occupier shall provide and maintain in good condition for the use of all persons engaged in corking, crowning, wiring, screwing, foiling, capsuling, tightening or labelling bottles or syphons.
 - (a) Suitable face guards to protect the face, neck and throat, and

- (b) Suitable gauntlets for both arms to protect the arm and at least half the palm and the space between the thumb and forefinger.
- (3) Wearing of face guards and gauntlets: All persons engaged in any of the processes specified in paragraph No.2 shall, while at work in such processes, wear the face guards and gauntlets provided under the provisions of the said paragraph.

SCHEDULE II

(ELECTROLYTIC PLATING OR OXIDATION OF METAL ARTICLES BY USE OF AN ELECTROLYTE CONTAINING CHROMIC ACID OR OTHER CHROMIUM COMPOUNDS)

1. Definitions

For the purpose of this schedule:

- (a) "Electrolytic chromium process" means the electrolytic plating or oxidation of metal articles by the use of an electrolyte containing chromic acid or other chromium compounds.
 - (b) "Bath" means any vessel used for an electrolytic chromium process or for any subsequent process.
 - (c) "Employed" means in paragraph 5, 7, 8 and 9 of this schedule, employed in any process involving contact with liquid from a bath.
 - (d) Suspension means suspension from employment in any process involving contact with liquid from any bath by written Certifying Surgeon who shall have power of suspension as regards all persons employed in any process.
2. Exhaust draught: An efficient exhaust draught shall be applied to every vessel in which an electrolytic chromium process is carried on such draught shall be provided by mechanical and shall operate on the vapour or spray given off in y be at the point of origin. The exhaust draught appliance shall be so constructed, arranged and maintained as to prevent the vapour or spray entering into any room or place in which work is carried on.
3. Prohibition relating to women and young persons
- No women, adolescent or child shall be employed or permitted to work at a bath.
4. Floor of workrooms: The floor of every room containing a bath shall be impervious to water. The floor shall be maintained in good and level condition and shall be washed down at least once a day.
5. Protective clothing
- (1) The Occupier of the factory shall provide and maintain in good and clean condition the following articles of protective clothing for the use of all persons employed on any process at which they are liable to come in contact with liquid from a bath and such clothing shall be worn by the persons concerned:
 - (a) Water proof aprons and bibs, and

- (b) For persons actually working at a bath, loose, fitting rubber gloves and rubber boots or other waterproof footwear.
- (2) The Occupier shall provide and maintain for the use of all persons employed suitable accommodation for the storage and adequate arrangements for the drying of the protective clothing.
- 6. Medical requisites: The Occupier shall provide and maintain a sufficient supply of suitable ointment and impermeable water proof plaster in separate box readily accessible to the workers and used solely for the purpose of keeping the ointment and plaster.
- 7. Medical Examination
 - (a) Every person employed shall be examined by the Certifying Surgeon once in every 14 days and such examination shall take place at the factory.
 - (b) A Health Register in the prescribed Form No. 17 shall be kept by the Occupier of the factory and in it shall be entered the names of all persons employed together with such entries as the Certifying Surgeon may make from time to time.
 - (c) No person after suspension shall be employed without written sanction from the Certifying Surgeon entered in or attached to the Health Register.
- 8. Cautionary placard: A Cautionary placard in the form specified by the Chief Inspector and printed in the language of the majority of the workers employed shall be affixed in a prominent place in the factory where it can be conveniently read by the workers.
- 9. Weekly examination: A responsible person appointed in writing by Occupier of the factory shall twice in every week inspect the hands and forearms of all persons employed and shall keep a record of such inspections in the Health Register.

SCHEDULE III

(MANUFACTURE AND REPAIR OF ELECTRIC ACCUMULATORS)

- 1. Savings: This schedule shall not apply to the manufacture or repair of electric accumulators or parts thereof not containing lead or any compound, or to the repair on the premises, of any accumulator forming part of a stationery battery.
- 2. Definitions
 - For the purposes of this schedule:
 - (a) "Lead process" means the melting of lead or any material containing lead, casting, pasting, lead-burning, or any other work, including trimming, or any other abrading or cutting of pasted plates, involving the use, movement of manipulation of, or contact with, any oxide of lead.
 - (b) "Manipulation of raw oxide of lead" means any lead process involving any manipulation or movement or raw oxides of lead other than its conveyance in a receptacle or by means of an implement from one operation to another.
 - (c) "Suspension" means suspension from employment in any lead process by written certificates in the Health Register (Form No. 17) signed by the

Certifying Surgeon, who shall have power of suspension as regards all persons employed in any such process.

3. Prohibition relating to women and young persons
No woman or young person shall be employed or permitted to work in any lead process or in any room in which the manipulation of raw oxide of lead or pasting is carried on.
4. Separation of certain processes
Each of the following processes shall be carried on in such a manner and under such conditions as to secure effectual separation from one another, and from any other process:
 - (a) Manipulation of raw oxide lead.
 - (b) Pasting.
 - (c) Drying of pasted plates.
 - (d) Formation with lead Burning "Tacking" necessarily carried on in connection therewith.
 - (e) Melting down of pasted plates.
5. Air space: In every room in which a lead process is carried on there shall be at least 500 cubic feet of air space for each person employed therein, and in computing this airspace no height over 12 feet shall be taken into account.
6. Ventilation: Every workroom shall be provided with inlets and outlets of adequate size as to secure and maintain efficient ventilation all parts of the room.
7. Distance between workers in Pasting Room: In every pasting room the distance between the centre of the working position of any paster and that of the paster nearest to him shall not be less than five feet.
8. Floor of workroom
 - (1) The floor of every room in which lead process is carried on shall be:
 - (a) of cement of similar materials, so as to be smooth and impervious to water;
 - (b) maintained in sound condition;
 - (c) kept free from materials plant, or other obstruction not required for or produced in, the process carried on in its room.
 - (2) In all such rooms other than grid casting shops the floor shall be: Cleaned daily after being thoroughly sprayed with water at a time when no other work is being carried on in the room.
 - (3) In grid casting shops the floor shall be cleansed daily.
 - (4) Without prejudice to the requirements of sub-paragraphs (1), (2) and (3) where manipulation of raw oxide of lead or pasting is carried on, the floor shall also be:
 - (a) Kept constantly moist while work is being done.

- (b) Provided with suitable and adequate arrangements for drainage;
- (c) thoroughly washed daily by means of a hose pipe.

9. Work-benches

The work benches at which any lead process is carried on shall:

- (a) have a smooth surface and be maintained in sound condition.
 - (b) be kept free from all materials or plant not required for or produced in the process carried on thereat, and all such work benches other than those in grid casting shops shall.
 - (c) be cleaned daily either being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on thereat, and all such work benches in grid, casting shops, shall
 - (d) be cleansed daily, and every work benches used for pasting shall;
 - (e) be covered throughout with sheet lead or other impervious material;
 - (f) be provided with raised edges;
 - (g) be kept constantly moist while pasting is being carried on.
10. Exhaust draught: The following processes shall not be carried on without the use and efficient exhaust draught:
- (a) Melting of lead of materials containing lead;
 - (b) manipulation of raw oxide of lead, unless done in an enclosed apparatus so as to prevent the escape of dust in to the work-room.
 - (c) pasting;
 - (d) Trimming, brushing, filling or any other abrading or cutting of paster plates giving rise to dust;
 - (e) Lead burning, other than:
 - i. "Tacking" in the formation room.
 - ii. Chemical burning for the melting of lead lining for cell bases necessarily carried on in such a manner that the application of efficient exhaust is impracticable. Such exhaust draught shall be effected by mechanical means and shall operate on the dust or fume given off as nearly as may be its point of origin, so as to prevent it entering the air of any room in which persons work.
11. Fumes and gases from melting post: The product of combustion produced in the hearing of melting poses shall not be allowed to escape into a room in which persons work.
12. Container for dross: A suitable receptacle with tightly fitting cover shall be provided and used for dross as it is removed from every melting pot. Such receptacle shall be kept covered while in the workroom except when dross is being deposited therein.

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

14. Racks and shelves in drying room: The racks or shelves provided in any drying room shall not be more than 8 feet from the floor nor more than 4 feet in width, provided that as regards racks or shelves set or drawn from both sides the total width shall not exceed 4 feet.

Such racks or shelves shall be cleaned only after being thoroughly an efficient suction cleaning apparatus is used for this purpose.

15. Medical examination

(a) Every person employed in a lead process shall be examined by the Certifying Surgeon within the seven days proceeding or following the date of his first employment in such process and thereafter shall be examined by the Certifying Surgeon once in every calendar month or at such other intervals as may be specified in writing by the Chief Inspector on a day of which due notice shall be given to all concerned.

“First employment” means first employment in a lead process in a factory or workshop and also re-employment therein a lead process following any extension of employment in such process for a period exceeding three calendar months.

(b) A health register in Form No. 17 containing the names of all persons employed in a lead process shall not be kept;

(c) No person after suspension shall be employed in a lead process without written sanction from the Certifying Surgeon entered in or attached to the Health Register.

16. Protective clothing: Protective clothing shall be provided and maintained in good repair for all persons employed in:

(a) manipulation or raw oxide of lead;

(b) pasting;

(c) the formation room;

and such clothing shall be worn by the persons concerned. The protective clothing shall consist of a water proof apron and water proof footwear, and also regards persons employed in the manipulation of raw oxide lead or in pasting, head coverings. The head covering shall be washed daily.

17. Mess room: There shall be provided and maintained for the use of all persons employed in a lead process and remaining on the premises during the meal intervals, a suitable mess room, which shall be furnished with:

(a) sufficient tables and benches,

(b) adequate means for warming food. The mess room shall be placed under the charge of a responsible person, and shall be kept clean.

18. Clock room: There shall be provided and maintained for the use of all persons employed in lead process;
 - (a) a clock-room for clothing put off during working hours with adequate arrangements for drying the clothing if washed. Such accommodation shall be separate from any mess-room.
 - (b) separate and suitable arrangements for the storage of protective clothing provided under paragraph 16.
19. Washing facilities: There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in a lead process.
 - (a) A wash place under cover with either;
 - (i) a trough with a smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow of at least two feet for every five such persons employed at any one time, and having a constant supply of water from taps or jets above the trough at intervals of not more than two feet; or
 - (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having a constant supply of water laid on;
 - (iii) a sufficient supply of clean towels made of suitable materials renewed daily, which supply, in the case of pasters and persons employed in the manipulation of raw oxide of lead, shall include a separate marked towel for each such worker; and
 - (iv) a sufficient supply of soap or other suitable cleaning material and of nail brushes.
 - (b) There shall in addition be provided means of wasting in close proximity to the rooms in which manipulation of raw oxide of lead or pasting is carried on if required by the notice in writing from the Chief Inspector.
20. Time to be allowed for washing: Before each meal and before the end of day's work at least ten minutes, in addition, to the regular meal times, shall be allowed for washing to each person who has been employed in the manipulation of raw oxide of lead or in pasting:

Provided that if there be one basin or two feet of trough for each such person this paragraph shall not apply.
21. Facilities for bathing: Sufficient bath accommodation to the satisfaction of the Chief Inspector shall be provided for all persons engaged in the manipulation of raw oxide of lead or in pasting, and a sufficient supply of soap and clean towels.
22. Food drinks etc. Prohibited in work-room: No food, drink, Pan and Supari or Tobacco shall be consumed or brought by any worker, into any work-room in which any lead process is carried on.

SCHEDULE IV
CLASS MANUFACTURE

1. Exemption: If the Chief Inspector is satisfied in respect of any factory or any class of process that, owing to the special methods of work or the special conditions in a factory or otherwise any of the requirements of this schedule can be suspended or relaxed without may by certificate in writing authorises such suspension or relaxation danger to the persons employed therein, or that the application of as may be indicated in the certificate for such period and on such conditions as he may think fit.

2. Definitions

For the purposes of the Schedule:

- (a) "Efficient exhaust draught" means localised ventilation effected by mechanical means for the removal of gas, vapour, dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove smoke generated at the point where such gas, vapour, fume or dust originate.

"Lead compound" means any compound of lead other than galena which, when treated in the manner described below. yields to an aqueous solution of Hydrochloric Acid a quantity of schedule lead compound exceeding, when calculated as Lead Monoxide, five percent of dry weight of the portion taken for analysis.

The method of treatment shall be as follows:

A weighted quantity of the material which has been dried at 100°C and thoroughly mixed shall be continuously, shaken for one hour at the common temperature with 1,000 times its weight of an aqueous solution of hydro- chloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead shall contain in the clear filterage shall then be precipitated as Lead Sulphide and weighed as Lead Sulphate.

- (a) "Suspension" means suspension from employment in any process specified in paragraph 3 by written certificate in Health Register, form No. 17 signed by the Certifying Surgeon who shall have power of suspension as regards all persons employed in any such process.

3. Exhaust draught: The following process shall not be carried on except under an efficient exhaust draught or such other conditions as may be provided by the Chief Inspector.

- (a) The mixing of raw materials to form a "batch".
- (b) The dry grinding, glazing and polishing of glass or any article of glass.
- (c) All processes in which hydrochloric acid fumes or ammonia vapours are given off.
- (d) All processes in the making of furnace moulds or "pots", including the grinding or crushing of used "pots".
- (e) All processes involving the use of a dry lead compound.

4. Prohibition relating to women and young persons: No women or young person shall be employed or permitted to work in any of the operations are carried on.
5. Floors and work-benches: The floor and work-benches of every room in which a dry compound of lead is manipulated or in which any process is carried on giving off silica dust shall be kept moist and shall comply with the following requirements:

The floor shall be:

 - (a) of cement or similar so as to be smooth and impervious to water;
 - (b) maintained in sound condition, and
 - (c) cleaned daily after being thoroughly spread with water at a time when no either work is being carried on in the room the work benches shall.
 - (d) have a smooth surface and be maintained in sound condition, and
 - (e) cleaned daily either after being thoroughly damped or by means of a suction cleaning apparatus at a time when no other work is being carried on thereat;
6. Use of hydrofluoric acid
 - (a) There shall be inlets and outlets of adequate size so as to secure and maintain efficient ventilation in all parts of the room;
 - (b) The floor shall be covered with guttapercha and be tight and shall slop gently down to a covered drain;
 - (c) The work places shall be so enclosed in projecting hoods that openings required for bringing in the objects to be treated shall be as small as practicable; and
 - (d) The efficient exhaust draught shall be so contrived that the gases are exhaust down wards.
7. Blow Pipes: Every glass blower shall be provided with a separate blow pipe bearing the distinguishing mark of the person to whom it is issued and suitable facilities shall be readily available to every glass blower for sterilizing his blow pipe.
8. Storage and Transport of hydrofluoric Acid: Hydrofluoric acid shall not be stored or transported except in cylinders or receptacles made of lead or rubber.
9. Food, drinks etc. Prohibited in work-rooms: No food, drink, Pan and Supari or Tobacco shall be brought into or consumed by any worker in any room or work-place wherein any process specified in paragraph 3 is carried on.
10. Protective Clothing: The occupier shall provide, maintain in good repair and keep in a clean condition for the use of all persons employed in the processes specified in paragraph 3 suitable protective clothing, footwear etc. shall be worn by the persons concerned.
11. Washing Facilities: There shall be provided and maintained in a cleanly suite and in good repair for the use of all persons employed in the processes specified in paragraph 3.
 - (a) a wash place with either:

- (i) a trough with a smooth impervious surface fitted with a waste pipe without plug; and of sufficient length to allow of at least two feet for every five such persons employed at any one time, and having a constant supply of water from tap or jets above the trough at intervals of not more than 2 feet; or
- (ii) at least one wash basin for every five such persons employed at any one time, fitted with a waste pipe and plug and having an adequate supply of water laid on or always readily available; and
- (b) a sufficient supply of clean towels made of suitable material renewed daily with a sufficient supply of soap or other suitable cleansing material and nail brushes; and
- (c) a sufficient number of stand pipes with taps the number and location of such stand pipes shall be to the satisfaction of the Chief Inspector.

12. Medical Examination

- (a) Every person employed in any process specified in paragraph 3 shall be examined by Certifying Surgeon within seven days preceding or following the date of his first employment in such process and thereafter shall be examined by the Certifying Surgeon once in every calendar month or at such other intervals as may be specified in writing by the Chief Inspector on which due notice shall be given to all concerned.
- (b) A health register in Form No. 17 containing the names of all persons employed in any process specified in paragraph 3 shall be kept.
- (c) No person after suspension shall be employed in any process specified in paragraph 3 without written sanction from the Certifying Surgeon entered in or attached to the Health Register.

SCHEDULE V

(GRINDING OR GLAZING OF METALS AND PROCESSES INCIDENTAL THERETO)

1. Definitions

For the purpose of this schedule;

- (a) "Grindstone" means a grindstone composed of natural or manufactured sand stone but does not include a metal wheel or cylinder into which blocks or natural or manufactured stand-stone are fitted.
- (b) Abrasive wheel means a wheel manufactured of bonded energy or similar abrasion.
- (c) "Grinding" means the abreation by aid of mechanical power of metal, by means of a grindstone or abrasive wheel.
- (d) "Glazing" means the abrading, polishing or finishing by aid of mechanical power of metal, by means of any wheel, buff, map or similar appliances to which any abrading or polishing substance is attached or applied.

- (e) "Racing" means the turning up, cutting or dressing of a revolving grindstone before it is brought into use for the first time.
- (f) "Hacking" means the chipping of the surface of a grindstone by a tack or similar tool.
- (g) "Ridding" means the dressing of the surface of a revolving grindstone by the application of a rod, bar or strip of metal to such surface.

2. Exceptions

- (1) Nothing in this Schedule shall apply to any factors in which only repairs are carried on except any part thereof in which one or more persons are wholly or mainly employed in the grinding or glazing of metals.
- (2) Nothing in this schedule except paragraph 4 shall apply to any grinding or glazing of metals carried on intermittently and at which person is employed for more than 12 hours in any week.
- (3) The Chief Inspector may by Certificate in writing, subject to such conditions as he may specify therein, relax or suspend any of the provisions of this Schedule in respect of any factory owing to the special methods of work or otherwise such relaxation or suspension is practicable without danger to the health or safety of the persons employed.

3. Equipment for removal of dust: No racing, dry grinding glazing shall be performed without:

- (a) a hood or other appliance so constructed, arranged, placed and maintained as substantially to intercept the dust thrown off; and
- (b) a dust adequate size, air tight and so arranged as to be capable of carrying away the dust, which dust, should be kept free from obstruction and shall provide with proper means of access for inspection and cleaning, and where practicable, with a connection at the end remote from the fan to enable the Inspector to attach thereto instrument necessary for ascertaining the pressure of air in the said dust; and
- (c) a fan or other sufficient means of producing a draught sufficient to extract the dust:

Provided that the Chief Inspector may accept any other appliance that is, in his opinion as effectual for the interception, removal and disposal of dust thrown off as a hood, dust and fan would be.

4. Restriction on employment on grinding operations: Not more than one person shall at any time perform the actual process of grinding or glazing up a grindstone, abrasive wheel or glazing appliance:

Provided that this paragraph shall not prohibit employment of persons to assist in the manipulation of heavy or bulky articles at any such grind-stone, abrasive wheel or glazing appliance.

5. Glazing: Glazing or other processes, except processes, incidental to wet grinding upon a grindstone shall not be carried on in any room in which wet grinding upon a grindstone is done.

6. Hacking and rodding: Hacking or rodding shall not be done unless during the process either (a) an adequate supply of water is laid on at the upper surface of the grindstone or (b) adequate appliances for the interception of dust are provided in accordance with requirements of paragraph 3.
7. Examination of dust equipment
 - (a) All equipment for the extraction or suppression of dust shall at least once in every six months be examined and tested by a competent persons, and any defect disclosed by such examination and test shall be rectified as soon as practicable.
 - (b) A register containing particulars of such examination and test shall be kept in a form approved by the Chief Inspector.

SCHEDULE VI

(MANUFACTURE AND TREATMENT OF LEAD AND CERTAIN COMPOUNDS OF LEAD)

1. Exemption

Where the Chief Inspector is satisfied that all or any of the provisions of those Schedule are not necessary for the protection of the persons employed, he may by certificate in writing exempt any factory from all or any of such provision, subject to such conditions as he may specify therein.

2. Definitions

For the purposes of this Schedule:

- (a) "Lead compound" means any compound of lead other than galena which, when treated in the manner described below yields to an aqueous solution of hydrochloric calculated as lead monoxide, five percent of the dry weight of the portion taken for analysis. In the case of paints and similar products and other mixture containing oil or fat the "dry weight" means the dry weight of the material remaining after the substance has been thoroughly mixed and treated with suitable solvents to remove oil, fats, varnish or other media.

The method of treatment shall be as follows:

- (a) A weight quantity of the material which has been dried at 100° C and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1,000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 percent by weight of hydrogen chloride. This solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall than be precipitated and weighted as lead sulphate.
- (b) "Efficient Exhaust Draught" means localised ventilation affected by heat or mechanical means, for the removal of gas, vapour dust or fumes so as to prevent them (as far as practicable under the atmospheric conditions usually prevailing) from escaping into air of any place in which work is carried on. No draught shall be deemed

efficient which fails to remove smoke generated at the point where such gas, vapour fumes or dust originate.

3. Application

This schedule shall apply to all factories or parts of factories in which any of the following operations are carried on:

- (a) Work at furnaces where the reduction or treatment of zinc or lead ores is carried on.
- (b) The manipulation, treatment or reduction of ashes containing lead, the silvering of lead or the melting of scrap lead or Zinc.
- (c) The manufacture of solder or alloys containing more than ten percent of lead.
- (d) Manufacture of any oxide, carbonate, sulphate, chromate, acetate, nitrate or silicate of lead.
- (e) Handling or mixing of lead tetra-ethyl.
- (f) Any other operation involving the use of a lead compound.
- (g) The cleaning of work rooms where any of the operations aforesaid are carried on:

4. Prohibition relating to women and young persons

No women or young person shall be employed or permitted to work any of the operations specified in paragraph 3.

5. Requirements to be observed

No person shall be employed or permitted to work in any process involving the use of lead compounds if the process is such that dust or fume from a lead compound is produced therein, or the persons employed therein are liable to be splashed with any lead compound in the course of their employment unless the provisions of paragraph 6 to 14 are complied with.

6. Exhaust draught

Where dust, fume, gas, or vapour is produced in the process, provision shall be made for removing them by means of an efficient exhaust draught so contrived as to operate on the dust, fume, gas, or vapour as closely as possible to the point of origin.

7. Certificate of fitness

A person medically examined under para 8 and found fit for employment shall be granted by a certifying Surgeon a certificate of fitness in form No. 27 and such certificate shall be in the custody of Manager of the Factory. The Certificate shall be kept readily available for inspection by any Inspector and the person granted such authority shall carry with him while at work, a token giving reference to such certificate.

8. Medical Examination

- (1) The person so employed shall be medically examined by the Certifying Surgeon within 14 days of his first employment in such process and thereafter shall be examined by the certifying surgeon at intervals of not more than three months, and a record of such examination shall be entered by the Certifying Surgeon in the special certificate of fitness granted under paragraph 7.
- (2) If at any time certifying surgeon is of opinion that any person is no longer fit for employment on the grounds that continuance therein would involve special danger to health, he shall cancel the special certificate of fitness of the person.
- (3) No person whose special certificate of fitness has been employed unless the certifying surgeon, after re-examination, again certifies him to be fit for employment.

9. Food, drinks etc.

Prohibited in workrooms. No food, drink, pan and superior tobacco etc. shall be brought into or consumed by worker in any workroom in which the process is carried on and no person shall remain in any such room during intervals for meals or rest.

10. Protective clothing

Suitable protective clothing overalls and head covering shall be provided, maintained and kept clean by the factory occupier and such overalls and head covering shall be worn by the employed person.

11. Cleanliness of workrooms, Tools etc.

The rooms in which the persons are employed and all tools and apparatus used by them shall be kept in a clean state.

12. Washing facilities

- (1) The occupier shall provide and maintain for the use of all persons employed suitable washing facilities consisting of:
 - (a) a trough with a smooth impervious surface fitted with a waste-pipe without plug and of sufficient length to allow at least two feet for every ten persons employed at anyone time, and having a constant supply of clean water from taps or jets about the trough at intervals of not more than two feet; or
 - (b) at least one wash basin for every ten persons employed at anyone time, fitted with a waste-pipe and plug and having a constant supply of clean water; together with in either case a sufficient supply of nail brushes, soap or other suitable cleaning material and clean towels.
- (2) The facilities so provided shall be placed under the charge of responsible person and shall be kept clean.

13. Mess-room or Canteen

The occupier shall provide and maintain for the use of the persons employed suitable and adequate arrangements for taking their meals. The arrangements shall consist of the use of room separate from any workroom which shall be furnished with efficient tables and benches, and unless a canteen serving hot meals is provided, adequate means of warming food. The room shall be adequately ventilated by the circulation of fresh air, shall be placed under the charge of a responsible person and shall be kept clean.

14. Clock room

The occupier shall provide and maintain for the use of persons employed, suitable accommodation for clothing not worn during working hours, and for drying of wet clothing.

SCHEDULE VII

(GENERATING PETROL GAS FROM PETROL)

1. Prohibition relating to women and young persons

No women or young person shall be employed or permitted to work in or shall be allowed to enter any building in which the generation of gas from dangerous petroleum is carried on.

2. Flame traps

The plant for generation of gas from dangerous petroleum and associated piping and fittings shall be fitted with at least two efficient flame traps so designed and maintained as to prevent a flash back any burner to the plant. One of these traps shall be fitted as close to the plant as possible. The plant and pipes and wales shall be installed and maintained free from leaks.

3. Generating building or room

All plants for generation of gas from dangerous gas petroleum erected after the coming force of the provisions specified in this schedule, shall be erected outside the factory building proper in a separate well ventilated building (here-in-after referred to as the "generating building"). In the case of such plant erected before the coming into force of the provisions specified in this schedule there shall be no direct Communication between the room where such plant are erected (here-in- after referred as 'Generating room', and the remainder of the factory building). So far as practicable all such generating rooms shall be constructed of fire-resisting materials.

4. Fire extinguishers

An efficient means of extinguishing petrol fires shall be maintained in any easily accessible position near the plant for generation of gas from dangerous petroleum.

5. Plant to be approved by Chief inspector

Petrol gas shall not be manufactured except in a plant for generating petrol gas the design and construction of which has been approved by the Chief Inspector.

6. Escape of petrol

Effective steps shall be taken to prevent petrol from escaping into any drain or sewer.

7. Prohibition relating to smoking

No person shall smoke or carry matches, fire or naked light or any other means of producing a naked light or spark in the generation room or building or in the vicinity thereof and a warning notice in the language understood by the majority of the workers shall be pasted in the factory prohibiting smoking and the carrying of matches, fire or naked light or other means of producing a naked light or park into such room or building.

8. Access to petrol or container

No unauthorised person shall have access to any petrol or to a vessel containing or having actually contained petrol.

9. Electric fittings

All electric fittings shall be of flame proof construction and all electric conductors shall either be enclosed in metal conducts or be lead sheathed.

10. Construction of doors

All doors in the generating room or building shall be constructed to open outwards or to slide and no door shall be locked or constructed or fastened in such a manner that it cannot be easily and immediately opened from the inside while gas is being generated and any person generating room or building.

11. Repair of containers

No vessel that has contained petrol shall be repaired in a generating room or building and no repairs to any such vessel shall be undertaken unless leave system has been blown into the vessel and until the interior is thoroughly steamed out or other equally effective steps have been taken to ensure that it has been rendered free from petrol or inflammable vapour.

SCHEDULE VIII

(CLEANING OR SMOKING, ROUGHENING ETC. OF ARTICLES, BY A JET OF SAND, METAL SHOT, OR GRIT OR OTHER ABRASIVE PROPELLED BY BLAST OF COMPRESSED AIR OR STEAM) (Blasting Regulations)

1. Definitions

For the purposes of this schedule

“Blasting” means cleaning, smoothing, roughening or removing of any part of the surface of any article by the use as an abrasive of a jet of sand, metal shot, or grit or other material, propelled by a blast or compressed air or steam.

“Blasting enclosure” means a chamber, barrel; cabinet or any other enclosure designed for the performance of blasting therein.

“Blasting Chamber” means a blasting enclosure in which any person may enter at any time in connection with any work or otherwise.

“Cleaning of Blastings” where done as an incidental or supplemental process in connection with the marking of metal castings, means the freeing of the casting from adherent sand or other substance and includes the removal of cores and the general smoothing of a casting, but does not include the free treatment.

2. Prohibition of Sand Blasting

Sand or any other substance containing free silica shall not be introduced as an abrasive into any blasting apparatus and shall not be used for blasting:

Provided that this clause come into force two years after the coming into operation of this schedule:

Provided further that no women or young person shall be employed or permitted at any operation at sand blasting.

3. Precautions in Connection with blasting operations

(1) Blasting to be done in blasting enclosure. Blasting shall not be done except in a blasting enclosure and no work other than blasting and any work immediately incidental thereto and cleaning and repairing of the enclosure including the plants and appliances situated therein, shall be performed in a blasting enclosure. Every door, apparatus and joint of blasting enclosure, shall be kept closed joint of blasting enclosure, and air tight while blasting is being done therein.

(2) Maintenance of blasting enclosure

Blasting enclosure shall always be maintained in good condition and effective measures shall be taken to prevent dust escaping from such enclosure and from apparatus connected herewith, into the air of any room.

(3) Provisions of separating apparatus

There shall be provided and maintained for and in connection with every blasting enclosure efficient apparatus for separating, so far as practicable, abrasive which has been used for blasting and which is to be used again and abrasive from dust or particles of other materials arising from blasting and no such abrasive shall be introduced into any blasting apparatus and used for blasting until it has been so separated:

Provided that this clause shall not apply, except in the case of blasting chambers, to blasting enclosures constructed or installed before the coming into force of this schedule, if the Chief Inspector is of opinion that it is not reasonably practicable to provide such separating apparatus.

(4) Provision of ventilating plant

There shall be provided and maintained in connection with every blasting enclosure efficient ventilating plant to extract, by exhaust draught effected by mechanical means, dust, produced in the enclosure. The dust extracted and removed shall be disposed of by such method and in such manner that it shall not escape into the air of any room; and every other filtering or

settling device situated in a room in which persons are employed, other than persons attending to such bag or other filtering or settling device, shall be completely separated from the general air of that room in an enclosure ventilated to the open air.

(5) Operation of ventilating plant

The ventilating plant provided for the purpose of sub-paragraph (4) shall be kept in continuous operation whenever the blasting enclosure is in use whether or not blasting is actually taking place there, and in the case of a blasting chamber, it shall be in operation even when any person is inside the chamber for the purpose of cleaning.

4. Inspection and examination

(1) Every blasting enclosure shall be specially inspected by a competent person at least once in every week in which it is used for blasting. Every blasting enclosure, the apparatus connected therewith and ventilating the plant, shall be thoroughly examined and in the case of ventilating plant tested by a competent person at least once in every month.

(2) Particulars of the result of every such inspection, examination and test shall forthwith be entered in a register, which shall be kept in a form approved by the Chief Inspector and shall be available for inspection by any women employed in or in connection with blasting in the factory. Any defect found in any such inspection, examination or test shall be immediately reported by the person carrying out the inspection, examination or test to the occupier, manager or other appropriate person and without prejudice to the foregoing requirements of this schedule shall be removed without avoidable delay.

5. Provision of protective halmets, gauntlets and overalls

(1) There shall be provided, maintained for the use of all person who are employed in a blasting chamber, whether in blasting or in any work connected therewith or in cleaning such a chamber, protective halmets of a type approved by a certificate of the Chief Inspector; and every such person shall wear the halmet provided for this use whilst he is in the chamber and shall not remove it until he is outside the chamber.

(2) Each protective halmet shall carry a distinguishing mark including the person by whom it is intended to be used and no person shall be allowed or repaired to wear a halmet not carrying his marks or a halmet which has been worn by another person and has not since been thoroughly disinfected.

(3) Each protective hamlet when in use shall be supplied with clean and not un- reasonably cold air at the rate of not less than 6 cubic feet per minute.

(4) Suitable gauntlets and overalls shall be provided for those of all persons while performing blasting or assisting at blasting, rand every such person shall while so engaged wear the gauntlet and over all provided.

6. Precautions in connection with cleaning and other work

- (1) Where any person is engaged upon cleaning of any blasting apparatus enclosure or of any apparatus or ventilating plant connected therewith or the surroundings there upon any other work in connection with any blasting apparatus or blasting enclosure or with any apparatus or ventilation point connected therewith so that he is exposed to the risk of inhaling dust which has arisen from blasting. All practicable measures shall be taken to prevent such inhalation.
 - (2) In connection with any cleaning operation referred to in clause 5, and with the removal of dust from filtering or setting devices all practicable measures shall be taken to dispose of the dust in such a manner that it does not enter the air of any room. Vacuum cleaners shall be provided and used wherever practicable for such cleaning operations.
7. Storage accommodation for protective wear

Adequate and suitable storage accommodation for the helmets, gaunt-lets and overalls required to be provided by clause 5 shall be provided outside and conveniently near to every blasting enclosure and such accommodation shall be kept clean. Halmets, gauntlets and overalls when not in actual use shall be kept in this accommodation.
8. Maintenance and cleaning of protective wear

All halmets, gauntlets, overalls and other protective devices or clothing provided and worn for the purposes of this schedule, shall be kept in good condition and so far, as is reasonably practicable shall be cleaned on every weekday in which they are used. Where dust arising from the cleaning of such protective clothing or devices is likely to be inhaled, all practicable measures, shall be taken to prevent such inhabitation. Vacuum cleaners shall, where every practicable be used for removing dust from such clothing and compressed air shall not be used for removing dust from any clothing.
9. Maintenance of vacuum cleaning plant

Vacuum cleaning plant used for the purpose of this schedule shall be used for removing dust shall be properly maintained.
10. Restrictions in employment of young persons
 - (1) No person under 18 years of age shall be employed in blasting or assisting at blasting or chamber or in the cleaning of any blasting apparatus or any blasting enclosure or any apparatus or ventilating plant connected therewith or be employed on maintenance or repair work at such apparatus, enclosure or plant.
 - (2) No person under 18 years age shall be employed to work regularly within twenty feet of any blasting enclosure unless the enclosure is in a room and he is outside that room where he is effectively separated from any dust coming from the enclosure.
11. Power to exemption or relax

- (1) If the Chief Inspector is satisfied that in any factory or any class of factory, the use of sand or other substance containing free silica as an abrasive in blasting is necessary for a particular manufacture or process (other than the process incidental or supplemental to making of metal castings) as that the manufacture or process cannot be carried on without the use of such abrasive of that owing to the special conditions or special method of work or otherwise any requirements of this schedule can be relaxed without endangering the health of the persons employed or that application of any of such requirements is for and reasons impracticable or inappropriate, he may with the previous sanction of the State Govt. by an order in writing exempt the said factory or class of factory from such provisions of this schedule to such period as may be specified in the said order.
- (2) Where an exemption has granted under sub-clause (1), a copy of the order shall be displayed at a notice board at a prominent place at the main gate (entrance) or entrance to the factory. and also at the place where the blasting is carried on.

SCHEDULE IX

LIMING AND TANNING OF RAW HIDES, SKINS ANI) PROCESSES INCIDENTAL THERETO

1. Cautionary Notices

- (1) Cautionary Notices as to anthrax in the form specified by the Chief Inspector shall be affixed in prominent position in the factory where they may be easily and conveniently read by the persons employed.
- (2) A copy of writing notice as to anthrax in the form specified by the Chief Inspector shall be given to each person employed within the engaged and subsequently if still employed, on the first day of each calender year.
- (3) Cautionary Notices as the effects of the scheme on the skin shall be affixed in prominent position in every factory which chrome solutions are used and such notice shall be so placed as to be easily and conveniently read by the persons employed.
- (4) Notices shall be affixed in prominent places in the factory stating the position on the "First Aid" box or cupboard and the name of the persons incharge of such box or cup board.
- (5) If any person employed in the factory is illiterate, effective steps shall be taken to explain carefully to such illiterate person the contents of the notice specified in sub-paragraphs 1, 2 and 4, and if chrome solutions are used in the factory, the contents of the notice specified in sub-paragraph 3

2. Protective clothing

The occupier shall provide and maintain in good condition the following articles of protective clothing:

- (a) Water-proof, footwear, leg coverings, aprons and gloves for persons employed in processes involving contact with chrome solutions, including the preparation of such solutions,

- (b) Gloves and boots for person employed in lime yard; and
- (c) Protective footwear, aprons and gloves for persons employed in processes involving the handling of hides or skins, other than in processes specified in clause (a) and (b).

Provided that:

- (i) the gloves, aprons, leg coverings or boots, may be of rubber leather, but the gloves and boots to be provided under sub-clauses (a) and (b) shall be of rubber:
- (ii) the gloves may not be provided to persons fleshing by hand or employed in processes in which there is no risk of contact, lime sodium sulphide or other caustic liquor.

3. Washing facilities mess-room and clock-room

There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed:

- (a) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow of at least two feet for every ten persons employed at any time and having a constant supply of water from taps or jets above the trough at intervals of not more than two feet; or
- (b) at least one wash basin for every ten such persons employed at anyone time, fitted with a waste pipe and plug and having a constant supply of water together within either case, a sufficient supply of nail brushed soap or other suitable cleansing material and clean towels;
- (c) a suitable mess-room, adequate for the number remaining on the premises during the meal intervals, which shall be furnished with (1) sufficient tables and benches and (2) adequate means for warming food and for boiling water.

The mess room (1) be separated from any room or shed in which hides and skins are stored treated or manipulated (2) be separate from the clock-room and (3) be placed under the Charge of a responsible person;

- (d) The occupier shall provide and maintain for the use of all persons employed, suitable accommodation for clothing put off during and shall also make adequate arrangements for drying up the clothing in both the cases if wet. The accommodation so provided shall be kept clean at all times and placed under the charge of a responsible person.

4. Food., drinks etc. Prohibited in work-rooms

No food, drink, pan and supari or tobacco shall be brought into or consumed by any worker in any work-room or shed in which hides or skins are stored, treated or manipulated.

5. First-aid arrangements

The occupier shall;

- (a) arrange for an inspection of the hands of all persons coming into contact with chrome solution to be made twice responsible person;
- (b) provide and maintain a sufficient supply of suitable ointment or and impermeable water proof plaster in a box readily accessible to the worker and used solely for the purpose of keeping the ointment and plaster.

SCHEDULE X

PRINTING PRESSES AND TYPE FOUNDRIES CERTAIN LEAD PROCESSES CARRIED THEREIN

1. Exemption

Where the Chief Inspector is satisfied that all or any of the provisions of this schedule are not necessary for the protection of persons employed he may give certificates in writing exempt any factory from all or any of such provisions subject to such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector.

2. Definitions

In these regulations:

“Lead material” means material containing not less than five percent lead.

“Lead process” means:

- (a) the melting of lead or any lead material for casting and mechanical composing, and
- (b) the re-charging of machines with used lead material, or
- (c) any other work including removal of dross from melting posts, cleaning of plungers, and
- (d) manipulation, movement or other treatment of lead material “Efficient exhaust draught” means localised ventilation effected fumes so as to prevent them from escaping into the air or any place in which work is carried on. No draught shall be deemed efficient which fails to remove gas vapour, fume or dust at the point where they originate.

3. Exhaust Draught

None of the following processes shall be carried on except with an efficient exhaust draught:

- (a) melting lead material or slugs;
- (b) heating lead material so that vapour containing lead is given off or unless carried on in such a manner as to prevent free escape of gas, vapour, fumes or dust into any place in which work is carried on; or unless carried on in electrically heated and thermostatically controlled melting post.

Such exhaust draught shall be effected by mechanical means and so contrived as to operate on the dust, fume, gas or vapour given off as closely as may be at its point or origin.

4. Prohibition relating to women and young persons

No woman or young person shall be employed or permitted to work in any lead process.

5. Separation of certain processes

Each of the following processes shall be carried on in such a manner and under such conditions as to secure effectual separation from one another and from any other process:

- (a) melting of lead or any lead material;
- (b) casting of lead ingots;
- (c) mechanical composing.

6. Container for dress

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

7. Floor of work-room

The floor of every workroom where lead process carried on shall be:

- (a) of cement of similar material so as to be smooth and impervious to water;
- (b) maintained in sound conditions; and
- (c) shall be cleaned through daily after being thoroughly dumped with water at a time when no other work is being carried on at the place.

8. Mess room

There shall be provided and maintained for the use of all persons employed in a lead process and remaining open the premises during the metal intervals, a suitable mess-room which shall be furnished with sufficient tables and benches.

9. Washing facilities

There shall be provided and maintained in a cleanly state and in good repair for the use of all persons employed in a lead process.

- (a) A wash place with either:
 - (i) a trough with a smooth impervious surface fitted with a waste pipe without plug, and of sufficient length to allow at least two feet for every five such person employed at any one time having a constant supply of water from taps or jets above the trough at intervals of not more than 2 feet; or
 - (ii) at least one wash basin for every five such persons employed at any one time fitted with a waste pipe and plug and having an adequate supply of water laid on, or always readily available and
- (b) a sufficient supply of clean towels made of suitable material, renewed daily with sufficient supply of soap or other suitable cleaning material.

10. Medical examination

- (a) Every person employed in a lead process shall be examined by the Certifying Surgeon within 14 days of his first employment in such processes and thereafter shall be examined by the certifying surgeon at intervals of not more than three months and a record of such examinations shall be entered by the certifying surgeon in the special certificate of fitness in Form No.21.
- (b) A Health Register containing names of all persons employed in any lead process shall be kept in Form 17.
- (c) No person after suspension shall be employed in a lead process without the written sanction from the Certifying Surgeon, entered in the Health Register.

11. Food, drinks, etc. prohibited in workroom

No food, drink, pan and supari or tobacco shall be consumed or brought by any worker into any work room in which lead process is carried on.

SCHEDULE XI

(MANUFACTURE OF POTTERY)

1. Definitions

- (a) "Pottery" includes earthenware, stoneware, porcelain china tiles, and any other articles made from clay or from a mixture containing clay and other materials such as quartz, flint, feldspar and gypsum.
- (b) "Efficient exhaust draught" means localised ventilation effected by mechanical or other means for the removal of dust or fume so as to prevent it from escaping into the air of any place in which work is carried on. No draught shall be deemed efficient which fails to remove effectively dust or fume generated at the point where dust or fume originates.
- (c) "Fetting" includes scalloping, towing, sand papering, sand sticking, brushing or any other process of cleaning of pottery ware in which dust is given off.
- (d) "Leadless glaze" means a glaze which does not contain more than one percent of its dry weight of a lead compound calculated lead monoxide.
- (e) "Low solubility glaze" means a glaze which does not yield to dilute hydrochloric acid more than five percent of its dry weight of soluble lead compound calculated as lead monoxide when determined in the manner described below:

A weighed quantity of the material which has been arrived 100°C and thoroughly mixed shall be continuously shaken for one hour, at the common temperature with 1000 times its weight of an aqueous solution of hydrochloric acid containing 0.25 per cent by weight of hydrogen chloride. This The lead salt contained in t solution shall thereafter be allowed to stand for one hour and then filtered. The lead salt contained in the clear filtrate shall then be precipitated as lead sulphide and weight as lead sulphate.

- (f) "Ground or powdered flint or quartz" does not include natural sands.

(g) "Potter's shop" includes all places where pottery is formed by pressing or by any other process and shaping, fettling or other treatment of pottery articles prior to placing for the biscuit fire is carried on.

2. Efficient exhaust draught

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

Reference to tables in the report in silicosis in the pottery and ceramic Industry.

Sub-cl.	(i) All processes involving the manipulation or use of a dry and unfitted load compound.	Item 9 in Table IV.
Sub-cl.	(ii) The fettling operations of any kind, whether on green ware or biscuit provided that this shall not apply to the wet fettling and to the occasional finishing of pottery articles without the aid of mechanical power.	Items 5,6, 13, 16 in Table V items 7 Table VI and item 6 Table VIII
Sub-cl.	(iii) The shifting of clay dust or any other material for making tiles or other articles by pressure except where.	Item 3 in Table V.
Sub-cl.	(iv) The pressing of tiles from clay dust, and exhaust opening being connected with each press, this clause shall also apply to the pressing form clay dust of article other than tiles, unless the material is so damp that no dust is given off.	Item 2 in Table V.
Sub-cl.	(v) The fettling of tiles made from clay dust by pressure, except where the fettling is done wholly, on or with damp material, this clause shall also supply to the fettling of other articles made from clay dust, unless the material is so damp that no dust is given off.	Item 6 in Table V.
Sub-cl.	(vi) The process of loading and unloading of saggars where handling and manipulation of ground and powered flint, quartz, alumina or other materials are involved.	Item 1, 2, 3 in Table 1 VI.
Sub-cl.	(vii) The brushing of earthenware biscuit, unless the process is carried on in a room provided with efficient general mechanical ventilator other ventilation which is certified by the Inspector of	Item 6 in table V and item 7 in Table VI.

	Factories as adequate, having regard to all the circumstances of the case.	
Sub-cl.	(viii) Fettling of biscuit ware which has been fired in powered flint or quartz except where this is done in machines so enclosed as to effectually prevent the escape of dust.	Item 7 in Table VI.
Sub-cl.	(ix) Where cleaning after the application of glaze by dipping or other process.	Item 7 in Table VIII.
Sub-cl.	(x) Crushing and dry grinding of materials for pottery bodies and saggars unless carried on in machines so enclosed as to effectively prevent the escape of dust or is so damp that no dust can be given off.	Item 2, 4 in Table III in Table V & 3, 4 in Table IX.
Sub-cl.	(xi) Sieving or manipulation of powered flint, quartz clay grog or mixture of these materials unless it is so damp that no dust can be given off.	Item 5, 6 and 7 Table II.
Sub-cl.	(xii) Girding of tiles on a power driven wheel unless an efficient water spray is used on the wheel.	This operation was not being carried on.
Sub-cl.	(xiii) Lifting and conveying of materials by elevators and conveyers unless they are effectively enclosed and so arranged as to prevent escape of dust into the air or near to any place in which persons are employed.	Items 2, 4 in Table III and item 1 in Table V. Note- Elevators were close to the crusher and grinders.
Sub-cl.	(xiv) The preparation of weighing out of follow material lawing of dry colours, colour dusting and colour blowing.	Items 7, 8 in Table VII.
Sub-cl.	(xv) In wood snaking unless the bins or similar receptacles used for holding plaster of paris are provided with suitable covers.	Items 5 in Table VIII.
Sub-cl.	(xvi) The manipulation of calcined material unless the material has been made and remains so wet that no dust is given off.	Items 2 & 3 in Table VIII.
Clause II	(1) Protective equipment.	Items 8 in Table III 1, 3
		in Table IV

		and 6, 7 in Table IX.
Clause II	(4) Protective equipment.	All persons employed in duty operation should be supplied with overalls and head coverings.

3. Each of the following processes shall be carried on such a manner and under such condition so as to secure affectual separation from one another and form other wet processes:
 - (a) Gurshing and dry grinding or sieving of materials fettling processing of tiles, drying clay and greeware, loading unloading of saggar.
 - (b) All processes involving the use of a dry lead compound.
4. No gaze which is not a leadless glaze or a low solubility glaze shall be used in i factory in which pottery is manufactured.
5. No woman or young person shall be employed or permitted to work in the operations specified in clause 2, or at any plate where such ration are carried on.
6. The potter's wheel (Jolly and Jigger) shall be provided with screens or so constructed as to prevent clay scraping being thrown off beyond the wheel.
7.
 - (1) All practical measures be taken by damping or otherwise to prevent dust arising during cleaning of floors:
 - (2) Damp saw dust or other suitable material shall be used to render the moist method effective in preventing dust raising into the air during the cleaning process which shall be carried out after work is ceased.
8. The floors of potter's shop, ship houses, dipping houses and ware cleaning rooms shall be hard, smooth and impervious and shall be thoroughly cleansed daily by a moist method of an adult male.
9. Medical Examination
 - (1) All persons employed in any process included under clause 2 shall be examined by the certifying surgeon within 7 days preceding or following the date of their first employment in such process, thereafter all persons employed in any process including under clause 2 (i) and (xiv) shall be examined by the Certifying Surgeon once in every three calendar months, and those employed in any process included in clause 2(ii) to (xiii) and (xv) and (xvi) once in every 12 months by the certifying surgeon. Records of such

examinations shall be entered by the Certifying Surgeon in the Health Register and Certificate of Fitness granted to him under clause 10.

- (2) If at any time the Certifying Surgeon is of opinion that any person employed in any process included in clause 2 is no longer fit for employment on the ground that continuance therein would involve damage to his health, he shall cancel the certificate of fitness granted to that person.
- (3) No person whose Certificate of Fitness has been cancelled shall be re-employed unless the Certifying Surgeon after examination again certifies him to be fit for employment.

10. Certificate of fitness

A person medically examined under clause 9 and found fit for employment shall be granted by the Certifying Surgeon a Certificate of Fitness in Form No. 6 and such certificate shall be kept readily available for inspection by any Inspector and the person granted him while such a certificate shall carry with while at work, a token giving reference to such certificate.

11. Protective equipment

- (1) The occupier shall provide and maintain suitable overalls and head coverings for all persons employed in process included under clause 2.
- (2) The occupier shall provide and be suitable aprons of a water-proof or similar material, which can be sponged daily, for the use of the dippers, dippers assistants, throwers, jolly workers, casters, mould makers and filter press and mill workers.
- (3) Aprons provided in pursuance of clause 11(2) shall be thoroughly cleansed daily by the weavers by sponging or other wet process. All overalls and head coverings shall be washed, cleansed, mended at least once a week, and this washing, cleaning or mending shall be provided for by the occupier.
- (4) No person shall be allowed to work in emptying sacks of dusty materials weighing out and mixing of dusty materials and sharing of hall mills and blungers without wearing a suitable and efficient dust respirator:

12. Washing facilities

- (1) The occupier shall provide and maintain, in a cleanly state and in good repair for the use of all persons employed in any of the process specified in clause 2, a wash place under cover, with either:
 - (a)
 - (i) a trough with smooth impervious surface fitted with a waste pipe, without plug, and of sufficient length to allow at least two feet for every five such persons employed at anyone time, and having a constant supply of clean water from taps or jets above the trough at intervals of not more than two feet; or
 - (ii) at least one tap or stand pipe for every five such persons employed at any one time, and having a constant supply of clean

water, the tap or stand pipe being spaced not less than 4 feet apart; and

(b) A sufficient supply of clean towels made of suitable material change daily, with sufficient supply of nail brushes and soap.

13. Time allowed for washing

Before each meal and before the end of the day work, at least ten minutes, in addition to the regular meal times, shall be allowed for washing to each person employed in any of the processes mentioned in clause 2.

14. Mess room

(1) There shall be provided and maintained for use of all persons remaining within the premises during the rest intervals, a suitable mess room providing accommodation of 10 sq. ft. per head and furnished with:

- (i) a sufficient number of tables and chairs or benches with back rest;
- (ii) arrangements for washing utensils;
- (iii) adequate means for warming food;
- (iv) adequate quantity of drinking water.

(2) The room shall be adequately ventilated by the circulation of fresh air and placed under the charge of a responsible person and shall be kept clean.

15. Food, Drinks, etc. prohibited in work rooms

No food, drink, pan and supari or tobacco shall be brought into, or consumed by any worker in which any of the processes mentioned in clause 2 are carried on and no person shall remain in any such room from during intervals for meals or rest.

16. Clock room etc

There shall be provided and maintained in clause 2.

(a) a clock room for clothing put off during working hours and such accommodation shall be separated from any mess room.

(b) separate and suitable arrangements for the storage of protective equipment provided under clause 11.

17. These regulations shall not apply to a factory in which any of the following articles, but no other pottery, are made:

- (a) unglazed or salt glazed bricks and tiles, and
- (b) architectural terra cotta made from plastic, clay and either unglazed or glazed with a cleanless glaze only.

18. Exemption If in respect of any factory the Chief Inspector of factories is satisfied that all or any of the provisions of this schedule are not necessary for the protection of the persons employed in such factory, he may by a certificate in writing exempt such factory from all or any of such provisions, subject to such conditions as he may specify therein. Such certificate may at any time be revoked by the Chief Inspector without assigning any reason.

SCHEDULE XII
CHEMICAL WORKS

Application: These rules shall apply to all manufactures and processes incidental thereto carried on in chemical works. These rules shall be in addition to and not derogation of any provisions of the Factories Act or any other rules made thereunder or of any other Act or Rules.

Definition: Chemical works means any factory or such part of any factory as are named in sub-schedule A to these rules.

Breathing apparatus means

- (1) a helmet and face piece with necessary connection by means of which a person using it in a poisonous asphyxiating or irritant atmosphere breathes ordinary air, or
- (2) any other suitable apparatus approved in writing by the Chief Inspector.

Life belt means a belt made of leather or other suitable material which can be securely fastened round the body, with a suitable length of rope attached to it, each of which is sufficiently strong to sustain the weight of a man.

Efficient exhaust draught means localise ventilation effected by mechanical or other means for the removal of gas, vapour fume or dust to prevent it from escaping into the air of any place in which work is carried on.

Surgeon means a Certifying Surgeon appointed under section 10 of the Factories Act, 1948.

Suspension means suspension by written certificate in the Health Register, signed by the Surgeon, from employment in any process mentioned in the certificate.

Bleaching powder means the bleaching powder commonly called chloride of lime.

Chloride mean chlorate of perchlorate.

Caustic means hydroxide of potassium or sodium.

Caustic pot means a metal pot fixed over a furnace or flue and surrounded by brick-work, such as is commonly used for concentrating or boiling caustic or other liquor.

Chrome process means the manufacture of chromate or bichromate of potassium or sodium, or the manipulation, movement or other treatment of these substances in connection with their manufacture.

Nitro or amino process means the manufacture of nitro or amino derivatives of phenol and of benzene or its homologues, and the making of explosives with the use of any of these substances.

Exceptions: If the Chief Inspector is satisfied in respect of any factory or any process that, owing to the special conditions or special methods of work, or by reason of the infrequency of the processor for other reasons all or any of the requirements of these rules are not necessary for the protection of persons employed in any factory or process, he may by order in writing (which he may in his discretion revoke) exempt such factory

or process from all or any of the provisions of these rules, subject to such conditions as he may by order prescribe.

PART I

APPLYING TO ALL THE WORKS IN SUB-SCHEDULE A GENERAL

1. Housekeeping	(a) Every part of the ways, works, machinery and plant shall be maintained in a clean and tidy condition.
	(b) Any spillage of materials shall be cleaned up without delay.
	(c) Floors, platforms, stairways, passages and gangways shall be kept free of temporary obstructions.
	(d) There shall be provided easy means of access to all parts of the plant to facilitate cleaning; maintenance and repairs
2. Improper use of chemicals	(a) No chemical or solvents shall be used by workers for any purposes apart from the processes for which they are supplied.
	(b) Workers shall be instructed on the possible dangers arising from such misuse. These instructions shall further be displayed in bold letters in prominent places in the different sections.
3. Storage of Food	(a) No food, drink, tobacco, pan or similar article shall be stored or consumed on or near any part of the plant.
Testing	(b) Workers shall be instructed on the possible dangers arising from the testing of materials or of the use for drinking purposes of any vessel used in or in connection with the manufacture of chemicals. These instructions shall further be displayed in bold letters in prominent places in the different sections.
4. Process Hazards	Before commencing any large-scale experimental work of any new manufacture, all possible steps shall be taken to ascertain from the actual operation and the chemical reactions. The properties of the raw materials used, the final products to be made, and any by-products arising during manufacture, shall be carefully studied and provisions shall be made for dealing with any hazards including effects on workers, which may arise during manufacture

The design of the buildings and plant shall be based on the information so obtained.

5. Unauthorised personnel

- (a) Unauthorised persons shall not be permitted to enter any section of the factory or plant where there are special dangers.
- (b) Visitors: Visitors shall be provided, where necessary, with suitable responsible official, safety equipment and shall be accompanied round dangerous plant by a responsible official.

6. Instruments

All instruments such as pressure gauges, thermometers and weighing machines shall be tested at regular intervals by a competent person, and records of these tests shall be kept in a register.

7. Cocks and Valves

Suitable Valves shall be provided in all service lines at sufficiently short intervals for convenience in blanking off, etc. All cocks and Valves shall be operated at least once a month, and tested periodically by a competent person and records of these tests shall be kept in a register. A plan of all services installations shall be kept readily available for perusal.

8. Manholes

No manhole shall be opened for entry until effective fencing has been erected round it.

9. Emergency Instructions

Simple and special instructions shall be framed to ensure that effective measures will be carried out in cases of emergency to deal with escapes of inflammable, poisonous or deleterious gases, vapours, liquids or dusts. These instructions shall further be displayed in bold letters in prominent places in the different sections. All workers shall be trained and instructed in the action to be taken in each emergency and in the general hazards of their employment.

10. Protection of Reaction on Mixture

Suitable arrangements shall be made to ensure that no foreign matter, of any sort can fall into reaction mixtures.

11. Electrical Apparatus

Electrical plant, fittings and conductors shall if exposed to a damp or corrosive atmosphere be adequately protected. Periodic tests shall be carried out on all circuits.

12. Place of Work

- (a) Workers shall only be allowed in those places in which they have been given orders to work.
- (b) In dangerous sections of a factory, the number of workers shall be kept to a minimum compatible with the process.

13. Packing, Storage and Transport of Chemicals

Chemicals shall be packed and stored in containers, suitable for the purpose and adequate strength for storage or transport. All such containers shall be suitably labelled so that they will be stored and transported in such a manner as to ensure that, in the

event and spillage they will neither produce a reacting mixture nor cause the development of toxic or fire risks in contact with other products in its vicinity, or with walls, floors or dust thereon.

FIRE AND EXPLOSION RISKS

14. Site
 - (a) Building and Plant shall be sited with due regards to the dangers which may arise from the processes involved, and in particular shall be spaced at distances which are deemed safe from the fire and explosive risks, due consideration shall be given to the effect of any processes carried out in adjacent factories.
 - (b) Isolation of Buildings: Where special dangers exist, separate buildings shall be used for different parts of a process. They shall be spaced at sufficient distances apart and shielded to prevent damage to each other in the event of fire and explosion and shall be safeguarded by the provisions of suitable blow-out panels or roofs. Where the risk of fire or explosion is considerable, the building shall be divided by blast or protective screen walls.
 - (c) Fire Resistance: No combustible materials shall be used in the erection of working buildings, unless there are special reasons necessitating their use where they shall be rendered fire resistant. The roof shall be of impervious fire-resistant material and shall be regularly maintained in such condition.
15. Dangers of Ignition including lighting installations
 - (a) No internal combustion engine and no electric motor or other electrical equipment capable of generating sparks or otherwise causing combustion shall be installed or used in a building or danger zone.

Electrical conductors shall be fitted with screwed steel conduit.
 - (b) All hot exhaust pipes shall be installed outside a building and other hot pipes shall be suitably protected.
 - (c) Portable electric hand lamps shall not be used unless of an intrinsically safe type and portable electric tools connected by flexible wires shall not be used, unless of the flame-proof type.
 - (d) Where an inflammable atmosphere may occur the soles of footwear worn by workers shall have no metal on them and the wheels of trucks or conveyers shall be of conducting non-sparking materials. Adequate precautions shall be taken to prevent the ignition of explosive or inflammable substances by sparks emitted from locomotives or other vehicles operated in the factory or on public lines.
 - (e) No electric arc lamp, or naked light, fixed or portable shall be used, and no person shall have in his possession any match or any apparatus of any kind for producing producing a naked light or spark in or about any part of the factory where there is liability to fire or explosion lights in such parts shall be in double air-tight covers.
 - (f) prominent notices in the languages understood by the majority of the workers and legible by day and by night, prohibiting smoking, the use of naked lights, and the carrying of matches or any apparatus for producing a naked light or spark, shall be affixed at the entrance of every room or place where there is the risk of fire or

explosion from inflammable gas, vapour or dust. In the case of illiterate workers, the contents of the notices shall be fully and carefully explained to them when they commence work in the factory for the first time and again when they have completed one week at the factory.

- (g) Non-sparking Tools: A sufficient supply of spades, scrapers and pails made from no-sparking material shall be provided for the use of persons employed in cleaning out or removing residues from any chamber, still tank, or other vessel where an inflammable or explosive danger may occur.

(Note—The risk is not always obvious and may arise, for example, through the production of hydrogen in acid tanks).

16. Static Electricity

- (a) All machinery and plants particularly, pipe lines and belt drives on which static electricity is likely to accumulate, shall be effectively earthed—Receptacles for inflammable liquids shall have metallic connections to the earthed supply be controlled.
- (b) Mobile tank wagons shall be earthed during filling and discharge and precaution shall be taken to ensure that earthing is effective before such filling or discharge takes place.
- (c) Lighting conditions: Lighting protection apparatus shall be fitted where necessary and shall be maintained in good condition.

17. Process Heating

The method providing heat for a process shall be as safe as possible and where the use of naked flame is necessary, the plant shall be so constructed as to prevent any escaping inflammable gas, vapour, or dust coming into contact with the flame, or exhaust gases or other agency likely to cause ignition. So far as practicable, the heating medium shall be automatically controlled at a predetermined temperature below the danger temperature.

18. Escape of materials

- (a) Provision shall be made in a plant, sewers, drains, flues, ducts, culverts and buried pipes to prevent the escape and spread of any liquid, gas, vapour, fume or dust likely to give rise to fire or explosion, both during normal working and in the event of accident or emergency.
- (b) If escape occurs, such substance shall be removed expeditiously at the point of liberation. The effluent shall be trapped and rendered safe outside the danger area.

19. Leakage or inflammable liquids

- (a) Provision shall be made to confine by means of bund walls, sumps etc. possible leakages from vessels containing inflammable liquids.
- (b) Adequate and suitable fixed fire-fighting appliances shall be installed in the vicinity of such vessels.

20. Cleaning of empty containers

- (a) All empty containers which have held inflammable liquids, and metal containers which have held sulphuric acid shall be rendered permanently safe as soon as practicable, and shall not be repaired or destroyed until such cleaning has been completed.
- (b) Storage of combustible material: Combustible and inflammable material shall not be stored in close proximity to chemicals which are liable to cause ignition.
- (c) Rubbish shall be removed from buildings without delay and placed in special metal container provided with close fitting lids. The contents shall be removed daily and suitably dealt with. Waste product containing inflammable or explosive materials shall not be placed on rubbish heaps but shall be destroyed in an appropriate manner.

21. Installing of pipe for inflammable liquids

All pipe lines for the transport of inflammable liquids shall be protected from breakage, shall be arranged so, that there is no risk of mechanical damage from vehicles and shall not be so laid that they drain throughout the collection of deposits at any part. All flanged joints, bends and other connections shall be regularly inspected. Cocks and valves shall be so constructed that explosive residues cannot collect therein. The open and closed position of all cocks and valves shall be clearly indicated on the outside.

22. Packing of reaction vessels

Packing and joints materials for reaction vessels (including covers, manhole, covers and exhaust pipes) and in pipe lines and high or low temperature insulating materials shall not contain materials which are combustible or which react with the products of the plant.

23. Safety Valves

Every still and every the closed vessels in which gas is evolved or into which gas is a passed, and in which the pressure is liable to rise to a dangerous degree, shall have efficient means to relieve the pressure maintained in good condition. Nothing in these rules shall apply to metal bottles or cylinders used for the transport of compressed gases.

24. Vigorous or Delayed Reactions

Suitable provisions, such as automatic and distant control shall be made for controlling the effects of unduly vigorous or delayed reactions. Automatic flooding or blanketing shall be provided for in the event of an accident.

25. Examination, testing and repair of plant

Examination, testing and repair of plant parts which have been in contact with explosive and inflammable material, or which is under pressure, shall only be carried out under proper supervision.

26. Alarm systems

- (a) Gravity or pressure feed systems of supplying inflammable materials to the various parts of the buildings of plant shall be fitted with alarm systems, automatic outoffs or other devices to prevent ever-changing or otherwise endangering the plant.
 - (b) The amount of inflammable material taken into a building in bulk containers at anyone time shall be kept as low as practicable.
 - (c) Adequate steps shall be taken to prevent the escape of inflammable and explosive vapours from any container into the atmosphere of any building.
27. Gas, vapour, fume or dust risks, escape of gasses etc.
- (a) Effective steps shall be taken to prevent the escape of dangerous gases, vapours, fumes or dust from any part of the plant, by the total enclosure of the process involved or by the provision of efficient exhaust draught. Effective arrangements shall be made to ensure that in the event of failure of the control shall stop immediately.
 - (b) In the event of any such escape, provision shall be made to trap the materials and render them safe.
28. Danger due to effluents
- (a) Adequate precautions shall be taken to prevent the mixing of effluents which may cause dangerous or poisonous gases to be evolved.
 - (b) Effluent which may contain or give rise in the presence or other effluents to such gases shall be provided with independent drainage systems to ensure that they may be trapped and rendered safe.
29. Staging
- (a) Staging shall not be erected over any open vessel unless the vessel is so constructed and ventilated to prevent the emission of vapours or fumes about such staging.
 - (b) Where such staging is provided to give access to higher levels with direct means of access to the outside of the room or building and thence to ground level.
 - (c) Such staging shall be fitted with suitable handrails and the boards, and the floors and staging shall be impervious and easily cleansed.
30. Instructions as regards risk
- Before commencing work, every worker shall be fully instructed on the properties of the materials they have to handle, and of the dangers arising from any gas, fume, vapour or dust which may be evolved during the process. Workers shall also be instructed in the measures to be taken to deal with such an escape in the event of emergency.
31. Breathing Apparatus
- (a) There shall be provided in every factory where dangerous gas or fume is liable to escape a sufficient supply of:
 - (i) Breathing apparatus of an approved make for the hazards involved;
 - (ii) Oxygen and suitable means of its administration; and
 - (iii) Life-belts.

The breathing apparatus and other appliances required by this rule shall (i) be maintained in good order and kept in an ambulance room or in some other place approved in writing by the Chief Inspector and (ii) be thoroughly inspected once every month by a competent person; appointed in writing by the occupier, and a record of their condition shall be entered in a book provided for that purpose, which shall be produced when required by an Inspector.

- (b) Workers shall be trained, and given a periodic refresher course in the use of breathing apparatus and respirations.
- (c) Respirators shall be kept properly labelled in clean dry light proof cabinets, and if liable to be affected by fumes, shall be protected by suitable containers. Respirators shall be dried and cleaned after use and shall be periodically disinfected.

32. Treatment of persons

In every room or place wherever required in writing by the Chief Inspector there shall be affixed the official cautionary notice regarding gassing and burns. Such notices shall be visible by day and by nights and shall be printed in the language understood by the majority of the workers.

33. Personal Protective Equipment

- (a) Suitable protective clothing shall be provided for the use of operative:
 - (i) when operating valves or cocks controlling fluids which by their nature, pressure or temperature would be highly dangerous if a blow out occurred or when cleaning chokes in systems containing such fluids if pressure is likely to exist behind the chokes,
 - (ii) when there is danger of injury by absorption through the skin during the performance of normal duties or in the event of emergency
 - (iii) whenever there is the risk of injury in handling corrosive substances, hot cold articles and sharp or rough objects, and
 - (iv) when there is the risk of poisonous materials being carried away on their clothes.
- (b) There shall be provided for the use of all persons employed in the processes specified in sub-schedule B to these rules and adequate supply of suitable protective equipment including gloves, overalls and protective footwear, and of goggles and respirators. Respirators shall be of a type approved in writing by the Chief Inspector.
- (c) Protective equipment shall be provided and stored in the appropriate place for use during abnormal conditions or in an emergency.
- (d) Arrangements shall be made for the proper and efficient cleaning of all such protective equipments.

34. Cloak rooms

There shall be provided and maintained for the use of all persons employed in the processes specified in Schedule B of these rules a suitable clockroom, for clothing put off during work hours and suitable place separate from the clock room for the storage of overalls or working clothes. The accommodation so provided shall be placed in the charges of a responsible person and shall be kept clean.

35. Special Bathing Accommodation

- (a) There shall be provided for the use of all persons employed in the processes specified in sub-schedule C to these rules separate sanitary conveniences and sufficient and suitable bathing facilities, which shall be to the satisfaction of the Chief Inspector.
- (b) A bath register shall be kept containing the names of all persons employed in these processes and an entry of the date when each person takes a bath.

36. Entry into vessels

- (a) Before any person enters, for any purpose except that of rescue, an absorber, boiler, culvert, drain, flue, gas purifier, sewer, still, tank, tower, citriol chamber or other place where there is reason to apprehend the presence of dangerous gas or fume, a responsible person appointed in writing the purpose, shall personally examine such place and by the occupier for shall certify in writing in a book kept for the purpose either that such is isolated from every source of such gas or fume and is free from danger. No person shall enter any such place which is certified not to be so isolated and sealed and free from danger unless he is wearing a breathing apparatus, and (where there are no cross stages or obstructions likely to cause entanglement) a life-belt, the free end of the rope attached to which shall be left with a man outside whose sole duty shall be to keep watch and to draw out the wearer if he appears to be affected by gas or fume, The belt and rope shall be so adjusted and worn that the wearer can be drawn up head foremost through any manhole or opening.
- (b) A person entering for the purpose of rescue any such place for which a clearance certificate has not been issued shall wear a breathing apparatus and a life-belt in the manner specified.

37. Examination and repair of plant

Where poisonous materials are likely to be present the examination and repair of plant and piping shall only be done under the supervision of a competent person, and after the plant and piping has been thoroughly cleansed and ventilated. When opening vessels and breaking joints in pipe lines, respirations, goggles and protective clothing shall be worn to the extent required by the competent person.

38. Storage of acid carboys

Carboys containing nitric acid or "mixed" acid shall be stored in open sided sheds detached from other buildings and placed on a flooring of sandstone, brick or suitable inorganic material. A passage way shall be provided and kept free from obstruction between every four rows of such carboys. An ample supply of water shall be available for washing away spilled acid and all precautions shall be taken to prevent workers being exposed to fumes.

CORROSIVE OR DELETERIOUS SUBSTANCES RISKS

39. Buildings

All buildings and plant shall be sited with due regard to possible dangers from accidental liberation splashing of corrosive and deleterious liquids and shall be so designed as to facilitate thorough washing and cleaning. The construction of staging and other parts of buildings shall be carried out with material impervious and resistant to corrosion so far as practicable.

40. Leakage

- (a) All plants shall be so designed and constructed as to obviate the escape of corrosive liquid, where necessary, separate buildings, rooms, or protective structures shall be used for the dangerous stages of the process and the buildings shall be so designed as to localize any escape if liquid stages of the process and the buildings shall be designed as to locales an escape of liquid.
- (b) Catch pits, bund walls, or other suitable precautions shall be provided to restrict the serious effects of such leakages. Catch pits shall be placed below joints in pipelines where there is danger involved to maintenance and other workers form such leakage.
- (c) Passage and work station shall not be situated directly below any part of plant where there is risk of escape of dangerous liquid. Access to such parts shall so far as practicable, be prohibited, and danger notices shall be affixed at suitable points.

41. Precautions against escape

Adequate precautions shall be taken to prevent the escape of corrosive or deleterious substance and means shall be provided for rendering such escape.

42. Drainage

Adequate drainage shall be provided and shall lead to special treatment tanks where deleterious material shall be neutralised or otherwise rendered safe before it is discharged into ordinary drains or sewers.

43. Covering of vessels

- (a) Every fixed vessel or structure containing any dangerous material and not so covered as to eliminate all reasonable risk of accidental immersion in it of any portion of the body of a worker, shall be so constructed that there is no foot-hold on the top or the sides.
- (b) Such vessel shall, unless its edge is at least three feet above the adjoining ground or platform be securely fenced to a height of at least three feet above adjoining ground or platform.
- (c) No plank or gangway shall be placed on across or inside any such vessel unless such plank or gangway is at least 18 inches wide and securely fenced on both sides by rails spaced at 9 inches apart to a height of at least 3 feet, or by other equally efficient means.

- (d) Where such vessels adjoin and the space between them clear of any surrounding brick or other work, is either less than 18 inches in width or is 18 or more inches in width, but is not securely fenced on both sides to a height of at least three feet, secure barriers shall be so placed as to prevent passage between them:

Provided that paragraph (b) of this rule shall not apply to:

- (i) saturators used in the manufacture of sulphate of ammonia;
- (ii) that part of the side of brine evaporating pans which require raking, drawing or filling.

44. Ventilation

Adequate ventilation shall be provided and maintained at all times in evolved. room or buildings where dangerous, gas, vapour fume or dust may be evolved.

45. Means of escape

Adequate means of escape from rooms or buildings in the event of a leakage of corrosive liquid shall be provided and maintained.

46. Treatment of personnel

In all places where strong acid or dangerous corrosive liquids are used:

- (a) There shall be provided for use in emergency:
 - (i) adequate and readily accessible means of drenching with cold water persons, and the clothing of persons who have become splashed with such liquid;
 - (ii) adequate special arrangement to deal with any person who has been splashed with poisonous material that can be absorbed through the skin;
 - (iii) a sufficient number of eye-wash bottles, filled with distilled water or other suitable liquid, kept in boxes or cupboards conveniently situated and clearly indicated by a distinctive sign which shall be visible at all times.
- (b) Except where the manipulation of such corrosive liquids is carried on as to prevent risk or personnel injury from splashing or otherwise, there shall be provided for those who have to manipulate such liquids sufficient and suitable goggles and gloves or other suitable protection for the eyes and hands. If gloves are provided they shall be collected, examined and cleansed at the close of the days work and shall be repaired or renewed when necessary.

47. Maintenance

- (a) Before any examination or repairs are carried out on plant or pipe lines, a competent person shall issue a clearance certificate permitting such examination or repairs.
- (b) Adequate precautions shall be taken to liberate any pockets of gas or liquid which may have been formed in pipe lines, and which may cause corrosive spray at the point where dismantling takes place.

48. Washing facilities

- (1) There shall be provided and maintained in every factory for the use of employed persons adequate and suitable facilities for washing which shall include soap and nail brushes or other suitable means of cleaning and shall be conveniently accessible and shall be kept in a clean and orderly condition.
- (2) If female workers are employed separate washing facilities shall be provided and so enclosed or screened that the interiors are not visible from any place where persons of the other sex work places. The entrance to such facilities shall bear conspicuous notice in the language understood by the majority of the workers. "For women only" shall also be indicated pictorially.

49. Mess room facilities

In every factory there shall be provided and maintained for the use of these remaining on the premises during the rest intervals, suitable and adequate mess-room or canteen accommodation which shall be furnished with sufficient tables and chairs or benches with back rests and where sufficient drinking water is available.

50. Ambulance room

- (a) In every factory in which more than 250 persons are employed on the processes to which these rules apply, there shall be provided and maintained in good order an ambulance room.

The Ambulance Room shall be a separate room used only for the purpose of treatment and rest. It shall have a floor space of not less than 100 square feet and smooth, hard and impervious walls and floor, and shall be provided with ample means of item shown in sub-schedule D to these rules.

Where persons of both sexes are employed, arrangement shall be made at the Ambulance Room for their separate treatment.

The Ambulance Room shall be placed under the charge a qualified nurse or other person trained in First Aid, who shall always be readily available during the working hours, and shall keep a record of all cases of accidents or sickness treated in the room.

- (b) In every factory there shall be provided and maintained in good condition a suitable constructed ambulance van for the purpose of removal of serious cases of accident or sickness, unless in (b), (c) above, and arrangements have been made with a hospital or other place in telephonic communication with the factory for obtaining such a carriage immediately when required.

51. Medical personnel

There shall be whole-time Medical Officer in every factory employing 250 persons or more.

52. Medical Examination

Workers engaged in the manufacture, processing, formulation or use of the following, shall be examined once in three months by the Certifying Surgeon and records maintained:

- (i) Hexachyl tetra phosphate

- (ii) Tetra ethyl pyrophosphate
- (iii) O.O. Diethyl opnitrophenyl
- (iv) Thiophosphate (Parathion) Nicotine, Nicotine Sulphate
- (v) Mercury derivatives
- (vi) Methyl bromide
- (vii) Dycnides
- (viii) Arsenical derivatives
- (ix) Chrome process compounds
- (x) Nitro or amino process compounds.
 - (a) A Health Register containing the names of all persons employed in the process shall be kept in a form approved by the Chief Inspector.
 - (b) No person shall be newly employed for more than 14 days without a Certificate of Fitness granted after examination by the Certificate of Fitness granted after examination by the Certifying Surgeon by a signed entry in the Health Register.
 - (c) No person shall be newly employed for more than 14 days without a certificate of fitness granted after examination by the Certifying Surgeon by a signed entry in Life Health Register.
 - (d) Every person employed in the process shall be examined by the Certifying Surgeon once in each calender month (or at such other interval as under prescribed in writing by the Chief Inspector) on a date or dates or which due notice shall be given to all concerned.
 - (e) Every person so employed shall present himself at the appointed time for examination by the Certifying Surgeon as provided in (b), (c) above, and
 - (f) The Certifying Surgeon shall have power of suspension as regards all persons employed and no person after suspension shall be employed without written sanction from the surgeon and entered in the Health register.

53. Duties of workers

Every person employed shall:

- (a) Report to his foreman any defect in any fencing breathing apparatus, appliance or other requisites provided in pursuance of these rules, as soon as he becomes aware of such defect;
- (b) Use of the articles appliances or, accommodation required by these rules for the purpose for which they are provided;
- (c) Wear the breathing apparatus and life belt where required under paragraph 37 (a) and (b).

54. No persons shall

- (a) remove any fencing provided in pursuance of paragraph duly authorised; or

- (b) stand on the edge or on the side of any vessel to which paragraph 43 applies;
- (c) pass or attempt to pass any barriers erected in pursuance of paragraph 43;
- (d) place across or inside any vessel to which paragraph 43 applies any plank or gangway which does not comply with that regulation or make use of any such plank or gangway while in such position;
- (e) take a naked light or any lamp or matches or any apparatus for producing a naked light or spark into or smoke in any part of the works where there is liability to explosion from inflammable gas, vapour or dust;
- (f) use a metal spade, scrapper or pail when cleaning out or removing the residues from any chamber still tank or other vessel which has contained Sulphuric acid or hydrochloric acid or other substance which may cause evolution of arseniuretted hydrogen;
- (g) remove from a First Aid Box or cupboard or from the Ambulance Room any First Aid appliance or dressing except for the treatment of injuries in the works.

SUB-SCHEDULE A

Chemical works means any work or that part of a work in which:

1. The manufacture or recovery of any of the following is carried on:
 - (a) carbonates, chromites, chlorates oxides or hydroxides or potassium, sodium, iron, aluminum, cobalt, nickel, arsenic, antimony zinc or magnesium.
 - (b) Ammonia and the hydroxide and sales of ammonium
 - (c) Sulphurous, sulphuric, nitric, hydrochloric, hydrofluoric, hydriodic, hydrosulphuric, boric phosphoric oxalic, arsenious arsenic lactic acetic, tartaric or citric acids and their metallic or organic salts; and
 - (d) Cyanogen compounds.
2. A wet process is carried on
 - (a) For the extraction of metal from one or from any by product or residual material; or
 - (b) In which electrical energy is used in any process of chemical manufacture.
3. Alkali waste of the drainage therefrom is subject to any chemical process for the recovery of sulphur, or for the utilization or any constituency of such waste or drainage.
4. Carbon bisulphide is made or hydrogen sulphide is evolved by the decomposition of metallic sulphides or hydrogen sulphide is used in the production of such sulphides.
5. Bleaching powder is manufactured or chlorine gas is made or issued in any process of chemical manufacture.
- 6.

- (a) Gas tar or coal tar or any compound product or residue of such tars is distilled or is used in any process of chemical manufacture.
- (b) Synthetic colouring matters or their intermediates are made.
- 7. Refining of crude shale oil or any process incidental thereto is carried out.
- 8. Nitric acid is used in the manufacture of nitro-compounds.
- 9. Explosives are made with the use of nitro-compounds.
- 10. Insecticides which may be phosphorus, nicotine, mercury, naphthalene, cyanogen, arsenic, fluorine, copper, benzene and ethane compounds or derivative and methyl bromide are manufactured, mixed, blended and packed.

SUB-SCHEDULE B

- 1. A nitro or amino process (overalls or suits of working clothes and protective footwear).
- 2. Grinding raw materials in a chrome process (overall suits).
- 3. The crystal department and in packing in a chrome process (protective coverings).
- 4. Packing in a chrome process (respirations).
- 5. Any room or place in which chlorate is crystallised, ground or packed (clothing or woolen material and boots and overshoes, the soles of which no metal on them).
- 6. Any room in which caustic is ground or crushed by machinery (goggles and gloves or other suitable protection for the eyes and hands).
- 7. Bleaching powder chambers or in packing charges drawn from such chambers (suitable respirator).
- 8. Drawing off of molten sulphur from sulphur pots in the process of carbon disulphide manufacture (overalls, faceshield, gloves and flatware fireproof material).

SUB-SCHEDULE C

- 1. A nitro or amino process.
- 2. The crystal department and the backing room in a chrome process.
- 3. The process of distilling gas or coal tar (other than blast furnace tar and any process of chemical manufacture in which such tar is issued).
- 4. The manufacture mixing, blending and packing of the insecticide mentioned in Sub-Schedule A.

SUB-SCHEDULE D

(i)	A glazed sink with hot and cold Water always available.
(ii)	A table with a smooth top
(iii)	Means for sterilising instruments.
(iv)	A couch.

(v)	A stretcher.
(vi)	Two buckets or containers with close-fitting lids
(vii)	Two rubber hot water bags.
(viii)	A kettle and spirit stove or other suitable means of boiling water.
(ix)	Twelve plain wooden splints 36" x 4" x 1/4".
(x)	Twelve plain wooden splints 14"x 3"x 1/4."
(xi)	Six plain wooden splints 10"x 2" x 1/4".
(xii)	Three woollen blankets.
(xiii)	One bottle of brandy.
(xiv)	Two medium size sponges.
(xv)	Three hand towels.
(xvi)	Two kidney trays.
(xvii)	Four carbolic soaps.
(xviii)	Two glass tumblers and two wine glasses.
(xix)	Two clinical thermometers.
(xx)	Two glass tumblers and two wine glasses.
(xxi)	Two clinical thermometers.
(xxii)	Graduated measuring glasses with tea spoon.
(xxiii)	One eye bath.
(xxiv)	One bottle (2 lbs) carboliclution 1 in 20.
(xxv)	Two chairs.
(xxvi)	One screen.
(xxvii)	One Electric hand Torch.
(xxviii)	An adequate Supply of anti tetanus serum.
(xxix)	Two First Aid boxes, each containing
	(a) 24 small sterilized dressings
	(b) 12 medium size sterilised dressing
	(c) 12 large size sterilised dressings
	(d) 12 large size sterilised burn dressings
	(e) 12 half ounce packets sterilised cotton wool
	(f) one snake bite lancet
	(g) one pair scissors
	(h) two (1 oz) bottle potassium permanganate crystals

	(i) one (4 oz) bottle containing a two percent alcoholic solution of iodine
	(j) one (4 oz.) bottle of salvolatile having dose and of administration indicated on the label
	(k) 1 copy of the first aid leaflet issued by the Chief Advisor Factories, Government of India.

PART II

APPLYING TO WORKS OR PARTS THEREOF IN WHICH

- (i) Caustic pots are used; or
 - (ii) Chlorate or bleaching powder is manufactured;
 - or (iii)
 - (a) Gas tar or coal tar is distilled or is used in any process of chemical manufacture; or
 - (b) A nitro or amino process is carried on; or
 - (c) A chrome process is carried on; or
 - (iv) Crude naphthalene is refined or process incidental thereto are carried on; or
 - (v) Nitric acid used in the manufacture of nitro compounds.
 - (vi) The evaporation of brine in open pans and the storing of salt are carried on; or
 - (vii) The manufacture or recovery of hydro-fluoric acid or any of its salts is carried on; and
 - (viii) Work at a furnace where the treatment of zinc ores is carried on.
 - (ix) Insecticides mentioned in Sub-Schedule A are manufactured mixed blended or packed.
1. Entry of gas tar or coal tar

Before any person enters a gas tar or coal tar still for any purpose except that of rescue it shall be completely isolated from adjoining tar stills either by disconnecting.

 - (a) The pipe leading from the swan neck to the condenser worm; or
 - (b) The waste gas pipe fixed to the worm or receiver, and in addition, blank flanges shall be inserted between the disconnected parts, and the pitch discharge pipe or cock at the bottom of the still shall be disconnected.
 2. Entry into bleaching powder chambers

No person shall enter a chamber for the purpose of withdrawing the charge of bleaching powder unless and until:

 - (i) the chamber is efficiently ventilated; and
 - (ii) The air in the chamber has been tested and found to contain not more than 25 grains of free chlorine gas per cubic feet. A register containing

details of

all such tests shall be kept in form approved by the Chief Inspector of Factories.

3. Special precautions for nitro and amino processes

In a nitro or amino process:

- (a) if crystallised substance are broken or an any liquor agitated by hand, means shall be taken to prevent, as far as practicable, the escape of dust or fume into the air of any place in which any person is employed. The handles of all implements used in the operation shall be cleansed daily;
- (b) cartridges shall not be filled by hand except by means of a suitable scope;
- (c) every drying stove shall be efficiently ventilated to the outside air in such manner that hot air from the stove shall not be drawn into any work room;
- (d) no person shall enter a store to remove the contents until a free current of air has been passed through it:
- (e) every vessel containing nitro or amino derivatives of phenol or of benzene or its homologues shall, if steam is passed into or around it or if the temperature of the contents be at or above the temperature of boiling water be covered in such a way that steam or vapour shall be discharged into the open air at a height of not less than 25 feet from the ground or the working platform, and at asking an again into the workroom.

4. Precaution during caustic grinding

- (a) Every machine used for grinding or crushing caustic shall be enclosed, and
- (b) where any of the following processes are carried on;
 - (i) Grinding or crushing of caustic;
 - (ii) Packing of ground caustic;
 - (iii) Grinding, sieving, evaporating or packing in a chrome process;
 - (iv) Crushing; grinding or mixing of material or cartridge filling in a nitro or amino process; and efficient exhaust draught shall be provided.
 - (v) In secticides mentioned in Sub-Schedule "A" are manufactured, mixed blended, or packed:

5. Chlorate manufacture

- (a) Chlorate shall not be crystallized, ground or packed except in a room or place not used for any other purpose the floor or which or place shall be of cement or other smooth, impervious and incombustible material, and shall be thoroughly cleansed daily.
- (b) Wooden vessels shall not be used for the crystallisation of chlorate, provided that this regulation or to contain crystallised or ground chlorate; provided that this regulation shall not prohibit the packing of chlorate for sale into, wooden casks or other wooden vessels.

6. Restrictions of the employment of young persons and women

- (a) No person under 18 years of age and women shall be employed in s in which hydrofluoric acid fumes or ammoniacal vapours any process are given off or in any of the following operations;
 - (i) evaporation of brine in open pans;
 - (ii) stoving of salt;
 - (iii) work at a furnace where the treatment of zinc ores is carried on; and
 - (iv) the cleansing of workrooms where the process mentioned in [iii] is carried on
- (b) No person under 18 years of age shall be employed in chrome process is or in a nitro or amino process or in a process in which the following materials are used or where the vapour of such materials is given off;

Carbon bisulphidc, chlorides or sulphur, benzene carbon tetrachloride, trichlorethlene and carbon chlorine compound or any mixture Containing any of such materials.

7. Duties of employees

Every person employed:

- (a) In a process to which paragraph 33 of this schedule applies shall wear the protective clothing, footwear, respirators, goggles or gloves provided under said paragraph 33 and shall deposit overalls of suits or working clothing so provided, as well as clothing put off during working hours, in the places provided under paragraph 34 of this schedule.
- (b) In processes to which paragraph 35 of this schedule applies shall carefully wash the hands and face before partaking of any food or leaving the premises;
- (c) In any processes to which part II of these rules applies shall use the protective appliances supplied in respect of any process in which be is engaged.

EXPLANATORY NOTE

The insecticides which belong to the highly toxic-group are the following:

Hexasthyl tetra phosphate;

Tetra ethyl pyrophosphate; O. O. Diethyl O. P. nitrophenyl;

Thiophosphate (parathions) and

Nicotine, nicotine sulphate;

Mercury derivatives; Methyle bromide

Cyamides.

The active chemical in these insecticides can be quickly and daily absorbed through the unbroken skin, poisoning can occur from breathing the vapour of the active chemical or dusts impregnated with these chemicals, minute amounts if accidentally swallowed are quite likely to be fatal. The plant requirements for ensuring safety to the workers are:

1. Instruct all personnel with regard to a properties and characterstics.
2. Enclosure and ventilations of all mixing, blending, packing operation.
3. Full protective clothing, including natural, rubber gloves, boots and aprons (synthetic rubber when working with oil solutions, include a provision to this effect in schedule sub-schedule "B").
4. Washable working clothes laundered daily to be added to Sub-Schedule "B".
5. Separate locker for street clothing Draft chemical works paragraph-34 ensures this.
6. Respiratory protection and chemical type goggles to be provided in Sub-Schedule "B".
7. No food or smoking on the job (draft chemical work paragraph 3 covers this).
8. Excellent personal hygiene (Draft chemical works paragraph 3 covers this).
9. Proper labelling and antidote and suggestions to doctor for treatment. (This can be covered by issue of a cautionary notice).

The following insecticides belong to the moderately toxic group;

Hexachlor-hexahydro-deimethenon-nophtholonealdrine).

Hexachlor-exposy-octahydro-dimetheno-naphtholene (dieldrine arsenate of lead and calcium);

Copper arsenic;

Copper arsenate (Pecis gree) and

Sodium flue alunimatr (cryolite).

They require all the general precaution as for the highly toxic group excepting that rubber boots and gloves may be dispensed with excepting when working with oil solutions. The following belong to the slightly toxic group;

Benzene hexachloride (gommexene or B.H.C.)

Dichloro-diphenyl Dichloro ethene (D. D. T.)

Terachloro-diphenyl ethane (T. D. E.) etc.

General precautions are:

- (1) In the various operations, there is dustiness, use filter type respirators:
- (2) Use separate work cloths, frequently laundered.
- (3) Do not consume food etc. in the workroom.
- (4) have daily showers after work.

SCHEDULE XIII

1. Application

This schedule shall apply to the following processes:

1. handling, moving, breaking, crushing, grinding or sieving of any refractory materials, containing not less than 25 percent total silica for the purpose of manufacture.
 - (a) of articles used in the construction of furnaces and flues;
 - (b) of crucibles; and
 - (c) of compositions or other materials use a in the preparation of moulds in which metals are cast; or
2. Any process in the manufacture of refractory brick as hereinafter defined
 - (a) to handling, moving mixing or sieving of natural and or;
 - (b) to the manipulation of rotten rock in the preparation of moulds used in metal foundries:

Provided that if the Chief Inspector of Factories is satisfied in respect of any factory or a part thereof that owing to the special conditions of work or otherwise that any of the requirements of this schedule can be suspended or relaxed without any danger to the health of the persons employed therein, he may by an order in writing grant such suspension or relaxation for such period and on such conditions as he may think fit. Any such order may be revoked at any time.

2. Definitions

- (1) "Refractory material" means any refractory material containing not less than 25 per cent total silica.
 - (2) "Refractory brick" means any brick or article composed of refractory material and containing not less than 25 per cent total silica.
 - (3) "Efficient Exhaust" means localised ventilation by means for the removal of dust so as to prevent dust from escaping into the air of any place in which work fails to remove the dust produced at the point where such dust originates.
3. No refractory material shall be broken in pieces by manual labour unless the process is carried out in the open air:

Provided that where it is not practicable to carry out this process in open air, the process shall be carried out under an efficient exhaust draught.
 4. No refractory material, unless it is so wet that dust will not be produced shall be crushed or ground in a stone crushing or grinding machine unless such machine is provided with:
 - (a) an efficient exhaust draught and efficient dust collecting appliances: or
 - (b) an efficient water or steam spray: Provided that every grinding machine where in any refractory material is ground in dry state, shall be totally enclosed and connected to a mechanical exhaust system so as to prevent effectively any escape of dust outside the casing of the machine by maintaining a pressure below the atmospheric pressure within the casing of the machine:

- (c) Provided further that all processes of crushing and grinding shall be effectively isolated from other processes.
5. All chutes, conveyors, elevators, screens, sieves and mixers used for manipulating refractory material shall, unless, the material is so wet that dust will not be produced be enclosed and be provided with an efficient exhaust draught.
 6. No refractory material so dry as to produce dust shall:
 - (a) be loaded into any wagon or other receptacle for transport unless it has been placed in a suitable dust-proof container so damped as to preclude dust; or
 - (b) be unloaded from any wagon on other receptacle for transport unless it has been so damped as to preclude dust or unless the work is done under an efficient exhaust draught;
 - (c) be shovelled or raked or otherwise manipulated by means of hand tools in any manufacturing process unless the work is done under an efficient exhaust draught:

Provided that paragraph (b) of this rule shall not apply to refractory material in the form of rock or pebbles before it is manipulated in any manufacturing process.
 7.
 - (a) The floors of all places where refractory bricks are dried other than the floor of tunnel ovens or chamber driers not normally entered by persons employed shall after each lot of refractory bricks has been removed be carefully cleaned or all debris and the part being cleaned shall be kept damp while the cleaning is being done.
 - (b) There shall be provided in every such place a constant supply of water laid on under adequate pressure with sufficient connections and a flexible branch pipe and sprinkler to enable water to be supplied direct to every part of the floor.
 8. No drying stoves in which refractory bricks are backed by fires before being placed in the kilns shall be used.
 9. The surface of every floor or place where persons are liable to pass shall be cleaned of debris of refractory material once at least during each daily period of employment or where shifts are worked, once during each shift. Such debris unless it is immediately required for use in the process, shall be effectively damped and either be placed in covered receptacles, or be otherwise stored in such a manner as to prevent the escape of dust into the air in or near to any place where any person is employed.
 10. Where plates are used whether portable or forming part of floor on which refractory bricks are dried, such plate shall be freed from adherent material only by a wet method or by such other method as will prevent the escape of dust into the air.

11. The dust or powder refractory materials shall not be used for sprinkling the moulds in refractory brick-making:

Provided that nothing in this paragraph shall be deemed to prevent the use of natural sand for the purpose of sprinkling the moulds.

12. No worker shall be allowed to work on any dust process or at any place, where dust of any refractory materials is present in the atmosphere:

Provided that in an emergency a worker may be allowed to work at such process or place if he wears a suitable and efficient dust mask or breathing apparatus.

13. Medical Examination

- (a) Every worker employed on any of the processes specified in sub-paragraphs (1) and (2) of paragraph (1) shall be medically examined in such manner and at such intervals as may be specified by any rules made under the Workmen's Compensation Act, 1923 (VIII of 1923) or if no such rules have been framed under the said Act, every such worker shall be medically examined by the Certifying Surgeon before employment on any of the aforesaid process and at an interval not exceeding six months thereafter.
- (b) Subject to sub-paragraph (c) an X-ray examination of the chest of every worker referred to in sub-paragraph (a) shall be carried out:
 - (i) if he is already in employment on the date of coming into force of the sub-paragraph within six months of such date and at an interval of every three years thereafter;
 - (ii) if he is employed after such date within one month of the date of his employment and at an interval of every three years thereafter; and the result of every such X-ray examination shall be produced before the Certifying Surgeon within a month of the examination.
- (c) If the Certifying Surgeon during the course of medical examination of any worker under sub-paragraph (a) has reason to suspect onset of any chest disease, he may direct the manager or the occupier to get an X-ray plate before him within a specified time and on receipt of such direction the manager or the occupier as the case may be, shall carry out the direction.
- (d) The Certifying Surgeon shall grant, to each worker examined a certificate specified therein whether or not the worker was considered fit to be employed on any of the aforesaid process.
- (e) The manager shall maintain a register in which the findings and recommendations of the certifying surgeon in respect of every worker and in respect of every medical examination shall be maintained duly signed by the Certifying Surgeon.
- (f) A worker not declared fit shall not be employed on the aforesaid process and he shall be subjected to only such other examination, or treatment as may be directed by the Certifying Surgeon.

- (g) No fee shall be charged from any worker for the medical examination and it shall be the responsibility of the occupier the manager to complying with the provisions of this schedule.
14. In case any existing plant or machinery needs alteration, modification or replacement or in case any new with plant is required to be installed to comply placement the requirements of this schedule such alteration, modification, re placement or installation of the plant of machinery shall be carried on within a period not exceeding one year from the date of publication of this rule:
- Provided that the Chief Inspector of Factories in continuation of special and exceptional circumstances by an order in writing may extend this period for such reasonable length of time as he may think fit.

SCHEDULE XIV

(Handling and processing of asbestos manufacture of any article or asbestos and any other process of manufacture or otherwise in which asbestos is used in any form).

1. Application

This schedule shall apply to factories in which any of the following processes is carried on:

- (i) breaking, crushing, disintegrating, opening, grinding, mixing or sieving of asbestos and any other processes involving handling and manipulation of asbestos incidental thereto;
- (ii) all process in the manufacture of asbestos textiles, including preparatory and finishing process;
- (iii) making of insulation slabs or sections, composed wholly or partly preparatory and finishing processes;
- (iv) making or repairing of insulating mattresses composed wholly or partly of asbestos and processes incidental thereto;
- (v) manufacture of asbestors card board and paper;
- (vi) manufacture of asbestos/cement goods;
- (vii) swing, grinding, turning abrading and polishing, in the state of articles composed wholly or partly of asbestos;
- (viii) cleaning of any room, vessel, chambers fixture or appliance for the collection of asbestors dust;

Provided that if the Chief Inspector is satisfied that in respect of any factory or workshop or part thereof by reason of the restricted use of asbestos or the method of working of occasional nature of work, if otherwise all or any of the provisions of this of the persons employed therein, he may be granted suspension or relaxation in writing under such conditions as he may think fit. Any such certificate may be revoked at any time.

2. Definitions for the purpose of the schedule

- (i) "asbestos" means any fibrous silicate mineral and any admixture containing any such mineral, whether crude, crushed or opened;
 - (ii) "asbestos textiles" means yarn of cloth composed of asbestos or asbestos mixed with any other material;
 - (iii) "preparing" means crushing distintegating and in any other process or incidental to the opening of asbestos;
 - (iv) "approved" means approved for the time being in writing by the Chief Inspector;
 - (v) "breathing apparatus" means a helmet or face piece with necessary connection by means of which a person using it breathes air from dust or any other approved apparatus.
3. An exhaust draught effected by mechanical means which prevent the escape of asbestos dust into air of any room in which persons work, shall be provided and maintained for:
- (a) manufacturing and conveying machinery namely:
 - i. preparing, grinding or dry mixing machines;
 - ii. carding card waste and ring spinning machines and looms;
 - iii. machines used for the sawing, grinding, turning, abrading or polishing in the dry state, or article composed wholly or, partly or asbestos.
 - (b) cleaning and grinding of the cylinders of other part of a carding machine;
 - (c) chambers hoppers or other structures into which loose asbestos is delivered or pass;
 - (d) work benches for asbestos waste sorting or for other manipulation of asbestos by hand;
 - (e) work place at which the filling or emptying of sacks, skips or other portable containers weighing or other process incidental thereto which is effected by hand is carried on;
 - (f) Sack cleaning machines:
Provided that this clause shall not apply:
 - (i) to a machine or other plant which does not give rise to asbestos dust, or is so enclosed as to prevent escape of asbestos into the air of any room in which persons work; or
 - (ii) where the asbesto is so wet or so treated with grease or other material as to prevent the evaluation of dust or
 - (iii) to the making or repairing of insulating mattresses or (iv) to mixing or blending by hand of asbestos.
- 4.
- (1) Mixing or lending by hand of asbestos shall not be carried on except with an exhaust draught effected by mechanical means so designed and maintained

as to ensure as far as practicable the suppression of dust during the processes.

- (2) In premises which are constructed or reconstructed after this schedule comes into force; the mixing or blending by hand of asbestos shall be done except in a special room or place in which no other work is ordinarily carried on.
- (3)
 - (i) The making or repairing of insulating mattresses composed wholly or partly of asbestos shall not be carried on in any room in which any other work is done.
 - (ii) In every room in which the mixing or repairing of insulating mattresses is carried on:
 - (a) adequate exhaust and inlet ventilation in accordance with arrangement to be approved in each shall be provided and maintained;
 - (b) No person other than those engaged in filling bearing or levelling shall be present whilst such processes are being carried on and work shall not be resumed in the room after filling, beating or levelling for at least ten minutes;
 - (c) the floors and benches shall be kept damped so as to prevent dust arising therefrom effectively; and
 - (d) the covers shall be effectively damped immediately after being out and in the case of fibre filled mattresses, shall be kept damp whilst filling, beating or levelling is being carried on.
- (4)
 - (a) Storage chambers or bins for loose asbestos shall be in the case of premises constructed or reconstructed after this schedule comes into force be effectively separated from any workroom and in the case of other premises be effectively separated from any workroom in which the asbestos is not required for the purpose carried on in the room;
 - (b) Chambers or apparatus for dust setting and filtering shall not be allowed in any workroom;
 - (c) arrangements shall be made to prevent asbestos dust discharged from exhaust apparatus being drawn into the air of any workrooms.
- (5) All machinery used in preparing grinding of asbestos carding, card roller cleaning and grinding and sack cleaning and all card waste and machines, lattices, elevators chutes and conveyers shall be so constructed and maintained that dust or debris containing asbestos cannot escape from any part thereof, other than dust removed by air exhaust draught, provided in accordance with clause 3 of the schedule.
- (6)

(a) Cleaning by hand of the cylinders (including the doffer cylinders) of a carding machine shall not be done whilst any person other than those performing or assisting at the cleaning is present.

(b) After six months from the date on which this schedule come into force such cleaning as aforesaid shall not be done by means of hand strickles or other hand tools:

Provided that the Inspector or the Chief Inspector may direct such other measures precautions to be taken as may be considered necessary for securing the health of the workers, employed on processes and work specified in clause 4.

5.

(1) In every room in which any of the requirements of this schedules apply:

(a) the floors, work benches and plant shall be kept in a clearly state and free asbestos debris and suitable arrangements shall be made for the storage of asbestos not immediately required for use; an

(b) The floors shall be kept far from any material plant or other articles not immediately required for the work carried on in the room which would abstract the proper cleaning of the floor.

(2) Every room as aforesaid shall be adequately lighted.

(a) A sack which has contained asbestos shall not be cleaned by hand beating but by a machine, complying with clause 3 and sub-clause (5) of clause 41; and

(b) All sacks used as containers for the purpose of transport of asbetos within the factory shall be constructed of impermeable material and shall be kept in good repair.

6.

(a) All ventilating plants used for the purpose of extracting on suppressing dust as required by this schedule shall at least once in every six months be thoroughly examined and tested a competent person and any defect disclosed by such examination and tests shall be rectified forthwith.

(b) A register containing particulars of such tests and the State of the plant and the repairs or a terminations if any found to be necessary shall be kept and shall be available for inspection by an Inspector.

7. A breathing apparatus shall be provided for every person employed:

(a) in chambers containing loose asbestos;

(b) in cleaning dust settling or filtering chambers apparatus;

(c) in cleaning the cylinders, including the doffer cylinders or other part of the carding machine by means of hand strickles;

(d) in filling beating or levelling in the manufacture or repair of insulating mattresses.

8. There shall be provided and maintained for the use of all persons employed in the cleaning of dust settling and filtering chambers, tunnels and ducts, suitable overalls and head coverings.
9. No young person shall be employed in or in connection with the manufacture of insulting mattresses, in mixing or bleeding of asbestos by hand in sack cleaning, in chambers or apparatus for dust settling or filtering, in chambers containing loose asbestos, or in striping or grinding the cylinders including the doffers-cylinders or other parts of a carding machine.
10. Medical examination
 - (a) No worker shall be employed in any factory on any of the processes specified in clause 1, unless he has been medically and radiologically examined by the Certifying Surgeon, has been declared fit and has been granted a certificate of fitness in Form No. 28.
 - (b) Every worker employed on any of the aforesaid processes on the date on which the schedule comes into force shall be medically and radiologically examined by the Certifying Surgeon within three months of the said date.
 - (c) Every worker employed on any of the aforesaid processes shall be medically and radiologically/examined by the Certifying Surgeon at intervals of six months after the first medical examination conduct sub-clause (a) and (b) and radiologically examined at an interval of 3 years after the first radiological examination conducted under sub-clause (a) and (b).
 - (d) A worker already in employment and declared unfit by the Certifying Surgeon shall not be allowed to work on any of the processes specified in clause 1 unless has been examined again and has been certified to be cured and fit to work on the said process again.
 - (e) Worker declared to be unfit to work on any of the aforesaid process may be employed on such other work or process as may be considered safe and as may be advised by the Certifying Surgeon.

Provided that if the Certifying Surgeon declared that worker has been completely incapacitated and he was not fit to be employed on any work or process.
 - (f) The Certifying Surgeon may direct that a worker may be X- ray or he may be subjected to further examination by a specialist or to any, other examination clinical, pathological or otherwise or that he would undergo specific i treatment and it shall be the responsibility or the employer (Occupier and Manager) to arrange for the specified examination and/or treatment and to bear all expenses thereof or in connection, therewith.
 - (g) The Certifying Surgeon shall after each examination grant a certificate in Form No. 28.
 - (h) The manager shall maintain all the certificates in a proper register or file and shall produce all the certificates before an Inspector whenever demanded; and

- (i) The manager shall maintain the details of every medical examination in Form No. 17 and the register shall be produced before an Inspector whenever demanded.

SCHEDULE XV

(HANDLING AND MANIPULATION OF CORROSIVE SUBSTANCES)

1. Definition

For the purpose of this schedule:

- (a) "Corrosive operation" means an operation of manufacturing, storing, handling, processing, packing or using any corrosive substance in a factory.
- (b) "Corrosive substance" includes sulphuric acid, nitric acid, hydrochloric acid, liquid chlorine, liquid chromine, ammonia sodium hydroxide and potassium hydroxide and a mixture thereof, or any other substances which the Government may by Notification in the Government Gazette specify to be a corrosive substance.

2. Flooring

The floor of every workroom of a factory in which corrosive operation is carried on shall be made of impervious, corrosion and fire resistance material and shall be so constructed as to prevent collection of corrosive substance. The surface of such flooring shall be smooth and cleaned as often is necessary and maintained in a sound condition.

3. Protective equipment

- (1) The occupier shall provide for the use of all persons employed in any corrosive operation suitable protective wear for hands and feet suitable aprons, face shields, chemical safety goggles and respirators. The equipment shall be maintained in good order and shall be kept clean and hygienic condition by suitably treating to get rid of the ill effects of any absorbed chemicals, and by disinfecting. The occupier shall also provide suitable protective means and other preparations wherever necessary.
- (2) The protective equipment and preparations provided shall be used by the persons employed in any corrosive operation.

4. Water facilities

Where any corrosive operation is carried on there shall be provided as close to the place of such operation as possible, a source of clean water at a height of 210 cms. (7 feet) from a pipe of 1.25 cms. (1/2 inch) diameter and fitted with quick acting valve so that in case of injury to the worker by any corrosive substance, the injured part can be thoroughly flooded with water. Whenever necessary in order to ensure continuous water supply a storage tank having a minimum length or breadth and height of 210 cm. 120 cms. and 62 cms. respectively or such dimensions as are approved by the Chief Inspector of Factories shall be provided as the source of clean water.

5. Cautionary Notice

A cautionary notice in the following form and printed in the language which majority of the workers employed understand shall be displayed prominently close to the place where any of operations mentioned in para-graph 2 above is carried out and where it can be easily and conveniently read by the workers. If any worker is illiterate, effective steps shall be taken to explain carefully to him the contents of the notice so displayed.

CAUTIONARY NOTICE

DANGER

Corrosive substances cause severe burns and vapours thereof may be extremely hazardous. In case of content immediately flood the part affected with plenty of water for at least 15 minutes. Get medical attention quickly.

6. Transport

- (a) Corrosive substances shall not be filled, moved or carried except in containers and when they are to be transported they shall be included in crates of sound construction and of sufficient strength.
- (b) A container with a capacity of (11.51litres) (2-1/2 gallons) or more of a corrosive substance shall be placed in a receptacle or crate and then carried by more than one person at a height below the waist line unless a suitable rubber wheeled truck is used for the purpose.
- (c) Containers for corrosive substance shall be plainly labelled.

7. Devices for handling corrosives

- (1) Suitable tilting or lifting device shall be used for emptying jars, carboys and other containers of corrosives.
- (2) Corrosive substance shall not handled by bare hands but by means of a suitable scoop or other device.

8. Opening of valves

Valves fitted to containers holding a corrosive substance shall be opened with a great care. If they do not work freely, they shall not be forced open. They shall be opened by a worker, suitably trained for the purpose.

9. Cleaning Tank, stills etc.

(1)

- (a) In cleaning out or removing residues from stills other large chambers used for holding any corrosive substance, suitable implement made of wood or other material shall be used to prevent production of arsenioured hydrogen arsine.
- (b) Whenever it is necessary for purpose of cleaning of other maintenance work for any worker to enter chamber, tank vat pit, or other confined space where a corrosive substance has been stored, all possible precautions required under section 36 of the Factories Act, 1948, shall be taken to ensure the workers safety.

- (c) Whenever possible before repairs are undertaken to any part of equipment in which a corrosive substance was handled, such equipment or part thereof shall be freed of any adhering corrosive substance by adopting suitable methods.

10. Storage

- (a) Corrosive substance shall not be stored in the same room with other chemicals such as turpentine, carbides metallic powders and combustible materials, the accidental mixing with which may cause a reaction which is either violent or give rise to toxic fumes and gasses.
- (b) Pumping or filling overhead tanks, receptacles, vats or other containers for storing corrosive substances shall be so arranged that there is no possibility of corrosive overflowing and causing injury to any person.
- (c) Every container having a capacity of twenty litres or more and every pipeline, valves, and fitting used for storing or carrying corrosive substances shall be thoroughly examined every year for finding out any defects and defects shall be removed forthwith. A register shall be maintained on every such examination made and shall be produced before Inspector whenever required.

11. Fire extinguishers and fire fighting equipment An adequate number of suitable type of fire extinguishers or other fire fighting equipment depending on the nature of chemicals stored, shall be provided. Such extinguishers or other equipment shall be regularly tested and refilled clear instructions as to how the extinguishers or other fire fighting equipments should be used, printed in the language which majority of the workers employee understand, shall be affixed near each extinguisher or other equipment.

12. Examination

If in respect of any factory on an application made by the manager, Chief Inspector is satisfied that owing to the exceptional circumstances, or the infrequency of the process or for any other reasons to be recorded by him in writing, all or any of the persons employed therein, he may by a certificate in writing, which he may at any time revoke, exempt the factory from such of the provisions and subject to such conditions as he may specify therein.

SCHEDULE XVI

(COMPRESSION OF OXYGEN AND HYDROGEN PRODUCED BY THE ELECTROLYSIS OF WATER)

1. The room in which electrolyses plant is installed shall be separate from the plant for storing and compressing the oxygen and hydrogen and also the electric generator room.
2. The purity of oxygen and hydrogen shall be tested by a competent person at hourly intervals at the following points:
 - (i) in the electrolyser room;
 - (ii) at the gas holder inlet; and,

(iii) at the suction end of the compressor.

The purity figures shall be entered and signed by the person carrying out such tests in the register:

Provided that if the electrolyser plant is fitted with automatic recorder of purity oxygen and hydrogen with alarm lights it shall be sufficient if the purity of the gases is tested at hourly intervals, at the time suction end of the compressor only.

3. The oxygen and hydrogen gases shall not be compressed, if their purity as determined under paragraph 2 fails 98% at any time.
4. There shall be at least two gasholders for each kind of gas compressed and the gasholders for same gas shall be provided with suitable arrangements to ensure that no gasholder is connected to the compressor and to the electrolyser at the same time, and only one gasholder is connected to the compressor line at any time.
5. The height of any gasholder shall not be permitted to go within 30 cms. (12 inches) of its lowest position when empty, and a visual and audible warning signal shall be fitted to the gas holder to indicate that this limit is reached.
6. The water and caustic so used for making lye shall be chemically pure within pharmaceutical limits.
7. Electrical connections at the electrolyser cells and at the electric generator terminals shall be so constructed as to preclude the possibility for wrong connections leading to the reversal of polarity and in addition an automatic device shall be provided to cut off power in the event of reversal of polarity owing to wrong connections either at the switch board of the electric generator terminals.
8. Oxygen and hydrogen gas pipes shall be painted with distinguishing colours and in the event of leakage at the joints of the hydrogen gas pipe, the pipe after reconnection shall be purged of all air before drawing in hydrogen gas:
9. All electrical wiring and apparatus in the electrolyser room shall be flameproof of construction or enclosed in flame proof fittings and no naked light or flame shall be allowed to be taken either in the electrolyser room or where compression and filling of the gases is carried on and such warning notices shall be exhibited in prominent places.
10. No part of the electrolyser plant and the gasholder and compressor shall be subjected to welding, brazing, soldering or cutting until steps have been taken to remove any explosive substance from that part and render the part safe for such operations and after the completion of such operations no explosive substance shall be allowed to enter that part until the metal has cooled sufficiently to prevent risk of explosion.
11. No work of operation, repair or maintenance shall be undertaken except under the direct supervision of a person who, by his training experience and knowledge of the necessary precautions against risk of explosion is competent to supervise such work. No electric generator after erection or repairs shall be switched on to the electrolyser unless the same is certified safe by a competent person under whose

direct-supervision erection or checked for carried on to be in safe condition and the terminals have been polarity as required by paragraph 7.

12. Every part of the electrolyser plant and the gas holder and compressor re shall have a regular schedule of overhaul and checking and every defect noticed shall be rectified forthwith.

103. Notification of accidents

- (1) When any accident or occurrences specified in the schedule takes place in a factory, the manager of the factory shall forthwith send notice thereof by telephone, special messenger or telegraph to the Inspector and if the accident is fatal, or of such a serious nature that it is likely to prove fatal, notice as aforesaid shall also be sent to:
 - (a) the District Magistrate or Sub-Divisional Officer;
 - (b) the officer-in-charge of the nearest police station; and
 - (c) the relatives of the injured or deceased person.
- (2) The notice so given shall be confirmed by the manager of the factory to the above mentioned authorities within 12 hours of the Occurrence by sending to them written report form No. 19.
- (3) When any accident occurs which causes such bodily injury as prevents the person from working for a period of 48 hours immediately following the accident, the manager of the factory shall send notice thereof within 24 hours after the expiry of the 48 hours from the time of occurrence, of the accident.

SCHEDULE

1. Accidents which cause:
 - (a) Death to any person;
 - (b) Such bodily injury as prevents or will probably prevent the person injured from working for a period of 48 hours immediately following the accident.
2. The following classes of occurrence:

Whether or not they are attended by personal injury or disablement:

 - (a) Bursting of a plant used for containing or supplying steam under pressure greater than atmospheric pressure.
 - (b) Collapse of failure of a Crane, derrick which hoist or other appliance used in raising lowering persons or goods, or any part thereof or overturning of a crane.
 - (c) Explosion or fire causing damage to any room or place in which persons are employed or tire in rooms of cotton pressing factories when cotton opener is in use.
 - (d) Explosion of a receiver or container used for the storage at a pressure greater than atmospheric pressure or any gas or gases (including air) or any liquid or solid resulting from the compression of gas.

- (e) Collapse of substance of any floor, gallery, roof bridge, tunnel, chimnery; wall or building forming part of a factory or within the compound or curtileger of a factory.

104. Notice of poisoning or disease

A notice in Form No. 20 should be sent forthwith both to the Chief Inspector and to the Certifying Surgeon by the manager of a factory, in which there occurs a case of lead, phosphorus mercury, manganese, arsenic, carbon bisulphate or benzene poisoning or poisoning by nitrous fumes, or by halogens or hydrogen derivatives of the hydrocarbons of the aliphatic series; or of chrome ulceration, anthraz, silicosis, toxic jaundice, primary oitheliomatous, cancer of the skin, or photological manifestations due to radium or other radioactive substances or X-rays.

CHAPTER X SUPPLEMENTAL

105. Procedure all of appeals

- (1) An appeal presented under section 107 shall lie to the Chief Inspector or in cases where the order appealed against is an order passed by that officer, to the Government in an order or to such authority as the State Government may appoint in this behalf and shall be in the form of a memorandum testing forth concisely the grounds of objection to the order and bearing court fees stamp in accordance with Article 1 of Schedule II to the Court Fees Act 1977 (VII of 1977) and shall be accompanied by a copy of the order appealed against.
- (2) On receipt of the memorandum of appeal, the appellate authority shall, if it thinks fit or if the appellant has requested that the appeal would be heard with the aid of assessors call upon the body representing the industry concerned to appoint an assessor within a period of 14 days. If an assessor is nominated by such body, the appellate authority shall appoint a second assessor itself. It shall then fix a date for the hearing of the appeal and shall give due notice of such date for the hearing of the appeal and shall give due notice of such date to the appellant and to the Inspector whose order is appealed against, and shall call upon the two assessors to appear upon such date to assist in the hearing of the appeal.
- (3) The appellant shall state in the memorandum presented under sub-paragraph (1) whether he is a member of the body referred to in paragraph (2). The body empowered to appoint the assessor shall:
 - (a) if the appellant is a member of one body, be that body;
 - (b) if he is a member of two bodies, be the body which the appellant desires should appoint in such assessor; and
 - (c) if the appellant is not a member of any of the bodies or if he does not state in the memorandum which of the bodies he desired should appoint the assessor, be the body which the appellant authority considers as the best fitted to represent the industry concerned.
- (4) An assessor appointed in accordance with the provisions of sub-paragraphs 2 and 3 shall receive, for the hearing of the appeal, a fee to be fixed by the appellate

authority subject to a maximum of fifty rupees per diem. He shall also receive the actual travelling expenses. The fees and travelling expenses shall be paid to the assessors by Government; but where assessors have been appointed at the request of the appellant the fees and travelling expenses of the assessor shall be paid in full by the appellant if the appeal has been decided wholly against the appellant and if the appeal is only partly decided against the appellant the appellate authority may direct part of the fees and travelling expenses of the assessors shall be paid by the appellant and what part by the Government.

106. Display of notices

The abstract of the Act and of the rules required to be displayed in every factory shall, be in Form No. 21.

107. Returns

The manager of every factory shall furnish to the Inspector or other officer appointed by the Government in this behalf the following returns, namely:

- (1) Annual return: On or before the 15th January of each year an annual return in duplicate, in Form No. 21.
- (2) Annual return of holidays: Before the end of each year a return giving notice of all the days on which it is intended to close the factory during the next ensuing year. This return shall be submitted whether the factory is not working during proceeding year to which the return relates:

Provided that the Government may dispense with this return in the case of any specified factory or of any class of factories or of factories in particular area.

Provided further that the annual returns of holidays shall be dispensed within case of all factories.

- (a) which regularly observe Sundays as holidays; or
- (b) which regularly observe a fixed day in the week as a holiday; or
- (c) which observe holidays according to a list approved by the Chief Inspector:

Provided, also that where the manager of any factory makes any departure from such a holiday or list of holidays as aforesaid, prior intimation shall be given to the Chief Inspector.

- (3) Half yearly return: The manager of every factory shall furnish the Chief Inspector on or before the 15th July and 15th January of each year a half yearly return in duplicate in Form No. 23.
- (4) Leave with wages annual return: The manager of every factory shall furnish to the Chief Inspector not later than the 1st February of the year subsequent to that to which it relates, a return in Form No. 24.
- (5) Compensatory holiday annual return: The manager of every factory shall furnish to the Chief Inspector not later than 1st February of the year subsequent to that to which it relates, a return in Form No. 25:

Provided that in the case of a factory in which work is carried on only during certain period or period of the year, the manager shall submit the annual or half yearly

return as the case maybe within 15 days after the close of that period or after close of the last of those periods in the year as the case may be.

108. Service of notice

The despatch by post under registered cover of any notice or order shall of such notice or be deemed sufficient services on the occupier, owner or manager of a factory of such notice or order.

109. Information required by the Inspector

The occupier, owner or manager of a factory shall furnish any information whether any provision of the require for the purpose of satisfying himself whether any provision of the Act has been complied with or whether any order of an Inspector has been duly carried out. Any demand by an Inspector Act has been complied with or whether any for any such information, if made during the course of any inspection shall be complied with forthwith if the information is available in the factory or if made in writing, shall be complied with within seven days of receipt thereof.

110. Muster roll

The manager of every factory shall maintain a muster roll of all the workers employed in the factory in Form No. 26 showing:

- (a) the name of each worker
- (b) the nature of his work and
- (c) the daily attendance of the worker:

Provided that, if the daily attendance is noted in the Register of adult workers in Form No. 12 or the particulars required under this rule are noted in any other registers separate muster roll required under this rule need not be maintained.

111. Register of accidents and dangerous occurrences

The manager of every factory shall maintain a register of all accidents and dangerous occurrences which occur in the factory in Form No. 27 showing the;

- (a) Name of injured person (if any);
- (b) Date of accident or dangerous occurrence;
- (c) Date of report on Form No. 18 to Inspector;
- (d) Nature of accident or dangerous occurrence;
- (e) Date of return of injured person to work;
- (f) Number of days of absence from work of injured person.

112. Maintenance of inspection book

The manager of every factory shall maintain a bound inspection book and shall produce it when so required by the Inspector or Certifying Surgeon.

113. Information regarding closure of factories

The occupier or manager of every factory shall report to the Inspector any intended closure of the factory or any section or department thereof immediately it is decided to

do so, intimating the reason for the closure, the number of workers on the register on the date of the report, the number of workers likely to be affected by the closure and the probable period of the closure. An intimation should also be sent to the Inspector as soon as the factory or the section or department of the factory, as the case may be starts working again.

¹ Subs by SRO 269 dated 11th June 2018

² Subs by SRO 459 dated 26th October 2017

³ Ins by SRO 269 dated 11th June 2018

⁴ Substituted by SRO 269 dated 11th June 2018.

⁵ Substituted by SRO 393 dt. 16.12.2004.

⁶ Ins by SRO 459 dated 26th October 2017

⁷ Subs by SRO 459 dated 26th October 2017

⁸ Subs by SRO 269 dated 11th June 2018

⁹ Added by SRO 269 dated 11th June 2018

¹⁰ Subs by SRO 459 dated 26th October 2017